Ultralow thermal conductivity and high thermoelectric

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#	Article	IF	Citations
10	Optical investigation of the thermoelectric topological crystalline insulator<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Pb</mml:mi><mml:mro… Physical Review B, 2014, 90, .	…	11
11	Doping site dependent thermoelectric properties of epitaxial strontium titanate thin films. Journal of Materials Chemistry C, 2014, 2, 9712-9719.	2.7	12
12	Low lattice thermal conductivity in Pb₅Bi₆Se₁₄, Pb₃Bi₂S₆, and PbBi₂S₄: promising thermoelectric materials in the cannizzarite, lillianite, and galenobismuthite homologous series. Journal of Materials Chemistry A, 2014, 2, 20048-20058.	5.2	59
13	The elastic and thermoelectric properties of the Zintl compound Ca5Al2Sb6 under high pressure. Journal of Applied Physics, 2014, 116, .	1.1	10
14	Impact of internal crystalline boundaries on lattice thermal conductivity: Importance of boundary structure and spacing. Applied Physics Letters, 2014, 105, 194102.	1.5	10
15	Band structure and transport studies of copper selenide: An efficient thermoelectric material. Applied Physics Letters, 2014, 105, .	1.5	34
16	Direct evidence of strong local ferroelectric ordering in a thermoelectric semiconductor. Applied Physics Letters, 2014, 105, 113903.	1.5	11
17	Quantitative Temperature Dependence of Longitudinal Spin Seebeck Effect at High Temperatures. Physical Review X, 2014, 4, .	2.8	71
18	Phonon transport on two-dimensional graphene/boron nitride superlattices. Physical Review B, 2014, 90, .	1.1	157
20	Thermoelectric Tin Selenide: The Beauty of Simplicity. Angewandte Chemie - International Edition, 2014, 53, 9126-9127.	7.2	44
21	Significantly Enhanced Thermoelectric Performance in nâ€type Heterogeneous BiAgSeS Composites. Advanced Functional Materials, 2014, 24, 7763-7771.	7.8	91
22	Thermoelectric properties of Se-deficient and Pb-/Sn-codoped In4Pb0.01Sn0.03Se3â˜ polycrystalline compounds. Journal of Alloys and Compounds, 2014, 615, 933-936.	2.8	26
23	Nonlocal Problems Arising in Thermoelectrics. Mathematical Problems in Engineering, 2014, 2014, 1-7.	0.6	4
24	The ugly duckling. Nature, 2014, 508, 327-328.	13.7	86
25	An electrochemical system for efficiently harvesting low-grade heat energy. Nature Communications, 2014, 5, 3942.	5.8	324
26	BiCuSeO oxyselenides: new promising thermoelectric materials. Energy and Environmental Science, 2014, 7, 2900-2924.	15.6	544
27	Thermoelectric properties of p-type polycrystalline SnSe doped with Ag. Journal of Materials Chemistry A, 2014, 2, 11171-11176.	5.2	488
28	Prediction of New Stable Compounds and Promising Thermoelectrics in the Cuâ€“Sbâ€“Se System. Chemistry of Materials, 2014, 26, 3427-3435.	3.2	64

#	Article	IF	Citations
29	Hinge-like structure induced unusual properties of black phosphorus and new strategies to improve the thermoelectric performance. Scientific Reports, 2014, 4, 6946.	1.6	202
30	Thermoelectric properties of semi-metallic Ru₂Sn_{3â˜Î˙}with low thermal conductivity. Applied Physics Express, 2014, 7, 115801.	1.1	6
31	Part-crystalline part-liquid state and rattling-like thermal damping in materials with chemical-bond hierarchy. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 15031-15035.	3.3	225
32	Assessment of the thermoelectric performance of polycrystalline p-type SnSe. Applied Physics Letters, 2014, 104, .	1.5	323
33	Low thermal conductivity and triaxial phononic anisotropy of SnSe. Applied Physics Letters, 2014, 105, .	1.5	226
34	Magnetocaloric properties and critical behavior of high relative cooling power FeNiB nanoparticles. Journal of Applied Physics, 2014, 116, .	1.1	60
35	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
36	Optimization of the carrier concentration in phase-separated half-Heusler compounds. Journal of Materials Chemistry A, 2014, 2, 13513-13518.	5.2	47
37	Thermoelectric properties of Cu3SbSe3 with intrinsically ultralow lattice thermal conductivity. Journal of Materials Chemistry A, 2014, 2, 15829-15835.	5.2	47
38	The aerosol assisted chemical vapour deposition of SnSe and Cu₂SnSe₃thin films from molecular precursors. Chemical Communications, 2014, 50, 14328-14330.	2.2	39
39	Enhanced Thermoelectric Efficiency via Orthogonal Electrical and Thermal Conductances in Phosphorene. Nano Letters, 2014, 14, 6393-6399.	4.5	680
40	The high thermopower of the Zintl compound Sr₅Sn₂As₆ over a wide temperature range: first-principles calculations. Journal of Materials Chemistry A, 2014, 2, 15159-15167.	5.2	27
41	Origin of photoresponse in black phosphorus phototransistors. Physical Review B, 2014, 90, .	1.1	178
42	Improved thermoelectric performance of CuGaTe2 with convergence of band valleys: a first-principles study. RSC Advances, 2014, 4, 28714.	1.7	27
43	Polypyrrole nanotube film for flexible thermoelectric application. Synthetic Metals, 2014, 196, 173-177.	2.1	165
44	The New Phase [Tl₄Sb₆Se₁₀][Sn₅Sb₂Se₁₄]: A Naturally Formed Semiconducting Heterostructure with Two-Dimensional Conductance. Journal of the American Chemical Society, 2014, 136, 11079-11084.	6.6	14
45	Origin of the High Performance in GeTe-Based Thermoelectric Materials upon Bi₂Te₃ Doping. Journal of the American Chemical Society, 2014, 136, 11412-11419.	6.6	319
46	Broad temperature plateau for thermoelectric figure of merit ZT>2 in phase-separated PbTe0.7S0.3. Nature Communications, 2014, 5, 4515.	5.8	461

#	Article	IF	Citations
47	Manganese-Substituted Rare-Earth Zinc ArsenidesRE1â€“yMnxZn2â€“xAs2(RE= Euâ€“Lu) andRE2â€“yMnxZn4â€“xAs4(RE= Laâ€“Nd, Sm, Gd). Inorganic Chemistry, 2014, 53, 8431-8441.	1.9	2
48	Sulfide bornite thermoelectric material: a natural mineral with ultralow thermal conductivity. Energy and Environmental Science, 2014, 7, 4000-4006.	15.6	193
49	Half-Heusler thermoelectrics: a complex class of materials. Journal of Physics Condensed Matter, 2014, 26, 433201.	0.7	141
50	High superionic conduction arising from aligned large lamellae and large figure of merit in bulk Cu1.94Al0.02Se. Applied Physics Letters, 2014, 105, .	1.5	94
51	Doping-dependent thermoelectric properties of BiSb3Te6 from first-principle calculations. Computational Materials Science, 2014, 95, 563-567.	1.4	6
52	High Thermoelectric Performance Realized in a BiCuSeO System by Improving Carrier Mobility through 3D Modulation Doping. Journal of the American Chemical Society, 2014, 136, 13902-13908.	6.6	317
53	Temperature Dependent Reversible pâ€“nâ€“p Type Conduction Switching with Colossal Change in Thermopower of Semiconducting AgCuS. Journal of the American Chemical Society, 2014, 136, 12712-12720.	6.6	112
54	Integrated computational materials discovery of silver doped tin sulfide as a thermoelectric material. Physical Chemistry Chemical Physics, 2014, 16, 19894-19899.	1.3	61
55	Simple compound manifests record-high thermoelectric performance. Physics Today, 2014, 67, 14-16.	0.3	20
56	Advances in thermoelectrics: From single phases to hierarchical nanostructures and back. MRS Bulletin, 2015, 40, 687-695.	1.7	35
57	Band and scattering tuning for high performance thermoelectric Sn1â^'xMnxTe alloys. Journal of Materiomics, 2015, 1, 307-315.	2.8	193
58	ZT > 0.1 Electronâ€Carrying Polymer Thermoelectric Composites with In Situ SnCl₂ Microstructure Growth. Advanced Science, 2015, 2, 1500015.	5.6	22
59	Magnetic, electrical, and thermodynamic properties of NpIr: Ambient and high-pressure measurements, and electronic structure calculations. Physical Review B, 2015, 91, .	1.1	2
60	Anisotropic lattice dynamics and intermediate-phase magnetism in delafossite<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>CuFeO</mml:mi><mml:mn>2</mml:mn></mml:msub> Physical Review B, 2015, 92, .	1.1	16
61	Measuring anisotropic resistivity of single crystals using the van der Pauw technique. Physical Review B, 2015, 92, .	1.1	15
62	Self-consistent phonon calculations of lattice dynamical properties in cubic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>SrTiO</mml:mi><mml:mn>3</mml:mn></mml:msub> first-principles anharmonic force constants. Physical Review B, 2015, 92, .	1.1	324
63	Phosphorene analogues: Isoelectronic two-dimensional group-IV monochalcogenides with orthorhombic structure. Physical Review B, 2015, 92, .	1.1	391
64	First-principles study of anisotropic thermoelectric transport properties of IV-VI semiconductor compounds SnSe and SnS. Physical Review B, 2015, 92, .	1.1	383

#	Article	IF	Citations
65	Prediction of Low-Thermal-Conductivity Compounds with First-Principles Anharmonic Lattice-Dynamics Calculations and Bayesian Optimization. Physical Review Letters, 2015, 115, 205901.	2.9	343
66	Investigation of Preparation and Thermoelectric Properties of Ca_{2.5}La_{0.5}Co₄O₉ Porous Ceramics. Advanced Materials Research, 2015, 1120-1121, 98-101.	0.3	0
67	Enhanced thermoelectric performance of Î²-Zn4Sb3 based nanocomposites through combined effects of density of states resonance and carrier energy filtering. Scientific Reports, 2015, 5, 17803.	1.6	58
68	Ultra-low Thermal Conductivity in Si/Ge Hierarchical Superlattice Nanowire. Scientific Reports, 2015, 5, 16697.	1.6	58
69	Anisotropic lattice thermal conductivity in chiral tellurium from first principles. Applied Physics Letters, 2015, 107, .	1.5	38
70	Design of a High Performance Polymer Thermoelectric Generator Using Radial Architecture. , 2015, , .		0
71	Presence of a Doubly-Splitting Site and Its Effect on Thermoelectric Properties of Cu₄SnS₄. Materials Transactions, 2015, 56, 858-863.	0.4	12
72	Material Dependence of Maximum Possible Thermoelectric Figures of Merit. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2015, 79, 633-637.	0.2	1
73	A new wide band gap thermoelectric quaternary selenide Cu2MgSnSe4. Journal of Applied Physics, 2015, 118, .	1.1	24
74	Strain effect on electronic structure and thermoelectric properties of orthorhombic SnSe: A first principles study. AIP Advances, 2015, 5, .	0.6	35
75	Thermoelectric conversion efficiency in IV-VI semiconductors with reduced thermal conductivity. AIP Advances, 2015, 5, .	0.6	10
76	GeSe monolayer semiconductor with tunable direct band gap and small carrier effective mass. Applied Physics Letters, 2015, 107, .	1.5	148
77	Giant piezoelectricity of monolayer group IV monochalcogenides: SnSe, SnS, GeSe, and GeS. Applied Physics Letters, 2015, 107, .	1.5	569
78	Effect of sulfur doping on thermoelectric properties of tin selenide â€“ A first principles study. AIP Conference Proceedings, 2015, , .	0.3	5
79	Thermoelectric properties of Î²-Indium sulfide with sulphur deficiencies. Journal of Applied Physics, 2015, 118, .	1.1	18
80	Three-dimensional multimodal imaging and analysis of biphasic microstructure in a Tiâ€“Niâ€“Sn thermoelectric material. APL Materials, 2015, 3, .	2.2	11
81	Efficiency and output power of thermoelectric module by taking into account corrected Joule and Thomson heat. Journal of Applied Physics, 2015, 118, .	1.1	29
82	High Efficiency Halfâ€Heusler Thermoelectric Materials for Energy Harvesting. Advanced Energy Materials, 2015, 5, 1500588.	10.2	380

#	Article	IF	Citations
84	Tuning Multiscale Microstructures to Enhance Thermoelectric Performance of nâ€Type Bismuthâ€Telluride Based Solid Solutions. Advanced Energy Materials, 2015, 5, 1500411.	10.2	379
85	Ultrahigh Thermoelectric Performance in Mosaic Crystals. Advanced Materials, 2015, 27, 3639-3644.	11.1	195
86	Effective Electronic Mechanisms for Optimizing the Thermoelectric Properties of GeTeâ€Rich Alloys. Advanced Electronic Materials, 2015, 1, 1500228.	2.6	79
87	Oxidative Addition of Diethylchalcogenanes to Lappert's Germylene and Stannylene. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2015, 641, 797-802.	0.6	17
88	Investigation of the Anisotropic Thermoelectric Properties of Oriented Polycrystalline SnSe. Energies, 2015, 8, 6275-6285.	1.6	99
89	Recent Developments inÎ²-Zn4Sb3Based Thermoelectric Compounds. Journal of Nanomaterials, 2015, 2015, 1-15.	1.5	8
90	Designing low thermal conductivity of RuO2 for thermoelectric applications. Applied Physics Letters, 2015, 106, .	1.5	14
91	Developing instrumentation to characterize thermoelectric generator modules. Review of Scientific Instruments, 2015, 86, 034703.	0.6	9
92	A 3 omega method to measure an arbitrary anisotropic thermal conductivity tensor. Review of Scientific Instruments, 2015, 86, 054902.	0.6	41
93	Thermoelectric Properties of p-Type Clathrate Ba_{8.0}Ga_{15.9}Zn_ySn_{30.1} Single Crystals with Various Carrier Concentrations. Chemistry of Materials, 2015, 27, 1830-1836.	3.2	17
94	Superior thermoelectric performance in PbTeâ€“PbS pseudo-binary: extremely low thermal conductivity and modulated carrier concentration. Energy and Environmental Science, 2015, 8, 2056-2068.	15.6	185
95	Quasiparticle band structures and thermoelectric transport properties of p-type SnSe. Journal of Applied Physics, 2015, 117, .	1.1	135
96	Evaluating Broader Impacts of Nanoscale Thermal Transport Research. Nanoscale and Microscale Thermophysical Engineering, 2015, 19, 127-165.	1.4	69
97	Bottom-up processing and low temperature transport properties of polycrystalline SnSe. Journal of Solid State Chemistry, 2015, 225, 354-358.	1.4	48
98	Topological Metal of NaBi with Ultralow Lattice Thermal Conductivity and Electron-phonon Superconductivity. Scientific Reports, 2015, 5, 8446.	1.6	7
99	Examining the thermal conductivity of the half-Heusler alloy TiNiSn by first-principles calculations. Journal Physics D: Applied Physics, 2015, 48, 235302.	1.3	31
100	High thermopower and ultra low thermal conductivity in Cd-based Zintl phase compounds. Physical Chemistry Chemical Physics, 2015, 17, 16917-16926.	1.3	33
101	Controlled growth of bismuth antimony telluride Bi Sb2â˜Te3 nanoplatelets and their bulk thermoelectric nanocomposites. Nano Energy, 2015, 15, 688-696.	8.2	94

#	Article	IF	Citations
102	A polaritonic molecule. Nature Photonics, 2015, 9, 357-357.	15.6	0
103	Non-cubic solar cell materials. Nature Photonics, 2015, 9, 355-357.	15.6	73
104	Thermoelectric effects in graphene nanostructures. Journal of Physics Condensed Matter, 2015, 27, 133204.	0.7	137
105	Optimizing the thermoelectric performance of low-temperature SnSe compounds by electronic structure design. Journal of Materials Chemistry A, 2015, 3, 13365-13370.	5.2	50
106	Enhanced Thermoelectric Performance of Bi2O2Se with Ag Addition. Materials, 2015, 8, 1568-1576.	1.3	43
107	Suppressing the bipolar contribution to the thermoelectric properties of Mg2Si0.4Sn0.6 by Ge substitution. Journal of Applied Physics, 2015, 117, .	1.1	51
108	Electronic properties of the SnSeâ€“metal contacts: First-principles study. Chinese Physics B, 2015, 24, 117308.	0.7	7
109	Current state of thermoelectric material science and the search for new effective materials. Nanotechnologies in Russia, 2015, 10, 827-840.	0.7	29
110	Complete thermoelectric benchmarking of individual InSb nanowires using combined micro-Raman and electric transport analysis. Nano Research, 2015, 8, 4048-4060.	5.8	32
111	Thermoelectric Properties of Transition Metal Dichalcogenides: From Monolayers to Nanotubes. Journal of Physical Chemistry C, 2015, 119, 26706-26711.	1.5	80
112	Shape-Controlled Narrow-Gap SnTe Nanostructures: From Nanocubes to Nanorods and Nanowires. Journal of the American Chemical Society, 2015, 137, 15074-15077.	6.6	42
113	Determining dilute-limit solvus boundaries in multi-component systems using defect energetics: Na in PbTe and PbS. Journal of Materials Chemistry C, 2015, 3, 10630-10649.	2.7	27
114	Structural and electronic properties of atomically thin germanium selenide polymorphs. Science China Materials, 2015, 58, 929-935.	3.5	54
115	Influence of Annealing Temperature on the Properties of Zn-Sb Composite Thin Films by Magnetron Sputtering. Advanced Materials Research, 0, 1096, 76-79.	0.3	0
116	Effects of pre-stress and surface stress on phonon thermal conductivity of rectangular Si nanowires. Applied Physics A: Materials Science and Processing, 2015, 119, 253-263.	1.1	6
117	Thermoelectric property studies on Cu Bi2SeS2 with nano-scale precipitates Bi2S3. Nano Energy, 2015, 12, 447-456.	8.2	37
118	Fractal LÃ©vy Heat Transport in Nanoparticle Embedded Semiconductor Alloys. Nano Letters, 2015, 15, 4269-4273.	4.5	21
119	Preparation, Formation, and Structure of [(SnSe)_{1.04}]_m(MoSe₂)_n Intergrowth Compounds (0 < m and n < 32) from Designed Precursors. Inorganic Chemistry, 2015, 54, 1091-1099.	1.9	7

#	Article	IF	Citations
120	Large increase in the spin entropy of thermoelectric Ca3Co4O9+Î´ induced by Ni and Ce co-doping. Journal of Materials Science, 2015, 50, 1746-1751.	1.7	9
121	Effect of Cu concentration on thermoelectric properties of nanostructured p-type MgAg0.97â^'Cu Sb0.99. Acta Materialia, 2015, 87, 266-272.	3.8	53
122	Structural changes in thermoelectric SnSe at high pressures. Journal of Physics Condensed Matter, 2015, 27, 072202.	0.7	56
123	Strongly anisotropic in-plane thermal transport in single-layer black phosphorene. Scientific Reports, 2015, 5, 8501.	1.6	463
124	Anisotropic Multicenter Bonding and High Thermoelectric Performance in Electron-Poor CdSb. Chemistry of Materials, 2015, 27, 1071-1081.	3.2	81
125	Current progress and future challenges in thermoelectric power generation: From materials to devices. Acta Materialia, 2015, 87, 357-376.	3.8	447
126	An efficient thermoelectric material: preparation of reduced graphene oxide/polyaniline hybrid composites by cryogenic grinding. RSC Advances, 2015, 5, 8988-8995.	1.7	50
127	Two-Dimensional Mineral [Pb2BiS3][AuTe2]: High-Mobility Charge Carriers in Single-Atom-Thick Layers. Journal of the American Chemical Society, 2015, 137, 2311-2317.	6.6	14
128	Recent development and application of thermoelectric generator and cooler. Applied Energy, 2015, 143, 1-25.	5.1	602
129	Influence of doping and solid solution formation on the thermoelectric properties of chalcopyrite semiconductors. Journal of Alloys and Compounds, 2015, 630, 277-281.	2.8	37
130	Thermoelectric performance of SnS and SnSâ€“SnSe solid solution. Journal of Materials Chemistry A, 2015, 3, 4555-4559.	5.2	160
131	Highâ€Temperature Thermoelectric Properties of Snâ€Doped Î²â€As₂Te₃. Advanced Electronic Materials, 2015, 1, 1400008.	2.6	32
132	High Performance Î±-MgAgSb Thermoelectric Materials for Low Temperature Power Generation. Chemistry of Materials, 2015, 27, 909-913.	3.2	124
133	Controlled synthesis of single-crystal SnSe nanoplates. Nano Research, 2015, 8, 288-295.	5.8	207
134	Tilt engineering of spontaneous polarization and magnetization above 300 K in a bulk layered perovskite. Science, 2015, 347, 420-424.	6.0	181
135	Mg Alloying in SnTe Facilitates Valence Band Convergence and Optimizes Thermoelectric Properties. Chemistry of Materials, 2015, 27, 581-587.	3.2	390
136	Phonon heat conduction in layered anisotropic crystals. Physical Review B, 2015, 91, .	1.1	30
137	Crystal structure and mechanical properties of spark plasma sintered Cu2Se: An efficient photovoltaic and thermoelectric material. Solid State Communications, 2015, 207, 21-25.	0.9	52

#	Article	IF	Citations
138	n-type thermoelectric material Mg ₂ Sn _{0.75} Ge _{0.25} for high power generation. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 3269-3274.	3.3	191
139	Record Seebeck coefficient and extremely low thermal conductivity in nanostructured SnSe. Applied Physics Letters, 2015, 106, .	1.5	73
140	High Throughput Screening Tools for Thermoelectric Materials. Journal of Electronic Materials, 2015, 44, 1688-1696.	1.0	8
141	High thermoelectric properties for Sn-doped AgSbSe 2. Journal of Alloys and Compounds, 2015, 635, 87-91.	2.8	23
142	Enhanced Thermoelectric Figure-of-Merit in Thermally Robust, Nanostructured Superlattices Based on SrTiO₃. Chemistry of Materials, 2015, 27, 2165-2171.	3.2	34
143	SnX (X = S, Se) thin films as cost-effective and highly efficient counter electrodes for dye-sensitized solar cells. Chemical Communications, 2015, 51, 8108-8111.	2.2	46
144	Silicon nanowire networks for multi-stage thermoelectric modules. Energy Conversion and Management, 2015, 96, 100-104.	4.4	26
145	Targeted Crystal Growth of Rare Earth Intermetallics with Synergistic Magnetic and Electrical Properties: Structural Complexity to Simplicity. Accounts of Chemical Research, 2015, 48, 612-618.	7.6	39
146	Designing Isoelectronic Counterparts to Layered Group V Semiconductors. ACS Nano, 2015, 9, 8284-8290.	7.3	128
147	The influence of the transformation of electronic structure and micro-structure on improving the thermoelectric properties of zinc antimonide thin films. Intermetallics, 2015, 64, 18-22.	1.8	8
148	Outstanding thermoelectric performances for both p- and n-type SnSe from first-principles study. Journal of Alloys and Compounds, 2015, 644, 615-620.	2.8	65
149	Self-assisted nucleation and growth of [010]-oriented Sb2Se3 whiskers: the crystal structure and thermoelectric properties. Journal of Materials Chemistry C, 2015, 3, 10488-10493.	2.7	19
150	Synthesis, characterisation and thermoelectric properties of the oxytelluride Bi2O2Te. Journal of Solid State Chemistry, 2015, 226, 219-223.	1.4	67
151	Effect of extended strain fields on point defect phonon scattering in thermoelectric materials. Physical Chemistry Chemical Physics, 2015, 17, 19410-19423.	1.3	55
152	Enhanced thermoelectric performance of layered SnS crystals: the synergetic effect of temperature and carrier concentration. RSC Advances, 2015, 5, 56382-56390.	1.7	37
153	Structure and thermoelectric properties of Biâ€“Te alloys obtained by novel method of oxide substrates reduction. Journal of Alloys and Compounds, 2015, 646, 1124-1132.	2.8	15
154	Flexible thermoelectric materials and device optimization for wearable energy harvesting. Journal of Materials Chemistry C, 2015, 3, 10362-10374.	2.7	518
155	Enhancing the Thermoelectric Figure of Merit by Low-Dimensional Electrical Transport in Phonon-Glass Crystals. Nano Letters, 2015, 15, 5229-5234.	4.5	55

#	Article	IF	Citations
156	Aqueous phase one-pot green synthesis of SnSe nanosheets in a protein matrix: negligible cytotoxicity and room temperature emission in the visible region. RSC Advances, 2015, 5, 61390-61397.	1.7	44
157	Thermal conductivity in PbTe from first principles. Physical Review B, 2015, 91, .	1.1	98
158	Mosaic crystals leading a new route to achieve ultrahigh thermoelectric performance. Science China Materials, 2015, 58, 431-432.	3.5	2
159	Thermoelectric oxides. , 2015, , 397-441.		3
160	Correlation between microstructure and drastically reduced lattice thermal conductivity in bismuth telluride/bismuth nanocomposites for high thermoelectric figure of merit. Materials Science in Semiconductor Processing, 2015, 40, 453-462.	1.9	16
161	Diorganotin(<scp>iv</scp>) 2-pyridyl and 2-pyrimidyl thiolates: synthesis, structures and their utility as molecular precursors for the preparation of tin sulfide nanosheets. RSC Advances, 2015, 5, 62882-62890.	1.7	12
162	Optimal thermoelectric figure of merit of Si/Ge core-shell nanowires. Nano Research, 2015, 8, 2611-2619.	5.8	19
163	Chemical Potential Tuning and Enhancement of Thermoelectric Properties in Indium Selenides. Materials, 2015, 8, 1283-1324.	1.3	26
164	Transport Properties of Polycrystalline p-type SnSe. Materials Today: Proceedings, 2015, 2, 690-698.	0.9	19
165	High-efficient thermoelectric materials: The case of orthorhombic IV-VI compounds. Scientific Reports, 2015, 5, 9567.	1.6	176
166	Sb deficiencies control hole transport and boost the thermoelectric performance of p-type AgSbSe₂. Journal of Materials Chemistry C, 2015, 3, 10415-10421.	2.7	23
167	Relationship between thermoelectric figure of merit and energy conversion efficiency. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 8205-8210.	3.3	415
168	Synthesis and Thermal Properties of Solid-State Structural Isomers: Ordered Intergrowths of SnSe and MoSe₂. Journal of the American Chemical Society, 2015, 137, 8803-8809.	6.6	23
169	Crystallineâ€“Amorphous Silicon Nanocomposites with Reduced Thermal Conductivity for Bulk Thermoelectrics. ACS Applied Materials & Interfaces, 2015, 7, 13484-13489.	4.0	62
170	Thermoelectric Power Generation from Lanthanum Strontium Titanium Oxide at Room Temperature through the Addition of Graphene. ACS Applied Materials & Interfaces, 2015, 7, 15898-15908.	4.0	160
171	Enhanced thermoelectric performance of Bi2S3 by synergistical action of bromine substitution and copper nanoparticles. Nano Energy, 2015, 13, 554-562.	8.2	91
172	On-Chip Power Generation Using Ultrathin Thermoelectric Generators. Journal of Electronic Packaging, Transactions of the ASME, 2015, 137, .	1.2	8
173	Experimental investigation and thermodynamic modeling of the Seâ€“Snâ€“Te system. Journal of Alloys and Compounds, 2015, 642, 153-165.	2.8	1

#	Article	IF	Citations
174	Thermoelectric properties of SnSe compound. Journal of Alloys and Compounds, 2015, 643, 116-120.	2.8	55
175	The Influence of Interfaces on Properties of Thin-Film Inorganic Structural Isomers Containing SnSeâ€“NbSe₂ Subunits. ACS Nano, 2015, 9, 4427-4434.	7.3	6
176	Hierarchical Architecturing for Layered Thermoelectric Sulfides and Chalcogenides. Materials, 2015, 8, 1124-1149.	1.3	65
177	Thermoelectric materials: Energy conversion between heat and electricity. Journal of Materiomics, 2015, 1, 92-105.	2.8	794
178	Thermoelectric properties of Sm1â^'xLaxBaCuFeO5 ceramics. Materials Research Bulletin, 2015, 69, 46-50.	2.7	6
179	Studies on Thermoelectric Properties of nâ€type Polycrystalline SnSe_{1â€x}S_x by Iodine Doping. Advanced Energy Materials, 2015, 5, 1500360.	10.2	287
180	Electrical and Thermal Transport Behavior in Zn-Doped BiCuSeO Oxyselenides. Journal of Electronic Materials, 2015, 44, 1627-1631.	1.0	37
181	Variable-Temperature InÂSitu X-ray Diffraction Study of the Thermodynamic Evolution of AgSbTe2 Thermoelectric Compound. Journal of Electronic Materials, 2015, 44, 2118-2123.	1.0	11
183	Plasma-assisted synthesis and pressure-induced structural transition of single-crystalline SnSe nanosheets. Nanoscale, 2015, 7, 10807-10816.	2.8	72
184	One-step synthesis of high-quality homogenous Te/Se alloy nanorods with various morphologies. CrystEngComm, 2015, 17, 3243-3250.	1.3	14
185	Is Cu₃SbSe₃ a promising thermoelectric material?. RSC Advances, 2015, 5, 42848-42854.	1.7	27
186	Construction of a 3D-rGO network-wrapping architecture in a Yb_yCo₄Sb₁₂/rGO composite for enhancing the thermoelectric performance. Journal of Materials Chemistry A, 2015, 3, 8643-8649.	5.2	71
187	Growth of an oriented Bi_{40â^'x}In_xTe₆₀ (x = 3, 7) thermoelectric material by seeding zone melting for the enhancement of chemical homogeneity. CrystEngComm, 2015, 17, 3076-3081.	1.3	6
188	Enhanced thermoelectric performance of GeTe-rich germanium antimony tellurides through the control of composition and structure. CrystEngComm, 2015, 17, 3440-3445.	1.3	25
189	Heterovalent Substitution to Enrich Electrical Conductivity in Cu2CdSn1-xGaxSe4 Series for High Thermoelectric Performances. Scientific Reports, 2015, 5, 9365.	1.6	7
190	Phonon-induced diamagnetic force and its effect on the lattice thermal conductivity. Nature Materials, 2015, 14, 601-606.	13.3	45
191	Temperature driven pâ€“nâ€“p type conduction switching materials: current trends and future directions. Physical Chemistry Chemical Physics, 2015, 17, 10316-10325.	1.3	19
192	Dual Vacancies: An Effective Strategy Realizing Synergistic Optimization of Thermoelectric Property in BiCuSeO. Journal of the American Chemical Society, 2015, 137, 6587-6593.	6.6	183

