

# Guang Han

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

81  
papers

2,544  
citations

25  
h-index

49  
g-index

86  
ext. papers

3,148  
ext. citations

9  
avg, IF

5.24  
L-index

#	Paper	IF	Citations
81	Unconventional Doping Effect Leads to Ultrahigh Average Thermoelectric Power Factor in Cu SbSe-based Composites.. <i>Advanced Materials</i> , <b>2022</b> , e2109952	24	6
80	Constructing n-type Ag <sub>2</sub> Se/CNTs composites toward synergistically enhanced thermoelectric and mechanical performance. <i>Acta Materialia</i> , <b>2022</b> , 223, 117502	8.4	4
79	Self-assembled epitaxy of Ga <sub>2</sub> Se <sub>3</sub> on the oxidized GaSe surface and atomic imaging of the Ga <sub>2</sub> Se <sub>3</sub> /GaSe heterostructure. <i>Applied Surface Science</i> , <b>2022</b> , 586, 152774	6.7	0
78	Attaining enhanced thermoelectric performance in p-type (SnSe) <sub>1-x</sub> (SnS <sub>2</sub> ) produced via sintering their solution-synthesized micro/nanostructures. <i>Journal of Materials Science and Technology</i> , <b>2022</b> , 120, 205-213	9.1	0
77	Revealing the intrinsic p-to-n transition mechanism on Mg <sub>3</sub> Sb <sub>2</sub> through extra Mg. <i>Applied Physics Letters</i> , <b>2022</b> , 120, 173902	3.4	0
76	A new insight into heterogeneous nucleation mechanism of Al by non-stoichiometric TiCx. <i>Acta Materialia</i> , <b>2022</b> , 233, 117977	8.4	1
75	Simultaneously optimized thermoelectric and mechanical performance of p-type polycrystalline SnSe enabled by CNTs addition. <i>Scripta Materialia</i> , <b>2022</b> , 218, 114846	5.6	1
74	Realizing Enhanced Thermoelectric Performance and Hardness in Icosahedral Cu FeS Se with High-Density Twin Boundaries. <i>Small</i> , <b>2021</b> , e2104592	11	6
73	Nitrogen-doped activated porous carbon for 4.5V lithium-ion capacitor with high energy and power density. <i>Journal of Energy Storage</i> , <b>2021</b> , 47, 103675	7.8	1
72	Realizing Cd and Ag codoping in p-type Mg <sub>3</sub> Sb <sub>2</sub> toward high thermoelectric performance. <i>Journal of Magnesium and Alloys</i> , <b>2021</b> ,	8.8	7
71	Exceptional Performance Driven by Planar Honeycomb Structure in a New High Temperature Thermoelectric Material BaAgAs. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2100583	15.6	8
70	Identification of vibrational mode symmetry and phonon anharmonicity in SbCrSe <sub>3</sub> single crystal using Raman spectroscopy. <i>Science China Materials</i> , <b>2021</b> , 64, 2824-2834	7.1	1
69	Regulating the electronic structure of ReS <sub>2</sub> by Mo doping for electrocatalysis and lithium storage. <i>Chemical Engineering Journal</i> , <b>2021</b> , 414, 128811	14.7	5
68	Melt-spun Sn <sub>1-x</sub> Bb <sub>x</sub> Mn Te with unique multiscale microstructures approaching exceptional average thermoelectric zT. <i>Nano Energy</i> , <b>2021</b> , 84, 105879	17.1	21
67	Solution-Synthesized SnSeS: Dual-Functional Materials with Enhanced Electrochemical Storage and Thermoelectric Performance. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 37201-37211	9.5	1
66	Achieving enhanced thermoelectric performance of Ca <sub>1-x</sub> LaxSryMnO <sub>3</sub> via synergistic carrier concentration optimization and chemical bond engineering. <i>Chemical Engineering Journal</i> , <b>2021</b> , 408, 127364	14.7	5
65	Realizing enhanced thermoelectric properties in Cu <sub>2</sub> S-alloyed SnSe based composites produced via solution synthesis and sintering. <i>Journal of Materials Science and Technology</i> , <b>2021</b> , 78, 121-130	9.1	18

