Jingchao Zhang

List of Publications by Year
in descending order

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		136885	189801
67	2,710	32	50
papers	citations	h-index	g-index

68	68	68	2526
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Atomistic insights into dynamic growth of pentacene thin films on metal surfaces functionalized with self-assembled monolayers. Applied Surface Science, 2022, 579, 152203.	3.1	6
2	Applications of machine learning in computational nanotechnology. Nanotechnology, 2022, 33, 162501.	1.3	3
3	Molecular dynamics study of anisotropic behaviours of water droplet on textured surfaces with various energies. Molecular Physics, 2021, 119, e1785028.	0.8	12
4	Improved thermoelectric properties of WS₂â€“WSe₂ phononic crystals: insights from first-principles calculations. Nanoscale, 2021, 13, 7176-7192.	2.8	24
5	Full-spectrum thermal analysis in twisted bilayer graphene. Physical Chemistry Chemical Physics, 2021, 23, 19166-19172.	1.3	5
6	Thermal boundary resistance at graphene-pentacene interface explored by a data-intensive approach. Nanotechnology, 2021, 32, 215404.	1.3	3
7	High-Throughput Computations of Cross-Plane Thermal Conductivity in Multilayer Stanene. International Journal of Heat and Mass Transfer, 2021, 171, 121073.	2.5	10
8	Molecular Dynamics and Machine Learning in Catalysts. Catalysts, 2021, 11, 1129.	1.6	15
9	Thermal transport in organic semiconductors. Journal of Applied Physics, 2021, 130, .	1.1	18
10	Application of Artificial Intelligence in Renewable Energy and Decarbonization. ES Energy & Environments, 2021, , .	0.5	2
11	Machine learning and artificial neural network accelerated computational discoveries in materials science. Wiley Interdisciplinary Reviews: Computational Molecular Science, 2020, 10, e1450.	6.2	58
12	Multiphoton Absorption Stimulated Metal Chalcogenide Quantum Dot Solar Cells under Ambient and Concentrated Irradiance. Advanced Functional Materials, 2020, 30, 2004563.	7.8	40
13	Colloidal quantum dot hybrids: an emerging class of materials for ambient lighting. Journal of Materials Chemistry C, 2020, 8, 10676-10695.	2.7	46
14	Heat transfer and flow characteristics of microchannels with solid and porous ribs. Applied Thermal Engineering, 2020, 178, 115639.	3.0	62
15	Rational-Designed Hybrid Aerogels for Ultra-Flyweight Electrochemical Energy Storage. Journal of Physical Chemistry C, 2020, 124, 15688-15697.	1.5	13
16	Enhancement of Interfacial Thermal Transport between Metal and Organic Semiconductor Using Self-Assembled Monolayers with Different Terminal Groups. Journal of Physical Chemistry C, 2020, 124, 16748-16757.	1.5	18
17	Growth of quantum dot coated core-shell anisotropic nanowires for improved thermal and electronic transport. Applied Physics Letters, 2019, 114, 243104.	1.5	6
18	Machine Learning Enabled Prediction of Mechanical Properties of Tungsten Disulfide Monolayer. ACS Omega, 2019, 4, 10121-10128.	1.6	40

