

Zhe Cheng

List of Publications by Year in descending order

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Version: 2024-02-01

45
papers

1,558
citations

361045

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h-index

344852

36
g-index

48
all docs

48
docs citations

48
times ranked

1487
citing authors

#	ARTICLE	IF	CITATIONS
1	Battery absorbs heat during charging uncovered by ultra-sensitive thermometry. Journal of Power Sources, 2022, 518, 230762.	4.0	4
2	Perspective on thermal conductance across heterogeneously integrated interfaces for wide and ultrawide bandgap electronics. Applied Physics Letters, 2022, 120, .	1.5	14
3	Î²-Gallium oxide power electronics. APL Materials, 2022, 10, .	2.2	184
4	Fundamental understanding of thermal transport across solid interfaces. , 2022, , 69-82.		1
5	Room-temperature bonded thermally conductive semiconductor interfaces. , 2022, , 359-377.		0
6	High In-Plane Thermal Conductivity of Aluminum Nitride Thin Films. ACS Nano, 2021, 15, 9588-9599.	7.3	58
7	Steady-state methods for measuring in-plane thermal conductivity of thin films for heat spreading applications. Review of Scientific Instruments, 2021, 92, 044907.	0.6	6
8	Thermal conductivity mapping of oxidized SiC/SiC composites by time-domain thermoreflectance with heterodyne detection. Journal of the American Ceramic Society, 2021, 104, 4773-4781.	1.9	6
9	Thermal Transport across Metal/Î²-Ga ₂ O ₃ Interfaces. ACS Applied Materials & Interfaces, 2021, 13, 29083-29091.	4.0	21
10	Good Solid-State Electrolytes Have Low, Glass-Like Thermal Conductivity. Small, 2021, 17, e2101693.	5.2	23
11	Thermal Visualization of Buried Interfaces Enabled by Ratio Signal and Steady-State Heating of Time-Domain Thermoreflectance. ACS Applied Materials & Interfaces, 2021, 13, 31843-31851.	4.0	19
12	Quasi-ballistic thermal conduction in 6H-SiC. Materials Today Physics, 2021, 20, 100462.	2.9	7
13	Thermal science and engineering of Î²-Ga ₂ O ₃ materials and devices. Semiconductors and Semimetals, 2021, , 77-99.	0.4	5
14	Simultaneous Evaluation of Heat Capacity and In-plane Thermal Conductivity of Nanocrystalline Diamond Thin Films. Nanoscale and Microscale Thermophysical Engineering, 2021, 25, 166-178.	1.4	5
15	Experimental observation of localized interfacial phonon modes. Nature Communications, 2021, 12, 6901.	5.8	46
16	Thermal science and engineering in third-generation semiconductor materials and devices. Wuli Xuebao/Acta Physica Sinica, 2021, 70, 236502.	0.2	2
17	Creating Low Thermal Resistance Interfaces in Wide Bandgap Semiconductors Through Bonding. , 2021, , .		2
18	Thermal conductance across harmonic-matched epitaxial Al-sapphire heterointerfaces. Communications Physics, 2020, 3, .	2.0	41

