Jingchao Zhang

List of Publications by Citations

65 papers	1,934 citations	28 h-index	42 g-index
68 ext. papers	2,297 ext. citations	5.1 avg, IF	5.47 L-index

#	Paper	IF	Citations
65	Overview of Computational Fluid Dynamics Simulation of Reactor-Scale Biomass Pyrolysis. *ACS Sustainable Chemistry and Engineering*, **2017**, 5, 2783-2798	8.3	120
64	Thermal conductivity of a two-dimensional phosphorene sheet: a comparative study with graphene. *Nanoscale*, **2015**, 7, 18716-24	7.7	107
63	Thermal transport across graphene and single layer hexagonal boron nitride. *Journal of Applied Physics*, **2015**, 117, 134307	2.5	90
62	Micro/nanoscale spatial resolution temperature probing for the interfacial thermal characterization of epitaxial graphene on 4H-SiC. *Small*, **2011**, 7, 3324-33	11	84
61	Monolayer and bilayer polyaniline CN: two-dimensional semiconductors with high thermal conductivity. *Nanoscale*, **2018**, 10, 4301-4310	7.7	72
60	Thermal Conductivity of Monolayer MoSe2 and MoS2. *Journal of Physical Chemistry C*, **2016**, 120, 26067-26075	4.8	69
59	Molecular dynamics simulation of the interfacial thermal resistance between phosphorene and silicon substrate. *International Journal of Heat and Mass Transfer*, **2017**, 104, 871-877	4.9	67
58	Tuning thermal contact conductance at graphene-copper interface via surface nanoengineering. *Nanoscale*, **2015**, 7, 6286-94	7.7	60
57	Coupling DAEM and CFD for simulating biomass fast pyrolysis in fluidized beds. *Journal of Analytical and Applied Pyrolysis*, **2016**, 117, 176-181	6	58
56	Rough contact is not always bad for interfacial energy coupling. *Nanoscale*, **2013**, 5, 11598-603	7.7	58
55	Dynamic response of graphene to thermal impulse. *Physical Review B*, **2011**, 84,	3.3	57
54	Machine learning and artificial neural network prediction of interfacial thermal resistance between graphene and hexagonal boron nitride. *Nanoscale*, **2018**, 10, 19092-19099	7.7	55
53	A comprehensive review on the molecular dynamics simulation of the novel thermal properties of graphene. *RSC Advances*, **2015**, 5, 89415-89426	3.7	54
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	2.6	46
51	Interlayer thermal conductance within a phosphorene and graphene bilayer. *Nanoscale*, **2016**, 8, 19211-19218	7.7	43
50	Thermal contact resistance across a linear heterojunction within a hybrid graphene/hexagonal boron nitride sheet. *Physical Chemistry Chemical Physics*, **2016**, 18, 24164-70	3.6	43
49	Molecular dynamics study of interfacial thermal transport between silicene and substrates. *Physical Chemistry Chemical Physics*, **2015**, 17, 23704-10	3.6	41

48	Thermal transport in bent graphene nanoribbons. *Nanoscale*, **2013**, 5, 734-43	7.7	38
47	Accelerated discoveries of mechanical properties of graphene using machine learning and high-throughput computation. *Carbon*, **2019**, 148, 115-123	10.4	37
46	Five orders of magnitude reduction in energy coupling across corrugated graphene/substrate interfaces. *ACS Applied Materials & Interfaces*, **2014**, 6, 2809-18	9.5	37
45	Phonon thermal conduction in a graphene-CN heterobilayer using molecular dynamics simulations. *Nanotechnology*, **2019**, 30, 075403	3.4	33
44	Lateral and flexural phonon thermal transport in graphene and stanene bilayers. *Physical Chemistry Chemical Physics*, **2017**, 19, 6554-6562	3.6	31
43	Phonon Thermal Properties of Transition-Metal Dichalcogenides MoS2 and MoSe2 Heterostructure. *Journal of Physical Chemistry C*, **2017**, 121, 10336-10344	3.8	31
42	Heat transfer and flow characteristics of microchannels with solid and porous ribs. *Applied Thermal Engineering*, **2020**, 178, 115639	5.8	31
41	Coherent and incoherent phonon transport in a graphene and nitrogenated holey graphene superlattice. *Physical Chemistry Chemical Physics*, **2017**, 19, 24240-24248	3.6	31
40	Molecular dynamics study of thermal transport in a nitrogenated holey graphene bilayer. *Journal of Materials Chemistry C*, **2017**, 5, 5119-5127	7.1	28
39	Water desalination through rim functionalized carbon nanotubes. *Journal of Materials Chemistry A*, **2019**, 7, 3583-3591	13	28
38	Phonon energy inversion in graphene during transient thermal transport. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2013**, 377, 721-726	2.3	28
37	Machine learning and artificial neural network accelerated computational discoveries in materials science. *Wiley Interdisciplinary Reviews: Computational Molecular Science*, **2020**, 10, e1450	7.9	28
36	Molecular dynamics study of thermal transport in a dinaphtho[2,3-b:2',3'-f]thieno[3,2-b]thiophene (DNTT) organic semiconductor. *Nanoscale*, **2017**, 9, 2262-2271	7.7	27
35	Co-existing heat currents in opposite directions in graphene nanoribbons. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2013**, 377, 2970-2978	2.3	26
34	Machine Learning Enabled Prediction of Mechanical Properties of Tungsten Disulfide Monolayer. *ACS Omega*, **2019**, 4, 10121-10128	3.9	24
33	Phonon thermal transport in a graphene/MoSe van der Waals heterobilayer. *Physical Chemistry Chemical Physics*, **2018**, 20, 2637-2645	3.6	23
32	Thermal transport across atomic-layer material interfaces. *Nanotechnology Reviews*, **2015**, 4,	6.3	22
31	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	4.9	22