#	Article	IF	Citations
193	Enhanced Thermoelectric Properties of Bi₂O₂Se Ceramics by Bi Deficiencies. Journal of the American Ceramic Society, 2015, 98, 2465-2469.	1.9	77
194	Robust scalable synthesis of surfactant-free thermoelectric metal chalcogenide nanostructures. Nano Energy, 2015, 15, 193-204.	8.2	53
195	Theoretical and experimental investigations of the thermoelectric properties of Bi2S3. Journal of Applied Physics, 2015, 117, .	1.1	55
196	Thermoelectric properties and chlorine doping effect of In₄Pb_{0.01}Sn_{0.03}Se_{2.9}Cl_x polycrystalline compounds. Dalton Transactions, 2015, 44, 3185-3189.	1.6	13
197	Codoping in SnTe: Enhancement of Thermoelectric Performance through Synergy of Resonance Levels and Band Convergence. Journal of the American Chemical Society, 2015, 137, 5100-5112.	6.6	394
198	Enhanced thermoelectric properties of hybridized conducting aerogels based on carbon nanotubes and pyrolyzed resorcinolâ€“formaldehyde resin. Synthetic Metals, 2015, 205, 64-69.	2.1	17
199	Statistical properties of abnormal nano-sized adsorbate islands growth in a model of adsorptive multilayer system. Surface Science, 2015, 637-638, 90-100.	0.8	15
200	Advanced electron microscopy for thermoelectric materials. Nano Energy, 2015, 13, 626-650.	8.2	80
201	In-situ fabrication and enhanced thermoelectric properties of carbon nanotubes filled poly(3,4-ethylenedioxythiophene) composites. Synthetic Metals, 2015, 209, 480-483.	2.1	39
202	Polar Transition-Metal Chalcogenide: Structure and Properties of the New Pseudo-Hollandite Ba_{0.5}Cr₅Se₈. Chemistry of Materials, 2015, 27, 7110-7118.	3.2	12
203	Thermoelectric power factor: Enhancement mechanisms and strategies for higher performance thermoelectric materials. Materials Science and Engineering Reports, 2015, 97, 1-22.	14.8	311
204	Anisotropic Spin Transport and Strong Visible-Light Absorbance in Few-Layer SnSe and GeSe. Nano Letters, 2015, 15, 6926-6931.	4.5	290
205	An extended irreversible thermodynamic modelling of size-dependent thermal conductivity of spherical nanoparticles dispersed in homogeneous media. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20150144.	1.0	10
206	Flexible n-type thermoelectric films based on Cu-doped Bi2Se3 nanoplate and Polyvinylidene Fluoride composite with decoupled Seebeck coefficient and electrical conductivity. Nano Energy, 2015, 18, 306-314.	8.2	119
207	Low temperature, shape-selective formation of Sb₂Te₃ nanomaterials and their thermoelectric applications. RSC Advances, 2015, 5, 89621-89634.	1.7	22
208	Enhancement of the thermoelectric properties of MnSb₂Se₄through Cu resonant doping. RSC Advances, 2015, 5, 99065-99073.	1.7	11
209	Enhanced Thermoelectric Performance of Nanostructured Bi₂Te₃ through Significant Phonon Scattering. ACS Applied Materials & Interfaces, 2015, 7, 23694-23699.	4.0	200
210	Synthesis, crystal structure, and thermoelectric properties of two new barium antimony selenides: Ba₂Sb₂Se₅and Ba₆Sb₇Se_{16.11}. Journal of Materials Chemistry C, 2015, 3, 9811-9818.	2.7	20

#	Article	IF	Citations
211	Complex Effect of Sm³⁺/W⁶⁺ Codoping on Î±â€Ï² Phase Transformation and Phonon Scattering of Oxygenâ€Deficient La₂Mo₂O₉. Journal of the American Ceramic Society, 2015, 98, 1385-1388.	1.9	9
212	Orbitally driven giant phonon anharmonicity inÂSnSe. Nature Physics, 2015, 11, 1063-1069.	6.5	539
213	The anharmonicity blacksmith. Nature Physics, 2015, 11, 990-991.	6.5	100
214	Thermoelectric transport properties of pristine and Na-doped SnSe_{1â^'x}Te_x polycrystals. Physical Chemistry Chemical Physics, 2015, 17, 30102-30109.	1.3	154
215	Atomic Disorders Induced by Silver and Magnesium Ion Migrations Favor High Thermoelectric Performance in Î±â€MgAgSbâ€Based Materials. Advanced Functional Materials, 2015, 25, 6478-6488.	7.8	70
216	A supercell approach to the doping effect on the thermoelectric properties of SnSe. Physical Chemistry Chemical Physics, 2015, 17, 29647-29654.	1.3	26
217	Molecular Beam Epitaxyâ€Grown SnSe in the Rockâ€Salt Structure: An Artificial Topological Crystalline Insulator Material. Advanced Materials, 2015, 27, 4150-4154.	11.1	83
218	Anisotropic thermoelectric properties of layered compounds in SnX₂ (X = S, Se): a promising thermoelectric material. Physical Chemistry Chemical Physics, 2015, 17, 29844-29853.	1.3	116
219	High Thermoelectric Performance and Enhanced Mechanical Stability of p-type Ge_{1â€“x}Sb_xTe. Chemistry of Materials, 2015, 27, 7171-7178.	3.2	293
220	Polymer based graphene/titanium dioxide nanocomposite (GTNC): an emerging and efficient thermoelectric material. Dalton Transactions, 2015, 44, 19248-19255.	1.6	33
221	Strong correlation between the crystal structure and the thermoelectric properties of pavonite homologue Cu_{x+y}Bi_{5â^'y}Ch₈(Ch = S or Se) compounds. Journal of Materials Chemistry C, 2015, 3, 11271-11285.	2.7	9
222	Contrasting the Role of Mg and Ba Doping on the Microstructure and Thermoelectric Properties of p-Type AgSbSe₂. ACS Applied Materials & Interfaces, 2015, 7, 23047-23055.	4.0	29
223	Oligoyne Molecular Junctions for Efficient Room Temperature Thermoelectric Power Generation. Nano Letters, 2015, 15, 7467-7472.	4.5	88
224	Thermoelectric properties of single-layered SnSe sheet. Nanoscale, 2015, 7, 15962-15970.	2.8	256
225	Ball milling as an effective route for the preparation of doped bornite: synthesis, stability and thermoelectric properties. Journal of Materials Chemistry C, 2015, 3, 10624-10629.	2.7	56
226	High performance n-type bismuth telluride based alloys for mid-temperature power generation. Journal of Materials Chemistry C, 2015, 3, 10597-10603.	2.7	64
227	Enhancing the thermoelectric performance of Î²-Cu 2 Se by incorporating SnSe. Journal of Alloys and Compounds, 2015, 651, 648-654.	2.8	38
228	Strategies for engineering phonon transport in thermoelectrics. Journal of Materials Chemistry C, 2015, 3, 10336-10348.	2.7	210

#	Article	IF	Citations
229	Lattice vibration modes of the layered material BiCuSeO and first principles study of its thermoelectric properties. New Journal of Physics, 2015, 17, 083012.	1.2	51
230	Three-phonon scattering processes and thermal conductivity in IV-chalocogenides. Journal of Physics Condensed Matter, 2015, 27, 335801.	0.7	5
231	Synergistically optimized electrical and thermal transport properties of SnTe via alloying high-solubility MnTe. Energy and Environmental Science, 2015, 8, 3298-3312.	15.6	268
232	Computational Exploration of the Binary A₁B₁ Chemical Space for Thermoelectric Performance. Chemistry of Materials, 2015, 27, 6213-6221.	3.2	38
233	The effect of light rare earth element substitution in Yb₁₄MnSb₁₁on thermoelectric properties. Journal of Materials Chemistry C, 2015, 3, 10566-10573.	2.7	40
234	Realizing high figure of merit in heavy-band p-type half-Heusler thermoelectric materials. Nature Communications, 2015, 6, 8144.	5.8	893
235	Thermoelectricity in liquid crystals. , 2015, , .		1
236	Towards high refrigeration capability: the controllable structure of hierarchical Bi_{0.5}Sb_{1.5}Te₃ flakes on a metal electrode. Physical Chemistry Chemical Physics, 2015, 17, 6809-6818.	1.3	34
237	Reaction path for formation of Cu2SnSe3 film by selenization of Cuâ€“Sn precursor. Solar Energy Materials and Solar Cells, 2015, 143, 311-318.	3.0	19
238	On the True Indium Content of In-Filled Skutterudites. Inorganic Chemistry, 2015, 54, 7818-7827.	1.9	40
239	Elusive Î²-Zn8Sb7: A New Zinc Antimonide Thermoelectric. Journal of the American Chemical Society, 2015, 137, 12474-12477.	6.6	45
240	Tetrahedrites as thermoelectric materials: an overview. Journal of Materials Chemistry C, 2015, 3, 12364-12378.	2.7	148
241	Hierarchical Biâ€“Te based flexible thin-film solar thermoelectric generator with light sensing feature. Energy Conversion and Management, 2015, 106, 1192-1200.	4.4	40
242	Thermal and electrochemical behavior of Cu4â^'Li S2 (x=1, 2, 3) phases. Journal of Solid State Chemistry, 2015, 232, 8-13.	1.4	3
243	Significant band engineering effect of YbTe for high performance thermoelectric PbTe. Journal of Materials Chemistry C, 2015, 3, 12410-12417.	2.7	61
244	Better thermoelectrics through glass-like crystals. Nature Materials, 2015, 14, 1182-1185.	13.3	212
245	One pot green synthesis of grapheneâ€“iron oxide nanocomposite (GINC): an efficient material for enhancement of thermoelectric performance. RSC Advances, 2015, 5, 10358-10364.	1.7	34
246	Promising thermoelectric performance in n-type AgBiSe₂: effect of aliovalent anion doping. Journal of Materials Chemistry A, 2015, 3, 648-655.	5.2	115

#	Article	IF	Citations
247	Material descriptors for predicting thermoelectric performance. Energy and Environmental Science, 2015, 8, 983-994.	15.6	241
248	A facile chemical reduction approach for effectively tuning thermoelectric properties of PEDOT films. Organic Electronics, 2015, 17, 151-158.	1.4	92
249	High Performance Oxides-Based Thermoelectric Materials. Jom, 2015, 67, 211-221.	0.9	71
250	Thermal Expansion Anomaly Regulated by Entropy. Scientific Reports, 2014, 4, 7043.	1.6	61
251	Eutectoid Flux Growth and Physical Properties of Single Crystal Ln₁₁₇Ni_{54â€“y}Sn_{112â€“z} (Ln = Gdâ€“Dy). Crystal Growth and Design, 2015, 15, 295-304.	1.4	5
252	Extraordinary role of Hg in enhancing the thermoelectric performance of p-type SnTe. Energy and Environmental Science, 2015, 8, 267-277.	15.6	347
253	Enhancement of thermoelectric properties of Yb-filled skutterudites by an Ni-Induced â€œcoreâ€“shellâ€• structure. Journal of Materials Chemistry A, 2015, 3, 1010-1016.	5.2	63
254	Solution processed organic thermoelectrics: towards flexible thermoelectric modules. Energy and Environmental Science, 2015, 8, 401-422.	15.6	360
255	Nanostructure and doping stimulated phase separation in high-ZT Mg2Si0.55Sn0.4Ge0.05 compounds. Acta Materialia, 2015, 83, 285-293.	3.8	43
256	A2Bâ€²Bâ€³O6 perovskites: A review. Progress in Solid State Chemistry, 2015, 43, 1-36.	3.9	904
257	Pb₇Bi₄Se₁₃: A Lillianite Homologue with Promising Thermoelectric Properties. Inorganic Chemistry, 2015, 54, 746-755.	1.9	60
258	Theoretical analysis on the performance of annular thermoelectric couple. Energy Conversion and Management, 2015, 89, 244-250.	4.4	74
259	Low-temperature thermoelectric properties of the CeSe2â^'Sn compounds. Journal of Alloys and Compounds, 2015, 618, 724-727.	2.8	2
260	Simulation of Morphological Effects on Thermoelectric Power, Thermal and Electrical Conductivity in Multiâ€Phase Thermoelectric Materials. , 0, , .		2
261	Defect Engineered 2D Materials for Energy Applications. , 2016, , .		1
262	DFT Study on the Carrier Concentration and Temperature-Dependent Thermoelectric Properties of Antimony Selenide. Indian Journal of Materials Science, 2016, 2016, 1-7.	0.6	7
263	Enhanced Thermoelectric Properties of Cu3SbSe3-Based Composites with Inclusion Phases. Energies, 2016, 9, 816.	1.6	11
264	Influence of Oxygen Partial Pressure during Processing on the Thermoelectric Properties of Aerosol-Deposited CuFeO2. Materials, 2016, 9, 227.	1.3	24

#	Article	IF	Citations
265	Cationic Site-Preference in the Yb14-xCaxAlSb11 (4.81 â‰¤ x â‰¤ 10.57) Series: Theoretical and Experimental Studies. Materials, 2016, 9, 553.	1.3	14
266	Nanostructured State-of-the-Art Thermoelectric Materials Prepared by Straight-Forward Arc-Melting Method. , 0, , .		2
267	Thermal conductivity and dielectric functions of alkali chlorideXCl (X= Li, Na, K and Rb): a first-principles study. Materials Research Express, 2016, 3, 075006.	0.8	2
268	Spin-orbit and strain effect on power factor in monolayer MoS2. Computational Materials Science, 2016, 123, 8-13.	1.4	49
269	Investigation into the extremely low thermal conductivity in Ba heavily doped BiCuSeO. Nano Energy, 2016, 27, 167-174.	8.2	40
270	Recent advances in thermoelectric materials. Progress in Materials Science, 2016, 83, 330-382.	16.0	572
271	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
272	Thermoelectric Enhancement of Different Kinds of Metal Chalcogenides. Advanced Energy Materials, 2016, 6, 1600498.	10.2	145
273	Highâ€Performance Thermoelectricity in Nanostructured Earthâ€Abundant Copper Sulfides Bulk Materials. Advanced Energy Materials, 2016, 6, 1600607.	10.2	111
274	Kondo effect and thermoelectric transport in CePd₃Be_x. Journal of Physics Condensed Matter, 2016, 28, 165603.	0.7	8
275	Outstanding Low Temperature Thermoelectric Power Factor from Completely Organic Thin Films Enabled by Multidimensional Conjugated Nanomaterials. Advanced Energy Materials, 2016, 6, 1502168.	10.2	239
276	Progressive Regulation of Electrical and Thermal Transport Properties to Highâ€Performance CuInTe₂ Thermoelectric Materials. Advanced Energy Materials, 2016, 6, 1600007.	10.2	118
277	Novel ternary sulfide thermoelectric materials from high throughput transport and defect calculations. Journal of Materials Chemistry A, 2016, 4, 11086-11093.	5.2	32
278	Computational identification of promising thermoelectric materials among known quasi-2D binary compounds. Journal of Materials Chemistry A, 2016, 4, 11110-11116.	5.2	55
279	Unexpected low thermal conductivity and large power factor in Dirac semimetal Cd ₃ As ₂. Chinese Physics B, 2016, 25, 017202.	0.7	22
280	Facile Surfactantâ€Free Synthesis of pâ€Type SnSe Nanoplates with Exceptional Thermoelectric Power Factors. Angewandte Chemie, 2016, 128, 6543-6547.	1.6	9
281	Facile Surfactantâ€Free Synthesis of pâ€Type SnSe Nanoplates with Exceptional Thermoelectric Power Factors. Angewandte Chemie - International Edition, 2016, 55, 6433-6437.	7.2	81
282	Highâ€Concentration Aqueous Dispersions of Nanoscale 2D Materials Using Nonionic, Biocompatible Block Copolymers. Small, 2016, 12, 294-300.	5.2	47

#	Article	IF	Citations
283	Spinodally Decomposed PbSe-PbTe Nanoparticles for High-Performance Thermoelectrics: Enhanced Phonon Scattering and Unusual Transport Behavior. ACS Nano, 2016, 10, 7197-7207.	7.3	44
284	Enhanced Thermoelectric Properties of Cu₂SnSe₃ by (Ag,In)â€Coâ€Doping. Advanced Functional Materials, 2016, 26, 6025-6032.	7.8	82
285	Recent development of n-type perovskite thermoelectrics. Journal of Materiomics, 2016, 2, 225-236.	2.8	63
286	Pressure induced thermoelectric enhancement in SnSe crystals. Journal of Materials Chemistry A, 2016, 4, 12073-12079.	5.2	81
287	The Origin of Ultralow Thermal Conductivity in InTe: Loneâ€Pairâ€Induced Anharmonic Rattling. Angewandte Chemie - International Edition, 2016, 55, 7792-7796.	7.2	145
288	Thermoelectric Devices for Power Generation: Recent Progress and Future Challenges. Advanced Engineering Materials, 2016, 18, 194-213.	1.6	307
289	The Origin of Ultralow Thermal Conductivity in InTe: Loneâ€Pairâ€Induced Anharmonic Rattling. Angewandte Chemie, 2016, 128, 7923-7927.	1.6	56
290	Material Dependence of the Thermoelectric Figure of Merit. Materials Transactions, 2016, 57, 1035-1039.	0.4	3
291	On the tuning of electrical and thermal transport in thermoelectrics: an integrated theoryâ€“experiment perspective. Npj Computational Materials, 2016, 2, .	3.5	399
292	Multiple Converged Conduction Bands in K₂Bi₈Se₁₃: A Promising Thermoelectric Material with Extremely Low Thermal Conductivity. Journal of the American Chemical Society, 2016, 138, 16364-16371.	6.6	130
294	Chapter 4 All-Scale Hierarchical PbTe. , 2016, , 125-158.		4
295	Tetradymites: Bi2Te3-Related Materials. , 2016, , 53-108.		1
296	Thermoelectric transport in the layered Ca3Co4â€“xRhxO9 single crystals. Journal of Applied Physics, 2016, 119, 225105.	1.1	10
297	Thermal Conductivity and Thermoelectric Power of Semiconductors. , 2016, , .		6
298	High thermoelectric potential of Bi2Te3 alloyed GeTe-rich phases. Journal of Applied Physics, 2016, 120, .	1.1	75
299	Electronic structure of some complex thermoelectrics â€“ role of dimensional confinement and nanostructuring. Proceedings of SPIE, 2016, , .	0.8	0
300	Cross-plane heat conduction in thin films with ab-initio phonon dispersions and scattering rates. Applied Physics Letters, 2016, 108, .	1.5	44
301	Thermal insulator transition induced by interface scattering. Applied Physics Letters, 2016, 109, .	1.5	5

#	Article	IF	Citations
302	Two-Step Phase Transition in SnSe and the Origins of its High Power Factor from First Principles. Physical Review Letters, 2016, 117, 276601.	2.9	91
304	Full-scale computation for all the thermoelectric property parameters of half-Heusler compounds. Scientific Reports, 2016, 6, 22778.	1.6	79
305	Structural Phase Transition and Material Properties of Few-Layer Monochalcogenides. Physical Review Letters, 2016, 117, 246802.	2.9	101
306	Tinselenidene: a Two-dimensional Auxetic Material with Ultralow Lattice Thermal Conductivity and Ultrahigh Hole Mobility. Scientific Reports, 2016, 6, 19830.	1.6	155
307	Design of a polymer thermoelectric generator using radial architecture. Journal of Applied Physics, 2016, 119, .	1.1	47
308	A low-temperature study of manganese-induced ferromagnetism and valence band convergence in tin telluride. Applied Physics Letters, 2016, 108, 182101.	1.5	12
309	High thermoelectric potential of n-type Pb1â^'xTixTe alloys. Journal of Applied Physics, 2016, 120, .	1.1	70
310	Ultralow lattice thermal conductivity in topological insulator TlBiSe2. Applied Physics Letters, 2016, 108, .	1.5	29
311	Thermoelectric properties of n-type Nb-doped Ag8SnSe6. Journal of Applied Physics, 2016, 119, .	1.1	27
312	Electrical and thermal transports of binary copper sulfides CuxS with x from 1.8 to 1.96. APL Materials, 2016, 4, .	2.2	59
313	Enhanced thermoelectric performance of SnSe based composites with carbon black nanoinclusions. Applied Physics Letters, 2016, 109, .	1.5	30
314	Mechanochemical synthesis of high thermoelectric performance bulk Cu2X (X = S, Se) materials. APL Materials, 2016, 4, .	2.2	30
315	Thermoelectrics Are Hot (and Cold): Insights from Division of Inorganic Chemistryâ€™s Young Investigator Awardee, Sponsored by Chemistry of Materials. Chemistry of Materials, 2016, 28, 7567-7569.	3.2	1
316	Achieving ZT=2.2 with Bi-doped n-type SnSe single crystals. Nature Communications, 2016, 7, 13713.	5.8	346
317	Modelling of segmented high-performance thermoelectric generators with effects of thermal radiation, electrical and thermal contact resistances. Scientific Reports, 2016, 6, 24123.	1.6	109
318	The effects of Ge doping on the thermoelectric performance of p-type polycrystalline SnSe. RSC Advances, 2016, 6, 114825-114829.	1.7	22
319	Field-effect transistors of high-mobility few-layer SnSe2. Applied Physics Letters, 2016, 109, .	1.5	73
320	Structural anisotropy results in strain-tunable electronic and optical properties in monolayer GeX and SnX (X = S, Se, Te). Journal of Chemical Physics, 2016, 144, 114708.	1.2	161

#	Article	IF	Citations
321	Enhancement of figure of merit (ZT) by doping Bi in Mg2Si for energy harvesting applications. Progress in Natural Science: Materials International, 2016, 26, 533-539.	1.8	14
322	Optimization of thermoelectric properties in n-type SnSe doped with BiCl3. Applied Physics Letters, 2016, 108, .	1.5	103
323	Carrier concentration dependence of structural disorder in thermoelectric Sn_{1â^'x}Te. IUCrJ, 2016, 3, 377-388.	1.0	21
324	Solar thermoelectricity via advanced latent heat storage. AIP Conference Proceedings, 2016, , .	0.3	7
325	Thermoelectric effects and topological insulators. Chinese Physics B, 2016, 25, 117309.	0.7	23
326	Large lateral photovoltaic effect with ultrafast relaxation time in SnSe/Si junction. Applied Physics Letters, 2016, 109, .	1.5	42
327	Research Update: Prediction of high figure of merit plateau in SnS and solid solution of (Pb,Sn)S. APL Materials, 2016, 4, .	2.2	29
328	Potential thermoelectric material ${mathrm{Cs}}_{2}[{mathrm{PdCl}}_{4}]{{m{I}}}_{2}$: a first-principles study. Materials Research Express, 2016, 3, 085903.	0.8	2
329	Boltzmann transport calculation of thermoelectric properties in Ag2Se1â^'xTex (xâ€‰=â€‰0.0 and 0.5). Journal of Applied Physics, 2016, 119, 165101.	1.1	4
330	SIKAâ€”the multiplexing cold-neutron triple-axis spectrometer at ANSTO. Journal of Instrumentation, 2016, 11, P10009-P10009.	0.5	25
331	Recent advances in 2D thermoelectric materials. Proceedings of SPIE, 2016, , .	0.8	4
332	Understanding thermoelectric properties from high-throughput calculations: trends, insights, and comparisons with experiment. Journal of Materials Chemistry C, 2016, 4, 4414-4426.	2.7	193
333	Thermoelectric properties of Ni-doped BaSi₂. Functional Materials Letters, 2016, 09, 1650017.	0.7	5
334	Powder metallurgy for thermoelectrics. Metal Powder Report, 2016, 71, 279-284.	0.3	4
335	Crystal structure and phase transition of thermoelectric SnSe. Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2016, 72, 310-316.	0.5	70
336	Thermoelectric Generation Based on Spin Seebeck Effects. Proceedings of the IEEE, 2016, 104, 1946-1973.	16.4	232
337	Effect of cooling rate on the thermoelectric and mechanical performance of Bi0.5Sb1.5Te3 prepared under a high magnetic field. Intermetallics, 2016, 72, 62-68.	1.8	9
338	Chemically Exfoliated SnSe Nanosheets and Their SnSe/Poly(3,4-ethylenedioxythiophene):Poly(styrenesulfonate) Composite Films for Polymer Based Thermoelectric Applications. ACS Nano, 2016, 10, 5730-5739.	7.3	232

#	Article	IF	Citations
339	Enhanced thermoelectric performance in Mg and Ca substituted CdO ceramics. RSC Advances, 2016, 6, 42249-42254.	1.7	2
340	Chemical Pressure Schemes for the Prediction of Soft Phonon Modes: A Chemistâ€™s Guide to the Vibrations of Solid State Materials. Chemistry of Materials, 2016, 28, 3171-3183.	3.2	42
341	Growth of Large-Size SnS Thin Crystals Driven by Oriented Attachment and Applications to Gas Sensors and Photodetectors. ACS Applied Materials & Interfaces, 2016, 8, 9545-9551.	4.0	94
342	n-Type Bi₂Te_{3â€“x}Se_x Nanoplates with Enhanced Thermoelectric Efficiency Driven by Wide-Frequency Phonon Scatterings and Synergistic Carrier Scatterings. ACS Nano, 2016, 10, 4719-4727.	7.3	303
343	Thermoelectric properties of SnSe nanoribbons: a theoretical aspect. Materials Research Express, 2016, 3, 035013.	0.8	13
344	A microscopic study investigating the structure of SnSe surfaces. Surface Science, 2016, 651, 5-9.	0.8	33
345	Fabrication of conductive polymer/inorganic nanoparticles composite films: PEDOT:PSS with exfoliated tin selenide nanosheets for polymer-based thermoelectric devices. Chemical Engineering Journal, 2016, 297, 66-73.	6.6	64
346	Thermoelectric properties of nanoscale three dimensional Si phononic crystals. International Journal of Heat and Mass Transfer, 2016, 99, 102-106.	2.5	18
347	Development of Bi2Te2.4Se0.6 alloy for thermoelectric power generation applications. Journal of Alloys and Compounds, 2016, 679, 196-201.	2.8	67
348	Microstructure tailoring in nanostructured thermoelectric materials. Journal of Advanced Dielectrics, 2016, 06, 1630002.	1.5	24
349	Computational Prediction of High Thermoelectric Performance in Hole Doped Layered GeSe. Chemistry of Materials, 2016, 28, 3218-3226.	3.2	129
350	Intrinsic Ferroelasticity and/or Multiferroicity in Two-Dimensional Phosphorene and Phosphorene Analogues. Nano Letters, 2016, 16, 3236-3241.	4.5	491
351	The origin of low thermal conductivity in Sn_{1â^'x}Sb_xTe: phonon scattering via layered intergrowth nanostructures. Energy and Environmental Science, 2016, 9, 2011-2019.	15.6	234
352	Indium substitution effect on thermoelectric and optical properties of Sn1â^'In Se compounds. Journal of Alloys and Compounds, 2016, 682, 785-790.	2.8	36
353	Solvothermally synthesized SnS nanorods with high carrier mobility leading to thermoelectric enhancement. RSC Advances, 2016, 6, 43985-43988.	1.7	21
354	Enhanced Thermoelectricity in High-Temperature Î²-Phase Copper(I) Selenides Embedded with Cu₂Te Nanoclusters. ACS Applied Materials & Interfaces, 2016, 8, 15196-15204.	4.0	44
355	Diverse anisotropy of phonon transport in two-dimensional group IVâ€“VI compounds: A comparative study. Nanoscale, 2016, 8, 11306-11319.	2.8	234
356	Enhanced thermoelectric performance of MnTe via Cu doping with optimized carrier concentration. Journal of Materiomics, 2016, 2, 172-178.	2.8	24

