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	Overview of Computational Fluid Dynamics Simulation of Reactor-Scale Biomass Pyrolysis. ACS Sustainable Chemistry and Engineering, 2017, 5, 2783-2798.	3.2	152
2	Thermal conductivity of a two-dimensional phosphorene sheet: a comparative study with graphene. Nanoscale, 2015, 7, 18716-18724.	2.8	132
3	Thermal transport across graphene and single layer hexagonal boron nitride. Journal of Applied Physics, 2015, 117, .	1.1	103
4	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
5	Thermal Conductivity of Monolayer MoSe₂ and MoS₂. Journal of Physical Chemistry C, 2016, 120, 26067-26075.	1.5	99
6	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
7	Monolayer and bilayer polyaniline C₃N: two-dimensional semiconductors with high thermal conductivity. Nanoscale, 2018, 10, 4301-4310.	2.8	87
8	Tuning thermal contact conductance at grapheneâ€“copper interfaceviasurface nanoengineering. Nanoscale, 2015, 7, 6286-6294.	2.8	85
9	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
10	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
11	Rough contact is not always bad for interfacial energy coupling. Nanoscale, 2013, 5, 11598.	2.8	71
12	A comprehensive review on the molecular dynamics simulation of the novel thermal properties of graphene. RSC Advances, 2015, 5, 89415-89426.	1.7	69
13	Accelerated discoveries of mechanical properties of graphene using machine learning and high-throughput computation. Carbon, 2019, 148, 115-123.	5.4	68
14	Dynamic response of graphene to thermal impulse. Physical Review B, 2011, 84, .	1.1	66
15	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
16	Heat transfer and flow characteristics of microchannels with solid and porous ribs. Applied Thermal Engineering, 2020, 178, 115639.	3.0	62
17	Interlayer thermal conductance within a phosphorene and graphene bilayer. Nanoscale, 2016, 8, 19211-19218.	2.8	60
18	Machine learning and artificial neural network accelerated computational discoveries in materials science. Wiley Interdisciplinary Reviews: Computational Molecular Science, 2020, 10, e1450.	6.2	58

#	Article	IF	Citations
19	Water desalination through rim functionalized carbon nanotubes. Journal of Materials Chemistry A, 2019, 7, 3583-3591.	5.2	56
20	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
21	Phonon thermal conduction in a grapheneâ€“C₃N heterobilayer using molecular dynamics simulations. Nanotechnology, 2019, 30, 075403.	1.3	55
22	Molecular dynamics study of interfacial thermal transport between silicene and substrates. Physical Chemistry Chemical Physics, 2015, 17, 23704-23710.	1.3	54
23	Five Orders of Magnitude Reduction in Energy Coupling across Corrugated Graphene/Substrate Interfaces. ACS Applied Materials & Interfaces, 2014, 6, 2809-2818.	4.0	53
24	Colloidal quantum dot hybrids: an emerging class of materials for ambient lighting. Journal of Materials Chemistry C, 2020, 8, 10676-10695.	2.7	46
25	Phonon Thermal Properties of Transition-Metal Dichalcogenides MoS₂ and MoSe₂ Heterostructure. Journal of Physical Chemistry C, 2017, 121, 10336-10344.	1.5	44
26	Lateral and flexural phonon thermal transport in graphene and stanene bilayers. Physical Chemistry Chemical Physics, 2017, 19, 6554-6562.	1.3	42
27	Thermal transport in bent graphenenanoribbons. Nanoscale, 2013, 5, 734-743.	2.8	41
28	Machine Learning Enabled Prediction of Mechanical Properties of Tungsten Disulfide Monolayer. ACS Omega, 2019, 4, 10121-10128.	1.6	40
29	Multiphoton Absorption Stimulated Metal Chalcogenide Quantum Dot Solar Cells under Ambient and Concentrated Irradiance. Advanced Functional Materials, 2020, 30, 2004563.	7.8	40
30	Coherent and incoherent phonon transport in a graphene and nitrogenated holey graphene superlattice. Physical Chemistry Chemical Physics, 2017, 19, 24240-24248.	1.3	38
31	Molecular dynamics study of thermal transport in a nitrogenated holey graphene bilayer. Journal of Materials Chemistry C, 2017, 5, 5119-5127.	2.7	36
32	Phonon thermal transport in silicene-germanene superlattice: a molecular dynamics study. Nanotechnology, 2017, 28, 255403.	1.3	34
33	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
34	Phonon thermal transport in a graphene/MoSe₂ van der Waals heterobilayer. Physical Chemistry Chemical Physics, 2018, 20, 2637-2645.	1.3	32
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	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

