Guo-Qiang Liu

List of Publications by Year
in descending order

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68	1,931	218381	276539
papers	citations	26 h-index	41 g-index

68	68	68	1523
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Valence band engineering and thermoelectric performance optimization in SnTe by Mn-alloying via a zone-melting method. Journal of Materials Chemistry A, 2015, 3, 19974-19979.	5.2	141
2	Enhanced thermoelectric performance in p-type polycrystalline SnSe benefiting from texture modulation. Journal of Materials Chemistry C, 2016, 4, 1201-1207.	2.7	125
3	Optimization of thermoelectric properties in n-type SnSe doped with BiCl3. Applied Physics Letters, 2016, 108, .	1.5	103
4	Manipulating Band Convergence and Resonant State in Thermoelectric Material SnTe by Mnâ€“In Codoping. ACS Energy Letters, 2017, 2, 1203-1207.	8.8	98
5	High thermoelectric performance in two-dimensional graphyne sheets predicted by first-principles calculations. Physical Chemistry Chemical Physics, 2015, 17, 22872-22881.	1.3	77
6	Designing band engineering for thermoelectrics starting from the periodic table of elements. Materials Today Physics, 2018, 7, 35-44.	2.9	75
7	Enhanced thermopower in rock-salt SnTeâ€“CdTe from band convergence. RSC Advances, 2016, 6, 32189-32192.	1.7	72
8	A first-principles study on the phonon transport in layered BiCuOSe. Scientific Reports, 2016, 6, 21035.	1.6	52
9	Texturing degree boosts thermoelectric performance of silver-doped polycrystalline SnSe. NPG Asia Materials, 2017, 9, e426-e426.	3.8	49
10	Optimizing the thermoelectric performance of Inâ€“Cd codoped SnTe by introducing Sn vacancies. Journal of Materials Chemistry C, 2017, 5, 7504-7509.	2.7	46
11	Thermoelectric properties of In-Hg co-doping in SnTe: Energy band engineering. Journal of Materiomics, 2018, 4, 62-67.	2.8	44
12	Phonon Engineering for Thermoelectric Enhancement of p-Type Bismuth Telluride by a Hot-Pressing Texture Method. ACS Applied Materials & Interfaces, 2020, 12, 31612-31618.	4.0	41
13	Enhanced thermoelectric performance in n-type polycrystalline SnSe by PbBr₂ doping. RSC Advances, 2017, 7, 17906-17912.	1.7	40
14	Synergetic optimization of electronic and thermal transport for high-performance thermoelectric GeSeâ€“AgSbTe₂ alloy. Journal of Materials Chemistry A, 2018, 6, 8215-8220.	5.2	38
15	Nontrivial thermoelectric behavior in cubic SnSe driven by spin-orbit coupling. Nano Energy, 2018, 51, 649-655.	8.2	37
16	Synergistically Optimized Thermoelectric Performance in Bi_{0.48}Sb_{1.52}Te₃ by Hot Deformation and Cu Doping. ACS Applied Energy Materials, 2019, 2, 6714-6719.	2.5	37
17	Thermoelectric (Bi,Sb)2Te3â€“Ge0.5Mn0.5Te composites with excellent mechanical properties. Journal of Materials Chemistry A, 2019, 7, 9241-9246.	5.2	37
18	Ultralow Lattice Thermal Conductivity in SnTe by Manipulating the Electronâ€“Phonon Coupling. Journal of Physical Chemistry C, 2019, 123, 15996-16002.	1.5	36