#	Article	IF	Citations
357	On the relevance between fine structure and enhanced performance of skutterudite thermoelectric materials: X-ray spectroscopy studies. Journal of Materiomics, 2016, 2, 280-289.	2.8	9
358	Few-Layer Tin Sulfide: A New Black-Phosphorus-Analogue 2D Material with a Sizeable Band Gap, Oddâ€“Even Quantum Confinement Effect, and High Carrier Mobility. Journal of Physical Chemistry C, 2016, 120, 22663-22669.	1.5	130
359	Thermoelectric performance of Li doped, p-type Mg2(Ge,Sn) and comparison with Mg2(Si,Sn). Acta Materialia, 2016, 120, 273-280.	3.8	56
360	ZnGeSb₂: a promising thermoelectric material with tunable ultra-high conductivity. Physical Chemistry Chemical Physics, 2016, 18, 26275-26283.	1.3	11
361	SnSe: a remarkable new thermoelectric material. Energy and Environmental Science, 2016, 9, 3044-3060.	15.6	418
362	Vanadium-free colusites Cu₂₆A₂Sn₆S₃₂(A = Nb, Ta) for environmentally friendly thermoelectrics. Journal of Materials Chemistry A, 2016, 4, 15207-15214.	5.2	58
363	Vacancy scattering for enhancing the thermoelectric performance of CuGaTe₂ solid solutions. Journal of Materials Chemistry A, 2016, 4, 15464-15470.	5.2	106
364	Stable n-type thermoelectric multilayer thin films with high power factor from carbonaceous nanofillers. Nano Energy, 2016, 28, 426-432.	8.2	96
365	Fewâ€Layer Nanosheets of nâ€Type SnSe₂. Chemistry - A European Journal, 2016, 22, 15634-15638.	1.7	78
366	Engineering Band Structure via the Site Preference of Pb²⁺ in the In⁺ Site for Enhanced Thermoelectric Performance of In₆Se₇. ACS Applied Materials & Interfaces, 2016, 8, 23175-23180.	4.0	5
367	High Power Factor and Enhanced Thermoelectric Performance of SnTe-AgInTe₂: Synergistic Effect of Resonance Level and Valence Band Convergence. Journal of the American Chemical Society, 2016, 138, 13068-13075.	6.6	214
368	Low-Temperature Structure and Thermoelectric Properties of Pristine Synthetic Tetrahedrite Cu₁₂Sb₄S₁₃. Chemistry of Materials, 2016, 28, 6621-6627.	3.2	41
369	Role of iron in synthetic tetrahedrites revisited. Journal of Solid State Chemistry, 2016, 242, 62-69.	1.4	5
370	AXII4XIII5Te₁₂ (A = Rb, Cs; X^{II} = Mn, Zn, Cd; X^{III} = Ga, In): quaternary semiconducting tellurides with very low thermal conductivities. Dalton Transactions, 2016, 45, 17606-17609.	1.6	22
371	Raising thermoelectric performance of n-type SnSe via Br doping and Pb alloying. RSC Advances, 2016, 6, 98216-98220.	1.7	107
372	Realizing High Figure of Merit in Phase-Separated Polycrystalline Sn_{1â€“x}Pb_xSe. Journal of the American Chemical Society, 2016, 138, 13647-13654.	6.6	201
373	High thermoelectric performance in Te-free (Bi,Sb)₂Se₃via structural transition induced band convergence and chemical bond softening. Energy and Environmental Science, 2016, 9, 3436-3447.	15.6	159
374	Porous nanostructures of SnSe: role of ionic liquid, tuning of nanomorphology and mechanistic studies. RSC Advances, 2016, 6, 92934-92942.	1.7	11

#	Article	IF	Citations
375	Thermoelectric properties of polycrystalline SnSe_{1Â±x} prepared by mechanical alloying and spark plasma sintering. RSC Advances, 2016, 6, 92335-92340.	1.7	17
376	First-principles Debyeâ€“Callaway approach to lattice thermal conductivity. Journal of Materiomics, 2016, 2, 237-247.	2.8	53
377	Band structure engineering in highly degenerate tetrahedrites through isovalent doping. Journal of Materials Chemistry A, 2016, 4, 17096-17103.	5.2	44
378	Clathrate thermoelectrics. Materials Science and Engineering Reports, 2016, 108, 1-46.	14.8	160
379	Potential thermoelectric materials CsMI₃ (M = Sn and Pb) in perovskite structures from first-principles calculations. RSC Advances, 2016, 6, 101552-101559.	1.7	36
380	Modeling the Thermoelectric Properties of Ti5O9 MagnÃ©li Phase Ceramics. Journal of Electronic Materials, 2016, 45, 5526-5532.	1.0	9
381	Optoelectronic properties and Seebeck coefficient in SnSe thin films. Journal of Semiconductors, 2016, 37, 093002.	2.0	34
382	Epitaxy of Ultrathin SnSe Single Crystals on Polydimethylsiloxane: Inâ€Plane Electrical Anisotropy and Gateâ€Tunable Thermopower. Advanced Electronic Materials, 2016, 2, 1600292.	2.6	31
383	Lead-free tin chalcogenide thermoelectric materials. Inorganic Chemistry Frontiers, 2016, 3, 1449-1463.	3.0	42
384	Enhancement of thermoelectric properties of Ce0.9Fe3.75Ni0.25Sb12p-type skutterudite by tellurium addition. Journal of Materials Chemistry A, 2016, 4, 16499-16506.	5.2	13
385	Ce1â^'xSrxZnSbO: New thermoelectric materials formed between intermetallics and oxides. Journal of Alloys and Compounds, 2016, 688, 849-853.	2.8	12
386	Rapid synthesis of thermoelectric compounds by laser melting. Materials and Design, 2016, 106, 30-36.	3.3	9
387	Understanding of the Extremely Low Thermal Conductivity in Highâ€Performance Polycrystalline SnSe through Potassium Doping. Advanced Functional Materials, 2016, 26, 6836-6845.	7.8	201
388	Anisotropic Thermoelectric Response in Two-Dimensional Puckered Structures. Journal of Physical Chemistry C, 2016, 120, 18841-18849.	1.5	84
389	Phonon anharmonicity and negative thermal expansion in SnSe. Physical Review B, 2016, 94, .	1.1	90
390	Concerted Rattling in CsAg₅Te₃ Leading to Ultralow Thermal Conductivity and High Thermoelectric Performance. Angewandte Chemie - International Edition, 2016, 55, 11431-11436.	7.2	144
391	Concerted Rattling in CsAg₅Te₃ Leading to Ultralow Thermal Conductivity and High Thermoelectric Performance. Angewandte Chemie, 2016, 128, 11603-11608.	1.6	28
392	Spray-Coated Multiwalled Carbon Nanotube Composite Electrodes for Thermal Energy Scavenging Electrochemical Cells. ACS Applied Materials & Interfaces, 2016, 8, 22159-22167.	4.0	37

#	Article	IF	Citations
393	Airâ€tolerant Fabrication and Enhanced Thermoelectric Performance of nâ€Type Singleâ€walled Carbon Nanotubes Encapsulating 1,1â€²â€Bis(diphenylphosphino)ferrocene. Chemistry - an Asian Journal, 2016, 11, 2423-2427.	1.7	36
394	The chemistry and structural thermal stability of hole-doped single crystalline SnSe. Journal of Alloys and Compounds, 2016, 688, 1088-1094.	2.8	12
395	Effects of pressure on anisotropic elastic properties and minimum thermal conductivity of D022-Ni3Nb phase: First-principles calculations. Journal of Alloys and Compounds, 2016, 688, 285-293.	2.8	38
396	Noble metalâ€doping of nanostructured tin(II) sulfide. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 699-705.	0.8	9
397	Multiple effects of Bi doping in enhancing the thermoelectric properties of SnTe. Journal of Materials Chemistry A, 2016, 4, 13171-13175.	5.2	128
398	Temperature Trapping: Energy-Free Maintenance of Constant Temperatures as Ambient Temperature Gradients Change. Physical Review Letters, 2016, 117, 055501.	2.9	95
399	Low Sound Velocity Contributing to the High Thermoelectric Performance of Ag₈SnSe₆. Advanced Science, 2016, 3, 1600196.	5.6	215
400	Simultaneous enhancement in the power factor and thermoelectric performance of copper sulfide by In₂S₃ doping. Journal of Materials Chemistry A, 2016, 4, 12624-12629.	5.2	40
401	Structural and thermoelectric properties of zintl-phase CaLiPn (Pn=As, Sb, Bi). Journal of Solid State Chemistry, 2016, 243, 198-206.	1.4	10
402	Rationally Designing High-Performance Bulk Thermoelectric Materials. Chemical Reviews, 2016, 116, 12123-12149.	23.0	1,624
403	Ab Initio-Based Bond Order Potential to Investigate Low Thermal Conductivity of Stanene Nanostructures. Journal of Physical Chemistry Letters, 2016, 7, 3752-3759.	2.1	80
404	Enhancement of figure of merit of thermoelectric materials: a new theoretical approach. Thermophysics and Aeromechanics, 2016, 23, 255-260.	0.1	0
405	Thermoelectric Properties of Cu₂SnSe₄ with Intrinsic Vacancy. Chemistry of Materials, 2016, 28, 6227-6232.	3.2	115
406	Ferroelectricity and Phase Transitions in Monolayer Group-IV Monochalcogenides. Physical Review Letters, 2016, 117, 097601.	2.9	468
407	Temperature induced phonon behaviour in germanium selenide thin films probed by Raman spectroscopy. Journal Physics D: Applied Physics, 2016, 49, 315301.	1.3	25
408	Anharmonicity in the High-Temperature<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>C</mml:mi><mml:mi>m</mml:mi><mml:mi>c</mml:mi><mml:mi>m</mml:mi></mml:math>Phase of SnSe: Soft Modes and Three-Phonon Interactions. Physical Review Letters, 2016, 117, 075502.	2.9	447
409	Nano-Sized Pattern Formation in Nonequilibrium Adsorptive Systems with Interacting Adsorbate. Springer Proceedings in Physics, 2016, , 69-84.	0.1	0
410	Extremely Low Thermal Conductivity in Thermoelectric Ge_{0.55}Pb_{0.45}Te Solid Solutions via Se Substitution. Chemistry of Materials, 2016, 28, 6367-6373.	3.2	42

#	Article	IF	Citations
411	Systhesizing SnTe nanocrystals leading to thermoelectric performance enhancement via an ultra-fast microwave hydrothermal method. Nano Energy, 2016, 28, 78-86.	8.2	79
412	Thermoelectric performance enhancement in n-type Bi2(TeSe)3 alloys owing to nanoscale inhomogeneity combined with a spark plasma-textured microstructure. NPG Asia Materials, 2016, 8, e275-e275.	3.8	152
413	Significant Enhancement in the Thermoelectric Properties of PEDOT:PSS Films through a Treatment with Organic Solutions of Inorganic Salts. ACS Applied Materials & Interfaces, 2016, 8, 23204-23211.	4.0	117
414	Vertical ambipolar barrier transistor based on black phosphorous-tin selenide van der waals heterojunction. , 2016, , .		0
415	Assembling Ï€-Conjugated Molecules with Negative Gaussian Curvature for Efficient Carbon-Based Metal-Free Thermoelectric Material. Journal of Physical Chemistry C, 2016, 120, 27829-27833.	1.5	7
416	Structural phase transition in polycrystalline SnSe: a neutron diffraction study in correlation with thermoelectric properties. Journal of Applied Crystallography, 2016, 49, 2138-2144.	1.9	24
417	Achieving high power factor and output power density in p-type half-Heuslers Nb _{1-x} Ti _x FeSb. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 13576-13581.	3.3	213
418	Characterization of structural defects in SnSe2 thin films grown by molecular beam epitaxy on GaAs (111)B substrates. Journal of Crystal Growth, 2016, 453, 58-64.	0.7	12
419	Thermoelectric properties of GeSe. Journal of Materiomics, 2016, 2, 331-337.	2.8	67
422	Synthesis of SnSe nanosheets by hydrothermal intercalation and exfoliation route and their photoresponse properties. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2016, 214, 46-50.	1.7	42
423	Ultrahigh power factor and enhanced thermoelectric performance of individual Te/TiS2nanocables. Nanotechnology, 2016, 27, 415704.	1.3	6
424	Origin of low thermal conductivity in SnSe. Physical Review B, 2016, 94, .	1.1	287
425	Controllable growth of layered selenide and telluride heterostructures and superlattices using molecular beam epitaxy. Journal of Materials Research, 2016, 31, 900-910.	1.2	85
426	Large cubic tin sulfideâ€“tin selenide thin film stacks for energy conversion. Thin Solid Films, 2016, 615, 415-422.	0.8	50
427	Enhanced thermoelectric performance of CdOâ€‰:â€‰Ag nanocomposites. Dalton Transactions, 2016, 45, 12215-12220.	1.6	16
428	Broadband phonon scattering in PbTe-based materials driven near ferroelectric phase transition by strain or alloying. Physical Review B, 2016, 93, .	1.1	28
429	Direct band gaps in group IV-VI monolayer materials: Binary counterparts of phosphorene. Physical Review B, 2016, 93, .	1.1	156
430	Minority carrier blocking to enhance the thermoelectric figure of merit in narrow-band-gap semiconductors. Physical Review B, 2016, 93, .	1.1	85

#	Article	IF	Citations
431	A review on nanostructures of high-temperature thermoelectric materials for waste heat recovery. Renewable and Sustainable Energy Reviews, 2016, 64, 635-659.	8.2	251
432	Improvement in Thermoelectric Properties by Tailoring at In and Te Site in In2Te5. Journal of Electronic Materials, 2016, 45, 5540-5545.	1.0	4
433	Ultralow Thermal Conductivity in Full Heusler Semiconductors. Physical Review Letters, 2016, 117, 046602.	2.9	163
434	Performance enhancement of thermoelectric waste heat recovery system by using metal foam inserts. Energy Conversion and Management, 2016, 124, 13-19.	4.4	55
435	Transport and mechanical properties of the double-filled p-type skutterudites La0.68Ce0.22Fe4â^'xCoxSb12. Acta Materialia, 2016, 117, 13-22.	3.8	26
436	Structural Phase Transition and Carrier Density Tuning in SnSe_xTe_{1â€‹}_x Nanoplates. Advanced Electronic Materials, 2016, 2, 1600144.	2.6	8
437	High performance thermoelectric materials and devices based on GeTe. Journal of Materials Chemistry C, 2016, 4, 7520-7536.	2.7	194
438	Enhanced thermoelectric performance in SnSe based composites with PbTe nanoinclusions. Energy, 2016, 116, 861-866.	4.5	43
439	Enhanced power factor via the control of structural phase transition in SnSe. Scientific Reports, 2016, 6, 26193.	1.6	32
440	Approaching the strongly anharmonic limit with ab initio calculations of materialsâ€™ vibrational properties â€“ a colloquium*. European Physical Journal B, 2016, 89, 1.	0.6	12
441	Electrical properties of SnSe under high-pressure. Computational Condensed Matter, 2016, 9, 77-81.	0.9	23
442	Low-symmetry two-dimensional materials for electronic and photonic applications. Nano Today, 2016, 11, 763-777.	6.2	113
443	Screening limited switching performance of multilayer 2D semiconductor FETs: the case for SnS. Nanoscale, 2016, 8, 19050-19057.	2.8	59
444	High performance humidity sensor and photodetector based on SnSe nanorods. Materials Research Express, 2016, 3, 105038.	0.8	62
445	Modeling the thermal conductivity of Si nanowires with surface roughness. , 2016, , .		3
446	Non-equilibrium processing leads to record high thermoelectric figure of merit in PbTeâ€“SrTe. Nature Communications, 2016, 7, 12167.	5.8	498
447	Enhanced thermoelectric properties of SnSe polycrystals via texture control. Physical Chemistry Chemical Physics, 2016, 18, 31821-31827.	1.3	53
448	Graphene thermal flux transistor. Nanoscale, 2016, 8, 19314-19325.	2.8	10

#	Article	IF	Citations
449	Two new phases of monolayer group-IV monochalcogenides and their piezoelectric properties. Physical Chemistry Chemical Physics, 2016, 18, 32514-32520.	1.3	85
450	First principles studies on the thermoelectric properties of (SrO)_m(SrTiO₃)_n superlattice. RSC Advances, 2016, 6, 102172-102182.	1.7	11
451	Thermoelectric materials by using two-dimensional materials with negative correlation between electrical and thermal conductivity. Nature Communications, 2016, 7, 12011.	5.8	173
452	Probing the Dynamic Fluctuations of Bismuth Nanoparticles by Thermovoltage Measurements. Journal of Physical Chemistry C, 2016, 120, 18925-18930.	1.5	0
453	Concentrating solar thermoelectric generators with a peak efficiency of 7.4%. Nature Energy, 2016, 1, .	19.8	269
454	Defect Chemistry for Thermoelectric Materials. Journal of the American Chemical Society, 2016, 138, 14810-14819.	6.6	161
455	Electron-phonon scattering effects on electronic and optical properties of orthorhombic GeS. Physical Review B, 2016, 94, .	1.1	18
456	Extraordinary Off-Stoichiometric Bismuth Telluride for Enhanced n-Type Thermoelectric Power Factor. Journal of the American Chemical Society, 2016, 138, 14458-14468.	6.6	85
457	Thermoelectric properties of copper chalcogenide alloys deposited via the solution-phase using a thiolâ€“amine solvent mixture. RSC Advances, 2016, 6, 99905-99913.	1.7	25
458	Giant Seebeck effect in Ge-doped SnSe. Scientific Reports, 2016, 6, 26774.	1.6	67
459	Enhanced ZT and attempts to chemically stabilize Cu₂Se via Sn doping. Journal of Materials Chemistry A, 2016, 4, 17225-17235.	5.2	84
460	Thermoelectric performance of conducting aerogels based on carbon nanotube/silver nanocomposites with ultralow thermal conductivity. RSC Advances, 2016, 6, 109878-109884.	1.7	6
461	The intrinsic thermal conductivity of SnSe. Nature, 2016, 539, E1-E2.	13.7	140
462	Zhao et al. reply. Nature, 2016, 539, E2-E3.	13.7	13
463	Combining Solid-state and Solution-based Techniques: Synthesis and Reactivity of Chalcogenidoplumbates(II or IV). Journal of Visualized Experiments, 2016, , .	0.2	1
464	Causality in thermoelectric systems: Insights from block diagrams. European Physical Journal Plus, 2016, 131, 1.	1.2	1
465	Development of High-performance Thermoelectric Materials on the Basis of a Newly Constructed Guiding Principle. Materia Japan, 2016, 55, 311-315.	0.1	0
466	Engineering Thermal Conductivity for Balancing Between Reliability and Performance of Bulk Thermoelectric Generators. Advanced Functional Materials, 2016, 26, 3678-3686.	7.8	25

#	Article	IF	Citations
467	Minimum Thermal Conductivity in Weak Topological Insulators with Bismuthâ€Based Stack Structure. Advanced Functional Materials, 2016, 26, 5360-5367.	7.8	29
468	Synergistically Optimizing Electrical and Thermal Transport Properties of BiCuSeO via a Dualâ€Doping Approach. Advanced Energy Materials, 2016, 6, 1502423.	10.2	178
469	Thinking Like a Chemist: Intuition in Thermoelectric Materials. Angewandte Chemie - International Edition, 2016, 55, 6826-6841.	7.2	639
470	Epitaxy of Layered Orthorhombic SnSâ€“SnS_xSe_{(1â^’}_x₎ Coreâ€“Shell Heterostructures with Anisotropic Photoresponse. Advanced Functional Materials, 2016, 26, 4673-4679.	7.8	45
471	Thermoelectric high-entropy alloys with low lattice thermal conductivity. RSC Advances, 2016, 6, 52164-52170.	1.7	91
472	Integration of low-dimensional materials for energy-harvesting applications: current progress, scope, challenges, and opportunities. Nanotechnology Reviews, 2016, 5, .	2.6	5
473	Manipulating the Combustion Wave during Self-Propagating Synthesis for High Thermoelectric Performance of Layered Oxychalcogenide Bi_{1â€“x}Pb_xCuSeO. Chemistry of Materials, 2016, 28, 4628-4640.	3.2	88
474	Dynamic disorder, phonon lifetimes, and the assignment of modes to the vibrational spectra of methylammonium lead halide perovskites. Physical Chemistry Chemical Physics, 2016, 18, 27051-27066.	1.3	325
475	CsBi₄Te₆: a new facile synthetic method and mid-temperature thermoelectric performance. Dalton Transactions, 2016, 45, 11931-11934.	1.6	7
476	Methods to form atomically thin carbon coatings on SnS and SnO2 nanostructures. RSC Advances, 2016, 6, 61180-61184.	1.7	3
477	Electron-Beam Induced Transformations of Layered Tin Dichalcogenides. Nano Letters, 2016, 16, 4410-4416.	4.5	109
478	Recent advances in high-performance bulk thermoelectric materials. International Materials Reviews, 2016, 61, 379-415.	9.4	394
479	Impacts of Cu deficiency on the thermoelectric properties of Cu2â^’XSe nanoplates. Acta Materialia, 2016, 113, 140-146.	3.8	87
480	Effect of SiC ceramics on thermoelectric properties of SiC/SnSe composites for solid-state thermoelectric applications. Ceramics International, 2016, 42, 9550-9556.	2.3	32
481	Exploring phase stability, electronic and mechanical properties of Ceâ€“Pb intermetallic compounds using first-principles calculations. Journal of Solid State Chemistry, 2016, 237, 385-393.	1.4	11
482	Synthesis, structure, and electronic structure calculation of a new centrosymmetric borate Pb2O[BO2(OH)] based on anion-centered OPb4 tetrahedra. Journal of Solid State Chemistry, 2016, 240, 61-66.	1.4	6
483	Comparative Study of Electronic Structure and Thermoelectric Properties of SnSe for Pnma and Cmcm Phase. Journal of Electronic Materials, 2016, 45, 5232-5237.	1.0	17
484	Criteria for extending the operation periods of thermoelectric converters based on IV-VI compounds. Journal of Solid State Chemistry, 2016, 241, 79-85.	1.4	65

#	Article	IF	Citations
485	Efficient and Robust Thermoelectric Power Generation Device Using Hot-Pressed Metal Contacts on Nanostructured Half-Heusler Alloys. Journal of Electronic Materials, 2016, 45, 6047-6051.	1.0	34
486	Origin of the Orderâ€“Disorder Transition and the Associated Anomalous Change of Thermopower in AgBiS₂ Nanocrystals: A Combined Experimental and Theoretical Study. Inorganic Chemistry, 2016, 55, 6323-6331.	1.9	45
487	Lithium Doping to Enhance Thermoelectric Performance of MgAgSb with Weak Electronâ€“Phonon Coupling. Advanced Energy Materials, 2016, 6, 1502269.	10.2	122
488	Denken wie ein Chemiker: Thermoelektrika intuitiv. Angewandte Chemie, 2016, 128, 6938-6954.	1.6	33
489	Data mining our way to the next generation of thermoelectrics. Scripta Materialia, 2016, 111, 10-15.	2.6	106
490	Effect of high pressure on thermoelectric performance and electronic structure of SnSe via HPHT. Journal of Alloys and Compounds, 2016, 667, 123-129.	2.8	37
491	Pressure-driven semiconducting-semimetallic transition in SnSe. Physical Chemistry Chemical Physics, 2016, 18, 5012-5018.	1.3	50
492	Combustion synthesis of Cu 2 SnSe 3 thermoelectric materials. Journal of the European Ceramic Society, 2016, 36, 1407-1415.	2.8	26
493	Effects of Sn Substitution on Thermoelectric Properties of Ge4SbTe5. Journal of Electronic Materials, 2016, 45, 1077-1084.	1.0	1
494	A hot tip: imaging phenomena using in situ multi-stimulus probes at high temperatures. Nanoscale, 2016, 8, 3164-3180.	2.8	11
495	The thermoelectric performance of anisotropic SnSe doped with Na. RSC Advances, 2016, 6, 9112-9116.	1.7	95
496	â€œPhononâ€•scattering beyond perturbation theory. Science China: Physics, Mechanics and Astronomy, 2016, 59, 1.	2.0	6
497	Thermoelectric Properties of Zintl Phase Compounds of Ca1â^'x Eu x Zn2Sb2 (0Ââ‰ÂxÂâ‰Â1). Journal of Electronic Materials, 2016, 45, 1942-1946.	1.0	27
498	TE Design Lab: A virtual laboratory for thermoelectric material design. Computational Materials Science, 2016, 112, 368-376.	1.4	98
499	Diorganotin(<scp>iv</scp>) 4,6-dimethyl-2-pyrimidyl selenolates: synthesis, structures and their utility as molecular precursors for the preparation of SnSe₂ nano-sheets and thin films. RSC Advances, 2016, 6, 8367-8376.	1.7	21
500	Electrical transport and mechanical properties of thermoelectric tin selenide. RSC Advances, 2016, 6, 11562-11569.	1.7	44
501	A Theoretical Model of Thermoelectric Transport Properties for Electrons and Phonons. Journal of Electronic Materials, 2016, 45, 1115-1141.	1.0	13
502	Confined lattice dynamics of single and quadruple SnSe bilayers in [(SnSe)_{1.04}]_m[MoSe₂]_nferecrystals. Nanoscale, 2016, 8, 856-861.	2.8	2

#	Article	IF	Citations
503	Origins of ultralow thermal conductivity in bulk [6,6]-phenyl-C₆₁-butyric acid methyl ester (PCBM). Physical Chemistry Chemical Physics, 2016, 18, 1185-1190.	1.3	20
504	Broad temperature plateau for high ZTs in heavily doped p-type SnSe single crystals. Energy and Environmental Science, 2016, 9, 454-460.	15.6	396
505	Micro-scale energy harvesting devices: Review of methodological performances in the last decade. Renewable and Sustainable Energy Reviews, 2016, 54, 1035-1047.	8.2	184
506	Computational materials design of crystalline solids. Chemical Society Reviews, 2016, 45, 6138-6146.	18.7	105
507	GeAs: Highly Anisotropic van der Waals Thermoelectric Material. Chemistry of Materials, 2016, 28, 2776-2785.	3.2	78
508	Metalâ€“metal chalcogenide molecular precursors to binary, ternary, and quaternary metal chalcogenide thin films for electronic devices. Chemical Communications, 2016, 52, 5007-5010.	2.2	59
509	Polytypism and unexpected strong interlayer coupling in two-dimensional layered ReS₂. Nanoscale, 2016, 8, 8324-8332.	2.8	120
510	Thermoelectric studies of IVâ€“VI semiconductors for renewable energy resources. Materials Science in Semiconductor Processing, 2016, 48, 85-94.	1.9	58
511	Chemically Tailoring Semiconducting Two-Dimensional Transition Metal Dichalcogenides and Black Phosphorus. ACS Nano, 2016, 10, 3900-3917.	7.3	232
512	Key issues in development of thermoelectric power generators: High figure-of-merit materials and their highly conducting interfaces with metallic interconnects. Energy Conversion and Management, 2016, 114, 50-67.	4.4	231
513	Direct Contact Resistance Evaluation of Thermoelectric Legs. Experimental Mechanics, 2016, 56, 861-869.	1.1	31
514	AgI alloying in SnTe boosts the thermoelectric performance via simultaneous valence band convergence and carrier concentration optimization. Journal of Solid State Chemistry, 2016, 242, 43-49.	1.4	59
515	Enhanced Thermoelectric Properties in the Counter-Doped SnTe System with Strained Endotaxial SrTe. Journal of the American Chemical Society, 2016, 138, 2366-2373.	6.6	269
516	Ternary CuSbSe₂ chalcostibite: facile synthesis, electronic-structure and thermoelectric performance enhancement. Journal of Materials Chemistry A, 2016, 4, 4188-4193.	5.2	69
517	Pressure-induced polymorphism in nanostructured SnSe. Journal of Applied Crystallography, 2016, 49, 213-221.	1.9	20
518	A new nanocrystalline binary phase: synthesis and properties of cubic tin monoselenide. CrystEngComm, 2016, 18, 1918-1923.	1.3	59
519	On-chip thermoelectric module comprised of oxide thin film legs. Energy Conversion and Management, 2016, 114, 251-257.	4.4	22
520	Ionic thermoelectric supercapacitors. Energy and Environmental Science, 2016, 9, 1450-1457.	15.6	312

#	Article	IF	Citations
521	Large thermoelectric power factors and impact of texturing on the thermal conductivity in polycrystalline SnSe. Journal of Materials Chemistry C, 2016, 4, 1685-1691.	2.7	94
522	Prediction of the band structures of Bi2Te3-related binary and Sb/Se-doped ternary thermoelectric materials. Journal of the Korean Physical Society, 2016, 68, 115-120.	0.3	30
523	Two-Dimensional Disorder in Black Phosphorus and Monochalcogenide Monolayers. Nano Letters, 2016, 16, 1704-1712.	4.5	96
524	Effects of doping and planar defects on the thermoelectric properties of InAs nanowires. RSC Advances, 2016, 6, 7791-7797.	1.7	8
525	Enhanced mid-temperature thermoelectric performance of textured SnSe polycrystals made of solvothermally synthesized powders. Journal of Materials Chemistry C, 2016, 4, 2047-2055.	2.7	122
526	Enhanced thermoelectric properties of Cu doped ZnSb based thin films. Journal of Alloys and Compounds, 2016, 668, 8-12.	2.8	21
527	High thermoelectric performance of fullerene doped Bi0.5Sb1.5Te3 alloys. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2016, 205, 36-39.	1.7	11
528	High-temperature oxidation behavior of thermoelectric SnSe. Journal of Alloys and Compounds, 2016, 669, 224-231.	2.8	69
529	Role of iron in synthetic tetrahedrites revisited. Journal of Solid State Chemistry, 2016, 235, 28-35.	1.4	16
530	The effect of doping on thermoelectric performance of p-type SnSe: Promising thermoelectric material. Journal of Alloys and Compounds, 2016, 668, 152-158.	2.8	130
531	Enhanced thermoelectric performance in the Rashba semiconductor BiTeI through band gap engineering. Journal of Physics Condensed Matter, 2016, 28, 085801.	0.7	22
532	Enhanced thermoelectric properties of earth-abundant Cu2SnS3 via In doping effect. Journal of Alloys and Compounds, 2016, 672, 558-563.	2.8	67
533	Preparation and characterization of segmented stacking for thermoelectric power generation. Clean Technologies and Environmental Policy, 2016, 18, 1203-1210.	2.1	10
534	PVAc/PEDOT:PSS/grapheneâ€“iron oxide nanocomposite (GINC): an efficient thermoelectric material. RSC Advances, 2016, 6, 22453-22460.	1.7	32
535	Review of Thermoelectric Materials. Springer Series in Materials Science, 2016, , 153-195.	0.4	5
536	Modulation doping and energy filtering as effective ways to improve the thermoelectric power factor. Journal of Computational Electronics, 2016, 15, 16-26.	1.3	36
537	Thermoelectric and mechanical properties of ZnSb/SiC nanocomposites. Journal of Materials Science, 2016, 51, 5271-5280.	1.7	23
538	Cr₂Ge₂Te₆: High Thermoelectric Performance from Layered Structure with High Symmetry. Chemistry of Materials, 2016, 28, 1611-1615.	3.2	78

