

Tian-Ran Wei

List of Publications by Year in descending order

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Version: 2024-02-01

57
papers

3,233
citations

136740

32
h-index

149479

56
g-index

60
all docs

60
docs citations

60
times ranked

2657
citing authors

#	ARTICLE	IF	CITATIONS
1	Entropy engineering induced exceptional thermoelectric and mechanical performances in Cu ₂ -AgTe _{1-2S} Se. <i>Acta Materialia</i> , 2022, 224, 117512.	3.8	36
2	Phase-modulated mechanical and thermoelectric properties of Ag ₂ S _{1-x} Te _x ductile semiconductors. <i>Journal of Materiomics</i> , 2022, 8, 656-661.	2.8	31
3	Novel meta-phase arising from large atomic size mismatch. <i>Matter</i> , 2022, 5, 605-615.	5.0	20
4	A Fully Flexible Intelligent Thermal Touch Panel Based on Intrinsically Plastic Ag ₂ S Semiconductor. <i>Advanced Materials</i> , 2022, 34, e2107479.	11.1	23
5	Structural Modularization of Cu ₂ Te Leading to High Thermoelectric Performance near the Mott–Ioffe–Regel Limit. <i>Advanced Materials</i> , 2022, 34, e2108573.	11.1	20
6	Data-driven discovery of high-performance multicomponent solid solution thermoelectric materials. <i>Materials Today Energy</i> , 2022, 28, 101070.	2.5	1
7	Room-temperature plastic inorganic semiconductors for flexible and deformable electronics. <i>Informa Mater</i> , 2021, 3, 22-35.	8.5	55
8	Ductile Ag ₂₀ S ₇ Te ₃ with Excellent Shape-Conformability and High Thermoelectric Performance. <i>Advanced Materials</i> , 2021, 33, e2007681.	11.1	65
9	p-type Plastic Inorganic Thermoelectric Materials. <i>Advanced Energy Materials</i> , 2021, 11, 2100883.	10.2	40
10	Thermoelectric materials with crystal-amorphicity duality induced by large atomic size mismatch. <i>Joule</i> , 2021, 5, 1183-1195.	11.7	27
11	Memory of pressure-induced superconductivity in a phase-change alloy. <i>Physical Review B</i> , 2021, 103, .	1.1	7
12	Thermoelectrics: p-type Plastic Inorganic Thermoelectric Materials (<i>Adv. Energy Mater.</i> 23/2021). <i>Advanced Energy Materials</i> , 2021, 11, 2170086.	10.2	4
13	A low-cost and eco-friendly Br-doped Cu ₇ Sn ₃ S ₁₀ thermoelectric compound with zT around unity. <i>Journal of Materials Chemistry A</i> , 2021, 9, 7946-7954.	5.2	23
14	Efficient lanthanide Gd doping promoting the thermoelectric performance of Mg ₃ Sb ₂ -based materials. <i>Journal of Materials Chemistry A</i> , 2021, 9, 25944-25953.	5.2	19
15	Thermoelectric Ag ₂ Se: Imperfection, Homogeneity, and Reproducibility. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 60192-60199.	4.0	28
16	Decoupling Thermoelectric Performance and Stability in Liquid-Like Thermoelectric Materials. <i>Advanced Science</i> , 2020, 7, 1901598.	5.6	36
17	Conformal organic-inorganic semiconductor composites for flexible thermoelectrics. <i>Energy and Environmental Science</i> , 2020, 13, 511-518.	15.6	67
18	Exceptional plasticity in the bulk single-crystalline van der Waals semiconductor InSe. <i>Science</i> , 2020, 369, 542-545.	6.0	163

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19	Discovery of high-performance thermoelectric copper chalcogenide using modified diffusion-couple high-throughput synthesis and automated histogram analysis technique. <i>Energy and Environmental Science</i> , 2020, 13, 3041-3053.	15.6	43
20	Cu ₂ Se-Based liquid-like thermoelectric materials: looking back and stepping forward. <i>Energy and Environmental Science</i> , 2020, 13, 3307-3329.	15.6	106
21	Number mismatch between cations and anions as an indicator for low lattice thermal conductivity in chalcogenides. <i>Npj Computational Materials</i> , 2020, 6, .	3.5	13
22	Anion-site-modulated thermoelectric properties in Ge ₂ Sb ₂ Te ₅ -based compounds. <i>Rare Metals</i> , 2020, 39, 1127-1133.	3.6	12
23	Copper chalcogenide thermoelectric materials. <i>Science China Materials</i> , 2019, 62, 8-24.	3.5	111
24	Largely Enhanced Seebeck Coefficient and Thermoelectric Performance by the Distortion of Electronic Density of States in Ge ₂ Sb ₂ Te ₅ . <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 34046-34052.	4.0	38
25	Flexible thermoelectrics: from silver chalcogenides to full-inorganic devices. <i>Energy and Environmental Science</i> , 2019, 12, 2983-2990.	15.6	188
26	Thermoelectric properties of non-stoichiometric Cu _{2+x} Sn _{1-x} S ₃ compounds. <i>Journal of Applied Physics</i> , 2019, 126, .	1.1	35
27	Thermoelectric properties of n-type Cu ₄ Sn ₇ S ₁₆ -based compounds. <i>RSC Advances</i> , 2019, 9, 7826-7832.	1.7	26
28	Dopant-Dependent Increase in Seebeck Coefficient and Electrical Conductivity in Blended Polymers with Offset Carrier Energies. <i>Advanced Electronic Materials</i> , 2019, 5, 1800618.	2.6	34
29	Quasi-two-dimensional GeSbTe compounds as promising thermoelectric materials with anisotropic transport properties. <i>Applied Physics Letters</i> , 2019, 114, .	1.5	23
30	Comparing the role of annealing on the transport properties of polymorphous AgBiSe ₂ and monophasic AgSbSe ₂ . <i>RSC Advances</i> , 2018, 8, 7055-7061.	1.7	16
31	How to Measure Thermoelectric Properties Reliably. <i>Joule</i> , 2018, 2, 2183-2188.	11.7	65
32	Low-cost and environmentally benign selenides as promising thermoelectric materials. <i>Journal of Materiomics</i> , 2018, 4, 304-320.	2.8	73
33	Enhanced thermoelectric performance of two dimensional MS ₂ (M=Mo, W) through phase engineering. <i>Journal of Materiomics</i> , 2018, 4, 329-337.	2.8	21
34	Enhanced Thermoelectric Performance in n-Type Bi ₂ Te ₃ -Based Alloys via Suppressing Intrinsic Excitation. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 21372-21380.	4.0	76
35	Thermoelectric SnS and SnS-SnSe solid solutions prepared by mechanical alloying and spark plasma sintering: Anisotropic thermoelectric properties. <i>Scientific Reports</i> , 2017, 7, 43262.	1.6	71
36	Thermoelectric transport properties of polycrystalline SnSe alloyed with PbSe. <i>Applied Physics Letters</i> , 2017, 110, .	1.5	52

