Wu-Xing Zhou

List of Publications by Year
in descending order

53 papers	1,794 citations	279798 23 h-index	276875 41 g-index
53 all docs	53 docs citations	53 times ranked	1542 citing authors

#	Article	IF	Citations
1	Thermal Conductivity of Amorphous Materials. Advanced Functional Materials, 2020, 30, 1903829.	14.9	149
2	Monolayer SnP₃: an excellent p-type thermoelectric material. Nanoscale, 2019, 11, 19923-19932.	5.6	119
3	Thermal rectification and negative differential thermal resistance behaviors in graphene/hexagonal boron nitride heterojunction. Carbon, 2016, 100, 492-500.	10.3	108
4	Nanoscale Organic Thermoelectric Materials: Measurement, Theoretical Models, and Optimization Strategies. Advanced Functional Materials, 2020, 30, 1903873.	14.9	97
5	Pure spin current generated in thermally driven molecular magnetic junctions: a promising mechanism for thermoelectric conversion. Journal of Materials Chemistry A, 2019, 7, 19037-19044.	10.3	92
6	First-Principles Determination of Ultralow Thermal Conductivity of monolayer WSe2. Scientific Reports, 2015, 5, 15070.	3.3	78
7	Enhancement of thermoelectric performance in Î²-graphyne nanoribbons by suppressing phononic thermal conductance. Carbon, 2015, 85, 24-27.	10.3	76
8	KAgX (X = S, Se): High-Performance Layered Thermoelectric Materials for Medium-Temperature Applications. ACS Applied Materials & Interfaces, 2020, 12, 36102-36109.	8.0	68
9	An important mechanism for thermal rectification in graded nanowires. Applied Physics Letters, 2014, 105, .	3.3	65
10	Î±-Ag₂S: A Ductile Thermoelectric Material with High <i>ZT</i>. ACS Omega, 2020, 5, 5796-5804.	3.5	64
11	Tailoring the phase transition temperature to achieve high-performance cubic GeTe-based thermoelectrics. Journal of Materials Chemistry A, 2020, 8, 18880-18890.	10.3	61
12	Excellent thermoelectric performance in weak-coupling molecular junctions with electrode doping and electrochemical gating. Science China: Physics, Mechanics and Astronomy, 2020, 63, 1.	5.1	51
13	Tunable spin electronic and thermoelectric properties in twisted triangulene <i>Ï€</i> -dimer junctions. Applied Physics Letters, 2021, 119, .	3.3	48
14	Excellent thermoelectric performance induced by interface effect in MoS₂/MoSe₂ van der Waals heterostructure. Journal of Physics Condensed Matter, 2020, 32, 055302.	1.8	43
15	Negative differential resistance induced by the Jahnâ€“Teller effect in single molecular coulomb blockade devices. Computational Materials Science, 2014, 82, 33-36.	3.0	42
16	Enhancement of Thermoelectric Performance by Reducing Phonon Thermal Conductance in Multiple Core-shell Nanowires. Scientific Reports, 2014, 4, 7150.	3.3	42
17	Excellent Thermoelectric Properties in monolayer WSe2 Nanoribbons due to Ultralow Phonon Thermal Conductivity. Scientific Reports, 2017, 7, 41418.	3.3	36
18	Phonon thermal transport in InAs nanowires with different size and growth directions. Physics Letters, Section A: General, Atomic and Solid State Physics, 2013, 377, 3144-3147.	2.1	35