#	Article	IF	Citations
539	High thermoelectric performance of n-type PbTe1â^'S due to deep lying states induced by indium doping and spinodal decomposition. Nano Energy, 2016, 22, 572-582.	8.2	59
540	Thermoelectric Properties of Tl-Doped SnSe: A Hint of Phononic Structure. Journal of Electronic Materials, 2016, 45, 2943-2949.	1.0	33
541	Evaluating the life cycle CO 2 emissions and costs of thermoelectric generators for passenger automobiles: a scenario analysis. Journal of Cleaner Production, 2016, 126, 607-619.	4.6	66
542	Ultrafast breathing humidity sensing properties of low-dimensional Fe-doped SnO₂ flower-like spheres. RSC Advances, 2016, 6, 27008-27015.	1.7	30
543	Efficacy of lone-pair electrons to engender ultralow thermal conductivity. Scripta Materialia, 2016, 111, 49-53.	2.6	24
544	Anisotropic Electron-Photon and Electron-Phonon Interactions in Black Phosphorus. Nano Letters, 2016, 16, 2260-2267.	4.5	328
545	ZnSb Polymorphs with Improved Thermoelectric Properties. Chemistry of Materials, 2016, 28, 2912-2920.	3.2	16
546	Predicting high thermoelectric performance of ABX ternary compounds NaMgX (X = P, Sb, As) with weak electronâ€“phonon coupling and strong bonding anharmonicity. Journal of Materials Chemistry C, 2016, 4, 3281-3289.	2.7	43
547	The effect of Ni doping on the thermoelectric transport properties of CdO ceramics. Journal of Alloys and Compounds, 2016, 662, 213-219.	2.8	30
548	Studies on thermoelectric figure of merit of Na-doped p-type polycrystalline SnSe. Journal of Materials Chemistry A, 2016, 4, 1848-1854.	5.2	210
549	Tellurium as a high-performance elemental thermoelectric. Nature Communications, 2016, 7, 10287.	5.8	369
550	Direct fabrication of highly-dense Cu2ZnSnSe4 bulk materials by combustion synthesis for enhanced thermoelectric properties. Materials and Design, 2016, 93, 238-246.	3.3	12
551	High thermoelectric performance from optimization of hole-doped CuInTe₂. Physical Chemistry Chemical Physics, 2016, 18, 5925-5931.	1.3	36
552	A T-type method for characterization of the thermoelectric performance of an individual free-standing single crystal Bi₂S₃nanowire. Nanoscale, 2016, 8, 2704-2710.	2.8	46
553	High performance thermoelectrics from earth-abundant materials: Enhanced figure of merit in PbS through nanostructuring grain size. Journal of Alloys and Compounds, 2016, 664, 411-416.	2.8	29
554	Searching for new thermoelectric materials: some examples among oxides, sulfides and selenides. Journal of Physics Condensed Matter, 2016, 28, 013001.	0.7	56
555	Predicted thermoelectric properties of olivine-type Fe₂GeCh₄(Châ€‰â€‰=â€‰â€‰S, Se and) Tj ETQq0 0 0	0.7	11
556	Effect of Zn substitution at a Cu site on the transport behavior and thermoelectric properties in Cu₃SbSe₄. RSC Advances, 2016, 6, 5528-5534.	1.7	31

#	Article	IF	Citations
557	Finding merit in dividing neighbors. Science, 2016, 351, 124-124.	6.0	18
558	Enhanced thermoelectric performance in p-type polycrystalline SnSe benefiting from texture modulation. Journal of Materials Chemistry C, 2016, 4, 1201-1207.	2.7	125
559	Thermoelectric transport properties of AgmPb100BimSe100+2m system. Journal of Materials Science: Materials in Electronics, 2016, 27, 2712-2717.	1.1	8
560	Reduction of thermal conductivity through nanostructuring enhances the thermoelectric figure of merit in Ge_{1â^'x}Bi_xTe. Inorganic Chemistry Frontiers, 2016, 3, 125-132.	3.0	128
561	Study of structural, electrical, and optical properties of nickel-doped tin selenide crystals. Canadian Journal of Physics, 2016, 94, 212-217.	0.4	2
562	Bi2Te3 nanoflowers assembled of defective nanosheets with enhanced thermoelectric performance. Journal of Alloys and Compounds, 2016, 659, 170-177.	2.8	24
563	Single parabolic band behavior of thermoelectric p-type CuGaTe₂. Journal of Materials Chemistry C, 2016, 4, 209-214.	2.7	94
564	Ultrahigh power factor and thermoelectric performance in hole-doped single-crystal SnSe. Science, 2016, 351, 141-144.	6.0	1,594
565	Importance of high power factor in thermoelectric materials for power generation application: A perspective. Scripta Materialia, 2016, 111, 3-9.	2.6	169
566	Effects of antimony content in MgAg0.97Sbx on output power and energy conversion efficiency. Acta Materialia, 2016, 102, 17-23.	3.8	45
567	Optimization of Thermoelectric Performance of Anisotropic Ag x Sn1â^'x Se Compounds. Journal of Electronic Materials, 2016, 45, 527-534.	1.0	58
568	Low-cost, abundant binary sulfides as promising thermoelectric materials. Materials Today, 2016, 19, 227-239.	8.3	257
569	Low temperature formation of rectangular PbTe nanocrystals and their thermoelectric properties. New Journal of Chemistry, 2016, 40, 265-277.	1.4	20
570	Thermal effects in nano-sized adsorbate islands growth processes at vapor deposition. Physica A: Statistical Mechanics and Its Applications, 2016, 444, 689-699.	1.2	6
571	The effect of orderâ€“disorder phase transitions and band gap evolution on the thermoelectric properties of AgCuS nanocrystals. Chemical Science, 2016, 7, 534-543.	3.7	58
572	The Thermoelectric Properties and Solubility Limit of CuFeS2(1â^'x)Se2x. Journal of Electronic Materials, 2016, 45, 1346-1350.	1.0	21
573	A First-Principles Theoretical Study on the Thermoelectric Properties of the Compound Cu5AlSn2S8. Journal of Electronic Materials, 2016, 45, 1453-1458.	1.0	6
574	Crystal growth and anisotropy of high temperature thermoelectric properties of yttrium borosilicide single crystals. Journal of Solid State Chemistry, 2016, 233, 1-7.	1.4	18

#	Article	IF	Citations
575	Thermoelectric Performance Enhancement of CeFe4Sb12 p-Type Skutterudite by Disorder on the Sb4 Rings Induced by Te Doping and Nanopores. Journal of Electronic Materials, 2016, 45, 1240-1244.	1.0	12
576	Status review on earth-abundant and environmentally green Sn-X (XÂ=ÂSe, S) nanoparticle synthesis by solution methods for photovoltaic applications. International Journal of Hydrogen Energy, 2017, 42, 2790-2831.	3.8	59
577	Thermoelectric properties of orthorhombic group IVâ€“VI monolayers from the first-principles calculations. Journal of Applied Physics, 2017, 121, .	1.1	89
578	Multiâ€Scale Microstructural Thermoelectric Materials: Transport Behavior, Nonâ€Equilibrium Preparation, and Applications. Advanced Materials, 2017, 29, 1602013.	11.1	234
579	Resonant level-induced high thermoelectric response in indium-doped GeTe. NPG Asia Materials, 2017, 9, e343-e343.	3.8	170
580	Structural metatransition of energetically tangled crystalline phases. Physical Chemistry Chemical Physics, 2017, 19, 4560-4566.	1.3	23
581	Reinvestigation of the thermal properties of single-crystalline SnSe. Applied Physics Letters, 2017, 110, .	1.5	72
582	Metal-organic complexes-towards promising organic thermoelectric materials. Synthetic Metals, 2017, 225, 22-30.	2.1	35
583	Thermal Properties of Two Dimensional Layered Materials. Advanced Functional Materials, 2017, 27, 1604134.	7.8	130
584	Hybridization of electronic band structure and enhancement of thermoelectric properties of ZnSb thin film by In doping. Journal of Physics and Chemistry of Solids, 2017, 103, 82-86.	1.9	9
585	Discovery of high-performance low-cost n-type Mg3Sb2-based thermoelectric materials with multi-valley conduction bands. Nature Communications, 2017, 8, 13901.	5.8	415
586	Enhanced thermoelectric performance of a chalcopyrite compound CuIn3Se5â^'xTex (xâ€‰=â€‰0~0.5) through crystal structure engineering. Scientific Reports, 2017, 7, 40224.	1.6	17
587	Strategy to optimize the overall thermoelectric properties of SnTe via compositing with its property-counter CuInTe2. Acta Materialia, 2017, 125, 542-549.	3.8	56
588	Computational prediction of high thermoelectric performance in p-type half-Heusler compounds with low band effective mass. Physical Chemistry Chemical Physics, 2017, 19, 4411-4417.	1.3	88
589	The New Semiconductor Cs₄Cu₃Bi₉S₁₇. Chemistry of Materials, 2017, 29, 1744-1751.	3.2	13
590	Structure, Magnetism, and Thermoelectric Properties of Magnesium-Containing Antimonide Zintl Phases Sr₁₄MgSb₁₁ and Eu₁₄MgSb₁₁. Inorganic Chemistry, 2017, 56, 1646-1654.	1.9	24
591	Perovskite-Inspired Photovoltaic Materials: Toward Best Practices in Materials Characterization and Calculations. Chemistry of Materials, 2017, 29, 1964-1988.	3.2	116
592	Ba₅Cu₈In₂S₁₂: a quaternary semiconductor with a unique 3D copper-rich framework and ultralow thermal conductivity. Chemical Communications, 2017, 53, 2590-2593.	2.2	41

#	Article	IF	Citations
593	Thermal conductivity of wurtzite and zinc blende cubic phases of BeO from ab initio calculations. Solid State Sciences, 2017, 65, 79-87.	1.5	13
594	Two-Dimensional SnS: A Phosphorene Analogue with Strong In-Plane Electronic Anisotropy. ACS Nano, 2017, 11, 2219-2226.	7.3	239
595	Interstitial Defects Improving Thermoelectric SnTe in Addition to Band Convergence. ACS Energy Letters, 2017, 2, 563-568.	8.8	123
596	Enhanced thermoelectric performance of SnSe doped with layered MoS 2 /graphene. Materials Letters, 2017, 193, 146-149.	1.3	33
597	Chemical Precipitation Synthesis and Thermoelectric Properties of Copper Sulfide. Journal of Electronic Materials, 2017, 46, 2432-2437.	1.0	21
598	Ultrahigh Thermoelectric Figure of Merit and Enhanced Mechanical Stability of p-type AgSb_{1â€“x}Zn_xTe₂. ACS Energy Letters, 2017, 2, 349-356.	8.8	76
599	Widely tunable and anisotropic charge carrier mobility in monolayer tin(<scp>ii</scp>) selenide using biaxial strain: a first-principles study. Journal of Materials Chemistry C, 2017, 5, 1247-1254.	2.7	104
600	The impact of lone-pair electrons on the lattice thermal conductivity of the thermoelectric compound CuSbS₂. Journal of Materials Chemistry A, 2017, 5, 3249-3259.	5.2	95
601	High Power Density Electrochemical Thermocells for Inexpensively Harvesting Lowâ€Grade Thermal Energy. Advanced Materials, 2017, 29, 1605652.	11.1	166
602	Enhancement of oxidation resistance of CoSb3 thermoelectric material by glass coating. Materials and Design, 2017, 119, 65-75.	3.3	13
603	Direct measurement of thermoelectric properties of Î²-MnO2in its powder form. Applied Physics Letters, 2017, 110, 023102.	1.5	0
604	High-Pressure Synthesis and Characterization of Î²-GeSeâ€”A Six-Membered-Ring Semiconductor in an Uncommon Boat Conformation. Journal of the American Chemical Society, 2017, 139, 2771-2777.	6.6	90
605	Effects of Sn-deficiency on thermoelectric properties of polycrystalline Sn1-Se compounds. Current Applied Physics, 2017, 17, 732-737.	1.1	15
606	Ideal Strength and Deformation Mechanism in High-Efficiency Thermoelectric SnSe. Chemistry of Materials, 2017, 29, 2382-2389.	3.2	50
607	Promising high temperature thermoelectric properties of dense Ba 2 Co 9 O 14 ceramics. Journal of the European Ceramic Society, 2017, 37, 2615-2620.	2.8	29
608	Spark plasma sintered BaTiO 3 /graphene composites for thermoelectric applications. Journal of the European Ceramic Society, 2017, 37, 3741-3746.	2.8	18
610	Electronic structure and transport coefficients of the thermoelectric materials Bi2Te3 from first-principles calculations. Journal Wuhan University of Technology, Materials Science Edition, 2017, 32, 11-15.	0.4	1
611	Temperature-Dependent Raman Responses of the Vapor-Deposited Tin Selenide Ultrathin Flakes. Journal of Physical Chemistry C, 2017, 121, 4674-4679.	1.5	94

#	Article	IF	Citations
612	Anisotropic phonon transport and lattice thermal conductivities in tin dichalcogenides SnS₂ and SnSe₂. RSC Advances, 2017, 7, 8098-8105.	1.7	50
613	Tuning the thermal conductivity of strontium titanate through annealing treatments. Chinese Physics B, 2017, 26, 016602.	0.7	15
614	Chlorineâ€Enabled Electron Doping in Solutionâ€Synthesized SnSe Thermoelectric Nanomaterials. Advanced Energy Materials, 2017, 7, 1602328.	10.2	64
615	Electronic origin of the high thermoelectric performance of GeTe among the p-type group IV monotellurides. NPG Asia Materials, 2017, 9, e353-e353.	3.8	223
616	Effect of secondary phases on thermoelectric properties of Cu 2 SnSe 3. Ceramics International, 2017, 43, 7002-7010.	2.3	29
617	Ultra-fast synthesis and high thermoelectric properties of heavy sodium doped BiCuSeO. Journal of Alloys and Compounds, 2017, 708, 955-960.	2.8	22
618	Panoscopic approach for high-performance Te-doped skutterudite. NPG Asia Materials, 2017, 9, e352-e352.	3.8	44
619	Thermoelectric SnS and SnS-SnSe solid solutions prepared by mechanical alloying and spark plasma sintering: Anisotropic thermoelectric properties. Scientific Reports, 2017, 7, 43262.	1.6	71
620	Rock-salt-type nanoprecipitates lead to high thermoelectric performance in undoped polycrystalline SnSe. RSC Advances, 2017, 7, 8258-8263.	1.7	40
621	High thermopower and potential thermoelectric properties of crystalline LiH and NaH. Physical Review B, 2017, 95, .	1.1	26
622	Promoting SnTe as an Ecoâ€Friendly Solution for pâ€PbTe Thermoelectric via Band Convergence and Interstitial Defects. Advanced Materials, 2017, 29, 1605887.	11.1	317
623	2D Chalcogenide Nanoplate Assemblies for Thermoelectric Applications. Advanced Materials, 2017, 29, 1700070.	11.1	54
624	Rhenium dichalcogenides (ReX₂, X = S or Se): an emerging class of TMDs family. Materials Chemistry Frontiers, 2017, 1, 1917-1932.	3.2	51
625	Carrier type change induced by fluorine doping in spin-chain compound Ca₃Co₂O₆. RSC Advances, 2017, 7, 2745-2752.	1.7	5
626	Pressure-induced low-lying phonon modes softening and enhanced thermal resistance in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Î²</mml:mi><mml:mtext>â^'</mml:mtext><mml:mi mathvariant="normal">M</mml:mi><mml:msub><mml:mi mathvariant="normal">g</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi mathvariant="normal">A</mml:mi><mml:msub><mml:mi mathvariant="normal">I</mml:mi><mml:mn>4</mml:mn></mml:msub><mml:mi	1.1	5
627	An enhanced Seebeck coefficient and high thermoelectric performance in p-type In and Mg co-doped Sn_{1â^'x}Pb_xTe via the co-adjuvant effect of the resonance level and heavy hole valence band. Journal of Materials Chemistry C, 2017, 5, 5737-5748.	2.7	54
628	Thermoelectric transport properties of polycrystalline SnSe alloyed with PbSe. Applied Physics Letters, 2017, 110, .	1.5	52
629	The microscopic origin of low thermal conductivity for enhanced thermoelectric performance of Yb doped MgAgSb. Acta Materialia, 2017, 128, 227-234.	3.8	49

#	Article	IF	Citations
630	Enhancing thermoelectric performance of n-type PbSe via additional meso-scale phonon scattering. Inorganic Chemistry Frontiers, 2017, 4, 719-726.	3.0	31
631	Thermoelectrics: Better half found. Nature Energy, 2017, 2, .	19.8	6
632	Substitutional defects enhancing thermoelectric CuGaTe₂. Journal of Materials Chemistry A, 2017, 5, 5314-5320.	5.2	87
633	Micro-Thermoelectric Generation Modules Fabricated with Low-Cost Mechanical Machining Processes. Journal of Electronic Materials, 2017, 46, 2999-3006.	1.0	1
634	High thermoelectric power factor in two-dimensional crystals of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Mo</mml:mi><mml:msub><mml:mi mathvariant="normal">S</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2017, 95, .	1.1	201
635	Thermoelectric silicides: A review. Japanese Journal of Applied Physics, 2017, 56, 05DA04.	0.8	129
636	Dependence of electrical transport properties of CaO(CaMnO3)m (mâ€‰=â€‰1, 2, 3, âˆž) thermoelectric oxides on lattice periodicity. Journal of Applied Physics, 2017, 121, .	1.1	15
637	Compromise and Synergy in Highâ€Efficiency Thermoelectric Materials. Advanced Materials, 2017, 29, 1605884.	11.1	1,098
638	Intrinsic Rattler-Induced Low Thermal Conductivity in Zintl Type TlInTe₂. Journal of the American Chemical Society, 2017, 139, 4350-4353.	6.6	177
639	Thermoelectric transport properties of BaBiTe3-based materials. Journal of Solid State Chemistry, 2017, 249, 131-135.	1.4	3
640	New tricks for optimizing thermoelectric materials. Current Opinion in Green and Sustainable Chemistry, 2017, 4, 23-28.	3.2	20
642	Origin of the enhancement in transport properties on polycrystalline SnSe with compositing two-dimensional material MoSe₂. Nanotechnology, 2017, 28, 105708.	1.3	20
643	Tuning the carrier scattering mechanism to effectively improve the thermoelectric properties. Energy and Environmental Science, 2017, 10, 799-807.	15.6	326
644	Structural optimization for thermoelectric properties in Cu-Bi-S pavonite compounds. Journal of Alloys and Compounds, 2017, 704, 282-288.	2.8	8
645	Lattice Dislocations Enhancing Thermoelectric PbTe in Addition to Band Convergence. Advanced Materials, 2017, 29, 1606768.	11.1	365
646	Lead monoxide: a two-dimensional ferromagnetic semiconductor induced by hole-doping. Journal of Materials Chemistry C, 2017, 5, 4520-4525.	2.7	17
647	Intramolecularly-stabilized Group 14 Alkoxides - Promising Precursors for the Synthesis of Group 14-Chalcogenides by Hot-Injection Method. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2017, 643, 676-682.	0.6	6
648	Growth and characterization of large size undoped p -type SnSe single crystal by Horizontal Bridgman method. Journal of Alloys and Compounds, 2017, 712, 857-862.	2.8	21

#	Article	IF	Citations
649	Novel p-type thermoelectric materials Cu₃MCh₄ (M = V, Nb, Ta; Ch = Se, Te): high band-degeneracy. Journal of Materials Chemistry A, 2017, 5, 9785-9792.	5.2	26
650	Tin Selenides with Layered Crystal Structures for Li-Ion Batteries: Interesting Phase Change Mechanisms and Outstanding Electrochemical Behaviors. ACS Applied Materials & Interfaces, 2017, 9, 15439-15448.	4.0	80
651	Improved Thermoelectric Behavior of Poly(3,4-ethylenedioxythiophene)-Poly(styrenesulfonate) Using Poly(N-vinyl-2-pyrrolidone)-coated GeO₂ Nanoparticles. Chemistry Letters, 2017, 46, 933-936.	0.7	12
652	Multi-cations compound Cu2CoSnS4: DFT calculating, band engineering and thermoelectric performance regulation. Nano Energy, 2017, 36, 156-165.	8.2	47
653	Defect-Controlled Electronic Structure and Phase Stability in Thermoelectric Skutterudite CoSb₃. Chemistry of Materials, 2017, 29, 3999-4007.	3.2	17
654	High Thermoelectric Performance in Electron-Doped AgBi₃S₅ with Ultralow Thermal Conductivity. Journal of the American Chemical Society, 2017, 139, 6467-6473.	6.6	160
655	Monolithic porous magnesium silicide. Dalton Transactions, 2017, 46, 8855-8860.	1.6	5
656	A Second Amorphous Layer Underneath Surface Oxide. Microscopy and Microanalysis, 2017, 23, 173-178.	0.2	16
657	Insights into the thermoelectric properties of SnSe from ab initio calculations. Physical Chemistry Chemical Physics, 2017, 19, 12804-12815.	1.3	42
658	Two-step fabrication of single-layer rectangular SnSe flakes. 2D Materials, 2017, 4, 021026.	2.0	57
659	Preparation and thermoelectric properties of mixed valence compound Sn₂S₃. Japanese Journal of Applied Physics, 2017, 56, 061201.	0.8	4
660	Simultaneous optimization of electrical and thermal transport properties of Bi0.5Sb1.5Te3 thermoelectric alloy by twin boundary engineering. Nano Energy, 2017, 37, 203-213.	8.2	164
661	Engineering the Thermoelectric Transport in Halfâ€Heusler Materials through a Bottomâ€Up Nanostructure Synthesis. Advanced Energy Materials, 2017, 7, 1700446.	10.2	48
662	The advent of graphene and other two-dimensional materials in membrane science and technology. Current Opinion in Chemical Engineering, 2017, 16, 78-85.	3.8	83
663	Anisotropic thermal expansion of SnSe from first-principles calculations based on GrÃ¼neisen's theory. Physical Chemistry Chemical Physics, 2017, 19, 15187-15193.	1.3	35
664	Defect Facilitated Phonon Transport through Kinks in Boron Carbide Nanowires. Nano Letters, 2017, 17, 3550-3555.	4.5	23
665	Chalcogenide Nanosheets: Optical Signatures of Many-Body Effects and Electronic Band Structure. Nanostructure Science and Technology, 2017, , 133-162.	0.1	2
666	An overview of cooling of thermoelectric devices. Renewable and Sustainable Energy Reviews, 2017, 78, 15-22.	8.2	98

#	Article	IF	Citations
667	Enhanced power factor and reduced Lorenz number in the Wiedemannâ€“Franz law due to pudding mold type band structures. Journal of Applied Physics, 2017, 121, .	1.1	40
668	Recent progress in p-type thermoelectric magnesium silicide based solid solutions. Materials Today Energy, 2017, 4, 105-121.	2.5	82
669	Giant Enhancement in High-Temperature Thermoelectric Figure-of-Merit of Layered Cobalt Oxide, LiCoO₂, Due to a Dual Strategyâ€”Co-Substitution and Lithiation. Inorganic Chemistry, 2017, 56, 5827-5838.	1.9	17
670	Lattice dynamics of the tin sulphides SnS₂, SnS and Sn₂S₃: vibrational spectra and thermal transport. Physical Chemistry Chemical Physics, 2017, 19, 12452-12465.	1.3	187
671	Investigation of thermoelectric properties of novel cubic phase SnSe: A promising material for thermoelectric applications. Journal of Alloys and Compounds, 2017, 715, 438-444.	2.8	38
672	Enhancing the thermoelectric performance of SnSe_{1âˆ’x}Te_x nanoplates through band engineering. Journal of Materials Chemistry A, 2017, 5, 10713-10721.	5.2	94
673	Highâ€Temperature Crystal Structure and Chemical Bonding in Thermoelectric Germanium Selenide (GeSe). Chemistry - A European Journal, 2017, 23, 6888-6895.	1.7	36
674	Sb induces both doping and precipitation for improving the thermoelectric performance of elemental Te. Inorganic Chemistry Frontiers, 2017, 4, 1066-1072.	3.0	45
675	Nanostructured SnSe: hydrothermal synthesis and disorder-induced enhancement of thermoelectric properties at medium temperatures. Journal of Materials Science, 2017, 52, 9728-9738.	1.7	17
676	Fe-based multifunctional nanoparticles with various physicochemical properties. Current Applied Physics, 2017, 17, 1066-1078.	1.1	15
677	Prediction of new group IV-V-VI monolayer semiconductors based on first principle calculation. Computational Materials Science, 2017, 135, 160-164.	1.4	19
678	Realizing the High Thermoelectric Performance of GeTe by Sb-Doping and Se-Alloying. Chemistry of Materials, 2017, 29, 605-611.	3.2	226
679	n-type Bi-doped PbTe Nanocubes with Enhanced Thermoelectric Performance. Nano Energy, 2017, 31, 105-112.	8.2	113
680	Intrinsically low thermal conductivity from a quasi-one-dimensional crystal structure and enhanced electrical conductivity network via Pb doping in SbCrSe3. NPG Asia Materials, 2017, 9, e387-e387.	3.8	37
681	Possible Mechanism for Hole Conductivity in Cuâ€“Asâ€“Te Thermoelectric Glasses: A XANES and EXAFS Study. Journal of Physical Chemistry C, 2017, 121, 14045-14050.	1.5	24
682	Low Thermal Conductivity and High Thermoelectric Performance in (GeTe)_{1â€“2x}(GeSe)_x(GeS)_x: Competition between Solid Solution and Phase Separation. Journal of the American Chemical Society, 2017, 139, 9382-9391.	6.6	190
683	Partial indium solubility induces chemical stability and colossal thermoelectric figure of merit in Cu₂Se. Energy and Environmental Science, 2017, 10, 1668-1676.	15.6	272
684	The effect of Sm doping on the transport and thermoelectric properties of SnSe. Materials Research Bulletin, 2017, 93, 366-372.	2.7	34

#	Article	IF	Citations
685	Improvements of thermoelectric properties for p-type Cu_{1.8}S bulk materials via optimizing the mechanical alloying process. Inorganic Chemistry Frontiers, 2017, 4, 1192-1199.	3.0	26
686	Carrier density control and enhanced thermoelectric performance of Bi and Cu co-doped GeTe. APL Materials, 2017, 5, 056103.	2.2	34
687	Nanowire-based thermoelectrics. Nanotechnology, 2017, 28, 282001.	1.3	23
688	Synthesis of SnSe nanobelts and the enhanced thermoelectric performance in its hot-pressed bulk composite. Nano Energy, 2017, 38, 569-575.	8.2	40
689	Boosting the Thermoelectric Performance of (Na,K)-Codoped Polycrystalline SnSe by Synergistic Tailoring of the Band Structure and Atomic-Scale Defect Phonon Scattering. Journal of the American Chemical Society, 2017, 139, 9714-9720.	6.6	168
690	Synthesis, crystal structures, and electronic properties of one dimensional Ba9Sn3(Te1â^'xSex)15 (x =) Tj ETQq1 1 0.784314 rgBT /Over	3.0	8
692	Energy Harvesting from the Animal/Human Body for Self-Powered Electronics. Annual Review of Biomedical Engineering, 2017, 19, 85-108.	5.7	285
693	Investigation on native defects of Î± -MgAgSb and its effects on thermoelectric properties using first principles calculations. Current Applied Physics, 2017, 17, 1279-1287.	1.1	7
694	Photoelectrochemical dopamine sensor based on a gold electrode modified with SnSe nanosheets. Mikrochimica Acta, 2017, 184, 3333-3338.	2.5	35
695	Thermoelectric performance of polycrystalline Sn 1-x Cu x Se (x Â=Â0â€“0.03) prepared by high pressure method. Intermetallics, 2017, 89, 40-45.	1.8	37
696	A new semiconductor Al 2 Fe 3 Si 3 with complex crystal structure. Intermetallics, 2017, 89, 51-56.	1.8	21
697	Enhancement of thermoelectric properties of In-filled and Te-doped CoSb3 synthesized by high pressure technique. Materials Letters, 2017, 205, 110-113.	1.3	4
698	First Principle Investigation on Thermoelectric Properties of Transition Metal Dichalcogenides: Beyond the Rigid Band Model. Journal of Physical Chemistry C, 2017, 121, 12577-12584.	1.5	20
699	Phase-Defined van der Waals Schottky Junctions with Significantly Enhanced Thermoelectric Properties. Journal of Physical Chemistry Letters, 2017, 8, 2887-2894.	2.1	30
700	Enhancement of the thermoelectric performance of bulk SnTe alloys via the synergistic effect of band structure modification and chemical bond softening. Journal of Materials Chemistry A, 2017, 5, 14165-14173.	5.2	65
701	Electronic and thermoelectric properties of Mg ₂ Ge _x Sn _{1â^' x} (x = 0.25, 0.50, 0.75) solid solutions by first-principles calculations. Chinese Physics B, 2017, 26, 066103.	0.7	5
702	Exotic thermoelectric behavior in nitrogenated holey graphene. RSC Advances, 2017, 7, 25803-25810.	1.7	25
703	Thermal spin current in zigzag silicene nanoribbons with sp2â€“sp3 edges. RSC Advances, 2017, 7, 28124-28129.	1.7	9

