

Xingchen Shen

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7799963/publications.pdf>

Version: 2024-02-01

74
papers

3,274
citations

172457

29
h-index

149698

56
g-index

75
all docs

75
docs citations

75
times ranked

2921
citing authors

#	ARTICLE	IF	CITATIONS
1	Realizing Cd and Ag codoping in p-type Mg ₃ Sb ₂ toward high thermoelectric performance. <i>Journal of Magnesium and Alloys</i> , 2023, 11, 2486-2494.	11.9	19
2	Clustered piperidinium-functionalized poly(terphenylene) anion exchange membranes with well-developed conductive nanochannels. <i>Journal of Colloid and Interface Science</i> , 2022, 608, 1247-1256.	9.4	38
3	A Tunable Structural Family with Ultralow Thermal Conductivity: Copper-Deficient Cu _{1-x} Bi _{1-x} Pb _{1-x} Bi _{1-x} S _{3-x} . <i>Journal of the American Chemical Society</i> , 2022, 144, 1846-1860.	13.7	15
4	Unconventional Doping Effect Leads to Ultrahigh Average Thermoelectric Power Factor in Cu ₃ SbSe ₄ -Based Composites. <i>Advanced Materials</i> , 2022, 34, e2109952.	21.0	28
5	Exceptional Thermoelectric Performance Enabled by High Carrier Mobility and Intrinsically Low Lattice Thermal Conductivity in Phosphide Cd ₃ P ₂ . <i>Chemistry of Materials</i> , 2022, 34, 1620-1626.	6.7	9
6	Multi-Level Resistive Switching in SnSe/SrTiO ₃ Heterostructure Based Memristor Device. <i>Nanomaterials</i> , 2022, 12, 2128.	4.1	8
7	Strong anharmonicity induced low lattice thermal conductivity and high thermoelectric performance in (CuInTe) ₂ (AgSbTe) ₂ system. <i>Applied Physics Letters</i> , 2022, 121, 013903.	3.3	1
8	Investigation of electronic structure, magnetic stability, spin coupling, and thermodynamic properties of novel antiferromagnets XMn ₂ Y ₂ (X=Ca, Sr; Y=P, As). <i>Journal of Molecular Structure</i> , 2022, 1268, 133698.	3.6	9
9	Entropy Engineered Cubic n-Type AgBiSe ₂ Alloy with High Thermoelectric Performance in Fully Extended Operating Temperature Range. <i>Advanced Energy Materials</i> , 2021, 11, 2003304.	19.5	51
10	Boosting the thermoelectric performance of p-type polycrystalline SnSe with high doping efficiency via precipitation design. <i>Journal of Materials Chemistry A</i> , 2021, 9, 2991-2998.	10.3	10
11	Super deformability and thermoelectricity of bulk ³ InSe single crystals*. <i>Chinese Physics B</i> , 2021, 30, 078101.	1.4	12
12	Exceptional Performance Driven by Planar Honeycomb Structure in a New High Temperature Thermoelectric Material BaAgAs. <i>Advanced Functional Materials</i> , 2021, 31, 2100583.	14.9	25
13	Melt-spun Sn ¹⁺ Sb ²⁺ MnTe with unique multiscale microstructures approaching exceptional average thermoelectric zT. <i>Nano Energy</i> , 2021, 84, 105879.	16.0	46
14	Thermoelectric performance of binary lithium-based compounds: Li ₃ Sb and Li ₃ Bi. <i>Applied Physics Letters</i> , 2021, 119, .	3.3	7
15	The role of electronic affinity for dopants in thermoelectric transport properties of InTe. <i>Journal of Alloys and Compounds</i> , 2021, 869, 159224.	5.5	5
16	Phase Composition Manipulation and Twin Boundary Engineering Lead to Enhanced Thermoelectric Performance of Cu ₂ SnS ₃ . <i>ACS Applied Energy Materials</i> , 2021, 4, 9240-9247.	5.1	17
17	High thermoelectric performance of tellurium-free n-type AgBi _{1-x} Sb _x Se ₂ with stable cubic structure enabled by entropy engineering. <i>Acta Materialia</i> , 2021, 220, 117291.	7.9	18
18	Facile in situ solution synthesis of SnSe/rGO nanocomposites with enhanced thermoelectric performance. <i>Journal of Materials Chemistry A</i> , 2020, 8, 1394-1402.	10.3	117

