Zhiting Tian

List of Publications by Year
in descending order

66 papers	3,517 citations	159358 30 h-index	133063 59 g-index
66 all docs	66 docs citations	66 times ranked	3927 citing authors

#	Article	IF	Citations
1	High thermal conductivity and ultrahigh thermal boundary conductance of homoepitaxial AlN thin films. APL Materials, 2022, 10, .	2.2	12
2	Thermal Percolation in Well-Defined Nanocomposite Thin Films. ACS Applied Materials & Interfaces, 2022, 14, 14579-14587.	4.0	7
3	Thermal interface doping strategies based on Bayesian optimization. Surfaces and Interfaces, 2022, 30, 101847.	1.5	2
4	Pore-Confined Polymers Enhance the Thermal Conductivity of Polymer Nanocomposites. ACS Macro Letters, 2022, 11, 116-120.	2.3	3
5	Large thermal conductivity of boron suboxides despite complex structures. Applied Physics Letters, 2021, 118, .	1.5	8
6	Direct observation of phonon Anderson localization in Si/Ge aperiodic superlattices. Physical Review B, 2021, 103, .	1.1	24
7	Applications and Impacts of Nanoscale Thermal Transport in Electronics Packaging. Journal of Electronic Packaging, Transactions of the ASME, 2021, 143, .	1.2	38
8	Thermal Transport in Polymers: A Review. Journal of Heat Transfer, 2021, 143, .	1.2	32
9	Doping-Enabled Reconfigurable Strongly Correlated Phase in a Quasi-2D Perovskite. Journal of Physical Chemistry Letters, 2021, 12, 5091-5098.	2.1	1
10	Remarkably Weak Anisotropy in Thermal Conductivity of Two-Dimensional Hybrid Perovskite Butylammonium Lead Iodide Crystals. Nano Letters, 2021, 21, 3708-3714.	4.5	26
11	Advances in phase-change materials. Journal of Applied Physics, 2021, 130, .	1.1	4
12	Topological phonon-magnon hybrid excitations in a two-dimensional honeycomb ferromagnet. Physical Review B, 2021, 104, .	1.1	2
13	Ultrahigh thermal conductivity in three-dimensional covalent organic frameworks. Materials Today Physics, 2021, 21, 100536.	2.9	9
14	Modeling of Organic Thermoelectric Material Properties. , 2021, , 241-258.		0
15	A Multi-Mode Four-Switch Buck-Boost Derived DC-DC Converter with an Intermediate Battery Interface for Solar Thermoelectric Generation. , 2021, , .		1
16	Thermal conductance across harmonic-matched epitaxial Al-sapphire heterointerfaces. Communications Physics, 2020, 3, .	2.0	41
17	Thermomechanical Analysis of a Bioâ€Inspired Lightweight Multifunctional Structure. Advanced Engineering Materials, 2020, 22, 2000371.	1.6	5
18	Singleâ€Crystal SnSe Thermoelectric Fibers via Laserâ€Induced Directional Crystallization: From 1D Fibers to Multidimensional Fabrics. Advanced Materials, 2020, 32, e2002702.	11.1	57

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19	Hydrogen Bonds Significantly Enhance Out-of-Plane Thermal and Electrical Transport in 2D Graphamid: Implications for Energy Conversion and Storage. ACS Applied Nano Materials, 2020, 3, 11090-11097.	2.4	5
20	Thermal boundary conductance across epitaxial metal/sapphire interfaces. Physical Review B, 2020, 102, .	1.1	26
21	Thermomechanical Analysis of a Bioâ€Inspired Lightweight Multifunctional Structure. Advanced Engineering Materials, 2020, 22, 2070050.	1.6	0
22	Rigorous formalism of anharmonic atomistic Green's function for three-dimensional interfaces. Physical Review B, 2020, 101, .	1.1	60
23	Supercompliant and Soft <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mo stretchy="false">(</mml:mo><mml:msub><mml:mrow><mml:mi>CH</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></m Physical Review Letters, 2019, 123, 155901.	2.9	33
24	Simple Theoretical Model for Thermal Conductivity of Crystalline Polymers. ACS Applied Polymer Materials, 2019, 1, 2566-2570.	2.0	17
25	Tuning the material properties of a water-soluble ionic polymer using different counterions for material extrusion additive manufacturing. Polymer, 2019, 176, 283-292.	1.8	16
26	New horizons in thermoelectric materials: Correlated electrons, organic transport, machine learning, and more. Journal of Applied Physics, 2019, 125, .	1.1	50
27	The importance of van der Waals interactions to thermal transport in Graphene-C60 heterostructures. Carbon, 2019, 148, 196-203.	5.4	26
28	Phonon Transmission Across Silicon Grain Boundaries by Atomistic Green's Function Method. Frontiers in Physics, 2019, 7, .	1.0	4
29	Anderson Localization for Better Thermoelectrics?. ACS Nano, 2019, 13, 3750-3753.	7.3	16
30	A new dimensionless number for thermoelectric generator performance. Applied Thermal Engineering, 2019, 152, 858-864.	3.0	24
31	Experimental Phonon Dispersion and Lifetimes of Tetragonal CH3NH3PbI3 Perovskite Crystals. Journal of Physical Chemistry Letters, 2019, 10, 1-6.	2.1	15
32	Chain rotation significantly reduces thermal conductivity of single-chain polymers. Journal of Materials Research, 2019, 34, 126-133.	1.2	39
33	Thermal Switching of Thermoresponsive Polymer Aqueous Solutions. ACS Macro Letters, 2018, 7, 53-58.	2.3	33
34	Modeling assisted evaluation of direct electricity generation from waste heat of wastewater via a thermoelectric generator. Science of the Total Environment, 2018, 635, 1215-1224.	3.9	19
35	A comprehensive model of a lead telluride thermoelectric generator. Energy, 2018, 142, 813-821.	4.5	29
36	Significantly High Thermal Rectification in an Asymmetric Polymer Molecule Driven by Diffusive versus Ballistic Transport. Nano Letters, 2018, 18, 43-48.	4.5	34