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19	Band engineering and crystal field screening in thermoelectric Mg₃Sb₂. Journal of Materials Chemistry A, 2019, 7, 8922-8928.	5.2	36
20	Biâ€“Zn codoping in GeTe synergistically enhances band convergence and phonon scattering for high thermoelectric performance. Journal of Materials Chemistry A, 2020, 8, 21642-21648.	5.2	36
21	Fermi-surface dynamics and high thermoelectric performance along the out-of-plane direction in n-type SnSe crystals. Energy and Environmental Science, 2020, 13, 616-621.	15.6	32
22	Synthesis of SnTe/AgSbSe 2 nanocomposite as a promising lead-free thermoelectric material. Journal of Materiomics, 2016, 2, 165-171.	2.8	31
23	Investigating the thermoelectric performance of n-type SnSe: the synergistic effect of NbCl₅ doping and dislocation engineering. Journal of Materials Chemistry C, 2020, 8, 13244-13252.	2.7	31
24	Refined band structure plus enhanced phonon scattering realizes thermoelectric performance optimization in Culâ€“Mn codoped SnTe. Journal of Materials Chemistry A, 2021, 9, 13065-13070.	5.2	30
25	Study on Thermoelectric Properties of Polycrystalline SnSe by Ge Doping. Journal of Electronic Materials, 2017, 46, 3182-3186.	1.0	29
26	Thermoelectric properties of textured polycrystalline Na_{0.03}Sn_{0.97}Se enhanced by hot deformation. Journal of Materials Chemistry A, 2018, 6, 23730-23735.	5.2	27
27	Effects of AgBiSe2 on thermoelectric properties of SnTe. Chemical Engineering Journal, 2020, 390, 124585.	6.6	24
28	Enhanced Thermoelectric and Mechanical Performances in Sintered Bi_{0.48}Sb_{1.52}Te₃â€“AgSbSe₂ Composite. ACS Applied Materials & Interfaces, 2021, 13, 24937-24944.	4.0	23
29	Improved thermoelectric performance in PbSeâ€“AgSbSe2 by manipulating the spin-orbit coupling effects. Nano Energy, 2020, 78, 105232.	8.2	22
30	Enhanced thermoelectric performance of p-type sintered BiSbTe-based composites with AgSbTe2 addition. Ceramics International, 2021, 47, 725-731.	2.3	22
31	Raised solubility in SnTe by GeMnTe2 alloying enables converged valence bands, low thermal conductivity, and high thermoelectric performance. Nano Energy, 2022, 94, 106940.	8.2	22
32	Ultralow thermal conductivity and improved ZT of CuInTe2 by high-entropy structure design. Materials Today Physics, 2021, 18, 100394.	2.9	21
33	Band flattening and phonon-defect scattering in cubic SnSeâ€“AgSbTe2 alloy for thermoelectric enhancement. Materials Today Physics, 2021, 16, 100298.	2.9	20
34	Synergistic effects of B-In codoping in zone-melted Bi0.48Sb1.52Te3-based thermoelectric. Chemical Engineering Journal, 2021, 420, 130381.	6.6	20
35	Improvement of thermoelectric properties of SnTe by Mn Bi codoping. Chemical Engineering Journal, 2021, 421, 127795.	6.6	20
36	Optimized orientation and enhanced thermoelectric performance in Sn_{0.97}Na_{0.03}Se with Te addition. Journal of Materials Chemistry C, 2019, 7, 2653-2658.	2.7	19

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37	Optimized Thermoelectric Properties of Bi_{0.48}Sb_{1.52}Te₃ through AgCuTe Doping for Low-Grade Heat Harvesting. ACS Applied Materials & Interfaces, 2021, 13, 57514-57520.	4.0	19
38	Microstructure engineering beyond SnSe1-xSx solid solution for high thermoelectric performance. Journal of Materiomics, 2018, 4, 321-328.	2.8	18
39	Enhanced Thermoelectric Properties of p-Type Bi_{0.48}Sb_{1.52}Te₃/Sb₂Te₃ Composite. ACS Applied Materials & Interfaces, 2020, 12, 52922-52928.	4.0	18
40	Achieving High Thermoelectric Performance of n-Type Bi₂Te_{2.79}Se_{0.21} Sintered Materials by Hot-Stacked Deformation. ACS Applied Materials & Interfaces, 2021, 13, 15429-15436.	4.0	18
41	Structure and thermoelectric properties of the n-type clathrate Ba8Cu5.1Ge40.2Sn0.7. Journal of Materials Chemistry A, 2015, 3, 19100-19106.	5.2	17
42	Enhanced thermoelectric performance in p-type polycrystalline SnSe by Cu doping. Journal of Materials Science: Materials in Electronics, 2018, 29, 18727-18732.	1.1	17
43	Improved Thermoelectric Properties of BiSbTe-AgBiSe₂ Alloys by Suppressing Bipolar Excitation. ACS Applied Energy Materials, 2021, 4, 2944-2950.	2.5	17
44	Exotic spin-orbital Mott insulating states in BaIrO3. Physical Review B, 2013, 87, .	1.1	16
45	Broadening the optimum thermoelectric power generation range of p-type sintered Bi0.4Sb1.6Te3 by suppressing bipolar effect. Chemical Engineering Journal, 2021, 426, 131853.	6.6	16
46	Expand band gap and suppress bipolar excitation to optimize thermoelectric performance of Bi0.35Sb1.65Te3 sintered materials. Materials Today Physics, 2021, 21, 100544.	2.9	15
47	Thermoelectric Performance Optimization and Phase Transition of GeTe by Alloying with Orthorhombic CuSbSe₂. ACS Applied Energy Materials, 2021, 4, 4242-4247.	2.5	14
48	Enhanced power factor in the promising thermoelectric material SnPb_xTe prepared via zone-melting. RSC Advances, 2015, 5, 59379-59383.	1.7	13
49	Boosting the Thermoelectric Performance of PbSe from the Band Convergence Driven By Spinâ€Orbit Coupling. Advanced Energy Materials, 2022, 12, 2103287.	10.2	13
50	Texture Development and Grain Alignment of Hotâ€Pressed Tetradymite Bi_{0.48}Sb_{1.52}Te₃ via Powder Molding. Energy Technology, 2019, 7, 1900814.	1.8	11
51	Entropy Engineering Realized Ultralow Thermal Conductivity and High Seebeck Coefficient in Lead-Free SnTe. ACS Applied Energy Materials, 2021, 4, 12738-12744.	2.5	10
52	Spin-glass behavior and magnetocaloric properties of high-entropy perovskite oxides. Applied Physics Letters, 2022, 120, .	1.5	10
53	Investigation on structure and thermoelectric properties in p-type Bi0.48Sb1.52Te3 via PbTe incorporating. Journal of Materials Science: Materials in Electronics, 2018, 29, 7701-7706.	1.1	9
54	A high-efficiency GeTe-based thermoelectric module for low-grade heat recovery. Journal of Materials Chemistry A, 2022, 10, 7677-7683.	5.2	9