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19	Molecular interaction balanced one- and two-dimensional hybrid nanoarchitectures for high-performance supercapacitors. Physical Chemistry Chemical Physics, 2019, 21, 22283-22292.	1.3	12
20	Water desalination through rim functionalized carbon nanotubes. Journal of Materials Chemistry A, 2019, 7, 3583-3591.	5.2	56
21	Chemically encoded self-organized quantum chain supracrystals with exceptional charge and ion transport properties. Nano Energy, 2019, 62, 764-771.	8.2	20
22	Critical fracture properties of puckered and buckled arsenenes by molecular dynamics simulations. Physical Chemistry Chemical Physics, 2019, 21, 12372-12379.	1.3	7
23	Mechanical responses of WSe₂ monolayers: a molecular dynamics study. Materials Research Express, 2019, 6, 085071.	0.8	17
24	Accelerated discoveries of mechanical properties of graphene using machine learning and high-throughput computation. Carbon, 2019, 148, 115-123.	5.4	68
25	Overview of Computational Simulations in Quantum Dots. Israel Journal of Chemistry, 2019, 59, 661-672.	1.0	12
26	Mechanical properties of molybdenum diselenide revealed by molecular dynamics simulation and support vector machine. Physical Chemistry Chemical Physics, 2019, 21, 9159-9167.	1.3	33
27	Phonon thermal conduction in a grapheneâ€“C₃N heterobilayer using molecular dynamics simulations. Nanotechnology, 2019, 30, 075403.	1.3	55
28	Toward Improved Thermal Conductance of Graphene-Polyethylene Composites <i>via</i> Surface Defect Engineering: a Molecular Dynamics Study. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2019, 35, 1150-1156.	2.2	11
29	Monolayer and bilayer polyaniline C₃N: two-dimensional semiconductors with high thermal conductivity. Nanoscale, 2018, 10, 4301-4310.	2.8	87
30	Phonon thermal transport in a graphene/MoSe₂ van der Waals heterobilayer. Physical Chemistry Chemical Physics, 2018, 20, 2637-2645.	1.3	32
31	Significantly reducedc-axis thermal diffusivity of graphene-based papers. Nanotechnology, 2018, 29, 265702.	1.3	12
32	Thermal transport in phosphorene and phosphorene-based materials: A review on numerical studies. Chinese Physics B, 2018, 27, 036501.	0.7	23
33	Machine learning and artificial neural network prediction of interfacial thermal resistance between graphene and hexagonal boron nitride. Nanoscale, 2018, 10, 19092-19099.	2.8	75
34	The pH Effect on Thermal Response of Fluorescence Spectroscopy of Graphene Quantum Dots for Nanoscale Thermal Characterization. Journal of Engineering Thermophysics, 2018, 27, 345-356.	0.6	6
35	Molecular dynamics study of thermal transport in a dinaphtho[2,3-b:2â€²,3â€²-f]thieno[3,2-b]thiophene (DNTT) organic semiconductor. Nanoscale, 2017, 9, 2262-2271.	2.8	31
36	Lateral and flexural phonon thermal transport in graphene and stanene bilayers. Physical Chemistry Chemical Physics, 2017, 19, 6554-6562.	1.3	42