64	Thermoelectric performance of binary lithium-based compounds: Li <sub>3</sub> Sb and Li <sub>3</sub> Bi. <i>Applied Physics Letters</i> , <b>2021</b> , 119, 033901	3.4	4
63	Phase Tuning for Enhancing the Thermoelectric Performance of Solution-Synthesized CuS. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 39541-39549	9.5	0
62	Phase Composition Manipulation and Twin Boundary Engineering Lead to Enhanced Thermoelectric Performance of Cu <sub>2</sub> SnS <sub>3</sub> . <i>ACS Applied Energy Materials</i> , <b>2021</b> , 4, 9240-9247	6.1	4
61	Band convergence and thermoelectric performance enhancement of InSb via Bi doping. <i>Intermetallics</i> , <b>2021</b> , 139, 107347	3.5	2
60	Ultralow Lattice Thermal Conductivity of Cubic CuFeS <sub>2</sub> Induced by Atomic Disorder. <i>Chemistry of Materials</i> , <b>2021</b> , 33, 9795-9802	9.6	3
59	Manipulating the phase transformation temperature to achieve cubic Cu <sub>5</sub> FeS <sub>4</sub> and enhanced thermoelectric performance. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 17222-17228	7.1	4
58	Dynamic Epitaxial Crystallization of SnSe on the Oxidized SnSe Surface and Its Atomistic Mechanisms. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> ,	9.5	6
57	Strong lattice anharmonicity securing intrinsically low lattice thermal conductivity and high performance thermoelectric SnSb <sub>2</sub> Te <sub>4</sub> via Se alloying. <i>Nano Energy</i> , <b>2020</b> , 76, 105084	17.1	20
56	Facile microwave-assisted hydrothermal synthesis of SnSe: impurity removal and enhanced thermoelectric properties. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 10333-10341	7.1	11
55	General surfactant-free synthesis of binary silver chalcogenides with tuneable thermoelectric properties. <i>Chemical Engineering Journal</i> , <b>2020</b> , 393, 124763	14.7	22
54	Morphology and Texture Engineering Enhancing Thermoelectric Performance of Solvothermal Synthesized Ultralarge SnS Microcrystal. <i>ACS Applied Energy Materials</i> , <b>2020</b> , 3, 2192-2199	6.1	12
53	Texture-dependent thermoelectric properties of nano-structured Bi <sub>2</sub> Te <sub>3</sub> . <i>Chemical Engineering Journal</i> , <b>2020</b> , 388, 124295	14.7	72
52	Enhancing the Thermoelectric Performance of p-Type MgSb via Codoping of Li and Cd. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 8359-8365	9.5	25
51	Facile in situ solution synthesis of SnSe/rGO nanocomposites with enhanced thermoelectric performance. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 1394-1402	13	70
50	Exploring thermoelectric performance of Ca <sub>3</sub> Co <sub>4</sub> O <sub>9</sub> + ceramics via chemical electroless plating with Cu. <i>Journal of Alloys and Compounds</i> , <b>2020</b> , 821, 153522	5.7	5
49	Structure-Dependent Thermoelectric Properties of GeSeTe (0 <math>\leq x </math> 0.5). <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 41381-41389	9.5	12
48	Achieving Enhanced Thermoelectric Performance in (SnTe)(SbTe) and (SnTe)(SbSe) Synthesized via Solvothermal Reaction and Sintering. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 44805-44814	9.5	11
47	Nanostructured monoclinic CuSe as a near-room-temperature thermoelectric material. <i>Nanoscale</i> , <b>2020</b> , 12, 20536-20542	7.7	17

