Heng Wang

List of Publications by Year
in descending order

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25	9,158	394286	642610
papers	citations	19 h-index	23 g-index

25	25	25	5862
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Convergence of electronic bands for high performance bulk thermoelectrics. Nature, 2011, 473, 66-69.	13.7	3,306
2	Ultrahigh power factor and thermoelectric performance in hole-doped single-crystal SnSe. Science, 2016, 351, 141-144.	6.0	1,594
3	Band Engineering of Thermoelectric Materials. Advanced Materials, 2012, 24, 6125-6135.	11.1	1,307
4	Low effective mass leading to high thermoelectric performance. Energy and Environmental Science, 2012, 5, 7963.	15.6	511
5	Weak electronâ€“phonon coupling contributing to high thermoelectric performance in n-type PbSe. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 9705-9709.	3.3	359
6	Beneficial Contribution of Alloy Disorder to Electron and Phonon Transport in Halfâ€Heusler Thermoelectric Materials. Advanced Functional Materials, 2013, 23, 5123-5130.	7.8	349
7	The Criteria for Beneficial Disorder in Thermoelectric Solid Solutions. Advanced Functional Materials, 2013, 23, 1586-1596.	7.8	293
8	Measuring thermoelectric transport properties of materials. Energy and Environmental Science, 2015, 8, 423-435.	15.6	275
9	Thermopower enhancement in Pb1â^'xMnxTe alloys and its effect on thermoelectric efficiency. NPG Asia Materials, 2012, 4, e28-e28.	3.8	214
10	Tuning bands of PbSe for better thermoelectric efficiency. Energy and Environmental Science, 2014, 7, 804-811.	15.6	214
11	Band gap estimation from temperature dependent Seebeck measurementâ€”Deviations from the 2e|S|maxTmax relation. Applied Physics Letters, 2015, 106, .	1.5	181
12	High Thermoelectric Efficiency of nâ€type PbS. Advanced Energy Materials, 2013, 3, 488-495.	10.2	178
13	Thermoelectric alloys between PbSe and PbS with effective thermal conductivity reduction and high figure of merit. Journal of Materials Chemistry A, 2014, 2, 3169.	5.2	87
14	Material Design Considerations Based on Thermoelectric Quality Factor. Springer Series in Materials Science, 2013, , 3-32.	0.4	73
15	Higher mobility in bulk semiconductors by separating the dopants from the charge-conducting band â€“ a case study of thermoelectric PbSe. Materials Horizons, 2015, 2, 323-329.	6.4	54
16	Thermoelectric performance of co-doped SnTe with resonant levels. Applied Physics Letters, 2016, 109, .	1.5	36
17	Supercompliant and Soft <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mo stretchy="false">(</mml:mo><mml:msub><mml:mrow><mml:mi>CH</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></	2.9	33
18	Reduction of thermal conductivity in PbTe:Tl by alloying with<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="normal">TlSbT</mml:mi><mml:msub><mml:mi mathvariant="normal">e</mml:mi><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>. Physical Review B, 2011, 83, .	1.1	25

#	Article	IF	Citations
19	Thermoelectric transport effects beyond single parabolic band and acoustic phonon scattering. Materials Advances, 2022, 3, 734-755.	2.6	21
20	Solvent-free synthesis of organometallic halides CH3NH3PbI3 and (CH3NH3)3Bi2I9 and their thermoelectric transport properties. Applied Physics Letters, 2019, 115, 072104.	1.5	17
21	A descriptive model of thermoelectric transport in a resonant system of PbSe doped with Tl. Journal of Materials Chemistry A, 2019, 7, 12859-12868.	5.2	13
22	Complex role for thallium in PbTe:Tl from local probe studies. Physical Review B, 2013, 87, .	1.1	11
23	Material pairing and selection considerations for thermoelectric cooling devices with components dissimilar to Bi2Te3 based alloys. Materials Today Physics, 2021, 20, 100457.	2.9	7
24	Tackling Challenges in Seebeck Coefficient Measurement of Ultraâ€High Resistance Samples with an AC Technique. Advanced Electronic Materials, 2020, 6, 1901340.	2.6	0
25	Evaluating the ratio of electron and hole mobilities from a single bulk sample using Photo-Seebeck effect. Materials Today Physics, 2021, 17, 100331.	2.9	0