#	Article	IF	Citations
704	Electronic and optical properties of strained graphene and other strained 2D materials: a review. Reports on Progress in Physics, 2017, 80, 096501.	8.1	383
705	Recovery of the intrinsic thermoelectric properties of CaMn0.98Nb0.02O3 in 2-terminal geometry using Ag infiltration. Acta Materialia, 2017, 133, 68-72.	3.8	3
706	Solubility limits in quaternary SnTe-based alloys. RSC Advances, 2017, 7, 24747-24753.	1.7	14
707	High-temperature thermal conductivity of thermoelectric clathrates. Journal of Applied Physics, 2017, 121, .	1.1	10
708	First principles study of electronic, phonon and elastic properties of rock-salt-phase MTe (MÂ=ÂMg, Ca,) Tj ETQq0 0 0 rgBT /Overlock 10	0.9	2
709	Extremely Low Lattice Thermal Conductivity and Point Defect Scattering of Phonons in Ag-doped (SnSe)_{1â€“x}(SnS)_x Compounds. Chemistry of Materials, 2017, 29, 5344-5352.	3.2	82
710	First-principles study on intrinsic defects of SnSe. RSC Advances, 2017, 7, 27612-27618.	1.7	69
711	Synergistically tuning the electrical and thermal transport properties of CdO:Cu thermoelectric ceramics. Materials Research Express, 2017, 4, 075502.	0.8	4
712	Enhanced thermoelectric performance of BiCuSeO by increasing Seebeck coefficient through magnetic ion incorporation. Journal of Materials Chemistry A, 2017, 5, 13392-13399.	5.2	39
713	Grain size optimization for high-performance polycrystalline SnSe thermoelectrics. Journal of Materials Chemistry A, 2017, 5, 14053-14060.	5.2	53
714	Threeâ€Stage Interâ€Orthorhombic Evolution and High Thermoelectric Performance in Agâ€Doped Nanolaminar SnSe Polycrystals. Advanced Energy Materials, 2017, 7, 1700573.	10.2	48
715	Preparation of single-phase SnSe thin-films and modification of electrical properties via stoichiometry control for photovoltaic application. Journal of Alloys and Compounds, 2017, 722, 474-481.	2.8	50
716	Enhanced thermoelectric properties of SnSe thin films grown by pulsed laser glancing-angle deposition. Journal of Materiomics, 2017, 3, 293-298.	2.8	39
717	Ultralight conducting PEDOT:PSS/carbon nanotube aerogels doped with silver for thermoelectric materials. Science China Materials, 2017, 60, 159-166.	3.5	34
718	Thermoelectric and phonon transport properties of two-dimensional IVâ€“VI compounds. Scientific Reports, 2017, 7, 506.	1.6	224
719	The role of excess Sn in Cu₄Sn₇S₁₆ for modification of the band structure and a reduction in lattice thermal conductivity. Journal of Materials Chemistry C, 2017, 5, 4206-4213.	2.7	22
720	Thermoelectric Behavior of PbSe Single Crystals. ECS Journal of Solid State Science and Technology, 2017, 6, N3006-N3009.	0.9	1
721	Angle-resolved photoemission spectroscopy for the study of two-dimensional materials. Nano Convergence, 2017, 4, .	6.3	41

#	Article	IF	Citations
722	Deformation mechanisms in high-efficiency thermoelectric layered Zintl compounds. Journal of Materials Chemistry A, 2017, 5, 9050-9059.	5.2	31
723	Anisotropy of Seebeck coefficient in un-doped Mg 2 Sn single crystal. Intermetallics, 2017, 81, 26-31.	1.8	22
724	Record high thermoelectric performance in bulk SrTiO3 via nano-scale modulation doping. Nano Energy, 2017, 35, 387-395.	8.2	153
725	In-Plane Anisotropies of Polarized Raman Response and Electrical Conductivity in Layered Tin Selenide. ACS Applied Materials & Interfaces, 2017, 9, 12601-12607.	4.0	101
726	Enhanced thermoelectric performance in n-type polycrystalline SnSe by PbBr₂ doping. RSC Advances, 2017, 7, 17906-17912.	1.7	40
727	Maximal continuous power output and parametric optimum design of an electrochemical system driven by low-grade heat. Energy Conversion and Management, 2017, 138, 156-161.	4.4	47
728	Effective dopants in p-type elementary Te thermoelectrics. RSC Advances, 2017, 7, 17682-17688.	1.7	24
729	Enhancement in the thermoelectric performance of colusites Cu₂₆A₂E₆S₃₂ (A = Nb, Ta; E = Sn, Ge) using E-site non-stoichiometry. Journal of Materials Chemistry C, 2017, 5, 4174-4184.	2.7	49
730	Eco-friendly high-performance silicide thermoelectric materials. National Science Review, 2017, 4, 611-626.	4.6	71
731	Net thermoelectric power generation improvement through heat transfer optimization. Applied Thermal Engineering, 2017, 120, 496-505.	3.0	19
732	Direct observation of vast off-stoichiometric defects in single crystalline SnSe. Nano Energy, 2017, 35, 321-330.	8.2	101
733	Pressure-Stabilized Tin Selenide Phase with an Unexpected Stoichiometry and a Predicted Superconducting State at Low Temperatures. Physical Review Letters, 2017, 118, 137002.	2.9	29
734	Thermoelectric properties of Cu2Se/xNi0.85Se hot-pressed from hydrothermal synthesis nanopowders. Modern Physics Letters B, 2017, 31, 1750093.	1.0	12
735	Achieving zT > 1 in Inexpensive Zintl Phase Ca₉Zn₄₊_xSb₉ by Phase Boundary Mapping. Advanced Functional Materials, 2017, 27, 1606361.	7.8	129
736	An insight into Î²-Zn4Sb3 from its crystal structure, thermoelectric performance, thermal stability and graded material. Materials Today Energy, 2017, 3, 72-83.	2.5	24
737	Powder metallurgically synthesized Cu₁₂Sb₄S₁₃tetrahedrites: phase transition and high thermoelectricity. RSC Advances, 2017, 7, 18909-18916.	1.7	41
738	On the Lorenz number of multiband materials. Physical Review B, 2017, 95, .	1.1	90
739	Oxidation Resistance of Monolayer Group-IV Monochalcogenides. ACS Applied Materials & Interfaces, 2017, 9, 12013-12020.	4.0	118

#	Article	IF	Citations
740	Lateral heterostructures of monolayer group-IV monochalcogenides: band alignment and electronic properties. Journal of Materials Chemistry C, 2017, 5, 3788-3795.	2.7	94
741	Thermoelectric enhancement in sliver tantalate via strain-induced band modification and chemical bond softening. RSC Advances, 2017, 7, 8460-8466.	1.7	8
742	Study on Thermoelectric Properties of Polycrystalline SnSe by Ge Doping. Journal of Electronic Materials, 2017, 46, 3182-3186.	1.0	29
743	A Strategy for Low Thermal Conductivity and Enhanced Thermoelectric Performance in SnSe: Porous SnSe_{1â€“x}S_x Nanosheets. Chemistry of Materials, 2017, 29, 3228-3236.	3.2	73
744	Improved thermoelectric properties of SnS synthesized by chemical precipitation. RSC Advances, 2017, 7, 16795-16800.	1.7	43
745	Enhancing thermoelectric performance of SnTe via nanostructuring particle size. Journal of Alloys and Compounds, 2017, 709, 575-580.	2.8	44
746	Bi₂PdO₄: A Promising Thermoelectric Oxide with High Power Factor and Low Lattice Thermal Conductivity. Chemistry of Materials, 2017, 29, 2529-2534.	3.2	42
747	Earth-Abundant and Non-Toxic SiX (X = S, Se) Monolayers as Highly Efficient Thermoelectric Materials. Journal of Physical Chemistry C, 2017, 121, 123-128.	1.5	41
748	A review on heat sink for thermo-electric power generation: Classifications and parameters affecting performance. Energy Conversion and Management, 2017, 134, 260-277.	4.4	136
749	Single crystal growth of Sn 0.97 Ag 0.03 Se by a novel horizontal Bridgman method and its thermoelectric properties. Journal of Crystal Growth, 2017, 460, 112-116.	0.7	28
750	Enhanced thermoelectric performance of lanthanum filled CoSb 3 synthesized under high pressure. Journal of Alloys and Compounds, 2017, 699, 751-755.	2.8	25
751	Dramatically enhanced thermoelectric performance of MoS₂ by introducing MoO₂ nanoinclusions. Journal of Materials Chemistry A, 2017, 5, 2004-2011.	5.2	66
752	Low Thermal Conductivity and High Thermoelectric Performance in In4Se3â^'x with Phase-Separated Indium Inclusions. Journal of Electronic Materials, 2017, 46, 1444-1450.	1.0	9
753	Significantly Enhanced Thermoelectric Properties of PEDOT:PSS Films through Sequential Postâ€Treatments with Common Acids and Bases. Advanced Energy Materials, 2017, 7, 1602116.	10.2	314
754	The phase structure and electrical performance of the limited solid solution CuFeO2â€“CuAlO2 thermoelectric ceramics. Journal of Materials Science: Materials in Electronics, 2017, 28, 5053-5057.	1.1	4
755	Transport Properties and High Thermopower of SnSe₂: A Full Ab-Initio Investigation. Journal of Physical Chemistry C, 2017, 121, 225-236.	1.5	103
756	An efficient organic solvent-free solution-processing strategy for high-mobility metal chalcogenide film growth. Green Chemistry, 2017, 19, 946-951.	4.6	8
757	Stability and electronic properties of two-dimensional indium iodide. Physical Review B, 2017, 95, .	1.1	10

#	Article	IF	Citations
758	Vacancy-induced dislocations within grains for high-performance PbSe thermoelectrics. Nature Communications, 2017, 8, 13828.	5.8	360
759	Thin Film Organic Thermoelectric Generator Based on Tetrathiotetracene. Advanced Electronic Materials, 2017, 3, 1600429.	2.6	23
760	Electronic, optical and thermoelectric properties of bulk and surface (001) CuInTe 2 : A first principles study. Journal of Alloys and Compounds, 2017, 699, 1003-1011.	2.8	15
761	Solution processing of two-dimensional black phosphorus. Chemical Communications, 2017, 53, 1445-1458.	2.2	63
762	Simultaneous regulation of electrical and thermal transport properties in CuInTe2 by directly incorporating excess ZnX (X=S, Se). Nano Energy, 2017, 32, 80-87.	8.2	44
763	Ultralow Lattice Thermal Conductivity and Enhanced Thermoelectric Performance in SnTe:Ga Materials. Chemistry of Materials, 2017, 29, 612-620.	3.2	89
764	Cu₈GeSe₆-based thermoelectric materials with an argyrodite structure. Journal of Materials Chemistry C, 2017, 5, 943-952.	2.7	93
765	Defect chemistry and enhancement of thermoelectric performance in Ag-doped Sn_{1+Î´â^'x}Ag_xTe. Journal of Materials Chemistry A, 2017, 5, 2235-2242.	5.2	54
766	Promising thermoelectric performance in van der Waals layered SnSe2. Materials Today Physics, 2017, 3, 127-136.	2.9	95
767	Pressure-induced improvement in symmetry and change in electronic properties of SnSe. Journal of Molecular Modeling, 2017, 23, 319.	0.8	7
768	Characterization of thermal and mechanical properties of stanene nanoribbons: a molecular dynamics study. RSC Advances, 2017, 7, 50485-50495.	1.7	23
769	Assessment of the performance of annular thermoelectric couples under constant heat flux condition. Energy Conversion and Management, 2017, 150, 704-713.	4.4	33
770	Sc solubility in p-type half-Heusler (Ti1-Sc)NiSn thermoelectric alloys. Journal of Alloys and Compounds, 2017, 729, 446-452.	2.8	31
771	Ternary tin selenium sulfide (SnSe0.5S0.5) nano alloy as the high-performance anode for lithium-ion and sodium-ion batteries. Nano Energy, 2017, 41, 377-386.	8.2	136
772	High-efficiency thermoelectric Ba₈Cu₁₄Ge₆P₂₆: bridging the gap between tetrel-based and tetrel-free clathrates. Chemical Science, 2017, 8, 8030-8038.	3.7	44
773	Cobalt-doping in Cu₂SnS₃: enhanced thermoelectric performance by synergy of phase transition and band structure modification. Journal of Materials Chemistry A, 2017, 5, 23267-23275.	5.2	78
774	Simultaneous Optimization of Carrier Concentration and Alloy Scattering for Ultrahigh Performance GeTe Thermoelectrics. Advanced Science, 2017, 4, 1700341.	5.6	151
775	High potential thermoelectric figure of merit in ternary La3Cu3X4 (Xâ€‰=â€‰P, As, Sb and Bi) compounds. Scientific Reports, 2017, 7, 14270.	1.6	3

#	Article	IF	Citations
776	Electronic properties of group-IV monochalcogenide nanoribbons: Studied from first-principles calculations. Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 3747-3753.	0.9	18
777	Exceptional Thermoelectric Properties of Layered GeAs₂. Chemistry of Materials, 2017, 29, 9300-9307.	3.2	80
778	Tuned thermoelectric transport properties of Co2.0Sb1.6Se2.4 and Co2.0Sb1.5M0.1Se2.4 (M=Zn, Sn): Compounds with high phonon scattering. Journal of Alloys and Compounds, 2017, 729, 303-312.	2.8	5
779	Photoemission study of the electronic structure of valence band convergent SnSe. Physical Review B, 2017, 96, .	1.1	30
780	Promising Thermoelectric Ag_{5â˜Î´}Te₃ with Intrinsic Low Lattice Thermal Conductivity. ACS Energy Letters, 2017, 2, 2470-2477.	8.8	54
781	The electronic structure of Ag1â˜xSn1+xSe2 (x = 0.0, 0.1, 0.2, 0.25 and 1.0). Physical Chemistry Chemical Physics, 2017, 19, 26672-26678.	1.3	19
782	Ecoâ€Friendly SnTe Thermoelectric Materials: Progress and Future Challenges. Advanced Functional Materials, 2017, 27, 1703278.	7.8	312
783	High Thermoelectric Performance of New Rhombohedral Phase of GeSe stabilized through Alloying with AgSbSe₂. Angewandte Chemie, 2017, 129, 14301-14306.	1.6	19
784	Advances in thermoelectric materials research: Looking back and moving forward. Science, 2017, 357, .	6.0	1,613
785	More than half reduction in price per watt of thermoelectric device without increasing the thermoelectric figure of merit of materials. Applied Energy, 2017, 205, 1459-1466.	5.1	18
786	Topological Dirac line nodes and superconductivity coexist in SnSe at high pressure. Physical Review B, 2017, 96, .	1.1	35
787	High Thermoelectric Performance of Ag9GaSe6 Enabled by Low Cutoff Frequency of Acoustic Phonons. Joule, 2017, 1, 816-830.	11.7	195
788	Thermoelectric properties of Li-doped Sr _{0.7} Ba _{0.3} Nb ₂ O _{6â€“ Î´} ceramics. Chinese Physics B, 2017, 26, 107201.	0.7	2
789	Ultrahigh thermoelectric power factor in flexible hybrid inorganic-organic superlattice. Nature Communications, 2017, 8, 1024.	5.8	136
790	Bi₄O₄Cu_{1.7}Se_{2.7}Cl_{0.3}: Intergrowth of BiOCuSe and Bi₂O₂Se Stabilized by the Addition of a Third Anion. Journal of the American Chemical Society, 2017, 139, 15568-15571.	6.6	17
791	High thermoelectric performance and low thermal conductivity in Cu2â˜yS1/3Se1/3Te1/3 liquid-like materials with nanoscale mosaic structures. Nano Energy, 2017, 42, 43-50.	8.2	73
792	Recent advances in investigations of the electronic and optoelectronic properties of group III, IV, and V selenide based binary layered compounds. Journal of Materials Chemistry C, 2017, 5, 11214-11225.	2.7	34
793	Catalyst-Free Vapor Phase Growth of Ultralong SnSe Single-Crystalline Nanowires. Crystal Growth and Design, 2017, 17, 6163-6168.	1.4	13

#	Article	IF	Citations
794	Anomalous thermal anisotropy of two-dimensional nanoplates of vertically grown MoS2. Applied Physics Letters, 2017, 111, .	1.5	8
795	A method to calculate thermal conductivity of a nonperiodic system, bamboo Si1â^'xGex nanowire with axially degraded components. European Physical Journal B, 2017, 90, 1.	0.6	1
796	Analysis of magneto-electronic, thermodynamic and thermoelectric properties of ferromagnetic CoFeCrAl alloy. Materials Research Express, 2017, 4, 116103.	0.8	8
797	Texturing degree boosts thermoelectric performance of silver-doped polycrystalline SnSe. NPG Asia Materials, 2017, 9, e426-e426.	3.8	49
798	Computationally guided discovery of thermoelectric materials. Nature Reviews Materials, 2017, 2, .	23.3	184
799	Sodium doped polycrystalline SnSe: High pressure synthesis and thermoelectric properties. Journal of Alloys and Compounds, 2017, 727, 1014-1019.	2.8	44
800	Low interface resistance and excellent anti-oxidation of Al/Cu/Ni multilayer thin-film electrodes for Bi2Te3-based modules. Nano Energy, 2017, 40, 274-281.	8.2	24
801	A₁₄MgBi₁₁ (A = Ca, Sr, Eu): Magnesium Bismuth Based Zintl Phases as Potential Thermoelectric Materials. Inorganic Chemistry, 2017, 56, 10576-10583.	1.9	26
802	Optimization of thermoelectric properties of n-type Ti, Pb co-doped SnSe. Inorganic Chemistry Frontiers, 2017, 4, 1721-1729.	3.0	32
803	Tuning Thermal Transport in Chainâ€Oriented Conducting Polymers for Enhanced Thermoelectric Efficiency: A Computational Study. Advanced Functional Materials, 2017, 27, 1702847.	7.8	62
804	Evolution of phonon anharmonicity in Se-doped Sb2Te3 thermoelectrics. Physical Review B, 2017, 96, .	1.1	18
805	Prediction and synthesis of a family of atomic laminate phases with KagomÃ©-like and in-plane chemical ordering. Science Advances, 2017, 3, e1700642.	4.7	156
806	Realizing high figure-of-merit in Cu2Te using a combination of doping, hierarchical structure, and simple processing. Journal of Applied Physics, 2017, 122, .	1.1	28
807	Unexpected Large Hole Effective Masses in SnSe Revealed by Angle-Resolved Photoemission Spectroscopy. Physical Review Letters, 2017, 119, 116401.	2.9	47
808	Engineering and modifying two-dimensional materials by electron beams. MRS Bulletin, 2017, 42, 667-676.	1.7	62
809	High Thermoelectric Performance of New Rhombohedral Phase of GeSe stabilized through Alloying with AgSbSe₂. Angewandte Chemie - International Edition, 2017, 56, 14113-14118.	7.2	68
810	Grain boundary scattering effects on mobilities in p-type polycrystalline SnSe. Journal of Materials Chemistry C, 2017, 5, 10191-10200.	2.7	50
811	Layered SnSe nano-plates with excellent in-plane anisotropic properties of Raman spectrum and photo-response. Nanoscale, 2017, 9, 14558-14564.	2.8	47

#	Article	IF	Citations
812	High-performance, flexible, and ultralong crystalline thermoelectric fibers. Nano Energy, 2017, 41, 35-42.	8.2	132
813	Hydrothermal synthesis of SnQ (Q = Te, Se, S) and their thermoelectric properties. Nanotechnology, 2017, 28, 455707.	1.3	24
814	Bottom Up Chalcogenide Thermoelectric Materials from Solutionâ€Processed Nanostructures. Advanced Materials Interfaces, 2017, 4, 1700517.	1.9	16
815	Synthetic Nanosheets of Natural van der Waals Heterostructures. Angewandte Chemie, 2017, 129, 14753-14758.	1.6	11
816	Synthetic Nanosheets of Natural van der Waals Heterostructures. Angewandte Chemie - International Edition, 2017, 56, 14561-14566.	7.2	33
817	Semiconducting Pavonites CdMBi₄Se₈ (M = Sn and Pb) and Their Thermoelectric Properties. Chemistry of Materials, 2017, 29, 8494-8503.	3.2	18
818	Benchmark characterization of the thermoelectric properties of individual single-crystalline CdS nanowires by a H-type sensor. RSC Advances, 2017, 7, 25298-25304.	1.7	4
819	Engineering the Near-Edge Electronic Structure of SnSe through Strains. Physical Review Applied, 2017, 8, .	1.5	23
820	A Microporous and Naturally Nanostructured Thermoelectric Metal-Organic Framework with Ultralow Thermal Conductivity. Joule, 2017, 1, 168-177.	11.7	159
821	Thermoelectric Properties of SnS with Na-Doping. ACS Applied Materials & Interfaces, 2017, 9, 34033-34041.	4.0	118
822	Nanomagnets boost thermoelectric output. Nature, 2017, 549, 169-170.	13.7	15
823	Giant Pressureâ€Induced Enhancement of Seebeck Coefficient and Thermoelectric Efficiency in SnTe. ChemPhysChem, 2017, 18, 3315-3319.	1.0	8
824	Ultralow lattice thermal conductivity in monolayer C₃N as compared to graphene. Journal of Materials Chemistry A, 2017, 5, 20407-20411.	5.2	60
825	High thermoelectric performances of monolayer SnSe allotropes. Nanoscale, 2017, 9, 16093-16100.	2.8	111
826	Flexible thermoelectric power generation system based on rigid inorganic bulk materials. Applied Energy, 2017, 206, 649-656.	5.1	87
827	Thickness-controlled electronic structure and thermoelectric performance of ultrathin SnS2 nanosheets. Scientific Reports, 2017, 7, 8914.	1.6	34
828	High-Performance Screen-Printed Thermoelectric Films on Fabrics. Scientific Reports, 2017, 7, 7317.	1.6	100
829	Effects of Mn substitution on thermoelectric properties of CuIn 1â^'x Mn x Te 2. Chinese Physics B, 2017, 26, 097201.	0.7	6

#	Article	IF	Citations
830	Two-Dimensional GeSe as an Isostructural and Isoelectronic Analogue of Phosphorene: Sonication-Assisted Synthesis, Chemical Stability, and Optical Properties. Chemistry of Materials, 2017, 29, 8361-8368.	3.2	65
831	Advances in Environment-Friendly SnTe Thermoelectrics. ACS Energy Letters, 2017, 2, 2349-2355.	8.8	109
832	Thermoelectric performance of SnTe with ZnO carrier compensation, energy filtering, and multiscale phonon scattering. Journal of the American Ceramic Society, 2017, 100, 5723-5730.	1.9	44
833	Performance analysis of multistep sorption energy storage using compound adsorbents. International Journal of Energy Research, 2017, 41, 2297-2307.	2.2	4
834	Novel natural super-lattice materials with low thermal conductivity for thermoelectric applications: A first principles study. Journal of Physics and Chemistry of Solids, 2017, 111, 54-62.	1.9	12
835	Using heterostructural alloying to tune the structure and properties of the thermoelectric Sn_{1â^'x}Ca_xSe. Journal of Materials Chemistry A, 2017, 5, 16873-16882.	5.2	19
836	Morphologyâ€“Function Relationship of Thermoelectric Nanocomposite Films from PEDOT:PSS with Silicon Nanoparticles. Advanced Electronic Materials, 2017, 3, 1700181.	2.6	43
837	The role of phononâ€“phonon and electronâ€“phonon scattering in thermal transport in PdCoO₂. Physical Chemistry Chemical Physics, 2017, 19, 21714-21721.	1.3	14
838	Promising Thermoelectric Bulk Materials with 2D Structures. Advanced Materials, 2017, 29, 1702676.	11.1	228
839	Lattice dynamics and thermodynamic properties of alkaline-earth metal carbides XC ($$hbox) Tj ETQq1 1 0.784314 rgBT /Overlock 1 Computational Electronics, 2017, 16, 526-534.	1.3	2
840	Large anisotropic thermal conductivity and excellent thermoelectric properties observed in carbon foam. Journal of Applied Physics, 2017, 122, .	1.1	11
841	Investigation on thermal transport and structural properties of InFeO 3 (ZnO) m with modulated layer structures. Acta Materialia, 2017, 136, 235-241.	3.8	18
842	Thermoelectric properties of Cu2Se prepared by solution phase methods and spark plasma sintering. Journal of the European Ceramic Society, 2017, 37, 4687-4692.	2.8	14
844	Recent progress and future challenges on thermoelectric Zintl materials. Materials Today Physics, 2017, 1, 74-95.	2.9	275
845	Atomistic study of the alloying behavior of crystalline SnSe_{1â^'x}S_x. Physical Chemistry Chemical Physics, 2017, 19, 21648-21654.	1.3	17
846	Time-domain thermoreflectance (TDTR) measurements of anisotropic thermal conductivity using a variable spot size approach. Review of Scientific Instruments, 2017, 88, 074901.	0.6	101
847	Liquid Exfoliation Few-Layer SnSe Nanosheets with Tunable Band Gap. Journal of Physical Chemistry C, 2017, 121, 17530-17537.	1.5	75
848	Ag-Mg antisite defect induced high thermoelectric performance of Î±-MgAgSb. Scientific Reports, 2017, 7, 2572.	1.6	28

#	Article	IF	Citations
849	Thermal conductivities of phosphorene allotropes from first-principles calculations: a comparative study. Scientific Reports, 2017, 7, 4623.	1.6	36
850	Influence of Sodium Chloride Doping on Thermoelectric Properties of p-type SnSe. Journal of Electronic Materials, 2017, 46, 6662-6668.	1.0	18
851	Effects of second phases on thermoelectric properties in copper sulfides with Sn addition. Journal of Materials Research, 2017, 32, 3029-3037.	1.2	19
852	Sn-Se alloy core fibers. Journal of Alloys and Compounds, 2017, 725, 242-247.	2.8	13
853	Facile chemical synthesis and enhanced thermoelectric properties of Ag doped SnSe nanocrystals. RSC Advances, 2017, 7, 34300-34306.	1.7	24
854	Triboelectrificationâ€Enabled Selfâ€Charging Lithiumâ€Ion Batteries. Advanced Energy Materials, 2017, 7, 1700103.	10.2	89
855	Recent NMR Studies of Thermoelectric Materials. Annual Reports on NMR Spectroscopy, 2017, , 137-198.	0.7	11
856	Temperature- and doping-dependent roles of valleys in the thermoelectric performance of SnSe: A first-principles study. Physical Review B, 2017, 96, .	1.1	34
857	Significant Enhancement of the Thermoelectric Performance of Higher Manganese Silicide by Incorporating MnTe Nanophase Derived from Te Nanowire. Chemistry of Materials, 2017, 29, 7378-7389.	3.2	36
858	Combination of Carrier Concentration Regulation and High Band Degeneracy for Enhanced Thermoelectric Performance of Cu₃SbSe₄. ACS Applied Materials & Interfaces, 2017, 9, 28558-28565.	4.0	30
859	SnO as a potential oxide thermoelectric candidate. Journal of Materials Chemistry C, 2017, 5, 8854-8861.	2.7	72
860	Electronic structure and thermoelectric transport of black phosphorus. Physical Review B, 2017, 96, .	1.1	14
861	Processing of advanced thermoelectric materials. Science China Technological Sciences, 2017, 60, 1347-1364.	2.0	79
862	Effect of Zn migration on the thermoelectric properties of Zn4Sb3 material. Ceramics International, 2017, 43, 15275-15280.	2.3	8
863	Homologous Series of 2D Chalcogenides Csâ€“Agâ€“Biâ€“Q (Q = S, Se) with Ion-Exchange Properties. Journal of the American Chemical Society, 2017, 139, 12601-12609.	6.6	22
864	Designing hybrid architectures for advanced thermoelectric materials. Materials Chemistry Frontiers, 2017, 1, 2457-2473.	3.2	34
865	First-principles study of thermoelectric transport properties of monolayer gallium chalcogenides. Journal Physics D: Applied Physics, 2017, 50, 405301.	1.3	16
866	Dopant Induced Impurity Bands and Carrier Concentration Control for Thermoelectric Enhancement in p-Type Cr₂Ge₂Te₆. Chemistry of Materials, 2017, 29, 7401-7407.	3.2	53

#	Article	IF	Citations
867	Large enhancement of thermoelectric properties in n-type PbTe via dual-site point defects. Energy and Environmental Science, 2017, 10, 2030-2040.	15.6	194
868	Pressure-induced changes in the electronic structure and enhancement of the thermoelectric performance of SnS₂: a first principles study. RSC Advances, 2017, 7, 38834-38843.	1.7	21
869	Selfâ€Assembled Heterostructures: Selective Growth of Metallic Nanoparticles on V₂â€“VI₃ Nanoplates. Advanced Materials, 2017, 29, 1702968.	11.1	34
870	Significantly Enhanced Thermoelectric Performance of Î³-In2Se3through Lithiation via Chemical Diffusion. Chemistry of Materials, 2017, 29, 7467-7474.	3.2	18
871	Puckered Arsenene: A Promising Room-Temperature Thermoelectric Material from First-Principles Prediction. Journal of Physical Chemistry C, 2017, 121, 19080-19086.	1.5	56
872	Exceptional thermoelectric performance of a â€œstar-likeâ€•SnSe nanotube with ultra-low thermal conductivity and a high power factor. Physical Chemistry Chemical Physics, 2017, 19, 23247-23253.	1.3	7
873	Selfâ€Tuning nâ€Type Bi₂(Te,Se)₃/SiC Thermoelectric Nanocomposites to Realize High Performances up to 300 Â°C. Advanced Science, 2017, 4, 1700259.	5.6	72
874	High pressure synthesis and thermoelectric properties of micro/nano structures CoSb3. Journal of Solid State Chemistry, 2017, 255, 129-132.	1.4	7
875	Tuning of conductive type and magnetic properties of Ca₃Co₂O₆ ceramics through Pbâ€doping. Journal of the American Ceramic Society, 2017, 100, 3589-3598.	1.9	9
876	Investigation of microstructural details in low thermal conductivity thermoelectric Sn1-xSbxTe alloy. Journal of Applied Physics, 2017, 122, .	1.1	1
877	Tunable indirect-direct transition of few-layer SnSe via interface engineering. Journal of Physics Condensed Matter, 2017, 29, 425501.	0.7	11
878	Surface growth of MG(multilayer graphene)â€“SiC nanofillers/poly(vinylidene fluoride) composites for improving thermal conductivity and maintaining electrical insulation. Materials Research Express, 2017, 4, 085016.	0.8	6
879	Predicted High Thermoelectric Performance of Quasi-Two-Dimensional Compound GeAs Using First-Principles Calculations *. Chinese Physics Letters, 2017, 34, 117202.	1.3	3
880	Optimized growth conditions of epitaxial SnSe films grown by pulsed laser deposition. Japanese Journal of Applied Physics, 2017, 56, 125503.	0.8	5
881	Enhanced Strength Through Nanotwinning in the Thermoelectric Semiconductor InSb. Physical Review Letters, 2017, 119, 215503.	2.9	45
882	Remarkable Roles of Cu To Synergistically Optimize Phonon and Carrier Transport in n-Type PbTe-Cu₂Te. Journal of the American Chemical Society, 2017, 139, 18732-18738.	6.6	230
883	Effects of hydrostatic pressure on the thermoelectric properties of the Ïµ-polytype of InSe, GaSe, and InGaSe2 semiconductor compounds: anab initiostudy. Materials Research Express, 2017, 4, 125901.	0.8	0
884	Four-phonon scattering significantly reduces intrinsic thermal conductivity of solids. Physical Review B, 2017, 96, .	1.1	378