#	ARTICLE	IF	CITATIONS
19	Ultra-small subnano TiO _x clusters as excellent cocatalysts for the photocatalytic degradation of tetracycline on plasmonic Ag/AgCl. <i>Catalysis Science and Technology</i> , 2020, 10, 147-153.	4.1	5
20	Enhanced thermoelectric properties of p-type argyrodites Cu ₈ GeS ₆ through Cu vacancy. <i>Journal of Alloys and Compounds</i> , 2020, 822, 153665.	5.5	27
21	Controllable synthesis of layered K _{0.296} Mn _{0.926} O ₂ to assemble 2.4 V aqueous potassium-ion supercapacitors for double high devices. <i>Journal of Materials Chemistry A</i> , 2020, 8, 17248-17256.	10.3	18
22	Synergistic effect of CuInSe ₂ alloying on enhancing the thermoelectric performance of Cu ₂ SnSe ₃ compounds. <i>Journal of Materials Chemistry A</i> , 2020, 8, 21181-21188.	10.3	10
23	Achieving Enhanced Thermoelectric Performance in (SnTe) _{1-x} (Sb ₂ Te ₃) _x and (SnTe) _{1-y} (Sb ₂ Se ₃) _y Synthesized via Solvothermal Reaction and Sintering. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 44805-44814.	8.0	26
24	Manipulating the phase transformation temperature to achieve cubic Cu ₅ FeS ₄ xSe _x and enhanced thermoelectric performance. <i>Journal of Materials Chemistry C</i> , 2020, 8, 17222-17228.	5.5	8
25	Facile microwave-assisted hydrothermal synthesis of SnSe: impurity removal and enhanced thermoelectric properties. <i>Journal of Materials Chemistry C</i> , 2020, 8, 10333-10341.	5.5	18
26	High Thermoelectric Performance in Sulfide-Type Argyrodites Compound Ag ₈ Sn(S _{1-x} Se _x) ₆ Enabled by Ultralow Lattice Thermal Conductivity and Extended Cubic Phase Regime. <i>Advanced Functional Materials</i> , 2020, 30, 2000526.	14.9	38
27	A dual mode electronic synapse based on layered SnSe films fabricated by pulsed laser deposition. <i>Nanoscale Advances</i> , 2020, 2, 1152-1160.	4.6	8
28	Realizing both n- and p-types of high thermoelectric performance in Fe _{1-x} Ni _x TiSb half-Heusler compounds. <i>Journal of Materials Chemistry C</i> , 2020, 8, 3156-3164.	5.5	11
29	High Thermoelectric Performance of Co-Doped P-Type Polycrystalline SnSe via Optimizing Electrical Transport Properties. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 8446-8455.	8.0	31
30	Thermoelectricity of n-type MnBi ₄ S _{7-7x} Se _{7x} solid solution. <i>Chemical Engineering Journal</i> , 2020, 396, 125219.	12.7	8
31	The unique evolution of transport bands and thermoelectric performance enhancement by extending low-symmetry phase to high temperature in tin selenide. <i>Journal of Materials Chemistry C</i> , 2020, 8, 9345-9351.	5.5	8
32	Thermoelectric study of Zn-doped n-type AgIn ₅ Se ₈ : Hopping and band electrical conduction along with low lattice thermal conduction in diamond-like structure. <i>Journal of Alloys and Compounds</i> , 2019, 805, 444-453.	5.5	6
33	Ultra-high Photocatalytic Rate at a Single-Metal-Oxide. <i>Advanced Materials</i> , 2019, 31, e1903491.	21.0	53
34	Synergistic Effect of Bismuth and Indium Codoping for High Thermoelectric Performance of Melt Spinning SnTe Alloys. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 23337-23345.	8.0	30
35	Enhanced thermoelectric properties of YbZn ₂ Sb ₂ x through a synergistic effect via Bi-doping. <i>Chemical Engineering Journal</i> , 2019, 374, 589-595.	12.7	38
36	Promoted high temperature carrier mobility and thermoelectric performance of InTe enabled by altering scattering mechanism. <i>Journal of Materials Chemistry A</i> , 2019, 7, 11690-11698.	10.3	25