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37	Tunable thermal conductivity of Ï€-conjugated two-dimensional polymers. Nanoscale, 2018, 10, 13924-13929.	2.8	15
38	Thermal Transport Properties of Black Phosphorus: A Topical Review. Nanoscale and Microscale Thermophysical Engineering, 2017, 21, 45-57.	1.4	20
39	Effects of polymer topology and morphology on thermal transport: A molecular dynamics study of bottlebrush polymers. Applied Physics Letters, 2017, 110, .	1.5	46
40	A modeling comparison between a two-stage and three-stage cascaded thermoelectric generator. Journal of Power Sources, 2017, 365, 266-272.	4.0	43
41	Unusually low and density-insensitive thermal conductivity of three-dimensional gyroid graphene. Nanoscale, 2017, 9, 13477-13484.	2.8	38
42	Thermoelectric properties of crystalline and amorphous polypyrrole: A computational study. Applied Thermal Engineering, 2017, 111, 1441-1447.	3.0	34
43	Toward enhancing thermal conductivity of polymer-based thin films for microelectronics cooling. , 2017, , .		1
44	Boron arsenide phonon dispersion from inelastic x-ray scattering: Potential for ultrahigh thermal conductivity. Physical Review B, 2016, 94, .	1.1	29
45	Importance of the Hubbard correction on the thermal conductivity calculation of strongly correlated materials: a case study of ZnO. Scientific Reports, 2016, 6, 36875.	1.6	16
46	Effects of polymer chain confinement on thermal conductivity of ultrathin amorphous polystyrene films. Applied Physics Letters, 2015, 107, .	1.5	45
47	Thermal Interface Conductance Between Aluminum and Silicon by Molecular Dynamics Simulations. Journal of Computational and Theoretical Nanoscience, 2015, 12, 168-174.	0.4	78
48	Effects of Aperiodicity and Roughness on Coherent Heat Conduction in Superlattices. Nanoscale and Microscale Thermophysical Engineering, 2015, 19, 272-278.	1.4	56
49	Inelastic x-ray scattering measurements of phonon dispersion and lifetimes in PbTe_{1â^’<i>x</i>}Se<i>_x</i>alloys. Journal of Physics Condensed Matter, 2015, 27, 375403.	0.7	14
50	First-principles simulation of electron mean-free-path spectra and thermoelectric properties in silicon. Europhysics Letters, 2015, 109, 57006.	0.7	144
51	Enhancing solid-liquid interface thermal transport using self-assembled monolayers. Applied Physics Letters, 2015, 106, .	1.5	65
52	Green's function studies of phonon transport across Si/Ge superlattices. Physical Review B, 2014, 89, .	1.1	60
53	Resonant bonding leads to low lattice thermal conductivity. Nature Communications, 2014, 5, 3525.	5.8	484
54	COMPREHENSIVE REVIEW OF HEAT TRANSFER IN THERMOELECTRIC MATERIALS AND DEVICES. Annual Review of Heat Transfer, 2014, 17, 425-483.	0.3	72

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55	A molecular dynamics study of effective thermal conductivity in nanocomposites. International Journal of Heat and Mass Transfer, 2013, 61, 577-582.	2.5	57
56	Heat Transfer in Thermoelectric Materials and Devices. Journal of Heat Transfer, 2013, 135, .	1.2	119
57	Effect of aluminum on the thermoelectric properties of nanostructured PbTe. Nanotechnology, 2013, 24, 345705.	1.3	44
58	Non-diffusive relaxation of a transient thermal grating analyzed with the Boltzmann transport equation. Journal of Applied Physics, 2013, 114, 104302.	1.1	58
59	Enhancing phonon transmission across a Si/Ge interface by atomic roughness: First-principles study with the Green's function method. Physical Review B, 2012, 86, .	1.1	232
60	Enhancement of thermoelectric figure-of-merit by resonant states of aluminium doping in lead selenide. Energy and Environmental Science, 2012, 5, 5246-5251.	15.6	372
61	Phonon conduction in PbSe, PbTe, and PbTe<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>1</mml:mn><mml:mo>âˆ’</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:math>Se<mml: xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mi>x</mml:mi></mml:msub></mml:math>from first-principles calculations. Physical Review B, 2012, 85, .	1.1	463
62	On the importance of optical phonons to thermal conductivity in nanostructures. Applied Physics Letters, 2011, 99, .	1.5	137
63	Phonon wave-packet interference and phonon tunneling based energy transport across nanostructured thin films. Applied Physics Letters, 2010, 96, .	1.5	39
64	A Molecular Dynamics Study of Thermal Conductivity in Nanocomposites via the Phonon Wave Packet Method. , 2009, , .		4
65	Modeling of a Thermoelectric Generator Device. , 0, , .		14
66	Introduction to the atomistic Greenâ€™s function approach: application to nanoscale phonon transport. , 0, , 4-1-4-26.		0