

Heng Wang

List of Publications by Year in descending order

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25
papers

9,158
citations

394286

19
h-index

642610

23
g-index

25
all docs

25
docs citations

25
times ranked

5862
citing authors

#	ARTICLE	IF	CITATIONS
1	Thermoelectric transport effects beyond single parabolic band and acoustic phonon scattering. <i>Materials Advances</i> , 2022, 3, 734-755.	2.6	21
2	Evaluating the ratio of electron and hole mobilities from a single bulk sample using Photo-Seebeck effect. <i>Materials Today Physics</i> , 2021, 17, 100331.	2.9	0
3	Material pairing and selection considerations for thermoelectric cooling devices with components dissimilar to Bi ₂ Te ₃ based alloys. <i>Materials Today Physics</i> , 2021, 20, 100457.	2.9	7
4	Tackling Challenges in Seebeck Coefficient Measurement of Ultra-High Resistance Samples with an AC Technique. <i>Advanced Electronic Materials</i> , 2020, 6, 1901340.	2.6	0
5	Solvent-free synthesis of organometallic halides CH ₃ NH ₃ PbI ₃ and (CH ₃ NH ₃) ₃ Bi ₂ I ₉ and their thermoelectric transport properties. <i>Applied Physics Letters</i> , 2019, 115, 072104.	1.5	17
6	Supercompliant and Soft χ ($\chi = \frac{1}{\rho} \frac{\partial S}{\partial T}$) relation. <i>Physical Review Letters</i> , 2019, 123, 155901.	2.9	13
7	A descriptive model of thermoelectric transport in a resonant system of PbSe doped with Tl. <i>Journal of Materials Chemistry A</i> , 2019, 7, 12859-12868.	5.2	13
8	Thermoelectric performance of co-doped SnTe with resonant levels. <i>Applied Physics Letters</i> , 2016, 109, .	1.5	36
9	Ultrahigh power factor and thermoelectric performance in hole-doped single-crystal SnSe. <i>Science</i> , 2016, 351, 141-144.	6.0	1,594
10	Band gap estimation from temperature dependent Seebeck measurement—Deviations from the $ S _{\max} \propto T_{\max}$ relation. <i>Applied Physics Letters</i> , 2015, 106, .	1.5	181
11	Higher mobility in bulk semiconductors by separating the dopants from the charge-conducting band—a case study of thermoelectric PbSe. <i>Materials Horizons</i> , 2015, 2, 323-329.	6.4	54
12	Measuring thermoelectric transport properties of materials. <i>Energy and Environmental Science</i> , 2015, 8, 423-435.	15.6	275
13	Thermoelectric alloys between PbSe and PbS with effective thermal conductivity reduction and high figure of merit. <i>Journal of Materials Chemistry A</i> , 2014, 2, 3169.	5.2	87
14	Tuning bands of PbSe for better thermoelectric efficiency. <i>Energy and Environmental Science</i> , 2014, 7, 804-811.	15.6	214
15	Complex role for thallium in PbTe:Tl from local probe studies. <i>Physical Review B</i> , 2013, 87, .	1.1	11
16	The Criteria for Beneficial Disorder in Thermoelectric Solid Solutions. <i>Advanced Functional Materials</i> , 2013, 23, 1586-1596.	7.8	293
17	Beneficial Contribution of Alloy Disorder to Electron and Phonon Transport in Half-Heusler Thermoelectric Materials. <i>Advanced Functional Materials</i> , 2013, 23, 5123-5130.	7.8	349
18	High Thermoelectric Efficiency of n-type PbS. <i>Advanced Energy Materials</i> , 2013, 3, 488-495.	10.2	178

#	ARTICLE	IF	CITATIONS
19	Material Design Considerations Based on Thermoelectric Quality Factor. Springer Series in Materials Science, 2013, , 3-32.	0.4	73
20	Band Engineering of Thermoelectric Materials. Advanced Materials, 2012, 24, 6125-6135.	11.1	1,307
21	Low effective mass leading to high thermoelectric performance. Energy and Environmental Science, 2012, 5, 7963.	15.6	511
22	Thermopower enhancement in $Pb_{1-x}Mn_xTe$ alloys and its effect on thermoelectric efficiency. NPG Asia Materials, 2012, 4, e28-e28.	3.8	214
23	Weak electron-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
24	Reduction of thermal conductivity in PbTe:Ti by alloying with $TlSbT_e$. Physical Review B, 2011, 83, .	1.1	25
25	Convergence of electronic bands for high performance bulk thermoelectrics. Nature, 2011, 473, 66-69.	13.7	3,306