#	ARTICLE	IF	CITATIONS
37	Sn vacancy engineering for enhancing the thermoelectric performance of two-dimensional SnS. <i>Journal of Materials Chemistry C</i> , 2019, 7, 3351-3359.	5.5	31
38	Synergistically optimized thermoelectric properties of $\text{Ag}_{1+x}\text{In}_5\text{Se}_8$ alloys. <i>Inorganic Chemistry Frontiers</i> , 2019, 6, 3545-3553.	6.0	5
39	High-Temperature Structural and Thermoelectric Study of Argyrodite Ag_8GeSe_6 . <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 2168-2176.	8.0	51
40	Rapid preparation of $\text{Ge}_{0.9}\text{Sb}_{0.1}\text{Te}_{1+x}$ via unique melt spinning: Hierarchical microstructure and improved thermoelectric performance. <i>Journal of Alloys and Compounds</i> , 2019, 774, 129-136.	5.5	16
41	Tin Sulfide: A New Nontoxic Earth-Abundant Thermoelectric Material. , 2019, , 47-61.		1
42	Routes for high-performance thermoelectric materials. <i>Materials Today</i> , 2018, 21, 974-988.	14.2	265
43	Low temperature thermoelectric properties of <i>p</i> -type doped single-crystalline SnSe. <i>Applied Physics Letters</i> , 2018, 112, .	3.3	24
44	Sodium-Doped Tin Sulfide Single Crystal: A Nontoxic Earth-Abundant Material with High Thermoelectric Performance. <i>Advanced Energy Materials</i> , 2018, 8, 1800087.	19.5	80
45	Twin Engineering in Solution-Synthesized Nonstoichiometric Cu_5FeS_4 Icosahedral Nanoparticles for Enhanced Thermoelectric Performance. <i>Advanced Functional Materials</i> , 2018, 28, 1705117.	14.9	53
46	Ultra-high average figure of merit in synergistic band engineered $\text{Sn}_{1-x}\text{Se}_{0.9}\text{S}_{0.1}$ single crystals. <i>Materials Today</i> , 2018, 21, 501-507.	14.2	71
47	Realizing high thermoelectric performance in Te nanocomposite through Sb_2Te_3 incorporation. <i>CrystEngComm</i> , 2018, 20, 7729-7738.	2.6	20
48	High thermoelectric performance in complex phosphides enabled by stereochemically active lone pair electrons. <i>Journal of Materials Chemistry A</i> , 2018, 6, 24877-24884.	10.3	28
49	Achieving higher thermoelectric performance for p-type $\text{Cr}_2\text{Ge}_2\text{Te}_6$ via optimizing doping. <i>Applied Physics Letters</i> , 2018, 113, .	3.3	12
50	High thermoelectric performance of Cu_3SbSe_4 nanocrystals with Cu_2Se in situ inclusions synthesized by a microwave-assisted solvothermal method. <i>Nanoscale</i> , 2018, 10, 14546-14553.	5.6	33
51	Two impurity energy level regulation leads to enhanced thermoelectric performance of $\text{Ag}_x\text{Cd}_x\text{In}_5\text{Se}_8$. <i>RSC Advances</i> , 2017, 7, 12719-12725.	3.6	8
52	Synergistic Strategy to Enhance the Thermoelectric Properties of $\text{CoSbS}_3\text{Se}_x$ Compounds via Solid Solution. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 10595-10601.	8.0	38
53	Super-fast preparation of Nd-filled p-type skutterudite compounds with enhanced thermoelectric properties. <i>Ceramics International</i> , 2017, 43, 7443-7447.	4.8	6
54	A Second Amorphous Layer Underneath Surface Oxide. <i>Microscopy and Microanalysis</i> , 2017, 23, 173-178.	0.4	16