46	Anion-exchange synthesis of thermoelectric layered SnS <sub>0.1</sub> Se <sub>0.9</sub> Te <sub>x</sub> nano/microstructures in aqueous solution: complexity and carrier concentration. <i>Journal of Materials Chemistry C</i> , <b>2019</b> , 7, 7572-7579	7.1	11
45	Realizing Bi-doped BiCu <sub>2</sub> Se as a promising near-room-temperature thermoelectric material. <i>Chemical Engineering Journal</i> , <b>2019</b> , 371, 593-599	14.7	34
44	Structural Core-Shell beyond Chemical Homogeneity in Non-Stoichiometric CuFeS Nano-Icosahedrons: An in Situ Heating TEM Study. <i>Nanomaterials</i> , <b>2019</b> , 10,	5.4	3
43	A new indium selenide phase: controllable synthesis, phase transformation and photoluminescence properties. <i>Journal of Materials Chemistry C</i> , <b>2019</b> , 7, 13573-13584	7.1	4
42	Conceptual design and performance evaluation of a hybrid concentrating photovoltaic system in preparation for energy. <i>Energy</i> , <b>2018</b> , 147, 547-560	7.9	18
41	Twin Engineering in Solution-Synthesized Nonstoichiometric Cu <sub>5</sub> FeS <sub>4</sub> Icosahedral Nanoparticles for Enhanced Thermoelectric Performance. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1705117	15.6	37
40	Topotactic anion-exchange in thermoelectric nanostructured layered tin chalcogenides with reduced selenium content. <i>Chemical Science</i> , <b>2018</b> , 9, 3828-3836	9.4	24
39	High thermoelectric performance of CuSbSe nanocrystals with CuSe in situ inclusions synthesized by a microwave-assisted solvothermal method. <i>Nanoscale</i> , <b>2018</b> , 10, 14546-14553	7.7	19
38	Chlorine-Enabled Electron Doping in Solution-Synthesized SnSe Thermoelectric Nanomaterials. <i>Advanced Energy Materials</i> , <b>2017</b> , 7, 1602328	21.8	48
37	A coupled optical-thermal-electrical model to predict the performance of hybrid PV/T-CCPC roof-top systems. <i>Renewable Energy</i> , <b>2017</b> , 112, 166-186	8.1	17
36	n-type Bi-doped PbTe Nanocubes with Enhanced Thermoelectric Performance. <i>Nano Energy</i> , <b>2017</b> , 31, 105-112	17.1	84
35	Multiphysics simulations of thermoelectric generator modules with cold and hot blocks and effects of some factors. <i>Case Studies in Thermal Engineering</i> , <b>2017</b> , 10, 63-72	5.6	26
34	A scaling law for monocrystalline PV/T modules with CCPC and comparison with triple junction PV cells. <i>Applied Energy</i> , <b>2017</b> , 202, 755-771	10.7	6
33	Large-Scale Surfactant-Free Synthesis of p-Type SnTe Nanoparticles for Thermoelectric Applications. <i>Materials</i> , <b>2017</b> , 10,	3.5	18
32	Thermal performance of two heat exchangers for thermoelectric generators. <i>Case Studies in Thermal Engineering</i> , <b>2016</b> , 8, 164-175	5.6	28
31	Ba <sub>6</sub> B <sub>x</sub> Nd <sub>8+2x</sub> Ti <sub>18</sub> O <sub>54</sub> Tungsten Bronze: A New High-Temperature n-Type Oxide Thermoelectric. <i>Journal of Electronic Materials</i> , <b>2016</b> , 45, 1894-1899	1.9	14
30	Impacts of Cu deficiency on the thermoelectric properties of Cu <sub>2</sub> Se nanoplates. <i>Acta Materialia</i> , <b>2016</b> , 113, 140-146	8.4	58
29	A novel absorptive/reflective solar concentrator for heat and electricity generation: An optical and thermal analysis. <i>Energy Conversion and Management</i> , <b>2016</b> , 114, 142-153	10.6	16

