

Taishan Zhu

List of Publications by Year in descending order

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1,132
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361413

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33
all docs

33
docs citations

33
times ranked

1770
citing authors

#	ARTICLE	IF	CITATIONS
1	Printing Air-Stable High-Tc Molecular Magnet with Tunable Magnetic Interaction. Nano Letters, 2022, 22, 545-553.	9.1	4
2	Atoms to fibers: Identifying novel processing methods in the synthesis of pitch-based carbon fibers. Science Advances, 2022, 8, eabn1905.	10.3	12
3	Charting lattice thermal conductivity for inorganic crystals and discovering rare earth chalcogenides for thermoelectrics. Energy and Environmental Science, 2021, 14, 3559-3566.	30.8	51
4	High-Pressure-Sintering-Induced Microstructural Engineering for an Ultimate Phonon Scattering of Thermoelectric Half-Heusler Compounds. Small, 2021, 17, e2102045.	10.0	17
5	Laser-Induced Cooperative Transition in Molecular Electronic Crystal. Advanced Materials, 2021, 33, e2103000.	21.0	6
6	Screening and Understanding Li Adsorption on Two-Dimensional Metallic Materials by Learning Physics and Physics-Simplified Learning. JACS Au, 2021, 1, 1904-1914.	7.9	12
7	Laser-Induced Cooperative Transition in Molecular Electronic Crystal (Adv. Mater. 39/2021). Advanced Materials, 2021, 33, .	21.0	0
8	A 3D-printed molecular ferroelectric metamaterial. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 27204-27210.	7.1	25
9	Emerging Magnetic Interactions in van der Waals Heterostructures. Nano Letters, 2020, 20, 7852-7859.	9.1	5
10	Unveiling the phonon scattering mechanisms in half-Heusler thermoelectric compounds. Energy and Environmental Science, 2020, 13, 5165-5176.	30.8	49
11	Atomic structure and defect dynamics of monolayer lead iodide nanodisks with epitaxial alignment on graphene. Nature Communications, 2020, 11, 823.	12.8	31
12	Laser-sculptured ultrathin transition metal carbide layers for energy storage and energy harvesting applications. Nature Communications, 2019, 10, 3112.	12.8	91
13	Charge Transport in Highly Heterogeneous Natural Carbonaceous Materials. Advanced Functional Materials, 2019, 29, 1904283.	14.9	5
14	Asynchronous Photoexcited Electronic and Structural Relaxation in Lead-Free Perovskites. Journal of the American Chemical Society, 2019, 141, 13074-13080.	13.7	39
15	Striated 2D Lattice with Sub-nm 1D Etch Channels by Controlled Thermally Induced Phase Transformations of PdSe ₂ . Advanced Materials, 2019, 31, e1904251.	21.0	31
16	Predicting charge density distribution of materials using a local-environment-based graph convolutional network. Physical Review B, 2019, 100, .	3.2	31
17	Mixed phononic and non-phononic transport in hybrid lead halide perovskites: glass-crystal duality, dynamical disorder, and anharmonicity. Energy and Environmental Science, 2019, 12, 216-229.	30.8	51
18	Vibrational Energy Transport in Hybrid Ordered/Disordered Nanocomposites: Hybridization and Avoided Crossings of Localized and Delocalized Modes. Advanced Functional Materials, 2018, 28, 1706268.	14.9	21

#	ARTICLE	IF	CITATIONS
19	Ultralow Thermal Conductivity in Diamond-Like Semiconductors: Selective Scattering of Phonons from Antisite Defects. <i>Chemistry of Materials</i> , 2018, 30, 3395-3409.	6.7	28
20	Thermoelectric phonon-glass electron-crystal via ion beam patterning of silicon. <i>Physical Review B</i> , 2018, 97, .	3.2	20
21	Structural and thermal effects of ion-irradiation induced defect configurations in silicon. <i>Physical Review B</i> , 2017, 95, .	3.2	15
22	Phonons, Localization, and Thermal Conductivity of Diamond Nanothreads and Amorphous Graphene. <i>Nano Letters</i> , 2016, 16, 4763-4772.	9.1	129
23	Generalized Debye-Peierls/Allen-Feldman model for the lattice thermal conductivity of low-dimensional and disordered materials. <i>Physical Review B</i> , 2016, 93, .	3.2	58
24	Resolving anomalous strain effects on two-dimensional phonon flows: The cases of graphene, boron nitride, and planar superlattices. <i>Physical Review B</i> , 2015, 91, .	3.2	84
25	Phonon transport on two-dimensional graphene/boron nitride superlattices. <i>Physical Review B</i> , 2014, 90, .	3.2	157
26	Size Dependent Orientation of Knudsen Force. , 2012, , .		0
27	Theoretical Two-Dimensional Modeling of Gas Conduction Between Finite Parallel Plates in High Vacuum. <i>Journal of Heat Transfer</i> , 2012, 134, .	2.1	6
28	Multiple temperature kinetic model and its applications to micro-scale gas flows. <i>Computers and Fluids</i> , 2012, 67, 115-122.	2.5	39
29	Negative Knudsen force on heated microbeams. <i>Physical Review E</i> , 2011, 84, 056316.	2.1	27
30	Origin of Knudsen forces on heated microbeams. <i>Physical Review E</i> , 2010, 82, 036308.	2.1	47
31	Theoretical and Numerical Studies of Noncontinuum Gas-Phase Heat Conduction in Micro/Nano Devices. <i>Numerical Heat Transfer, Part B: Fundamentals</i> , 2010, 57, 203-226.	0.9	41
32	Gas-Phase Heat Transfer From a Heated Microcantilever Inside a Vacuum Enclosure. , 2009, , .		0