#	ARTICLE	IF	CITATIONS
19	Thermal Transport across Ion-Cut Monocrystalline Ga_2O_3 Thin Films and Bonded $\text{Ga}_2\text{O}_3/\text{SiC}$ Interfaces. ACS Applied Materials & Interfaces, 2020, 12, 44943-44951.	4.0	66
20	Bulk-like Intrinsic Phonon Thermal Conductivity of Micrometer-Thick AlN Films. ACS Applied Materials & Interfaces, 2020, 12, 29443-29450.	4.0	22
21	Integration of polycrystalline Ga_2O_3 on diamond for thermal management. Applied Physics Letters, 2020, 116, .	1.5	68
22	Interfacial Thermal Conductance across Room-Temperature-Bonded GaN/Diamond Interfaces for GaN-on-Diamond Devices. ACS Applied Materials & Interfaces, 2020, 12, 8376-8384.	4.0	109
23	Experimental observation of high intrinsic thermal conductivity of AlN. Physical Review Materials, 2020, 4, .	0.9	60
24	High Thermal Boundary Conductance across Bonded Heterogeneous GaN/SiC Interfaces. ACS Applied Materials & Interfaces, 2019, 11, 33428-33434.	4.0	82
25	Significantly reduced thermal conductivity in $\text{Al}_{0.1}\text{Ga}_{0.9}\text{O}_3/\text{Ga}_2\text{O}_3$ superlattices. Applied Physics Letters, 2019, 115, .	1.5	22
26	Tunable Thermal Energy Transport across Diamond Membranes and Diamond/Si Interfaces by Nanoscale Graphoepitaxy. ACS Applied Materials & Interfaces, 2019, 11, 18517-18527.	4.0	49
27	Thermal conductance across Ga_2O_3 -diamond van der Waals heterogeneous interfaces. APL Materials, 2019, 7, .	2.2	87
28	Diffusion-driven ultralow thermal conductivity in amorphous N_2O_5 thin films. Physical Review Materials, 2019, 3, .	0.9	18
29	Probing Growth-Induced Anisotropic Thermal Transport in High-Quality CVD Diamond Membranes by Multifrequency and Multiple-Spot-Size Time-Domain Thermoreflectance. ACS Applied Materials & Interfaces, 2018, 10, 4808-4815.	4.0	52
30	Thermal rectification in thin films driven by gradient grain microstructure. Journal of Applied Physics, 2018, 123, .	1.1	8
31	Thermal Boundary Conductance Across Heteroepitaxial ZnO/GaN Interfaces: Assessment of the Phonon Gas Model. Nano Letters, 2018, 18, 7469-7477.	4.5	53
32	PROBING LOCAL THERMAL CONDUCTIVITY VARIATIONS IN CVD DIAMOND WITH LARGE GRAINS BY TIME-DOMAIN THERMOREFLECTANCE. , 2018, , .		1
33	Investigation of the Heterogeneous Thermal Conductivity in Bulk CVD Diamond for Use in Electronics Thermal Management. , 2017, , .		2
34	Simultaneous determination of the lattice thermal conductivity and grain/grain thermal resistance in polycrystalline diamond. Acta Materialia, 2017, 139, 215-225.	3.8	60
35	Experimental considerations of CVD diamond film measurements using time domain thermoreflectance. , 2017, , .		4
36	Thermal conductivity measurements on suspended diamond membranes using picosecond and femtosecond time-domain thermoreflectance. , 2017, , .		10

#	ARTICLE	IF	CITATIONS
37	Characterization of the Thermal Conductivity of CVD Diamond for GaN-on-Diamond Devices. , 2016, , .		20
38	Strongly anisotropic thermal and electrical conductivities of a self-assembled silver nanowire network. RSC Advances, 2016, 6, 90674-90681.	1.7	20
39	Thermoelectric properties of solution-synthesized n-type Bi ₂ Te ₃ nanocomposites modulated by Se: An experimental and theoretical study. Nano Research, 2016, 9, 117-127.	5.8	36
40	Thermal Conductivity of Ultrahigh Molecular Weight Polyethylene Crystal: Defect Effect Uncovered by 0 K Limit Phonon Diffusion. ACS Applied Materials & Interfaces, 2015, 7, 27279-27288.	4.0	48
41	Temperature Dependence of Electrical and Thermal Conduction in Single Silver Nanowire. Scientific Reports, 2015, 5, 10718.	1.6	149
42	The defect level and ideal thermal conductivity of graphene uncovered by residual thermal reffusivity at the 0 K limit. Nanoscale, 2015, 7, 10101-10110.	2.8	50
43	Temperature dependent behavior of thermal conductivity of sub-5â€%nm Ir film: Defect-electron scattering quantified by residual thermal resistivity. Journal of Applied Physics, 2015, 117, .	1.1	9
44	Thermophysical Properties of Lignocellulose: A Cell-Scale Study Down to 41K. PLoS ONE, 2014, 9, e114821.	1.1	9
45	Flame Stability of Methane/Air Mixture in a Heat-Recirculating-Type Mesoscale Channel with a Bluff-Body. Applied Mechanics and Materials, 2013, 325-326, 12-15.	0.2	0