28	Co-doped Sb <sub>2</sub> Te <sub>3</sub> paramagnetic nanoplates. <i>Journal of Materials Chemistry C</i> , <b>2016</b> , 4, 521-525	7.1	10
27	Facile Surfactant-Free Synthesis of p-Type SnSe Nanoplates with Exceptional Thermoelectric Power Factors. <i>Angewandte Chemie</i> , <b>2016</b> , 128, 6543-6547	3.6	8
26	Facile Surfactant-Free Synthesis of p-Type SnSe Nanoplates with Exceptional Thermoelectric Power Factors. <i>Angewandte Chemie - International Edition</i> , <b>2016</b> , 55, 6433-7	16.4	71
25	Phase control and formation mechanism of AlMn(Be) intermetallic particles in MgAl-based alloys with FeCl <sub>3</sub> addition or melt superheating. <i>Acta Materialia</i> , <b>2016</b> , 114, 54-66	8.4	35
24	Te-Doped Cu <sub>2</sub> Se nanoplates with a high average thermoelectric figure of merit. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 9213-9219	13	67
23	In <sub>3</sub> Se <sub>4</sub> and S-doped In <sub>3</sub> Se <sub>4</sub> nano/micro-structures as new anode materials for Li-ion batteries. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 7560-7567	13	11
22	High-performance thermoelectric Cu <sub>2</sub> Se nanoplates through nanostructure engineering. <i>Nano Energy</i> , <b>2015</b> , 16, 367-374	17.1	169
21	Enhanced Thermoelectric Performance of Ultrathin Bi <sub>2</sub> Se <sub>3</sub> Nanosheets through Thickness Control. <i>Advanced Electronic Materials</i> , <b>2015</b> , 1, 1500025	6.4	49
20	Enhanced Thermoelectric Performance of Nanostructured Bi <sub>2</sub> Te <sub>3</sub> through Significant Phonon Scattering. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 23694-9	9.5	155
19	Rational design of Bi <sub>2</sub> Te <sub>3</sub> polycrystalline whiskers for thermoelectric applications. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 989-95	9.5	47
18	Understanding the stepwise capacity increase of high energy low-Co Li-rich cathode materials for lithium ion batteries. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 18767-18774	13	43
17	Long wavelength emissions of Se <sup>4+</sup> -doped In <sub>2</sub> O <sub>3</sub> hierarchical nanostructures. <i>Journal of Materials Chemistry C</i> , <b>2014</b> , 2, 6529	7.1	8
16	Indium selenides: structural characteristics, synthesis and their thermoelectric performances. <i>Small</i> , <b>2014</b> , 10, 2747-65	11	201
15	In-doped Bi <sub>2</sub> Se <sub>3</sub> hierarchical nanostructures as anode materials for Li-ion batteries. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 7109	13	52
14	Paramagnetic Cu-doped Bi <sub>2</sub> Te <sub>3</sub> nanoplates. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 053105	3.4	19
13	A new crystal: layer-structured rhombohedral In <sub>3</sub> Se <sub>4</sub> . <i>CrystEngComm</i> , <b>2014</b> , 16, 393-398	3.3	25
12	Trifold Tellurium One-Dimensional Nanostructures and Their Formation Mechanism. <i>Crystal Growth and Design</i> , <b>2013</b> , 13, 4796-4802	3.5	16
11	Phase Control and Formation Mechanism of New-Phase Layer-Structured Rhombohedral In <sub>3</sub> Se <sub>4</sub> Hierarchical Nanostructures. <i>Crystal Growth and Design</i> , <b>2013</b> , 13, 5092-5099	3.5	15

10	T-Shaped Bi <sub>2</sub> Te <sub>3</sub> /Te Heteronanojunctions: Epitaxial Growth, Structural Modeling, and Thermoelectric Properties. <i>Journal of Physical Chemistry C</i> , <b>2013</b> , 117, 12458-12464	3.8	51
9	Thermal stability and oxidation of layer-structured rhombohedral In <sub>3</sub> Se <sub>4</sub> nanostructures. <i>Applied Physics Letters</i> , <b>2013</b> , 103, 263105	3.4	19
8	High Curie temperature Bi(1.85)Mn(0.15)Te <sub>3</sub> nanoplates. <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 18920-3	16.4	29
7	Nanostructured thermoelectric materials: Current research and future challenge. <i>Progress in Natural Science: Materials International</i> , <b>2012</b> , 22, 535-549	3.6	485
6	Grain refining efficiency of a new Al <sub>0.6</sub> B <sub>0.6</sub> C master alloy on AZ63 magnesium alloy. <i>Journal of Alloys and Compounds</i> , <b>2010</b> , 491, 165-169	5.7	17
5	Grain refinement of Mg/Al based alloys by a new Al <sub>0.6</sub> C master alloy. <i>Journal of Alloys and Compounds</i> , <b>2009</b> , 467, 202-207	5.7	27
4	Effect of manganese on the microstructure of Mg/Al alloy. <i>Journal of Alloys and Compounds</i> , <b>2009</b> , 486, 136-141	5.7	17
3	Duplex nucleation in Mg/Al/Zn/Mn alloys with carbon inoculation. <i>Journal of Alloys and Compounds</i> , <b>2009</b> , 487, 194-197	5.7	19
2	Grain refinement of AZ31 magnesium alloy by new Al-Ti-C master alloys. <i>Transactions of Nonferrous Metals Society of China</i> , <b>2009</b> , 19, 1057-1064	3.3	20
1	Phase Modulation Enabled High Thermoelectric Performance in Polycrystalline GeSe <sub>0.75</sub> Te <sub>0.25</sub> . <i>Advanced Functional Materials</i> , 2111238	15.6	3