#	Article	IF	Citations
885	A Polyselenide with a Novel Se78-Unit: the Structure of Sr19-xPbxGe11Se44withx= 5.0 and 6.4. European Journal of Inorganic Chemistry, 2017, 2017, 5515-5520.	1.0	4
886	Enhanced Electrical and Optoelectronic Characteristics of Few-Layer Type-II SnSe/MoS₂ van der Waals Heterojunctions. ACS Applied Materials & Interfaces, 2017, 9, 42149-42155.	4.0	54
887	Optimize the thermoelectric performance of CdO ceramics by doping Zn. Chinese Physics B, 2017, 26, 107202.	0.7	3
888	Thermoelectric properties and thermal stability of layered chalcogenides, TlScQ2, Q = Se, Te. Dalton Transactions, 2017, 46, 17053-17060.	1.6	9
889	Enhancement of thermoelectric power factor of Sr2CoMoO6 double perovskite by annealing in reducing atmosphere. Journal of Applied Physics, 2017, 122, 164902.	1.1	10
890	Thermoelectric generator based on composites obtained by sintering of detonation nanodiamonds. Journal Physics D: Applied Physics, 2017, 50, 464007.	1.3	8
891	Single parabolic band transport in p-type EuZn₂Sb₂ thermoelectrics. Journal of Materials Chemistry A, 2017, 5, 24185-24192.	5.2	38
892	Ballistic thermoelectric properties of nitrogenated holey graphene nanostructures. Journal of Applied Physics, 2017, 122, .	1.1	8
893	Enhancement of thermoelectrical performance in Au-ion implanted V₂O₅ thin films. RSC Advances, 2017, 7, 50648-50656.	1.7	11
894	Thermoelectric transport properties of Sn_{1â^'x}Ge_xSe (x=0â€¦0.03) prepared by melting synthesis method. International Journal of Applied Ceramic Technology, 2017, 14, 963-968.	1.1	7
895	Thermoelectric performance of CuFeS2+2x composites prepared by rapid thermal explosion. NPG Asia Materials, 2017, 9, e390-e390.	3.8	38
896	Antibonding Holes Induce Good Thermoelectric Properties ofp-type Ca5Ga2As6. Journal of the Physical Society of Japan, 2017, 86, 074707.	0.7	1
897	Textured SnSe micro-sheets: One-pot facile synthesis and comprehensive understanding on the growth mechanism. Materials Chemistry and Physics, 2017, 199, 464-470.	2.0	14
898	Photo-thermoelectric properties of SnS nanocrystals with orthorhombic layered structure. Applied Physics Letters, 2017, 111, 013104.	1.5	4
899	Thermal conductivities in NaSnAs, NaSnP, and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>NaS</mml:mi><mml:msub><mml:mi mathvariant="normal">n</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi mathvariant="normal">A</mml:mi><mml:msub><mml:mi mathvariant="normal">s</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>: Effect of double lone-pair electrons. Physical Review B, 2017, 95, .	1.1	29
900	Evaporationâ€“condensation effects on the thermoelectric performance of PbTe-based couples. Physical Chemistry Chemical Physics, 2017, 19, 19326-19333.	1.3	4
901	Enhancing p-Type Thermoelectric Performances of Polycrystalline SnSe via Tuning Phase Transition Temperature. Journal of the American Chemical Society, 2017, 139, 10887-10896.	6.6	110
902	Electronic band structure of epitaxial PbTe (111) thin films observed by angle-resolved photoemission spectroscopy. Physical Review B, 2017, 95, .	1.1	6

#	Article	IF	Citations
903	High thermoelectric performance of Bi1â^'x K x CuSeO prepared by combustion synthesis. Journal of Materials Science, 2017, 52, 11569-11579.	1.7	8
904	Ferroelectric phase transition and the lattice thermal conductivity of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Pb</mml:mi><mml:mrow><mml:mn>1</mml:mn> alloys. Physical Review B, 2017, 95, .	1.1	39
905	GeAs₂: A IVâ€"V Group Two-Dimensional Semiconductor with Ultralow Thermal Conductivity and High Thermoelectric Efficiency. Chemistry of Materials, 2017, 29, 6261-6268.	3.2	80
906	Lattice thermal conductivity evaluated using elastic properties. Physical Review B, 2017, 95, .	1.1	114
907	Mercouri G. Kanatzidis: Excellence and Innovations in Inorganic and Solid-State Chemistry. Inorganic Chemistry, 2017, 56, 7582-7597.	1.9	7
908	Improved thermoelectric power factor and conversion efficiency of perovskite barium stannate. RSC Advances, 2017, 7, 32703-32709.	1.7	34
909	Boltzmann approach to high-order transport: The nonlinear and nonlocal responses. Physical Review B, 2017, 95, .	1.1	6
910	Origin of p-type characteristics in a SnSe single crystal. Applied Physics Letters, 2017, 110, .	1.5	81
911	Multi-Layer SnSe Nanoflake Field-Effect Transistors with Low-Resistance Au Ohmic Contacts. Nanoscale Research Letters, 2017, 12, 373.	3.1	21
912	Ag-doped SnSe2 as a promising mid-temperature thermoelectric material. Journal of Materials Science, 2017, 52, 10506-10516.	1.7	56
913	Evidence for hard and soft substructures in thermoelectric SnSe. Applied Physics Letters, 2017, 110, .	1.5	29
914	Impact of grain boundary characteristics on lattice thermal conductivity: A kinetic theory study on ZnO. Physical Review B, 2017, 95, .	1.1	22
915	Metallic Zn decorated Î²-Zn 4 Sb 3 with enhanced thermoelectric performance. Materials Letters, 2017, 203, 5-8.	1.3	6
916	Lattice thermal transport in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">L</mml:mi><mml:msub><mml:mi mathvariant="normal">a</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mi mathvariant="normal">C</mml:mi><mml:msub><mml:mi	1.1	20
917	Electronic and optical properties of the monolayer group-IV monochalcogenides <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>M</mml:mi><mml:mi>X</mml:mi></mml:mrow></mml:m		

#	Article	IF	Citations
921	Synthesis and Electronic Transport of Hydrothermally Synthesized p-Type Na-Doped SnSe. Journal of Electronic Materials, 2017, 46, 2964-2968.	1.0	8
922	Nano-micro-porous skutterudites with 100% enhancement in ZT for high performance thermoelectricity. Nano Energy, 2017, 31, 152-159.	8.2	201
923	Effect of annealing on the morphology and compositions of Cu2ZnSnSe4 thin films fabricated by thermal evaporation for solar cells. Thin Solid Films, 2017, 621, 47-51.	0.8	15
924	The bridge between the materials and devices of thermoelectric power generators. Energy and Environmental Science, 2017, 10, 69-85.	15.6	143
925	Thermoelectric performance of PbSnTeSe high-entropy alloys. Materials Research Letters, 2017, 5, 187-194.	4.1	81
926	Enhanced Thermoelectric Properties of In-Doped ZnSb Thin Film with Surface Nanocrystallization. Journal of Electronic Materials, 2017, 46, 1319-1323.	1.0	6
927	Surfactantâ€Free Aqueous Synthesis of Pure Singleâ€Crystalline SnSe Nanosheet Clusters as Anode for High Energyâ€and Powerâ€Density Sodiumâ€Ion Batteries. Advanced Materials, 2017, 29, 1602469.	11.1	231
928	The Role of Zn in Chalcopyrite CuFeS₂: Enhanced Thermoelectric Properties of Cu_{1â€“}_xZn_xFeS₂ with In Situ Nanoprecipitates. Advanced Energy Materials, 2017, 7, 1601299.	10.2	147
929	Hierarchical Chemical Bonds Contributing to the Intrinsically Low Thermal Conductivity in Î±â€MgAgSb Thermoelectric Materials. Advanced Functional Materials, 2017, 27, 1604145.	7.8	195
930	Enhanced thermoelectric performance of p-type SnSe doped with Zn. Scripta Materialia, 2017, 126, 6-10.	2.6	116
931	Synthesis and Thermoelectric Properties of SnSe by Mechanical Alloying and Spark Plasma Sintering Method. Journal of Electronic Materials, 2017, 46, 2629-2633.	1.0	12
932	Theoretical study of thermoelectric properties of p-type Mg2 Si1âˆ' Sn solid solutions doped with Ga. Journal of Alloys and Compounds, 2017, 691, 151-158.	2.8	8
933	Bandgap engineering in semiconducting one to few layers of SnS and SnSe. Physica Status Solidi (B): Basic Research, 2017, 254, 1600379.	0.7	43
934	Sintering temperature dependence of thermoelectric performance in CuCrSe 2 prepared via mechanical alloying. Scripta Materialia, 2017, 127, 127-131.	2.6	12
935	Effect of the annealing on the power factor of un-doped cold-pressed SnSe. Applied Thermal Engineering, 2017, 111, 1426-1432.	3.0	21
936	Ag/Ni Metallization Bilayer: A Functional Layer for Highly Efficient Polycrystalline SnSe Thermoelectric Modules. Journal of Electronic Materials, 2017, 46, 848-855.	1.0	14
937	Thermoelectric Properties of Ce/Pb Co-doped Polycrystalline In4âˆ'x Ce x Pb0.01Se3 Compounds. Journal of Electronic Materials, 2017, 46, 3215-3220.	1.0	2
938	Enhanced thermoelectric performance via the solid solution formation: The case of pseudobinary alloy (Cu2Te)(Ga2Te3)3 upon Sb substitution for Cu. Materials and Design, 2017, 115, 325-331.	3.3	5

#	Article	IF	Citations
939	Elemental Diffusion and Service Performance of Bi2Te3-Based Thermoelectric Generation Modules with Flexible Connection Electrodes. Journal of Electronic Materials, 2017, 46, 1363-1370.	1.0	14
940	High thermopower of ferri/ferrocyanide redox couple in organic-water solutions. Nano Energy, 2017, 31, 160-167.	8.2	131
941	Phonon broadening from supercell lattice dynamics: Random and correlated disorder. Physica Status Solidi (B): Basic Research, 2017, 254, 1600586.	0.7	17
942	Thermoelectric Performance for SnSe Hot-Pressed at Different Temperature. Journal of Electronic Materials, 2017, 46, 79-84.	1.0	6
943	Thermoelectric Performance of Na-Doped GeSe. ACS Omega, 2017, 2, 9192-9198.	1.6	34
944	Luminescence of defects in the structural transformation of layered tin dichalcogenides. Applied Physics Letters, 2017, 111, .	1.5	16
945	Dual effects of lone-pair electrons and rattling atoms in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>CuBiS</mml:mi><mml:mn>2</mml:mn></mml:msub></m on its ultralow thermal conductivity. Physical Review B, 2017, 96, .	1.1	52
946	Lithography-free resistance thermometry based technique to accurately measure Seebeck coefficient and electrical conductivity for organic and inorganic thin films. Review of Scientific Instruments, 2017, 88, 125112.	0.6	7
947	Size effect in thermoelectric power factor of nondegenerate and degenerate low-dimensional semiconductors. Materials Today: Proceedings, 2017, 4, 12368-12373.	0.9	9
948	Thermoelectric energy converters under a trade-off figure of merit with broken time-reversal symmetry. Journal of Statistical Mechanics: Theory and Experiment, 2017, 2017, 093207.	0.9	12
949	First-principles study on the electronic, optical, and transport properties of monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Î±</mml:mi></mml:math> - and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Î²</mml:mi></mml:math> -GeSe. Physical Review B, 2017, 96, .	1.1	81
950	Hydrothermal transformation of SnSe crystal to Se nanorods in oxalic acid solution and the outstanding thermoelectric power factor of Se/SnSe composite. Scientific Reports, 2017, 7, 18051.	1.6	18
951	Two-dimensional semiconductors ZrNCl and HfNCl: Stability, electric transport, and thermoelectric properties. Scientific Reports, 2017, 7, 17330.	1.6	30
952	In Operando Study of Highâ€Performance Thermoelectric Materials for Power Generation: A Case Study of Î²â€Zn₄sb₃. Advanced Electronic Materials, 2017, 3, 1700223.	2.6	17
953	Crystal Structure and Thermoelectric Properties of Magnesium Silicide. Materia Japan, 2017, 56, 546-553.	0.1	0
954	Conducting polymer-based thermoelectric composites. , 2017, , 169-195.		13
955	BiCuSeO Thermoelectrics: An Update on Recent Progress and Perspective. Materials, 2017, 10, 198.	1.3	70
956	Large-Scale Surfactant-Free Synthesis of p-Type SnTe Nanoparticles for Thermoelectric Applications. Materials, 2017, 10, 233.	1.3	27

#	Article	IF	Citations
957	Thermoelectric Transport in Nanocomposites. Materials, 2017, 10, 418.	1.3	27
958	Thermal Stability of P-Type BiSbTe Alloys Prepared by Melt Spinning and Rapid Sintering. Materials, 2017, 10, 617.	1.3	18
959	Flexible Thermoelectric Composite Films of Polypyrrole Nanotubes Coated Paper. Coatings, 2017, 7, 211.	1.2	11
960	Microstructure Analysis and Thermoelectric Properties of Melt-Spun Bi-Sb-Te Compounds. Crystals, 2017, 7, 180.	1.0	8
961	Performance Analysis of Thermoelectric Based Automotive Waste Heat Recovery System with Nanofluid Coolant. Energies, 2017, 10, 1489.	1.6	11
962	First-Principles Calculations of Thermoelectric Properties of IVâ€“VI Chalcogenides 2D Materials. Frontiers in Mechanical Engineering, 2017, 3, .	0.8	27
963	Thermoelectric Properties of a Single Crystalline Ag₂Te Nanowire. Journal of Nanomaterials, 2017, 2017, 1-5.	1.5	13
965	Peridynamic Formulation for Coupled Thermoelectric Phenomena. Advances in Materials Science and Engineering, 2017, 2017, 1-10.	1.0	5
966	Explore Novel Renewable Energy Generation via Applications of Thermoelectric Technology. Environment and Natural Resources Research, 2017, 7, 131.	0.1	0
967	Multi-Layer Metallization Structure Development for Highly Efficient Polycrystalline SnSe Thermoelectric Devices. Applied Sciences (Switzerland), 2017, 7, 1116.	1.3	8
968	Electronic and Thermoelectric Properties of SrTiO3. Current Smart Materials, 2017, 2, .	0.5	2
969	High performance of n-type (PbS)1-x-y(PbSe)x(PbTe)y thermoelectric materials. Journal of Alloys and Compounds, 2018, 744, 769-777.	2.8	29
970	Nanostructural thermoelectric materials and their performance. Frontiers in Energy, 2018, 12, 97-108.	1.2	22
971	Effective thermoelectric conversion properties of thermoelectric composites containing a crack/hole. Composite Structures, 2018, 191, 180-189.	3.1	17
972	Structure and thermoelectric property of Te doped paracostibite CoSb1-Te S compounds. Journal of Solid State Chemistry, 2018, 262, 1-7.	1.4	10
973	Polarized single crystal neutron diffraction study of the zero-magnetization ferromagnet<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Sm</mml:mi><mml:mrow><mml:mn>1</mml:mn> Physical Review B, 2018, 97, .	0.4	4
974	Phonon glass behavior beyond traditional cage structures: synthesis, crystal and electronic structure, and properties of KMg4Sb3. Journal of Materials Chemistry A, 2018, 6, 4759-4767.	5.2	17
975	Mechanical properties in thermoelectric oxides: Ideal strength, deformation mechanism, and fracture toughness. Acta Materialia, 2018, 149, 341-349.	3.8	25

#	Article	IF	Citations
976	On the origin of vibrational properties of calcium manganate based thermoelectric compounds. Nano Energy, 2018, 47, 451-462.	8.2	19
977	Significantly optimized thermoelectric properties in high-symmetry cubic Cu₇PSe₆compoundsviaentropy engineering. Journal of Materials Chemistry A, 2018, 6, 6493-6502.	5.2	55
978	Fabrication of high crystalline SnS and SnS₂thin films, and their switching device characteristics. Nanotechnology, 2018, 29, 215201.	1.3	57
979	Exploring single-layered SnSe honeycomb polymorphs for optoelectronic and photovoltaic applications. Physical Review B, 2018, 97, .	1.1	45
980	Study on the thermoelectric performance of polycrystal SnSe with Se vacancies. Journal of Alloys and Compounds, 2018, 745, 513-518.	2.8	27
981	High-Performance PbTe Thermoelectric Films by Scalable and Low-Cost Printing. ACS Energy Letters, 2018, 3, 818-822.	8.8	53
982	A three-dimensional model for thermoelectric generator and the influence of Peltier effect on the performance and heat transfer. Applied Thermal Engineering, 2018, 133, 493-500.	3.0	66
983	Enhanced thermoelectric performance of SnTe: High efficient cation - anion Co-doping, hierarchical microstructure and electro-acoustic decoupling. Nano Energy, 2018, 47, 81-88.	8.2	67
984	Is SrZn₂Sb₂ a Realistic Candidate for High-Temperature Thermoelectric Applications?. Journal of Physical Chemistry C, 2018, 122, 5317-5324.	1.5	8
985	Inverse Band Structure Design via Materials Database Screening: Application to Square Planar Thermoelectrics. Chemistry of Materials, 2018, 30, 1540-1546.	3.2	29
986	Highly Efficient Thermoelectric Microgenerators Using Nearly Room Temperature Pulsed Laser Deposition. ACS Applied Materials & Interfaces, 2018, 10, 10194-10201.	4.0	21
987	Fabrication and Testing of a Tubular Thermoelectric Module Based on Oxide Elements. Journal of Electronic Materials, 2018, 47, 2808-2816.	1.0	14
988	The electronic structures and optical properties of light-element atom adsorbed SnSe monolayers. Materials Research Express, 2018, 5, 035013.	0.8	4
989	Enhanced Out-of-Plane Electrical Transport in n-Type SnSe Thermoelectrics Induced by Resonant States and Charge Delocalization. ACS Applied Materials & Interfaces, 2018, 10, 9889-9893.	4.0	16
990	Quantum materials for thermoelectricity. MRS Bulletin, 2018, 43, 187-192.	1.7	46
991	Conduction type control and power factor enhancement of the thermoelectric material Al2Fe3Si3. Journal of Physics and Chemistry of Solids, 2018, 118, 95-98.	1.9	16
992	Soft Phonon Modes Leading to Ultralow Thermal Conductivity and High Thermoelectric Performance in AgCuTe. Angewandte Chemie - International Edition, 2018, 57, 4043-4047.	7.2	70
993	Soft Phonon Modes Leading to Ultralow Thermal Conductivity and High Thermoelectric Performance in AgCuTe. Angewandte Chemie, 2018, 130, 4107-4111.	1.6	21

#	Article	IF	Citations
994	Valleytronics in thermoelectric materials. Npj Quantum Materials, 2018, 3, .	1.8	104
995	Enhancement of thermoelectric performance via weak disordering of topological crystalline insulators and band convergence by Se alloying in Pb0.5Sn0.5Te1 â˜' xSex. Journal of Materials Chemistry A, 2018, 6, 5870-5879.	5.2	11
996	Effects of Pressure on the Microstructure and Simultaneous Optimization of the Electrical and Thermal Transport Properties of Yb0.5Ba7.5Ga16Ge30. Inorganic Chemistry, 2018, 57, 3323-3328.	1.9	18
997	Modification of Bulk Heterojunction and Cl Doping for High-Performance Thermoelectric SnSe₂/SnSe Nanocomposites. ACS Applied Materials & Interfaces, 2018, 10, 15793-15802.	4.0	39
998	A Review of SnSe: Growth and Thermoelectric Properties. Journal of the Korean Physical Society, 2018, 72, 841-857.	0.3	32
999	Enhanced thermoelectric performance through grain boundary engineering in quaternary chalcogenide Cu2ZnSnSe4. AIP Advances, 2018, 8, 045218.	0.6	8
1000	Electronic and Thermal Properties of Si-doped InSe Layered Chalcogenides. Journal of the Korean Physical Society, 2018, 72, 775-779.	0.3	11
1001	Recent advances in non-Pb-based group-IV chalcogenides for environmentally-friendly thermoelectric materials. Chinese Physics B, 2018, 27, 048102.	0.7	10
1002	Crossâ€Plane Carrier Transport in Van der Waals Layered Materials. Small, 2018, 14, e1703808.	5.2	15
1003	Atomically thin pâ€“n junctions based on two-dimensional materials. Chemical Society Reviews, 2018, 47, 3339-3358.	18.7	231
1004	Electronic and Thermoelectric Properties of SnSe1â˜'xS x (xâ€‰=â€‰0, 0.25, 0.5, 0.75, and 1) Alloys: First-Principles Calculations. Journal of Electronic Materials, 2018, 47, 4047-4055.	1.0	4
1005	Graphene network in copper sulfide leading to enhanced thermoelectric properties and thermal stability. Nano Energy, 2018, 49, 267-273.	8.2	108
1006	Lone-Pair Electrons Do Not Necessarily Lead to Low Lattice Thermal Conductivity: An Exception of Two-Dimensional Penta-CN₂. Journal of Physical Chemistry Letters, 2018, 9, 2474-2483.	2.1	38
1007	Crystal Growth, Thermal Stability and Electrical Transport Property of Doubleâ€Doping (Snï£¿Cd) System in Singleâ€Crystal Î²â€Zn₄Sb₃. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1700905.	0.8	4
1008	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
1009	Thermoelectric Power Factor in Nanostructured Materials With Randomized Nanoinclusions. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1700997.	0.8	7
1010	n-Type Ultrathin Few-Layer Nanosheets of Bi-Doped SnSe: Synthesis and Thermoelectric Properties. ACS Energy Letters, 2018, 3, 1153-1158.	8.8	72
1011	New evaluation parameter for wearable thermoelectric generators. Journal of Applied Physics, 2018, 123, .	1.1	7

#	Article	IF	Citations
1012	Thermoelectricity in correlated narrow-gap semiconductors. Journal of Physics Condensed Matter, 2018, 30, 183001.	0.7	58
1013	Influence of the State of the Tungsten Tip on STM Topographic Images of SnSe Surfaces. Journal of the Korean Physical Society, 2018, 72, 658-661.	0.3	2
1014	MnTe2 as a novel promising thermoelectric material. Journal of Materiomics, 2018, 4, 215-220.	2.8	19
1015	Incorporation of Au nanoparticles into thermoelectric mesoporous ZnO using a reverse triblock copolymer to enhance electrical conductivity. Materials Chemistry and Physics, 2018, 212, 499-505.	2.0	5
1016	Contrastive thermoelectric properties of strained SnSe crystals from the first-principles calculations. Physica B: Condensed Matter, 2018, 539, 8-13.	1.3	9
1017	Design of segmented high-performance thermoelectric generators with cost in consideration. Applied Energy, 2018, 221, 112-121.	5.1	32
1018	Crystal Structure Induced Ultralow Lattice Thermal Conductivity in Thermoelectric Ag₉AlSe₆. Advanced Energy Materials, 2018, 8, 1800030.	10.2	88
1019	Enhancing point defect scattering in copper antimony selenides via Sm and S Co-doping. Rare Metals, 2018, 37, 290-299.	3.6	8
1020	Routes for high-performance thermoelectric materials. Materials Today, 2018, 21, 974-988.	8.3	265
1021	Low temperature thermoelectric properties of p-type doped single-crystalline SnSe. Applied Physics Letters, 2018, 112, .	1.5	24
1022	Microscopic study of thermoelectric In-doped SnTe. Nanotechnology, 2018, 29, 26LT01.	1.3	11
1023	The enhanced thermoelectric properties of BiMnO₃ceramics by Sr-doped. Materials Research Express, 2018, 5, 045902.	0.8	4
1024	Ecoâ€Friendly Higher Manganese Silicide Thermoelectric Materials: Progress and Future Challenges. Advanced Energy Materials, 2018, 8, 1800056.	10.2	116
1025	Effect of Dislocation Arrays at Grain Boundaries on Electronic Transport Properties of Bismuth Antimony Telluride: Unified Strategy for High Thermoelectric Performance. Advanced Energy Materials, 2018, 8, 1800065.	10.2	40
1026	Sodiumâ€Doped Tin Sulfide Single Crystal: A Nontoxic Earthâ€Abundant Material with High Thermoelectric Performance. Advanced Energy Materials, 2018, 8, 1800087.	10.2	80
1027	Band Structure of the IV-VI Black Phosphorus Analog and Thermoelectric SnSe. Physical Review Letters, 2018, 120, 156403.	2.9	49
1028	Localized Vibrations of Bi Bilayer Leading to Ultralow Lattice Thermal Conductivity and High Thermoelectric Performance in Weak Topological Insulator n-Type BiSe. Journal of the American Chemical Society, 2018, 140, 5866-5872.	6.6	137
1029	The intrinsic low lattice thermal conductivity in the rock salt SnSe. Computational Materials Science, 2018, 148, 54-59.	1.4	16

#	Article	IF	Citations
1030	Modulation of magnetism in transition-metal-doped two-dimensional GeS. Journal Physics D: Applied Physics, 2018, 51, 225001.	1.3	2
1031	Enhanced thermoelectric properties in Bi and Te doped p-type Cu3SbSe4 compound. AIP Conference Proceedings, 2018, , .	0.3	4
1032	Stochastic sampling of quadrature grids for the evaluation of vibrational expectation values. Physical Review B, 2018, 97, .	1.1	1
1033	Effect of stacking order and in-plane strain on the electronic properties of bilayer GeSe. Physical Chemistry Chemical Physics, 2018, 20, 6929-6935.	1.3	31
1034	Computational prediction of a high ZT of n-type Mg₃Sb₂-based compounds with isotropic thermoelectric conduction performance. Physical Chemistry Chemical Physics, 2018, 20, 7686-7693.	1.3	55
1035	Enhancing thermoelectric properties of BiCuSeO via uniaxial compressive strain: First-principles calculations. Journal of Alloys and Compounds, 2018, 743, 610-617.	2.8	13
1036	Enhanced thermoelectric properties of p-type SnS0.2Se0.8 solid solution doped with Ag. Journal of Alloys and Compounds, 2018, 745, 172-178.	2.8	14
1037	Solution-processable flexible thermoelectric composite films based on conductive polymer/SnSe_{0.8}S_{0.2} nanosheets/carbon nanotubes for wearable electronic applications. Journal of Materials Chemistry A, 2018, 6, 5627-5634.	5.2	54
1038	Temperature-dependent thermal and thermoelectric properties of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>n</mml:mi></mml:math> -type and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>p</mml:mi></mml:math> -type <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">S</mml:mi><mml:msub><mml:mi mathvariant="normal">c</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^'</mml:mo><mml:mi>x</mml:mi></mml:mrow></r	1.1	35
1039	Thermo-element geometry optimization for high thermoelectric efficiency. Energy, 2018, 147, 672-680.	4.5	26
1040	Extremely low thermal conductivity and enhanced thermoelectric performance of polycrystalline SnSe by Cu doping. Scripta Materialia, 2018, 147, 74-78.	2.6	67
1041	Manipulation of Phonon Transport in Thermoelectrics. Advanced Materials, 2018, 30, e1705617.	11.1	316
1042	Preparation and Thermoelectric Properties of Cu2Se Hot-Pressed from Hydrothermal Synthesis Nanopowders. Journal of Electronic Materials, 2018, 47, 2454-2460.	1.0	29
1043	Determination of the mechanical properties of SnSe, a novel layered semiconductor. Journal of Physics and Chemistry of Solids, 2018, 116, 306-312.	1.9	16
1044	Intrinsic and extrinsic electrical and thermal transport of bulk black phosphorus. Physical Review B, 2018, 97, .	1.1	15
1045	Density functional theory study of inter-layer coupling in bulk tin selenide. Chemical Physics Letters, 2018, 695, 200-204.	1.2	24
1046	Revealing optoelectronic and transport properties of potential perovskites Cs2PdX6 (Xâ€¯=â€¯Cl, Br): A probe from density functional theory (DFT). Solar Energy, 2018, 162, 336-343.	2.9	123
1047	High Thermoelectric Performance in SnTeâ€“AgSbTe₂ Alloys from Lattice Softening, Giant Phononâ€“Vacancy Scattering, and Valence Band Convergence. ACS Energy Letters, 2018, 3, 705-712.	8.8	151

#	Article	IF	Citations
1048	Excellent thermoelectric performance achieved over broad temperature plateau in indium-doped SnTe-AgSbTe2 alloys. Applied Physics Letters, 2018, 112, .	1.5	15
1049	Thermal transport characterization of stanene/silicene heterobilayer and stanene bilayer nanostructures. Nanotechnology, 2018, 29, 185706.	1.3	19
1050	Charge Transport in Thermoelectric SnSe Single Crystals. ACS Energy Letters, 2018, 3, 689-694.	8.8	41
1051	Monolayer PdSe2: A promising two-dimensional thermoelectric material. Scientific Reports, 2018, 8, 2764.	1.6	133
1052	Optical and electrical properties of GeSe and SnSe single crystals. Journal of the Korean Physical Society, 2018, 72, 238-242.	0.3	30
1053	Accelerating evaluation of converged lattice thermal conductivity. Npj Computational Materials, 2018, 4, .	3.5	50
1054	Minimum thermal conductivity in the context of diffuson-mediated thermal transport. Energy and Environmental Science, 2018, 11, 609-616.	15.6	221
1055	Bi2O2Se nanosheet: An excellent high-temperature n-type thermoelectric material. Applied Physics Letters, 2018, 112, .	1.5	94
1056	Tin(<scp>iv</scp>) chalcogenoether complexes as single source precursors for the chemical vapour deposition of SnE₂ and SnE (E = S, Se) thin films. Dalton Transactions, 2018, 47, 2628-2637.	1.6	45
1057	Tin Selenide (SnSe): Growth, Properties, and Applications. Advanced Science, 2018, 5, 1700602.	5.6	228
1058	Electron mean-free-path filtering in Dirac material for improved thermoelectric performance. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 879-884.	3.3	61
1059	Enhanced thermoelectric and mechanical properties of Na-doped polycrystalline SnSe thermoelectric materials via CNTs dispersion. Journal of Alloys and Compounds, 2018, 741, 756-764.	2.8	54
1060	Realizing zT of 2.3 in Ge_{1â^'}_x_{â^'}_ySb_xIn_yTe via Reducing the Phaseâ€Transition Temperature and Introducing Resonant Energy Doping. Advanced Materials, 2018, 30, 1705942.	11.1	316
1061	Grain Boundaries Softening Thermoelectric Oxide BiCuSeO. ACS Applied Materials & Interfaces, 2018, 10, 6772-6777.	4.0	10
1062	Wearable energy sources based on 2D materials. Chemical Society Reviews, 2018, 47, 3152-3188.	18.7	226
1063	Magnetothermoelectric transport properties in phosphorene. Physical Review B, 2018, 97, .	1.1	6
1064	Eco-friendly synthesis of SnSe nanoparticles: effect of reducing agents on the reactivity of a Se-precursor and phase formation of SnSe NPs. New Journal of Chemistry, 2018, 42, 4843-4853.	1.4	33
1065	Influence of Thermal Treatment of a Calcium Cobalt Oxide Thin Film by Rapid Thermal Annealing. Journal of the Korean Physical Society, 2018, 72, 390-393.	0.3	1