#	ARTICLE	IF	CITATIONS
55	Grain size optimization for high-performance polycrystalline SnSe thermoelectrics. Journal of Materials Chemistry A, 2017, 5, 14053-14060.	10.3	53
56	Large-scale colloidal synthesis of Cu_5FeS_4 compounds and their application in thermoelectrics. Journal of Materials Chemistry C, 2017, 5, 301-308.	5.5	29
57	Grain boundary scattering effects on mobilities in p-type polycrystalline SnSe. Journal of Materials Chemistry C, 2017, 5, 10191-10200.	5.5	50
58	Dopant Induced Impurity Bands and Carrier Concentration Control for Thermoelectric Enhancement in p-Type $\text{Cr}_2\text{Ge}_2\text{Te}_6$. Chemistry of Materials, 2017, 29, 7401-7407.	6.7	53
59	High-Temperature Thermoelectric Properties of Ge-Substituted p-Type Nd-Filled Skutterudites. Journal of Electronic Materials, 2017, 46, 2958-2963.	2.2	6
60	Enhanced thermoelectric performance of chalcogenide $\text{Cu}_2\text{CdSnSe}_4$ by ex-situ homogeneous nano-inclusions. Journal of Materials, 2016, 2, 179-186.	5.7	14
61	Band structure engineering in highly degenerate tetrahedrites through isovalent doping. Journal of Materials Chemistry A, 2016, 4, 17096-17103.	10.3	44
62	The chemistry and structural thermal stability of hole-doped single crystalline SnSe. Journal of Alloys and Compounds, 2016, 688, 1088-1094.	5.5	12
63	Ultra rapid fabrication of p-type Li-doped $\text{Mg}_2\text{Si}_0.4\text{Sn}_0.6$ synthesized by unique melt spinning method. Scripta Materialia, 2016, 115, 52-56.	5.2	40
64	Broad temperature plateau for high ZTs in heavily doped p-type SnSe single crystals. Energy and Environmental Science, 2016, 9, 454-460.	30.8	396
65	Solvothermal synthesis of wire-like $\text{Sn}_x\text{Sb}_2\text{Te}_{3+x}$ with an enhanced thermoelectric performance. Dalton Transactions, 2016, 45, 7483-7491.	3.3	6
66	$\text{Cr}_2\text{Ge}_2\text{Te}_6$: High Thermoelectric Performance from Layered Structure with High Symmetry. Chemistry of Materials, 2016, 28, 1611-1615.	6.7	78
67	Super-rapid Preparation of Nanostructured $\text{Nd}_x\text{Fe}_3\text{CoSb}_{12}$ Compounds and Their Improved Thermoelectric Performance. Journal of Electronic Materials, 2016, 45, 1271-1277.	2.2	14
68	Colloidal synthesis of $\text{Cu}_{2-x}\text{Ag}_x\text{CdSnSe}_4$ nanocrystals: microstructures facilitate high performance thermoelectricity. Journal of Materials Chemistry C, 2015, 3, 12273-12280.	5.5	23
69	Hierarchically structured TiO_2 for Ba-filled skutterudite with enhanced thermoelectric performance. Journal of Materials Chemistry A, 2014, 2, 20629-20635.	10.3	50
70	High Performance Thermoelectricity in Earth-Abundant Compounds Based on Natural Mineral Tetrahedrites. Advanced Energy Materials, 2013, 3, 342-348.	19.5	455
71	Enhanced thermoelectric properties of Ba-filled skutterudites by grain size reduction and Ag nanoparticle inclusion. Journal of Materials Chemistry, 2012, 22, 2958-2964.	6.7	87
72	Microstructure and thermoelectric properties of $\text{CoSb}_{2.75}\text{Ge}_{0.25}\text{Te}$ prepared by rapid solidification. Acta Materialia, 2012, 60, 3536-3544.	7.9	62

#	ARTICLE	IF	CITATIONS
73	Simultaneous Large Enhancements in Thermopower and Electrical Conductivity of Bulk Nanostructured Half-Heusler Alloys. <i>Journal of the American Chemical Society</i> , 2011, 133, 18843-18852.	13.7	236
74	Enhanced Thermoelectric Performance and Electronic Transport Properties of Ag-Doped $\text{Cu}_{2-x}\text{S}_{0.5}\text{Se}_{0.5}$. <i>ACS Applied Energy Materials</i> , 0, , .	5.1	3