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37	Phonon thermal transport in silicene-germanene superlattice: a molecular dynamics study. Nanotechnology, 2017, 28, 255403.	1.3	34
38	Phonon Thermal Properties of Transition-Metal Dichalcogenides MoS₂ and MoSe₂ Heterostructure. Journal of Physical Chemistry C, 2017, 121, 10336-10344.	1.5	44
39	Molecular dynamics study of thermal transport in a nitrogenated holey graphene bilayer. Journal of Materials Chemistry C, 2017, 5, 5119-5127.	2.7	36
40	Energy coupling across low-dimensional contact interfaces at the atomic scale. International Journal of Heat and Mass Transfer, 2017, 110, 827-844.	2.5	28
41	Overview of Computational Fluid Dynamics Simulation of Reactor-Scale Biomass Pyrolysis. ACS Sustainable Chemistry and Engineering, 2017, 5, 2783-2798.	3.2	152
42	Understanding thermal transport in asymmetric layer hexagonal boron nitride heterostructure. Nanotechnology, 2017, 28, 035404.	1.3	19
43	Tuning thermal conductance of CNT interface junction via stretching and atomic bonding. Journal Physics D: Applied Physics, 2017, 50, 475302.	1.3	12
44	Coherent and incoherent phonon transport in a graphene and nitrogenated holey graphene superlattice. Physical Chemistry Chemical Physics, 2017, 19, 24240-24248.	1.3	38
45	Investigation of interfacial thermal transport across graphene and an organic semiconductor using molecular dynamics simulations. Physical Chemistry Chemical Physics, 2017, 19, 15933-15941.	1.3	21
46	Molecular dynamics simulation of the interfacial thermal resistance between phosphorene and silicon substrate. International Journal of Heat and Mass Transfer, 2017, 104, 871-877.	2.5	87
47	Thermal contact resistance across a linear heterojunction within a hybrid graphene/hexagonal boron nitride sheet. Physical Chemistry Chemical Physics, 2016, 18, 24164-24170.	1.3	55
48	Molecular dynamics study on thermal transport at carbon nanotube interface junctions: Effects of mechanical force and chemical functionalization. International Journal of Heat and Mass Transfer, 2016, 103, 1058-1064.	2.5	29
49	Thermal Conductivity of Monolayer MoSe₂ and MoS₂. Journal of Physical Chemistry C, 2016, 120, 26067-26075.	1.5	99
50	Interlayer thermal conductance within a phosphorene and graphene bilayer. Nanoscale, 2016, 8, 19211-19218.	2.8	60
51	Coupling DAEM and CFD for simulating biomass fast pyrolysis in fluidized beds. Journal of Analytical and Applied Pyrolysis, 2016, 117, 176-181.	2.6	74
52	Thermal transport across graphene/SiC interface: effects of atomic bond and crystallinity of substrate. Applied Physics A: Materials Science and Processing, 2015, 119, 415-424.	1.1	62
53	Tuning thermal contact conductance at grapheneâ€“copper interfaceviasurface nanoengineering. Nanoscale, 2015, 7, 6286-6294.	2.8	85
54	Thermal transport across atomic-layer material interfaces. Nanotechnology Reviews, 2015, 4, .	2.6	28

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55	Thermal transport across graphene and single layer hexagonal boron nitride. Journal of Applied Physics, 2015, 117, .	1.1	103
56	Thermal conductivity of a two-dimensional phosphorene sheet: a comparative study with graphene. Nanoscale, 2015, 7, 18716-18724.	2.8	132
57	A comprehensive review on the molecular dynamics simulation of the novel thermal properties of graphene. RSC Advances, 2015, 5, 89415-89426.	1.7	69
58	Molecular dynamics study of interfacial thermal transport between silicene and substrates. Physical Chemistry Chemical Physics, 2015, 17, 23704-23710.	1.3	54
59	Five Orders of Magnitude Reduction in Energy Coupling across Corrugated Graphene/Substrate Interfaces. ACS Applied Materials & Interfaces, 2014, 6, 2809-2818.	4.0	53
60	Phase change and stress wave in picosecond laserâ€“material interaction with shock wave formation. Applied Physics A: Materials Science and Processing, 2013, 112, 677-687.	1.1	15
61	Phonon energy inversion in graphene during transient thermal transport. Physics Letters, Section A: General, Atomic and Solid State Physics, 2013, 377, 721-726.	0.9	30
62	Co-existing heat currents in opposite directions in graphene nanoribbons. Physics Letters, Section A: General, Atomic and Solid State Physics, 2013, 377, 2970-2978.	0.9	26
63	Rough contact is not always bad for interfacial energy coupling. Nanoscale, 2013, 5, 11598.	2.8	71
64	Thermal transport in bent graphenenanoribbons. Nanoscale, 2013, 5, 734-743.	2.8	41
65	Micro/Nanoscale Spatial Resolution Temperature Probing for the Interfacial Thermal Characterization of Epitaxial Graphene on 4Hâ€SiC. Small, 2011, 7, 3324-3333.	5.2	102
66	Dynamic response of graphene to thermal impulse. Physical Review B, 2011, 84, .	1.1	66
67	Lead Leaching of Perovskite Solar Cells in Aqueous Environments: A Quantitative Investigation. Solar Rrl, 0, , .	3.1	5