#	Article	IF	Citations
1066	Thermoelectric conversion of waste heat from IC engine-driven vehicles: A review of its application, issues, and solutions. International Journal of Energy Research, 2018, 42, 2595-2614.	2.2	27
1067	Rhombohedral to Cubic Conversion of GeTe via MnTe Alloying Leads to Ultralow Thermal Conductivity, Electronic Band Convergence, and High Thermoelectric Performance. Journal of the American Chemical Society, 2018, 140, 2673-2686.	6.6	307
1068	Effect of rattling motion without cage structure on lattice thermal conductivity in LaOBiS2â^'xSex. Applied Physics Letters, 2018, 112, .	1.5	29
1069	Carbonâ€Nanotubeâ€Based Thermoelectric Materials and Devices. Advanced Materials, 2018, 30, 1704386.	11.1	411
1070	Recent Development of Thermoelectric Polymers and Composites. Macromolecular Rapid Communications, 2018, 39, e1700727.	2.0	217
1071	Quasi-two-dimensional thermoelectricity in SnSe. Physical Review B, 2018, 97, .	1.1	42
1072	Thermoelectric transport properties of Pbâ€“Snâ€“Teâ€“Se system. Rare Metals, 2018, 37, 343-350.	3.6	55
1073	Direct observation of double valence-band extrema and anisotropic effective masses of the thermoelectric material SnSe. Japanese Journal of Applied Physics, 2018, 57, 010301.	0.8	15
1074	Enhanced thermoelectric properties of Hg-doped Cu₂Se. International Journal of Modern Physics B, 2018, 32, 1850087.	1.0	15
1075	High-Throughput Screening of Sulfide Thermoelectric Materials Using Electron Transport Calculations with OpenMX and BoltzTraP. Journal of Electronic Materials, 2018, 47, 3254-3259.	1.0	23
1076	Exploration work function and optical properties of monolayer SnSe allotropes. Superlattices and Microstructures, 2018, 114, 251-258.	1.4	57
1077	SnSeÂ+ÂAg2Se composite engineering with ball milling for enhanced thermoelectric performance. Rare Metals, 2018, 37, 333-342.	3.6	24
1078	Probing anisotropy of Seebeck coefficient and enhanced thermoelectric performance of Mg2Si0.35Sn0.65 single crystal. Journal of Alloys and Compounds, 2018, 739, 705-711.	2.8	12
1079	Structure and thermoelectric properties of 2D Cr₂Se_{3â^'3x}S_{3x} solid solutions. Journal of Materials Chemistry C, 2018, 6, 836-846.	2.7	13
1080	Achieving zT > 2 in pâ€Type AgSbTe_{2â^'}_xSe_x Alloys via Exploring the Extra Light Valence Band and Introducing Dense Stacking Faults. Advanced Energy Materials, 2018, 8, 1702333.	10.2	143
1081	Microwave-assisted synthesis method for rapid synthesis of tin selenide electrode material for supercapacitors. Journal of Alloys and Compounds, 2018, 737, 623-629.	2.8	47
1082	High Seebeck Coefficient and Unusually Low Thermal Conductivity Near Ambient Temperatures in Layered Compound Yb_{2â€“x}Eu_xCdSb₂. Chemistry of Materials, 2018, 30, 484-493.	3.2	45
1083	Thermoelectric energy harvesting for the gas turbine sensing and monitoring system. Energy Conversion and Management, 2018, 157, 215-223.	4.4	50

#	Article	IF	Citations
1084	AgKTe: An intrinsic semiconductor material with high thermoelectric properties at room temperature. Journal of Alloys and Compounds, 2018, 739, 35-40.	2.8	14
1085	Cellulose Fiber-Based Hierarchical Porous Bismuth Telluride for High-Performance Flexible and Tailorable Thermoelectrics. ACS Applied Materials & Interfaces, 2018, 10, 1743-1751.	4.0	85
1086	Phonon-driven electron scattering and magnetothermoelectric effect in two-dimensional tin selenide. Journal of Physics Condensed Matter, 2018, 30, 055301.	0.7	7
1087	Enhanced antiâ€deliquescent property and ultralow thermal conductivity of magnetoplumbiteâ€type LnMeAl₁₁O₁₉ materials for thermal barrier coating. Journal of the American Ceramic Society, 2018, 101, 1095-1104.	1.9	16
1088	Quaternary Layered Semiconductor Ba₂Cr₄GeSe₁₀: Synthesis, Crystal Structure, and Thermoelectric Properties. Inorganic Chemistry, 2018, 57, 916-920.	1.9	6
1089	Grain-by-Grain Compositional Variations and Interstitial Metalsâ€"A New Route toward Achieving High Performance in Half-Heusler Thermoelectrics. ACS Applied Materials & Interfaces, 2018, 10, 4786-4793.	4.0	39
1090	Significant Role of Mg Stoichiometry in Designing High Thermoelectric Performance for Mg₃(Sb,Bi)₂-Based n-Type Zintls. Journal of the American Chemical Society, 2018, 140, 1910-1915.	6.6	125
1091	Investigation of electrochemical performance on carbon supported tin-selenium bimetallic anodes in lithium-ion batteries. Electrochimica Acta, 2018, 266, 193-201.	2.6	26
1092	Liquid-like thermal conduction in intercalated layered crystalline solids. Nature Materials, 2018, 17, 226-230.	13.3	136
1093	Thermoelectric prospects of chemically deposited PbSe and SnSe thin films. Semiconductor Science and Technology, 2018, 33, 035004.	1.0	14
1094	Electronic Band Structure Engineering and Enhanced Thermoelectric Transport Properties in Pb-Doped BiCuOS Oxysulfide. Chemistry of Materials, 2018, 30, 1085-1094.	3.2	18
1095	Ag-Segregation to Dislocations in PbTe-Based Thermoelectric Materials. ACS Applied Materials & Interfaces, 2018, 10, 3609-3615.	4.0	74
1096	Recent progress towards high performance of tin chalcogenide thermoelectric materials. Journal of Materials Chemistry A, 2018, 6, 2432-2448.	5.2	101
1097	Thermoelectric properties of Co4Sb12with Bi2Te3nanoinclusions. Journal of Physics Condensed Matter, 2018, 30, 095701.	0.7	15
1098	High thermoelectric performance balanced by electrical and thermal transport in tetrahedrites Cu12+Sb4S12Se. Energy Storage Materials, 2018, 13, 127-133.	9.5	35
1099	High Thermoelectric Performance of In₄Se₃-Based Materials and the Influencing Factors. Accounts of Chemical Research, 2018, 51, 240-247.	7.6	50
1100	Controllable colloidal synthesis of anisotropic tin dichalcogenide nanocrystals for thin film thermoelectrics. Nanoscale, 2018, 10, 2533-2541.	2.8	17
1101	Transition from mobility-activated small polaron to carrier density-activated conduction of sol-gel-derived highly-oriented CuAlO2 thin film and enhanced thermoelectric properties. Ceramics International, 2018, 44, 5950-5960.	2.3	7

#	Article	IF	Citations
1102	Defects controlled hole doping and multivalley transport in SnSe single crystals. Nature Communications, 2018, 9, 47.	5.8	95
1103	Mechanism and application method to analyze the carrier scattering factor by electrical conductivity ratio based on thermoelectric property measurement. Journal of Applied Physics, 2018, 123, .	1.1	13
1104	Enhancing Thermoelectric Performances of Bismuth Antimony Telluride via Synergistic Combination of Multiscale Structuring and Band Alignment by FeTe₂ Incorporation. ACS Applied Materials & Interfaces, 2018, 10, 3689-3698.	4.0	66
1105	Unusual consequences of donor and acceptor doping on the thermoelectric properties of the MgAg_{0.97}Sb_{0.99} alloy. Journal of Materials Chemistry A, 2018, 6, 2600-2611.	5.2	6
1106	Thermoelectric Bi₂Te_{3â^'x}Se_x alloys for efficient thermal to electrical energy conversion. Physical Chemistry Chemical Physics, 2018, 20, 4092-4099.	1.3	63
1107	Lattice Dynamics and Thermal Conductivity in Cu2Zn1â€“xCoxSnSe4. Inorganic Chemistry, 2018, 57, 6051-6056.	1.9	19
1108	Synthesis and thermoelectric properties of Rashba semiconductor BiTeBr with intensive texture. Rare Metals, 2018, 37, 274-281.	3.6	20
1109	Thermal Conductivity of Solids from First-Principles Molecular Dynamics Calculations. Journal of Physical Chemistry C, 2018, 122, 10682-10690.	1.5	16
1110	Remarkable electron and phonon band structures lead to a high thermoelectric performance ZT > 1 in earth-abundant and eco-friendly SnS crystals. Journal of Materials Chemistry A, 2018, 6, 10048-10056.	5.2	90
1111	Thermoelectric transport properties of rock-salt SnSe: first-principles investigation. Journal of Materials Chemistry C, 2018, 6, 12016-12022.	2.7	43
1112	Crystalline Solids with Intrinsically Low Lattice Thermal Conductivity for Thermoelectric Energy Conversion. ACS Energy Letters, 2018, 3, 1315-1324.	8.8	132
1113	Single parabolic band behavior of thermoelectric p-type Cu4Mn2Te4. Journal of Alloys and Compounds, 2018, 753, 93-99.	2.8	8
1114	Unusually low thermal conductivity of atomically thin 2D tellurium. Nanoscale, 2018, 10, 12997-13003.	2.8	141
1115	The Smaller the Better: Hosting Trivalent Rare-Earth Guests in Cuâ€“P Clathrate Cages. CheM, 2018, 4, 1465-1475.	5.8	35
1116	Large enhancement of thermoelectric performance in CuInTe 2 upon compression. Materials Today Physics, 2018, 5, 1-6.	2.9	38
1117	High-performance SnSe thermoelectric materials: Progress and future challenge. Progress in Materials Science, 2018, 97, 283-346.	16.0	419
1118	PEDOT:PSS/graphene quantum dots films with enhanced thermoelectric properties via strong interfacial interaction and phase separation. Scientific Reports, 2018, 8, 6441.	1.6	151
1119	The journey of tin chalcogenides towards high-performance thermoelectrics and topological materials. Chemical Communications, 2018, 54, 6573-6590.	2.2	84

#	Article	IF	Citations
1120	Nanoscale thermal transport: Theoretical method and application. Chinese Physics B, 2018, 27, 036304.	0.7	21
1121	Independently tuning the power factor and thermal conductivity of SnSe via Ag2S addition and nanostructuring. Journal of Materials Chemistry A, 2018, 6, 7959-7966.	5.2	20
1122	Cornucopia of Structures in the Pseudobinary System (SnSe)xBi2Se3: A Crystal-Chemical Copycat. Inorganic Chemistry, 2018, 57, 4427-4440.	1.9	11
1123	Long annealing effect on spin Seebeck devices fabricated using Ce x Y3â^' x Fe5O12 deposited by metalâ€"organic decomposition. Japanese Journal of Applied Physics, 2018, 57, 04FN06.	0.8	0
1125	Low-Symmetry Rhombohedral GeTe Thermoelectrics. Joule, 2018, 2, 976-987.	11.7	402
1126	Phase-dependent thermal conductivity of electrodeposited antimony telluride films. Journal of Materials Chemistry C, 2018, 6, 3410-3416.	2.7	6
1127	Topotactic anion-exchange in thermoelectric nanostructured layered tin chalcogenides with reduced selenium content. Chemical Science, 2018, 9, 3828-3836.	3.7	28
1128	Enhanced Thermoelectric Properties of BiCuSeO Ceramics by Bi Vacancies. Materials Science Forum, 2018, 913, 803-810.	0.3	2
1129	Preparation and Enhanced Thermoelectric Performance of Cu2Seâ€"SnSe Composite Materials. Journal of Electronic Materials, 2018, 47, 3350-3357.	1.0	10
1130	Chemical manipulation of phase stability and electronic behavior in Cu_{4â^'x}Ag_xSe₂. Journal of Materials Chemistry A, 2018, 6, 6997-7004.	5.2	13
1131	Fabrication of Polyaniline-Coated SnSeS Nanosheet/Polyvinylidene Difluoride Composites by a Solution-Based Process and Optimization for Flexible Thermoelectrics. ACS Applied Materials & Interfaces, 2018, 10, 11920-11925.	4.0	19
1132	Nanostructured SnSe: Synthesis, doping, and thermoelectric properties. Journal of Applied Physics, 2018, 123, .	1.1	43
1133	Thermoelectrics based on metal oxide thin films. , 2018, , 441-464.		5
1134	Lead-free MnTe mid-temperature thermoelectric materials: facile synthesis, p-type doping and transport properties. Journal of Materials Chemistry C, 2018, 6, 4265-4272.	2.7	36
1135	Enhancement of the thermoelectric properties of PEDOT:PSS via one-step treatment with cosolvents or their solutions of organic salts. Journal of Materials Chemistry A, 2018, 6, 7080-7087.	5.2	87
1136	Atmospheric Pressure Fabrication of Large-Sized Single-Layer Rectangular SnSe Flakes. Journal of Visualized Experiments, 2018, , .	0.2	1
1137	A distinct correlation between the vibrational and thermal transport properties of group VA monolayer crystals. Nanoscale, 2018, 10, 7803-7812.	2.8	35
1138	Lateral Heterostructures Formed by Thermally Converting n-Type SnSe2 to p-Type SnSe. ACS Applied Materials & Interfaces, 2018, 10, 12831-12838.	4.0	37

#	Article	IF	Citations
1139	Anharmoncity and low thermal conductivity in thermoelectrics. Materials Today Physics, 2018, 4, 50-57.	2.9	242
1140	Unusually large chemical potential shift in a degenerate semiconductor: Angle-resolved photoemission study of SnSe and Na-doped SnSe. Physical Review B, 2018, 97, .	1.1	13
1141	Thermoelectricity in single-molecule devices. Materials Science and Technology, 2018, 34, 1275-1286.	0.8	7
1142	Three-wire method to characterize the thermoelectric properties of one-dimensional materials. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2018, 36, 022903.	0.6	1
1143	Thermoelectric properties of Cu₂Se_{1â^'x}Te_x solid solutions. Journal of Materials Chemistry A, 2018, 6, 6977-6986.	5.2	70
1144	High electrical transport properties performance enhanced by anti-site defects in single crystalline SnSe. Journal of Alloys and Compounds, 2018, 748, 80-86.	2.8	13
1145	Synthesis and thermoelectric performance of titanium diboride and its composites with lead selenide and carbon. Ceramics International, 2018, 44, 10685-10692.	2.3	12
1146	High-Power-Density Skutterudite-Based Thermoelectric Modules with Ultralow Contact Resistivity Using Feâ€“Ni Metallization Layers. ACS Applied Energy Materials, 2018, 1, 1603-1611.	2.5	44
1147	Odyssey of thermoelectric materials: foundation of the complex structure. Journal of Physics Communications, 2018, 2, 062001.	0.5	34
1148	First-Principles Lattice Dynamics Method for Strongly Anharmonic Crystals. Journal of the Physical Society of Japan, 2018, 87, 041015.	0.7	93
1149	Graphene for Thermoelectric Applications: Prospects and Challenges. Critical Reviews in Solid State and Materials Sciences, 2018, 43, 133-157.	6.8	94
1150	Measuring nano-scale thermal conductivity. National Science Review, 2018, 5, 2-2.	4.6	3
1151	An insight into a novel cubic phase SnSe for prospective applications in optoelectronics and clean energy devices. Journal of Alloys and Compounds, 2018, 733, 22-32.	2.8	33
1152	Thermoelectric power factor of La 0.9 M 0.1 FeO 3 (MÂ=ÂCa and Ba) system: Structural, band gap and electrical transport evaluations. Physica B: Condensed Matter, 2018, 529, 1-8.	1.3	13
1153	Direct preparation of La-doped SrTiO3 thermoelectric materials by mechanical alloying with carbon burial sintering. Journal of the European Ceramic Society, 2018, 38, 807-811.	2.8	41
1154	High thermoelectric performance of Î±-MgAgSb for power generation. Energy and Environmental Science, 2018, 11, 23-44.	15.6	127
1155	Significantly enhanced thermoelectric properties of p-type Mg3Sb2 via co-doping of Na and Zn. Acta Materialia, 2018, 143, 265-271.	3.8	82
1156	Fiberâ€Based Thermoelectric Generators: Materials, Device Structures, Fabrication, Characterization, and Applications. Advanced Energy Materials, 2018, 8, 1700524.	10.2	108

#	Article	IF	Citations
1157	Achieving high Figure of Merit in p-type polycrystalline Sn0.98Se via self-doping and anisotropy-strengthening. Energy Storage Materials, 2018, 10, 130-138.	9.5	101
1158	Synthesis of In2S3 thin films directly onto conductive substrates via PVP-assisted microwave irradiation method. Materials Letters, 2018, 210, 66-69.	1.3	12
1159	Energy materials based on metal Schiff base complexes. Coordination Chemistry Reviews, 2018, 355, 180-198.	9.5	260
1160	Experimental study of thermoelectricity in carbon nanotubes and graphene. , 2018, , 187-247.		0
1161	Variation of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:mi>z</mml:mi><mml:mi>T</mml:mi></mml:mrow></mml:math>factor of SnSe with doping: A first-principles study. Journal of Alloys and Compounds, 2018, 732, 536-546.	2.8	9
1162	Comparison of Predicted Thermoelectric Energy Conversion Efficiency by Cumulative Properties and Reduced Variables Approaches. Journal of Electronic Materials, 2018, 47, 3085-3090.	1.0	2
1163	Enhancing the thermoelectric performance of filled skutterudite nanocomposites in a wide temperature range via electroless silver plating. Scripta Materialia, 2018, 146, 136-141.	2.6	11
1164	Tuning the electronic properties of bilayer group-IV monochalcogenides by stacking order, strain and an electric field: a computational study. Physical Chemistry Chemical Physics, 2018, 20, 214-220.	1.3	32
1165	Excellent thermoelectricity performance of p-type SnSe along b axis. Physica B: Condensed Matter, 2018, 530, 264-269.	1.3	22
1166	Functionally Graded (PbTe)_{1â€“x}(SnTe)_x Thermoelectrics. Chemistry of Materials, 2018, 30, 280-287.	3.2	17
1167	Intrinsic sources of high thermal conductivity of CdSiP₂ determined by first-principle anharmonic calculations. Physical Chemistry Chemical Physics, 2018, 20, 1568-1574.	1.3	8
1168	Achieving High Thermoelectric Figure of Merit in Polycrystalline SnSe via Introducing Sn Vacancies. Journal of the American Chemical Society, 2018, 140, 499-505.	6.6	180
1169	Ultralow and anisotropic thermal conductivity in semiconductor As₂Se₃. Physical Chemistry Chemical Physics, 2018, 20, 1809-1816.	1.3	16
1170	Ytterbium Silicide (YbSi₂): A Promising Thermoelectric Material with a High Power Factor at Room Temperature. Physica Status Solidi - Rapid Research Letters, 2018, 12, 1700372.	1.2	13
1171	Ultra-high average figure of merit in synergistic band engineered Sn Na1â^'Se0.9S0.1 single crystals. Materials Today, 2018, 21, 501-507.	8.3	71
1172	Electronic, optical and thermoelectric properties of SnGa2GeX6 (XÂ=ÂS, Se) compounds. Journal of Alloys and Compounds, 2018, 737, 637-645.	2.8	7
1173	Understanding the combustion process for the synthesis of mechanically robust SnSe thermoelectrics. Nano Energy, 2018, 44, 53-62.	8.2	51
1174	Crystal structure of high-performance thermoelectric materials by high resolution neutron powder diffraction. Physica B: Condensed Matter, 2018, 551, 64-68.	1.3	9

#	Article	IF	Citations
1175	High Performance Thermoelectric Materials: Progress and Their Applications. Advanced Energy Materials, 2018, 8, 1701797.	10.2	548
1176	Effect of calcination temperature on structure and thermoelectric properties of CuAlO2 powders. Journal of Materials Science, 2018, 53, 1646-1657.	1.7	18
1177	Structural studies of the layered SnSe produced by mechanical alloying and melting technique. Journal of Alloys and Compounds, 2018, 735, 489-495.	2.8	14
1178	Chemical intuition for high thermoelectric performance in monolayer black phosphorus, Î±-arsenene and aW-antimonene. Journal of Materials Chemistry A, 2018, 6, 2018-2033.	5.2	80
1179	Fabrication of porous SnSeS nanosheets with controlled porosity and their enhanced thermoelectric performance. Chemical Engineering Journal, 2018, 335, 560-566.	6.6	23
1180	Low thermal conductivity CoSb3 materials prepared by rapid synthesis process. Journal of Solid State Chemistry, 2018, 258, 397-400.	1.4	2
1181	Preparation and Thermoelectric Properties of Graphite/Bi0.5Sb1.5Te3 Composites. Journal of Electronic Materials, 2018, 47, 3344-3349.	1.0	9
1182	h-BN/graphene van der Waals vertical heterostructure: a fully spin-polarized photocurrent generator. Nanoscale, 2018, 10, 174-183.	2.8	49
1183	Layered material GeSe and vertical GeSe/MoS2 p-n heterojunctions. Nano Research, 2018, 11, 420-430.	5.8	74
1184	Highly-anisotropic optical and electrical properties in layered SnSe. Nano Research, 2018, 11, 554-564.	5.8	114
1185	Thermoelectric Power Generation from Waste Heat. , 2018, , 1-19.		2
1186	Effect of annealing treatment on thermoelectric properties of Ti-doped ZnO thin film. AIP Conference Proceedings, 2018, , .	0.3	1
1187	First-principles study on strain engineered SnS monolayer. , 2018, , .		1
1188	Cost effective synthesis of p-type Zn-doped MgAgSb by planetary ball-milling with enhanced thermoelectric properties. RSC Advances, 2018, 8, 35353-35359.	1.7	17
1189	Large enhancement of electrical transport properties of SnS in the out-of-plane direction by n-type doping: a combined ARPES and DFT study. Journal of Materials Chemistry A, 2018, 6, 24588-24594.	5.2	22
1190	Self-passivated ultra-thin SnS layers via mechanical exfoliation and post-oxidation. Nanoscale, 2018, 10, 22474-22483.	2.8	42
1191	The transverse thermoelectric effect in a-axis inclined oriented SnSe thin films. Journal of Materials Chemistry C, 2018, 6, 12858-12863.	2.7	14
1192	Potential application of 2D monolayer Î²-GeSe as an anode material in Na/K ion batteries. Physical Chemistry Chemical Physics, 2018, 20, 30290-30296.	1.3	48

#	Article	IF	Citations
1193	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
1194	High thermoelectric performance in complex phosphides enabled by stereochemically active lone pair electrons. Journal of Materials Chemistry A, 2018, 6, 24877-24884.	5.2	28
1195	Simultaneous regulation of electrical and thermal transport properties in MnTe chalcogenides via the incorporation of p-type Sb₂Te₃. Journal of Materials Chemistry A, 2018, 6, 23473-23477.	5.2	23
1196	Bond valences and anharmonicity in vacancy-ordered double perovskite halides. Journal of Materials Chemistry C, 2018, 6, 12095-12104.	2.7	27
1197	Passivity Analysis for Neural Networks of Neutral Type with Markovian Jumping Parameters and Time-Varying Delay. , 2018, , .		1
1198	Automotive Waste Heat Recovery by Thermoelectric Generator Technology. , 0, , .		10
1199	Thermoelectric Textile Materials. , 2018, , .		4
1200	First principles study of the structural, stability properties and lattice thermal conductivity of bulk ReSe2. Materials Today: Proceedings, 2018, 5, 10424-10430.	0.9	8
1201	Facile preparation of SnSe derivatives in nanostructured polycrystalline form by arc-melting synthesis. Materials Today: Proceedings, 2018, 5, 10218-10226.	0.9	4
1202	Nanostructured Thermoelectric Chalcogenides. , 2018, , .		3
1203	Thermoelectric Properties of Hot-Pressed Bi-Doped n-Type Polycrystalline SnSe. Nanoscale Research Letters, 2018, 13, 200.	3.1	22
1204	Crystal growth of intermetallic thermoelectric materials. , 2018, , 217-260.		0
1205	Tin Diselenide Molecular Precursor for Solutionâ€Processable Thermoelectric Materials. Angewandte Chemie, 2018, 130, 17309-17314.	1.6	9
1206	Flexible Plasmonic Pressure Sensor Based on Layered Two-Dimensional Heterostructures. Journal of Lightwave Technology, 2018, 36, 5678-5684.	2.7	14
1207	Geometrically Enhanced Thermoelectric Effects in Graphene Nanoconstrictions. Nano Letters, 2018, 18, 7719-7725.	4.5	46
1208	Phase Transitions in SnSe probed by Far Infrared Spectroscopy. , 2018, , .		0
1209	A facile energy-saving route of fabricating thermoelectric Sb ₂ Te ₃ -Te nanocomposites and nanosized Te. Royal Society Open Science, 2018, 5, 180698.	1.1	12
1210	Old materials with new properties III: Antimony. Nano Today, 2018, 23, 8-10.	6.2	0

#	Article	IF	Citations
1211	Exploring a Novel Atomic Layer with Extremely Low Lattice Thermal Conductivity: ZnPSe₃ and Its Thermoelectrics. Journal of Physical Chemistry C, 2018, 122, 27917-27924.	1.5	18
1212	Mode GrÃ¼neisen parameters of an efficient thermoelectric half-Heusler. Journal of Applied Physics, 2018, 124, .	1.1	12
1213	Chemical Insights into PbSeâ€“x%HgSe: High Power Factor and Improved Thermoelectric Performance by Alloying with Discordant Atoms. Journal of the American Chemical Society, 2018, 140, 18115-18123.	6.6	80
1214	van der Waals Graphene Kirigami Heterostructure for Strain-Controlled Thermal Transparency. ACS Nano, 2018, 12, 11254-11262.	7.3	18
1215	Optimizing the electrical transport properties of InBr via pressure regulation. Journal of Applied Physics, 2018, 124, .	1.1	3
1216	Tin Diselenide Molecular Precursor for Solutionâ€Processable Thermoelectric Materials. Angewandte Chemie - International Edition, 2018, 57, 17063-17068.	7.2	23
1217	Tailoring the Grain Size of Bi-Layer Graphene by Pulsed Laser Deposition. Nanomaterials, 2018, 8, 885.	1.9	8
1218	Phonon anharmonicity in single-crystalline SnSe. Physical Review B, 2018, 98, .	1.1	76
1219	Achieving higher thermoelectric performance for p-type Cr2Ge2Te6 via optimizing doping. Applied Physics Letters, 2018, 113, .	1.5	12
1220	Electronic and optical properties of bilayer SnS with different stacking orders: A first principles study. Journal of Applied Physics, 2018, 124, .	1.1	7
1221	Temperature effect on the phonon dispersion stability of zirconium by machine learning driven atomistic simulations. Physical Review B, 2018, 98, .	1.1	39
1222	Investigations on electrical and thermal transport properties of Cu2SnSe3 with unusual coexisting nanophases. Materials Today Physics, 2018, 7, 77-88.	2.9	25
1223	Modulation of thermal conductivity and thermoelectric figure of merit by anharmonic lattice vibration in Sb₂Te₃ thermoelectrics. AIP Advances, 2018, 8, 125119.	0.6	4
1224	First-principles calculations of the ultralow thermal conductivity in two-dimensional group-IV selenides. Physical Review B, 2018, 98, .	1.1	98
1225	Enhancement of thermoelectric properties by lattice softening and energy band gap control in Te-deficient InTe1â^'Î´. AIP Advances, 2018, 8, .	0.6	24
1226	Thermal Conductivity during Phase Transitions. Advanced Materials, 2019, 31, e1806518.	11.1	80
1227	Improved figure of merit and other thermoelectric properties of Sn1â^'xCuxSe. Applied Physics Letters, 2018, 113, .	1.5	10
1228	High Thermoelectric Figure of Merit via Tunable Valley Convergence Coupled Low Thermal Conductivity in AIIBIVC2VChalcopyrites. Journal of Physical Chemistry C, 2018, 122, 29150-29157.	1.5	25