#	Article	IF	Citations
19	Exploring high-performance anodes of Li-ion batteries based on the rules of pore-size dependent band gaps in porous carbon foams. Journal of Materials Chemistry A, 2019, 7, 21976-21984.	10.3	31
20	Thermal Conductivity: Thermal Conductivity of Amorphous Materials (Adv. Funct. Mater. 8/2020). Advanced Functional Materials, 2020, 30, 2070048.	14.9	30
21	Significant decrease in thermal conductivity of multi-walled carbon nanotube induced by inter-wall van der Waals interactions. Physics Letters, Section A: General, Atomic and Solid State Physics, 2016, 380, 1861-1864.	2.1	29
22	Spin gapless semiconductor and half-metal properties in magnetic penta-hexa-graphene nanotubes. Organic Electronics, 2018, 63, 310-317.	2.6	28
23	Core-shell nanowire serves as heat cable. Applied Physics Letters, 2013, 103, .	3.3	27
24	Nanoporous carbon foam structures with excellent electronic properties predicted by first-principles studies. Carbon, 2018, 129, 809-818.	10.3	23
25	Large spin rectifying and high-efficiency spin-filtering in superior molecular junction. Organic Electronics, 2017, 50, 184-190.	2.6	22
26	Thermoelectric Properties of Hexagonal M2C3 (M = As, Sb, and Bi) Monolayers from First-Principles Calculations. Nanomaterials, 2019, 9, 597.	4.1	22
27	The thermal conductivity in hybridised graphene and boron nitride nanoribbons modulated with strain. Journal Physics D: Applied Physics, 2016, 49, 115301.	2.8	21
28	Nanoscale thermal transport: Theoretical method and application. Chinese Physics B, 2018, 27, 036304.	1.4	21
29	Conjunction of standing wave and resonance in asymmetric nanowires: a mechanism for thermal rectification and remote energy accumulation. Scientific Reports, 2015, 5, 17525.	3.3	20
30	Breaking surface states causes transformation from metallic to semi-conducting behavior in carbon foam nanowires. Carbon, 2017, 111, 867-877.	10.3	20
31	Excellent thermoelectric properties induced by different contact geometries in phenalenyl-based single-molecule devices. Scientific Reports, 2017, 7, 10842.	3.3	19
32	Enhancement of thermoelectric performance in InAs nanotubes by tuning quantum confinement effect. Journal of Applied Physics, 2014, 115, .	2.5	17
33	Large rectifying ratio in a nitrogen-doped armchair graphene device modulated by the gate voltage. Organic Electronics, 2017, 46, 150-157.	2.6	17
34	Prediction of intrinsic ferromagnetism in two-dimension planar metal-organic framework semiconductors. Journal of Magnetism and Magnetic Materials, 2019, 488, 165354.	2.3	17
35	Effect of electrophilic substitution and destructive quantum interference on the thermoelectric performance in molecular devices. Journal of Physics Condensed Matter, 2019, 31, 345303.	1.8	16
36	Controllable anisotropic thermoelectric properties in 2D covalent organic radical frameworks. Applied Physics Letters, 2021, 119, .	3.3	16

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37	Thermal transport in lithium-ion battery: A micro perspective for thermal management. Frontiers of Physics, 2022, 17, 1.	5.0	14
38	High-efficiency spin filtering in salophen-based molecular junctions modulated with different transition metal atoms. Physics Letters, Section A: General, Atomic and Solid State Physics, 2014, 378, 3126-3130.	2.1	13
39	Triggering piezoelectricity directly by heat to produce alternating electric voltage. Applied Physics Letters, 2016, 109, .	3.3	13
40	Excellent Medium-Temperature Thermoelectric Performance of Monolayer BiOCl. Langmuir, 2022, 38, 7733-7739.	3.5	13
41	<i>Ab initio</i> study of the moisture stability of lead iodine perovskites. Journal of Physics Condensed Matter, 2018, 30, 355501.	1.8	10
42	An efficient mechanism for enhancing the thermoelectricity of twin graphene nanoribbons by introducing defects. Physica E: Low-Dimensional Systems and Nanostructures, 2020, 122, 114160.	2.7	10
43	Thermal transport properties in monolayer group-IV binary compounds. Journal of Physics Condensed Matter, 2020, 32, 305301.	1.8	10
44	Semiconductor-metal transition induced by giant Stark effect in blue phosphorene nanoribbons. Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 2016-2020.	2.1	7
45	Design of Thermal Metamaterials with Excellent Thermal Control Functions by Using Functional Nanoporous Graphene. Physica Status Solidi - Rapid Research Letters, 2020, 14, 2000333.	2.4	7
46	First-Principles Calculations on Thermoelectric Properties of Layered Transition Metal Phosphides MP2 (M = Ni, Pd, Pt). Journal of Electronic Materials, 2021, 50, 2510-2520.	2.2	6
47	Enhanced thermoelectric properties in two-dimensional monolayer Si₂BN by adsorbing halogen atoms*. Chinese Physics B, 2021, 30, 037304.	1.4	6
48	Enhancement of thermoelectric performance in graphenylene nanoribbons by suppressing phonon thermal conductance: the role of phonon local resonance. Nanotechnology, 2022, 33, 215402.	2.6	5
49	Organic Thermoelectric Materials: Nanoscale Organic Thermoelectric Materials: Measurement, Theoretical Models, and Optimization Strategies (Adv. Funct. Mater. 8/2020). Advanced Functional Materials, 2020, 30, 2070051.	14.9	3
50	Modulation of thermal transport in Al<i>x</i>Ga1<i>âˆ’x</i>As alloy nanowires with varying compositions. Applied Physics Letters, 2020, 116, .	3.3	3
51	Thermal conductance associated with six types of vibration modes in quantum wire modulated with quantum dot. Physics Letters, Section A: General, Atomic and Solid State Physics, 2014, 378, 2195-2200.	2.1	2
52	Thermoelectric Conversion From Interface Thermophoresis and Piezoelectric Effects. Frontiers in Physics, 2022, 10, .	2.1	2
53	Phonon transport in periodically and quasi-periodically modulated cylindrical nanowires. Journal of Physics Condensed Matter, 2019, 31, 505303.	1.8	0