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37	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
38	Thermal transport across atomic-layer material interfaces. Nanotechnology Reviews, 2015, 4, .	2.6	28
39	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
40	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
41	Improved thermoelectric properties of WS₂â€“WSe₂ phononic crystals: insights from first-principles calculations. Nanoscale, 2021, 13, 7176-7192.	2.8	24
42	Thermal transport in phosphorene and phosphorene-based materials: A review on numerical studies. Chinese Physics B, 2018, 27, 036501.	0.7	23
43	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
44	Chemically encoded self-organized quantum chain supracrystals with exceptional charge and ion transport properties. Nano Energy, 2019, 62, 764-771.	8.2	20
45	Understanding thermal transport in asymmetric layer hexagonal boron nitride heterostructure. Nanotechnology, 2017, 28, 035404.	1.3	19
46	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
47	Thermal transport in organic semiconductors. Journal of Applied Physics, 2021, 130, .	1.1	18
48	Mechanical responses of WSe₂ monolayers: a molecular dynamics study. Materials Research Express, 2019, 6, 085071.	0.8	17
49	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
50	Molecular Dynamics and Machine Learning in Catalysts. Catalysts, 2021, 11, 1129.	1.6	15
51	Rational-Designed Hybrid Aerogels for Ultra-Flyweight Electrochemical Energy Storage. Journal of Physical Chemistry C, 2020, 124, 15688-15697.	1.5	13
52	Tuning thermal conductance of CNT interface junction via stretching and atomic bonding. Journal Physics D: Applied Physics, 2017, 50, 475302.	1.3	12
53	Significantly reducedc-axis thermal diffusivity of graphene-based papers. Nanotechnology, 2018, 29, 265702.	1.3	12
54	Molecular interaction balanced one- and two-dimensional hybrid nanoarchitectures for high-performance supercapacitors. Physical Chemistry Chemical Physics, 2019, 21, 22283-22292.	1.3	12

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55	Overview of Computational Simulations in Quantum Dots. Israel Journal of Chemistry, 2019, 59, 661-672.	1.0	12
56	Molecular dynamics study of anisotropic behaviours of water droplet on textured surfaces with various energies. Molecular Physics, 2021, 119, e1785028.	0.8	12
57	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
58	High-Throughput Computations of Cross-Plane Thermal Conductivity in Multilayer Stanene. International Journal of Heat and Mass Transfer, 2021, 171, 121073.	2.5	10
59	Critical fracture properties of puckered and buckled arsenenes by molecular dynamics simulations. Physical Chemistry Chemical Physics, 2019, 21, 12372-12379.	1.3	7
60	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
61	Growth of quantum dot coated core-shell anisotropic nanowires for improved thermal and electronic transport. Applied Physics Letters, 2019, 114, 243104.	1.5	6
62	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
63	Full-spectrum thermal analysis in twisted bilayer graphene. Physical Chemistry Chemical Physics, 2021, 23, 19166-19172.	1.3	5
64	Lead Leaching of Perovskite Solar Cells in Aqueous Environments: A Quantitative Investigation. Solar Rrl, 0, , .	3.1	5
65	Thermal boundary resistance at graphene-pentacene interface explored by a data-intensive approach. Nanotechnology, 2021, 32, 215404.	1.3	3
66	Applications of machine learning in computational nanotechnology. Nanotechnology, 2022, 33, 162501.	1.3	3
67	Application of Artificial Intelligence in Renewable Energy and Decarbonization. ES Energy & Environments, 2021, , .	0.5	2