30	Multiphoton Absorption Stimulated Metal Chalcogenide Quantum Dot Solar Cells under Ambient and Concentrated Irradiance. *Advanced Functional Materials*, **2020**, 30, 2004563	15.6	21
29	Phonon thermal transport in silicene-germanene superlattice: a molecular dynamics study. *Nanotechnology*, **2017**, 28, 255403	3.4	20
28	Energy coupling across low-dimensional contact interfaces at the atomic scale. *International Journal of Heat and Mass Transfer*, **2017**, 110, 827-844	4.9	20
27	Mechanical properties of molybdenum diselenide revealed by molecular dynamics simulation and support vector machine. *Physical Chemistry Chemical Physics*, **2019**, 21, 9159-9167	3.6	20
26	Understanding thermal transport in asymmetric layer hexagonal boron nitride heterostructure. *Nanotechnology*, **2017**, 28, 035404	3.4	18
25	Colloidal quantum dot hybrids: an emerging class of materials for ambient lighting. *Journal of Materials Chemistry C*, **2020**, 8, 10676-10695	7.1	18
24	Investigation of interfacial thermal transport across graphene and an organic semiconductor using molecular dynamics simulations. *Physical Chemistry Chemical Physics*, **2017**, 19, 15933-15941	3.6	17
23	Chemically encoded self-organized quantum chain supracrystals with exceptional charge and ion transport properties. *Nano Energy*, **2019**, 62, 764-771	17.1	14
22	Thermal transport in phosphorene and phosphorene-based materials: A review on numerical studies. *Chinese Physics B*, **2018**, 27, 036501	1.2	12
21	Phase change and stress wave in picosecond laser material interaction with shock wave formation. *Applied Physics A: Materials Science and Processing*, **2013**, 112, 677-687	2.6	12
20	Tuning thermal conductance of CNT interface junction via stretching and atomic bonding. *Journal Physics D: Applied Physics*, **2017**, 50, 475302	3	10
19	Significantly reduced c-axis thermal diffusivity of graphene-based papers. *Nanotechnology*, **2018**, 29, 265702	3.4	10
18	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	3.8	9
17	Overview of Computational Simulations in Quantum Dots. *Israel Journal of Chemistry*, **2019**, 59, 661-672	3.4	8
16	Molecular interaction balanced one- and two-dimensional hybrid nanoarchitectures for high-performance supercapacitors. *Physical Chemistry Chemical Physics*, **2019**, 21, 22283-22292	3.6	7
15	Toward Improved Thermal Conductance of Graphene-Polyethylene Composites via Surface Defect Engineering: a Molecular Dynamics Study. *Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica*, **2019**, 35, 1150-1156	3.8	7
14	Improved thermoelectric properties of WS-WSe phononic crystals: insights from first-principles calculations. *Nanoscale*, **2021**, 13, 7176-7192	7.7	7
13	Critical fracture properties of puckered and buckled arsenenes by molecular dynamics simulations. *Physical Chemistry Chemical Physics*, **2019**, 21, 12372-12379	3.6	6

12	Mechanical responses of WSe2 monolayers: a molecular dynamics study. *Materials Research Express*, **2019**, 6, 085071	1.7	6
11	High-Throughput Computations of Cross-Plane Thermal Conductivity in Multilayer Stanene. *International Journal of Heat and Mass Transfer*, **2021**, 171, 121073	4.9	6
10	Rational-Designed Hybrid Aerogels for Ultra-Flyweight Electrochemical Energy Storage. *Journal of Physical Chemistry C*, **2020**, 124, 15688-15697	3.8	5
9	Growth of quantum dot coated core-shell anisotropic nanowires for improved thermal and electronic transport. *Applied Physics Letters*, **2019**, 114, 243104	3.4	5
8	Thermal transport in organic semiconductors. *Journal of Applied Physics*, **2021**, 130, 170902	2.5	5
7	Molecular dynamics study of anisotropic behaviours of water droplet on textured surfaces with various energies. *Molecular Physics*, **2021**, 119, e1785028	1.7	5
6	Molecular Dynamics and Machine Learning in Catalysts. *Catalysts*, **2021**, 11, 1129	4	4
5	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	1.4	3
4	Applications of Machine learning in Computational Nanotechnology.. *Nanotechnology*, **2021**,	3.4	2
3	Atomistic insights into dynamic growth of pentacene thin films on metal surfaces functionalized with self-assembled monolayers. *Applied Surface Science*, **2022**, 579, 152203	6.7	2
2	Thermal Boundary Resistance at Graphene-Pentacene Interface Explored by A Data-Intensive Approach. *Nanotechnology*, **2021**,	3.4	2
1	Full-spectrum thermal analysis in twisted bilayer graphene. *Physical Chemistry Chemical Physics*, **2021**, 23, 19166-19172	3.6	1