Xinyue Zhang

List of Publications by Year
in descending order

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41	4,263	147566	264894
papers	citations	31	42
		h-index	g-index

42	42	42	2414
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Low-Symmetry Rhombohedral GeTe Thermoelectrics. Joule, 2018, 2, 976-987.	11.7	402
2	Lattice Strain Advances Thermoelectrics. Joule, 2019, 3, 1276-1288.	11.7	333
3	Promoting SnTe as an Ecoâ€Friendly Solution for pâ€PbTe Thermoelectric via Band Convergence and Interstitial Defects. Advanced Materials, 2017, 29, 1605887.	11.1	317
4	Manipulation of Phonon Transport in Thermoelectrics. Advanced Materials, 2018, 30, e1705617.	11.1	316
5	Realizing the High Thermoelectric Performance of GeTe by Sb-Doping and Se-Alloying. Chemistry of Materials, 2017, 29, 605-611.	3.2	226
6	Electronic origin of the high thermoelectric performance of GeTe among the p-type group IV monotellurides. NPG Asia Materials, 2017, 9, e353-e353.	3.8	223
7	GeTe Thermoelectrics. Joule, 2020, 4, 986-1003.	11.7	215
8	Vacancy Manipulation for Thermoelectric Enhancements in GeTe Alloys. Journal of the American Chemical Society, 2018, 140, 15883-15888.	6.6	182
9	Simultaneous Optimization of Carrier Concentration and Alloy Scattering for Ultrahigh Performance GeTe Thermoelectrics. Advanced Science, 2017, 4, 1700341.	5.6	151
10	Rationalizing phonon dispersion for lattice thermal conductivity of solids. National Science Review, 2018, 5, 888-894.	4.6	129
11	Extraordinary nâ€Type Mg₃SbBi Thermoelectrics Enabled by Yttrium Doping. Advanced Materials, 2019, 31, e1903387.	11.1	120
12	Thermoelectric Properties of SnS with Na-Doping. ACS Applied Materials & Interfaces, 2017, 9, 34033-34041.	4.0	118
13	Thermoelectric Properties of Cu₂SnSe₄ with Intrinsic Vacancy. Chemistry of Materials, 2016, 28, 6227-6232.	3.2	115
14	Advances in Environment-Friendly SnTe Thermoelectrics. ACS Energy Letters, 2017, 2, 2349-2355.	8.8	109
15	High-Performance GeTe Thermoelectrics in Both Rhombohedral and Cubic Phases. Journal of the American Chemical Society, 2018, 140, 16190-16197.	6.6	108
16	Vacancy scattering for enhancing the thermoelectric performance of CuGaTe₂ solid solutions. Journal of Materials Chemistry A, 2016, 4, 15464-15470.	5.2	106
17	A record thermoelectric efficiency in tellurium-free modules for low-grade waste heat recovery. Nature Communications, 2022, 13, 237.	5.8	99
18	Realizing a 14% single-leg thermoelectric efficiency in GeTe alloys. Science Advances, 2021, 7, .	4.7	91

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19	Ring-Opening Polymerization of N-Carboxyanhydride-Induced Self-Assembly for Fabricating Biodegradable Polymer Vesicles. ACS Macro Letters, 2019, 8, 1216-1221.	2.3	90
20	Electronic quality factor for thermoelectrics. Science Advances, 2020, 6, .	4.7	88
21	Substitutional defects enhancing thermoelectric CuGaTe₂. Journal of Materials Chemistry A, 2017, 5, 5314-5320.	5.2	87
22	Manipulation of Solubility and Interstitial Defects for Improving Thermoelectric SnTe Alloys. ACS Energy Letters, 2018, 3, 1969-1974.	8.8	69
23	An over 10% module efficiency obtained using non-Bi₂Te₃ thermoelectric materials for recovering heat of <600 K. Energy and Environmental Science, 2021, 14, 6506-6513.	15.6	66
24	Manipulation of charge transport in thermoelectrics. Npj Quantum Materials, 2017, 2, .	1.8	55
25	Efficient Sc-Doped Mg_{3.05â€“x}Sc_xSbBi Thermoelectrics Near Room Temperature. Chemistry of Materials, 2019, 31, 8987-8994.	3.2	55
26	Promising Thermoelectric Ag_{5â^'Î´}Te₃ with Intrinsic Low Lattice Thermal Conductivity. ACS Energy Letters, 2017, 2, 2470-2477.	8.8	54
27	Sb induces both doping and precipitation for improving the thermoelectric performance of elemental Te. Inorganic Chemistry Frontiers, 2017, 4, 1066-1072.	3.0	45
28	Polymersome Wound Dressing Spray Capable of Bacterial Inhibition and H₂S Generation for Complete Diabetic Wound Healing. Chemistry of Materials, 2021, 33, 7972-7985.	3.2	43
29	Fully Bio-Based High-Performance Thermosets with Closed-Loop Recyclability. ACS Sustainable Chemistry and Engineering, 2022, 10, 1036-1046.	3.2	42
30	Single parabolic band transport in p-type EuZn₂Sb₂ thermoelectrics. Journal of Materials Chemistry A, 2017, 5, 24185-24192.	5.2	38
31	Band and Phonon Engineering for Thermoelectric Enhancements of Rhombohedral GeTe. ACS Applied Materials & Interfaces, 2019, 11, 30756-30762.	4.0	37
32	Leveraging bipolar effect to enhance transverse thermoelectricity in semimetal Mg2Pb for cryogenic heat pumping. Nature Communications, 2021, 12, 3837.	5.8	24
33	Manipulation of Band Degeneracy and Lattice Strain for Extraordinary PbTe Thermoelectrics. Research, 2020, 2020, 8151059.	2.8	23
34	Near-room-temperature rhombohedral Ge1-Pb Te thermoelectrics. Materials Today Physics, 2020, 15, 100260.	2.9	20
35	Promising cubic MnGeTe2 thermoelectrics. Science China Materials, 2019, 62, 379-388.	3.5	16
36	Giant Polymer Vesicles with a Latticelike Membrane. ACS Macro Letters, 2021, 10, 1015-1022.	2.3	16

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37	Bioreducible, arginine-rich polydisulfide-based siRNA nanocomplexes with excellent tumor penetration for efficient gene silencing. Biomaterials Science, 2021, 9, 5275-5292.	2.6	10
38	Thermoelectric properties of Cu4Ge3Se5 with an intrinsic disordered zinc blende structure. Journal of Materials Chemistry A, 2020, 8, 3431-3437.	5.2	9
39	Acquired reactive perforating collagenosis. Medicine (United States), 2020, 99, e20391.	0.4	5
40	Evaluation of Thermoelectric Properties of Ag_{0.366}Sb_{0.558}Te. Annalen Der Physik, 2020, 532, 1900561.	0.9	5
41	Thermoelectric Transport Properties of TmAg Cu1-Te2 solid solutions. Journal of Materiomics, 2021, 7, 886-893.	2.8	3