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37	Doping of thermoelectric PbSe with chemically inert secondary phase nanoparticles. Journal of Materials Chemistry C, 2017, 5, 10881-10887.	2.7	23
38	Processing of advanced thermoelectric materials. Science China Technological Sciences, 2017, 60, 1347-1364.	2.0	79
39	Nanoporous PbSe@SiO ₂ Thermoelectric Composites. Advanced Science, 2017, 4, 1700199.	5.6	39
40	Distinct Impact of Alkali-Ion Doping on Electrical Transport Properties of Thermoelectric p-Type Polycrystalline SnSe. Journal of the American Chemical Society, 2016, 138, 8875-8882.	6.6	298
41	Mechanical Alloying and Spark Plasma Sintering of BiCuSeO Oxyselenide: Synthesis Process and Thermoelectric Properties. Journal of the American Ceramic Society, 2016, 99, 507-514.	1.9	18
42	Enhancing average ZT in pristine PbSe by over-stoichiometric Pb addition. APL Materials, 2016, 4, 104801.	2.2	32
43	High thermoelectric performance of all-oxide heterostructures with carrier double-barrier filtering effect. NPG Asia Materials, 2015, 7, e182-e182.	3.8	32
44	Low thermal conductivity of Bi ₂ Mo ₂ O ₉ ceramics. Journal of Alloys and Compounds, 2015, 646, 298-302.	2.8	3
45	Electrical and thermal transport properties of Pb _{1-x} Sn _x Se solid solution thermoelectric materials. Physical Chemistry Chemical Physics, 2015, 17, 13006-13012.	1.3	40
46	Mechanically enhanced p- and n-type Bi ₂ Te ₃ -based thermoelectric materials reprocessed from commercial ingots by ball milling and spark plasma sintering. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2015, 197, 75-81.	1.7	69
47	Is Cu ₃ SbSe ₃ a promising thermoelectric material?. RSC Advances, 2015, 5, 42848-42854.	1.7	27
48	Thermoelectric transport properties of pristine and Na-doped SnSe _{1-x} Te _x polycrystals. Physical Chemistry Chemical Physics, 2015, 17, 30102-30109.	1.3	154
49	Electrical and thermal transport properties of spark plasma sintered n-type Bi ₂ Te _{3-x} Se _x alloys: the combined effect of point defect and Se content. Journal of Materials Chemistry C, 2015, 3, 10583-10589.	2.7	122
50	PbTe-based thermoelectric nanocomposites with reduced thermal conductivity by SiC nanodispersion. Applied Physics Letters, 2014, 104, .	1.5	42
51	Enhanced Thermoelectric Performance of Nonstoichiometric Compounds Cu _{3-x} SbSe ₄ by Cu Deficiencies. Journal of Electronic Materials, 2014, 43, 2229-2238.	1.0	41
52	Thermal stability and oxidation resistance of BiCuSeO based thermoelectric ceramics. Journal of Alloys and Compounds, 2014, 614, 394-400.	2.8	44
53	Thermoelectrics with earth abundant elements: low thermal conductivity and high thermopower in doped SnS. Journal of Materials Chemistry A, 2014, 2, 17302-17306.	5.2	246
54	Thermoelectric properties of Sn-doped p-type Cu ₃ SbSe ₄ : a compound with large effective mass and small band gap. Journal of Materials Chemistry A, 2014, 2, 13527-13533.	5.2	112

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55	Composition optimization of p-type Ag _{1-x} Sn _x SbTe _{1-y} thermoelectric materials synthesized by mechanical alloying and spark plasma sintering. <i>Journal of Alloys and Compounds</i> , 2014, 615, 451-455.	2.8	15
56	Enhanced thermoelectric performance of Ca-doped BiCuSeO in a wide temperature range. <i>Journal of Materials Chemistry A</i> , 2013, 1, 11942.	5.2	128
57	Plastic Inorganic Semiconductors for Flexible Electronics. , 0, , .		0