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55	Synergistically Optimized Thermal Conductivity and Carrier Concentration in GeTe by Biâ€“Se Codoping. ACS Applied Materials & Interfaces, 2022, 14, 14359-14366.	4.0	9
56	Synergistic Manipulation of Interdependent Thermoelectric Parameters in SnTeâ€“AgBiTe₂ Alloys by Mn Doping. ACS Applied Materials & Interfaces, 2022, 14, 29032-29038.	4.0	8
57	Understanding the Band Engineering in Mg₂Siâ€Based Systems from Wannierâ€Orbital Analysis. Annalen Der Physik, 2020, 532, 1900543.	0.9	5
58	Dramatically enhanced Seebeck coefficient in GeMnTe2â€“NaBiTe2 alloys by tuning the Spin's thermodynamic entropy. Physical Chemistry Chemical Physics, 2021, 23, 17866-17872.	1.3	5
59	Unusually high Seebeck coefficient arising from temperature-dependent carrier concentration in PbSeâ€“AgSbSe₂ alloys. Journal of Materials Chemistry C, 2021, 9, 17365-17370.	2.7	5
60	Optimized thermoelectric properties of Bi_{0.48}Sb_{1.52}Te₃/BN composites. Journal of Materials Chemistry C, 2022, 10, 3172-3177.	2.7	5
61	Origin of the unique thermoelectric transport in Mg₃(Sb,Bi)₂: absence of d-orbital bonding in crystal cohesion. Journal of Materials Chemistry A, 2022, 10, 11131-11136.	5.2	5
62	Anomalous Thermopower and High ZT in GeMnTe ₂ Driven by Spinâ€™s Thermodynamic Entropy. Research, 2021, 2021, 1949070.	2.8	4
63	Single Crystal Structure Study of Type I Clathrate $$hbox {K}_{8}hbox {Zn}_4hbox {Sn}_{42}$$ K 8 Zn 4 Sn 42 and $$hbox {K}_8hbox {In}_8hbox {Sn}_{38}$$ K 8 In 8 Sn 38. Journal of Electronic Materials, 2017, 46, 2765-2769.	1.0	3
64	Boosted carrier mobility and enhanced thermoelectric properties of polycrystalline Na_{0.03}Sn_{0.97}Se by liquid-phase hot deformation. Materials Advances, 2020, 1, 1092-1098.	2.6	3
65	Enhancement of the efficiency and thermal stability of the double perovskite Cs₂AgInCl₆ single crystal by Sc substitution. Materials Advances, 2022, 3, 4381-4386.	2.6	3
66	Designing High Entropy Structure in Thermoelectrics. Wuji Cailiao Xuebao/Journal of Inorganic Materials, 2021, 36, 399.	0.6	2
67	Synergistically Optimized Thermoelectric and Mechanical Properties in p â€Type BiSbTe by a Microdroplet Deposition Technique. Energy Technology, 2021, 9, 2001024.	1.8	1
68	Reduced iron ordered moment and negative TC-pressure coefficient in iron-arsenide superconductors. European Physical Journal B, 2015, 88, 1.	0.6	0