#	Article	IF	Citations
1229	Effect of indium and antimony doping on the transport properties of direct vapour transport (DVT) grown SnSe single crystals. Journal of Applied Physics, 2018, 124, .	1.1	12
1230	Excellent thermal stability and thermoelectric properties of Pnma -phase SnSe in middle temperature aerobic environment. Chinese Physics B, 2018, 27, 118105.	0.7	12
1231	Structural Phase Transitions and the Equation of State in SnSe at High Pressures up to 2 Mbar. JETP Letters, 2018, 108, 414-418.	0.4	6
1232	Pressure-Induced Superconductivity in Sulfur-Doped SnSe Single Crystal Using Boron-Doped Diamond Electrode-Prefabricated Diamond Anvil Cell. Journal of the Physical Society of Japan, 2018, 87, 124706.	0.7	17
1233	Effect of stacking faults and surface roughness on the thermal conductivity of InAs nanowires. Journal of Applied Physics, 2018, 124, 205101.	1.1	3
1234	Facile Synthesis and Visible Light Photocatalytic Activity of Sn_{1â€x}Mn_xS (0 â‰¤ x â‰¤ 0.20) Nanocrystals. ChemistrySelect, 2018, 3, 12645-12651.	0.7	7
1235	Anharmonic stabilization and lattice heat transport in rocksalt Î²-GeTe. Applied Physics Letters, 2018, 113, .	1.5	39
1236	Advances in thermoelectrics. Advances in Physics, 2018, 67, 69-147.	35.9	383
1237	First-principles thermodynamic theory of Seebeck coefficients. Physical Review B, 2018, 98, .	1.1	25
1238	Recent Progress in Flexible Organic Thermoelectrics. Micromachines, 2018, 9, 638.	1.4	39
1239	N-type Bi-doped SnSe Thermoelectric Nanomaterials Synthesized by a Facile Solution Method. Inorganic Chemistry, 2018, 57, 13800-13808.	1.9	28
1240	Effects of Pr and Yb Dual Doping on the Thermoelectric Properties of CaMnO3. Materials, 2018, 11, 1807.	1.3	18
1241	Compatibility between Co-Metallized PbTe Thermoelectric Legs and an Agâ€“Cuâ€“In Brazing Alloy. Materials, 2018, 11, 99.	1.3	14
1242	High thermoelectric performance of single phase p-type cerium-filled skutterudites by dislocation engineering. Journal of Materials Chemistry A, 2018, 6, 20128-20137.	5.2	22
1243	High thermoelectric performance and low thermal conductivity in K-doped SnSe polycrystalline compounds. Current Applied Physics, 2018, 18, 1534-1539.	1.1	14
1244	Optimization of Thermoelectric Generators in the Presence of Heat Losses and Fluid Flows. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2018, 8, 1573-1580.	1.4	5
1245	Eu11Zn4Sn2As12: A Ferromagnetic Zintl Semiconductor with a Layered Structure Featuring Extended Zn4As6 Sheets and Ethane-like Sn2As6 Units. Chemistry of Materials, 2018, 30, 7067-7076.	3.2	12
1246	Strongly Enhanced Thermoelectric Performance over a Wide Temperature Range in Topological Insulator Thin Films. ACS Applied Energy Materials, 0, , .	2.5	4

#	Article	IF	Citations
1247	Water Splits To Degrade Two-Dimensional Group-IV Monochalcogenides in Nanoseconds. ACS Central Science, 2018, 4, 1436-1446.	5.3	53
1248	Bi_{2+2n}O_{2+2n}Cu_{2â^'Î´}Se_{2+nâ€“Î´}X_{Î´} (X = Cl, Br): A Three-Anion Homologous Series. Inorganic Chemistry, 2018, 57, 12489-12500.	1.9	15
1249	Significant enhancement in the Seebeck coefficient and power factor of thermoelectric polymers by the Soret effect of polyelectrolytes. Journal of Materials Chemistry A, 2018, 6, 19347-19352.	5.2	58
1250	The Atomic Circus: Small Electron Beams Spotlight Advanced Materials Down to the Atomic Scale. Advanced Materials, 2018, 30, e1802402.	11.1	27
1251	The Thermoelectric Properties of SnSe Continue to Surprise: Extraordinary Electron and Phonon Transport. Chemistry of Materials, 2018, 30, 7355-7367.	3.2	79
1252	High-Performance Thermoelectric Materials for Solar Energy Application. , 2018, , 3-38.		4
1253	Synthesis of High-Density Bulk Tin Monoxide and Its Thermoelectric Properties. Materials Transactions, 2018, 59, 1022-1029.	0.4	7
1254	Carbon Nanotube-Based Organic Thermoelectric Materials for Energy Harvesting. Polymers, 2018, 10, 1196.	2.0	68
1255	Excessively Doped PbTe with Ge-Induced Nanostructures Enables High-Efficiency Thermoelectric Modules. Joule, 2018, 2, 1339-1355.	11.7	169
1256	Room Temperature Resonant Ultrasound Spectroscopy of Single Crystalline SnSe. ACS Applied Energy Materials, 2018, 1, 6123-6128.	2.5	21
1257	Suspended InAs Nanowire-Based Devices for Thermal Conductivity Measurement Using the 3Ï‰ Method. Journal of Materials Engineering and Performance, 2018, 27, 6299-6305.	1.2	18
1258	The complexity of thermoelectric materials: why we need powerful and brilliant synchrotron radiation sources?. Materials Today Physics, 2018, 6, 68-82.	2.9	15
1259	Record-Low and Anisotropic Thermal Conductivity of a Quasi-One-Dimensional Bulk ZrTe₅ Single Crystal. ACS Applied Materials & Interfaces, 2018, 10, 40740-40747.	4.0	33
1260	Charge and phonon transport in PbTe-based thermoelectric materials. Npj Quantum Materials, 2018, 3, .	1.8	227
1262	Boosting the Thermoelectric Performance of Pseudoâ€Layered Sb₂Te₃(GeTe)_n via Vacancy Engineering. Advanced Science, 2018, 5, 1801514.	5.6	95
1263	Bonding Hierarchy Gives Rise to High Thermoelectric Performance in Layered Zintl Compound BaAu2P4. Chemistry of Materials, 2018, 30, 7760-7768.	3.2	28
1264	Thermoelectricity for IoT â€“ A review. Nano Energy, 2018, 54, 461-476.	8.2	230
1265	Polycrystalline SnSe with Extraordinary Thermoelectric Property via Nanoporous Design. ACS Nano, 2018, 12, 11417-11425.	7.3	141

#	Article	IF	Citations
1266	A hardware Markov chain algorithm realized in a single device for machine learning. Nature Communications, 2018, 9, 4305.	5.8	44
1267	Enhancement of Thermoelectric Performance in CuSbSe₂ Nanoplateâ€Based Pellets by Texture Engineering and Carrier Concentration Optimization. Small, 2018, 14, e1803092.	5.2	17
1268	Thermoelectric Transport Properties of Cd_xBi_yGe_{1â€“xâ€“y}Te Alloys. ACS Applied Materials & Interfaces, 2018, 10, 39904-39911.	4.0	41
1269	Review of Exhaust Gas Heat Recovery Mechanism for Internal Combustion Engine Using Thermoelectric Principle. , 2018, , .		2
1270	High-Performance n-Type PbSeâ€“Cu₂Se Thermoelectrics through Conduction Band Engineering and Phonon Softening. Journal of the American Chemical Society, 2018, 140, 15535-15545.	6.6	103
1271	Entropy Engineering of SnTe: Multiâ€Principalâ€Element Alloying Leading to Ultralow Lattice Thermal Conductivity and Stateâ€ofâ€theâ€Art Thermoelectric Performance. Advanced Energy Materials, 2018, 8, 1802116.	10.2	157
1272	Radiant heat recovery by thermoelectric generators: A theoretical case-study on hot steel casting. Energy Conversion and Management, 2018, 175, 327-336.	4.4	16
1273	Tuning the thermoelectric performance of Ï€â€“d conjugated nickel coordination polymers through metalâ€“ligand frontier molecular orbital alignment. Journal of Materials Chemistry A, 2018, 6, 19757-19766.	5.2	26
1274	Stabilizing nâ€Type Cubic GeSe by Entropyâ€Driven Alloying of AgBiSe₂: Ultralow Thermal Conductivity and Promising Thermoelectric Performance. Angewandte Chemie - International Edition, 2018, 57, 15167-15171.	7.2	66
1275	Achieving high thermoelectric performance with Pb and Zn codoped polycrystalline SnSe via phase separation and nanostructuring strategies. Nano Energy, 2018, 53, 683-689.	8.2	98
1276	Electronic and Optical Properties of Two-Dimensional Î±-PbO from First Principles. Chemistry of Materials, 2018, 30, 7124-7129.	3.2	17
1277	Microstructure engineering beyond SnSe1-xSx solid solution for high thermoelectric performance. Journal of Materiomics, 2018, 4, 321-328.	2.8	18
1278	Crystal phase control in two-dimensional materials. Science China Chemistry, 2018, 61, 1227-1242.	4.2	42
1279	Lattice dynamics, transport and superconducting properties of Ba-substituted Sr3SnO. Solid State Communications, 2018, 284-286, 14-19.	0.9	2
1280	Stabilizing nâ€Type Cubic GeSe by Entropyâ€Driven Alloying of AgBiSe₂: Ultralow Thermal Conductivity and Promising Thermoelectric Performance. Angewandte Chemie, 2018, 130, 15387-15391.	1.6	21
1281	Investigation of the electronic structure and lattice dynamics of the thermoelectric material Na-doped SnSe. Physical Review B, 2018, 98, .	1.1	11
1282	Unraveling a novel ferroelectric GeSe phase and its transformation into a topological crystalline insulator under high pressure. NPG Asia Materials, 2018, 10, 882-887.	3.8	27
1283	Compact Water-Cooled Thermoelectric Generator (TEG) Based on a Portable Gas Stove. Energies, 2018, 11, 2231.	1.6	9

#	Article	IF	Citations
1284	Perspectives on Thermoelectricity in Layered and 2D Materials. Advanced Electronic Materials, 2018, 4, 1800248.	2.6	77
1285	Two-Dimensional CsAg₅Te_{3â€“x}S_x Semiconductors: Multi-anion Chalcogenides with Dynamic Disorder and Ultralow Thermal Conductivity. Chemistry of Materials, 2018, 30, 7245-7254.	3.2	15
1286	Effects of stacking method and strain on the electronic properties of the few-layer group-IVA monochalcogenide heterojunctions. RSC Advances, 2018, 8, 29862-29870.	1.7	7
1287	Se substitution and micro-nano-scale porosity enhancing thermoelectric Cu 2 Te. Chinese Physics B, 2018, 27, 047204.	0.7	5
1288	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
1289	Parametric study of thermoelectric power generators under large temperature difference conditions. Applied Thermal Engineering, 2018, 144, 647-657.	3.0	13
1290	Electron Density Optimization and the Anisotropic Thermoelectric Properties of Ti Self-Intercalated Ti_{1+x}S₂ Compounds. ACS Applied Materials & Interfaces, 2018, 10, 32344-32354.	4.0	23
1291	Formation of Nano-Sized Surface Structures in Adsorptive Multi-Layer Systems. , 2018, , .		0
1292	Constructing Highly Porous Thermoelectric Monoliths with High-Performance and Improved Portability from Solution-Synthesized Shape-Controlled Nanocrystals. Nano Letters, 2018, 18, 4034-4039.	4.5	38
1293	Determining ideal strength and failure mechanism of thermoelectric CuInTe2 through quantum mechanics. Journal of Materials Chemistry A, 2018, 6, 11743-11750.	5.2	10
1294	Theoretical analysis on a segmented annular thermoelectric generator. Energy, 2018, 157, 297-313.	4.5	55
1295	Layered tin sulfide and selenide anode materials for Li- and Na-ion batteries. Journal of Materials Chemistry A, 2018, 6, 12185-12214.	5.2	245
1296	A first-principles study of the effects of electronâ€“phonon coupling on the thermoelectric properties: a case study of the SiGe compound. Journal of Materials Chemistry A, 2018, 6, 12125-12131.	5.2	33
1297	Formation of adsorbate structures induced by external electric field in plasma-condensate systems. European Physical Journal B, 2018, 91, 1.	0.6	8
1298	3D charge and 2D phonon transports leading to high out-of-plane ZT in n-type SnSe crystals. Science, 2018, 360, 778-783.	6.0	859
1299	Skinâ€Inspired Lowâ€Grade Heat Energy Harvesting Using Directed Ionic Flow through Conical Nanochannels. Advanced Energy Materials, 2018, 8, 1800459.	10.2	47
1300	Fully Printed Organicâ€“Inorganic Nanocomposites for Flexible Thermoelectric Applications. ACS Applied Materials & Interfaces, 2018, 10, 19580-19587.	4.0	87
1301	Intrinsic phonon-limited charge carrier mobilities in thermoelectric SnSe. Physical Review B, 2018, 97, .	1.1	78

#	Article	IF	Citations
1302	Engineering electrical transport in Î±-MgAgSb to realize high performances near room temperature. Physical Chemistry Chemical Physics, 2018, 20, 16729-16735.	1.3	15
1303	Thermoelectric study of Ag doped SnSe-Sb2Se3 based alloy. AIP Conference Proceedings, 2018, , .	0.3	3
1304	Absence of Nanostructuring in NaPb_mSbTe_{m+2}: Solid Solutions with High Thermoelectric Performance in the Intermediate Temperature Regime. Journal of the American Chemical Society, 2018, 140, 7021-7031.	6.6	27
1305	Novel phases and superconductivity of tin sulfide compounds. Journal of Chemical Physics, 2018, 148, 194701.	1.2	17
1306	Evaluation of SnSe crystals fabricated by temperature gradient method with double tubes seal. Electronics and Communications in Japan, 2018, 101, 27-32.	0.3	2
1307	Thermalâ€toâ€Electrical Energy Conversion Cell with Solâ€“Gelâ€Derived Tïï£¿Snâ€Organic Composite Operated without Temperature Difference. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800084.	0.8	0
1308	Tuning of pâ€“nâ€“p-Type Conduction in AgCuS through Cation Vacancy: Thermopower and Positron Annihilation Spectroscopy Investigations. Inorganic Chemistry, 2018, 57, 7481-7489.	1.9	15
1309	Extended Hencky solution for the blister test of nanomembrane. Extreme Mechanics Letters, 2018, 22, 69-78.	2.0	20
1310	Facile synthesis and thermoelectric properties of Cu1.96S compounds. Journal of Solid State Chemistry, 2018, 265, 140-147.	1.4	17
1311	Low temperature thermoelectric and magnetoresistive properties of Tl₂Cu₃FeQ₄(Q = S, Se, Te). Inorganic Chemistry Frontiers, 2018, 5, 1553-1562.	3.0	3
1312	Lattice anharmonicity, phonon dispersion, and thermal conductivity of PbTe studied by the phonon quasiparticle approach. Physical Review B, 2018, 97, .	1.1	42
1313	Tuning SnSe/SnS hetero-interfaces to enhance thermoelectric performance. Functional Materials Letters, 2018, 11, 1850069.	0.7	10
1314	Thermoelectric Performance of IVâ€“VI Compounds with Octahedralâ€Like Coordination: A Chemicalâ€Bonding Perspective. Advanced Materials, 2018, 30, e1801787.	11.1	78
1315	Influence of Oxidation in Starting Material Sn on Electric Transport Properties of SnSe Single Crystals. Journal of the Physical Society of Japan, 2018, 87, 065001.	0.7	8
1316	Ultralow Thermal Conductivity and Ultrahigh Thermal Expansion of Single-Crystal Organicâ€“Inorganic Hybrid Perovskite CH₃NH₃PbX₃ (X = Cl, Br, I). Journal of Physical Chemistry C, 2018, 122, 15973-15978.	1.5	93
1317	Ï€â€Phase Tin and Germanium Monochalcogenide Semiconductors: An Emerging Materials System. Advanced Materials, 2018, 30, e1706285.	11.1	26
1318	Quasiparticle bands and optical properties of SnSe from an ab initio approach. Computational Materials Science, 2018, 152, 107-112.	1.4	14
1319	Enhancement in thermoelectric performance of bulk CrSi2 dispersed with nanostructured SiGe nanoinclusions. Journal of Alloys and Compounds, 2018, 765, 412-417.	2.8	23

#	Article	IF	Citations
1320	Synergistically optimizing electrical and thermal transport properties of n -type PbSe. Progress in Natural Science: Materials International, 2018, 28, 275-280.	1.8	5
1321	A practical field guide to thermoelectrics: Fundamentals, synthesis, and characterization. Applied Physics Reviews, 2018, 5, 021303.	5.5	223
1322	Recent progress and futuristic development of PbSe thermoelectric materials and devices. Materials Today Energy, 2018, 9, 359-376.	2.5	57
1323	Surfactant-Induced Structural Phase Transitions and Enhanced Room Temperature Thermoelectric Performance in n-Type Bi₂Te₃ Nanostructures Synthesized via Chemical Route. ACS Applied Nano Materials, 2018, 1, 3236-3250.	2.4	13
1324	Giant anisotropy detected. Nature Photonics, 2018, 12, 382-383.	15.6	8
1325	Two-channel model for ultralow thermal conductivity of crystalline Tl ₃ VSe ₄. Science, 2018, 360, 1455-1458.	6.0	206
1326	Manipulation of Band Structure and Interstitial Defects for Improving Thermoelectric SnTe. Advanced Functional Materials, 2018, 28, 1803586.	7.8	183
1327	Excellent ZT achieved in Cu_{1.8}S thermoelectric alloys through introducing rare-earth trichlorides. Journal of Materials Chemistry A, 2018, 6, 14440-14448.	5.2	39
1328	Defect Engineering for High-Performance n-Type PbSe Thermoelectrics. Journal of the American Chemical Society, 2018, 140, 9282-9290.	6.6	123
1329	Thin Film Tin Selenide (SnSe) Thermoelectric Generators Exhibiting Ultralow Thermal Conductivity. Advanced Materials, 2018, 30, e1801357.	11.1	126
1330	Thermoelectric properties of SnSe (Pnma) under hydrostatic pressure. Computational Materials Science, 2018, 152, 243-247.	1.4	5
1331	2D SnSe-based vdW heterojunctions: tuning the Schottky barrier by reducing Fermi level pinning. Nanoscale, 2018, 10, 13767-13772.	2.8	32
1332	Preparation and thermoelectric properties of PANI matrix graphene composite material. Micro and Nano Letters, 2018, 13, 652-656.	0.6	2
1333	Boosting the thermoelectric performance of p-type heavily Cu-doped polycrystalline SnSe via inducing intensive crystal imperfections and defect phonon scattering. Chemical Science, 2018, 9, 7376-7389.	3.7	125
1334	Heavy Doping by Bromine to Improve the Thermoelectric Properties of nâ€type Polycrystalline SnSe. Advanced Science, 2018, 5, 1800598.	5.6	57
1335	Temperature-dependent Thermoelectric Properties of Electrodeposited Antimony Telluride Films upon Thermal Annealing. , 2018, , .		1
1336	Thermoelectric properties of the novel cubic structured silicon monochalcogenides: A first-principles study. Journal of Alloys and Compounds, 2018, 769, 413-419.	2.8	8
1337	Preparation and enhanced thermoelectric performance of Pb-doped tetrahedrite Cu12-xPbxSb4S13. Journal of Alloys and Compounds, 2018, 769, 478-483.	2.8	24

#	Article	IF	Citations
1338	Gram-scale solution-based synthesis of SnSe thermoelectric nanomaterials. Applied Surface Science, 2018, 459, 376-384.	3.1	16
1339	Two-dimensional transistors beyond graphene and TMDCs. Chemical Society Reviews, 2018, 47, 6388-6409.	18.7	301
1340	An in situ eutectic remelting and oxide replacement reaction for superior thermoelectric performance of InSb. Journal of Materials Chemistry A, 2018, 6, 17049-17056.	5.2	20
1341	Tuning of the aspect ratio of SnSe nanorods: A rapid and facile microemulsion templated approach. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 555, 781-786.	2.3	5
1342	Tinâ€“Selenium Compounds at Ambient and High Pressures. Journal of Physical Chemistry C, 2018, 122, 18274-18281.	1.5	13
1343	Optimizing the thermoelectric transport properties of BiCuSeO via doping with the rare-earth variable-valence element Yb. Journal of Materials Chemistry C, 2018, 6, 8479-8487.	2.7	26
1344	Low-cost and environmentally benign selenides as promising thermoelectric materials. Journal of Materiomics, 2018, 4, 304-320.	2.8	73
1345	Intrinsic Lattice Relationship of Catalyst/Nanowire Interfaces by Heating High-Resolution Transmission Electron Microscopy. Crystal Growth and Design, 2018, 18, 4911-4919.	1.4	5
1346	Extraordinary thermoelectric performance in n-type manganese doped Mg3Sb2 Zintl: High band degeneracy, tuned carrier scattering mechanism and hierarchical microstructure. Nano Energy, 2018, 52, 246-255.	8.2	188
1347	Enhanced photoresponse of graphene oxide functionalised SnSe films. AIP Advances, 2018, 8, 075123.	0.6	10
1348	Nanoscale self-assembly of thermoelectric materials: a review of chemistry-based approaches. Nanotechnology, 2018, 29, 432001.	1.3	50
1349	Recent advances in conducting poly(3,4-ethylenedioxythiophene):polystyrene sulfonate hybrids for thermoelectric applications. Journal of Materials Chemistry C, 2018, 6, 8858-8873.	2.7	78
1350	Enhanced Thermoelectric Properties of Polycrystalline SnSe via LaCl3 Doping. Materials, 2018, 11, 203.	1.3	30
1351	Improvement in Thermoelectric Performance of SnS Due to Electronic Structure Modification Under Biaxial Strain. Journal of Electronic Materials, 2018, 47, 6443-6449.	1.0	3
1352	Enhancing the thermoelectric property of Bi2Te3 through a facile design of interfacial phonon scattering. Journal of Alloys and Compounds, 2018, 768, 659-666.	2.8	19
1353	Revisit to the Impacts of Rattlers on Thermal Conductivity of Clathrates. Frontiers in Energy Research, 2018, 6, .	1.2	14
1354	Carbon-Based Materials for Thermoelectrics. Advances in Condensed Matter Physics, 2018, 2018, 1-29.	0.4	35
1355	Enhanced Thermoelectric Properties in a New Silicon Crystal Si₂₄ with Intrinsic Nanoscale Porous Structure. Nano Letters, 2018, 18, 4748-4754.	4.5	15

#	Article	IF	Citations
1356	MnS Incorporation into Higher Manganese Silicide Yields a Green Thermoelectric Composite with High Performance/Price Ratio. Advanced Science, 2018, 5, 1800626.	5.6	16
1357	Band Structures and Transport Properties of High-Performance Half-Heusler Thermoelectric Materials by First Principles. Materials, 2018, 11, 847.	1.3	42
1358	High thermoelectric performance in Cu-doped Bi2Te3 with carrier-type transition. Acta Materialia, 2018, 157, 33-41.	3.8	70
1359	Enhanced thermoelectric properties of p-type polycrystalline SnSe by regulating the anisotropic crystal growth and Sn vacancy. Chinese Physics B, 2018, 27, 047211.	0.7	11
1360	Onsager reciprocity relation for ballistic phonon heat transport in anisotropic thin films of arbitrary orientation. Physical Review B, 2018, 98, .	1.1	1
1361	Thermoelectric properties of lower concentration K-doped Ca ₃ Co ₄ O ₉ ceramics. Chinese Physics B, 2018, 27, 057201.	0.7	12
1362	Ni and Se co-doping increases the power factor and thermoelectric performance of CoSbS. Journal of Materials Chemistry A, 2018, 6, 15123-15131.	5.2	20
1363	Performance optimization of a photovoltaic solar cell-based hybrid system. Journal of Renewable and Sustainable Energy, 2018, 10, .	0.8	24
1364	Orbital Alignment for High Performance Thermoelectric YbCd₂Sb₂ Alloys. Chemistry of Materials, 2018, 30, 5339-5345.	3.2	50
1365	Capturing Waste Heat Energy with Charge-Transfer Organic Thermoelectrics. Synthesis, 2018, 50, 3833-3842.	1.2	2
1366	Synergistic Compositionalâ€“Mechanicalâ€“Thermal Effects Leading to a Record High zT in nâ€Type V₂VI₃ Alloys Through Progressive Hot Deformation. Advanced Functional Materials, 2018, 28, 1803617.	7.8	73
1367	Manipulation of Solubility and Interstitial Defects for Improving Thermoelectric SnTe Alloys. ACS Energy Letters, 2018, 3, 1969-1974.	8.8	69
1368	Flexible n-Type Tungsten Carbide/Polylactic Acid Thermoelectric Composites Fabricated by Additive Manufacturing. Coatings, 2018, 8, 25.	1.2	32
1369	Controllable Colloidal Synthesis of Tin(II) Chalcogenide Nanocrystals and Their Solutionâ€Processed Flexible Thermoelectric Thin Films. Small, 2018, 14, e1801949.	5.2	26
1370	Nontrivial thermoelectric behavior in cubic SnSe driven by spin-orbit coupling. Nano Energy, 2018, 51, 649-655.	8.2	37
1371	Stability and magnetic properties of SnSe monolayer doped by transition metal atom (Mn, Fe, and Co): a first-principles study. Journal Physics D: Applied Physics, 2018, 51, 245004.	1.3	18
1372	A facile way to control phase of tin selenide flakes by chemical vapor deposition. Chemical Physics Letters, 2018, 702, 90-95.	1.2	15
1373	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:mi>z</mml:mi><mml:mi>T</mml:mi></mml:mrow></mml:math> factors in Ag- and Na-doped SnSe: Chemical potentials, relaxation times and predictions for other dopant species. Journal of Alloys and Compounds, 2018, 757, 70-78.	2.8	6

#	Article	IF	Citations
1374	Soft-phonon dynamics of the thermoelectric Î² -SnSe at high temperatures. Physics Letters, Section A: General, Atomic and Solid State Physics, 2018, 382, 1937-1941.	0.9	10
1375	Phase-transition temperature suppression to achieve cubic GeTe and high thermoelectric performance by Bi and Mn codoping. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5332-5337.	3.3	183
1376	Fundamental and progress of Bi ₂ Te ₃ -based thermoelectric materials. Chinese Physics B, 2018, 27, 048403.	0.7	114
1377	Sn1â^'xSe thin films with low thermal conductivity: role of stoichiometric deviation in thermal transport. Journal of Materials Chemistry C, 2018, 6, 10083-10087.	2.7	21
1378	Uncertainty analysis of axial temperature and Seebeck coefficient measurements. Review of Scientific Instruments, 2018, 89, 084903.	0.6	5
1379	Thermoelectric SnTe with Band Convergence, Dense Dislocations, and Interstitials through Sn Selfâ€Compensation and Mn Alloying. Small, 2018, 14, e1802615.	5.2	132
1380	Thermoelectric and Transport Properties of FeV1â^'xTixSb Half-Heusler System Synthesized by Controlled Mechanical Alloying Process. Electronic Materials Letters, 2018, 14, 725-732.	1.0	17
1381	Thermoelectric Properties of Biâ€Doped Mg₂Si_{0.6}Sn_{0.4} Solid Solutions Synthesized by Twoâ€Step Low Temperature Reaction Combined with Hot Pressing. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800136.	0.8	12
1382	Facile one-pot synthesis of tin selenide nanostructures using diorganotin bis(5-methyl-2-pyridylselenolates). Journal of Organometallic Chemistry, 2018, 873, 15-21.	0.8	20
1383	Thermoelectric properties of SnSe nanowires with different diameters. Scientific Reports, 2018, 8, 11966.	1.6	34
1384	Revisiting lattice thermal transport in PbTe: The crucial role of quartic anharmonicity. Applied Physics Letters, 2018, 113, .	1.5	100
1385	A novel optimal design method for concentration spectrum splitting photovoltaicâ€“thermoelectric hybrid system. Energy, 2018, 163, 519-532.	4.5	64
1386	Improved thermoelectric performance of p-type Bi0.5Sb1.5Te3 through Mn doping at elevated temperature. Materials Today Physics, 2018, 6, 31-37.	2.9	73
1387	High power output from body heat harvesting based on flexible thermoelectric system with low thermal contact resistance. Journal Physics D: Applied Physics, 2018, 51, 365501.	1.3	44
1388	Soft phonon modes from off-center Ge atoms lead to ultralow thermal conductivity and superior thermoelectric performance in n-type PbSeâ€“GeSe. Energy and Environmental Science, 2018, 11, 3220-3230.	15.6	115
1389	Enhanced thermoelectric performance of two dimensional MS2 (MÂ=ÂMo, W) through phase engineering. Journal of Materiomics, 2018, 4, 329-337.	2.8	21
1390	Enhancement of Thermoelectric Performance of Sr_{0.9â€x}Nd_{0.1}Ti_{0.9}Nb_{0.1}O₃ Ceramics by Introducing Sr Vacancies. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800459.	0.8	3
1391	Observation of High Seebeck Coefficient and Low Thermal Conductivity in [SrO]-Intercalated CuSbSe2 Compound. Chemistry of Materials, 2018, 30, 5539-5543.	3.2	23

#	Article	IF	Citations
1392	Realizing High Thermoelectric Performance below Phase Transition Temperature in Polycrystalline SnSe via Lattice Anharmonicity Strengthening and Strain Engineering. ACS Applied Materials & Interfaces, 2018, 10, 30558-30565.	4.0	39
1393	Thermoelectric stability of Eu- and Na-substituted PbTe. Journal of Materials Chemistry C, 2018, 6, 9482-9493.	2.7	18
1394	Germanium Chalcogenide Thermoelectrics: Electronic Structure Modulation and Low Lattice Thermal Conductivity. Chemistry of Materials, 2018, 30, 5799-5813.	3.2	105
1395	Quantifying Anharmonic Vibrations in Thermoelectric Layered Cobaltites and Their Role in Suppressing Thermal Conductivity. Scientific Reports, 2018, 8, 11152.	1.6	18
1396	Strain-induced suppression of the miscibility gap in nanostructured Mg₂Siâ€“Mg₂Sn solid solutions. Journal of Materials Chemistry A, 2018, 6, 17559-17570.	5.2	30
1397	Largeâ€Scale, Solutionâ€Synthesized Nanostructured Composites for Thermoelectric Applications. Advanced Materials, 2018, 30, e1801904.	11.1	16
1398	Growth Mechanisms of Anisotropic Layered Group IV Chalcogenides on van der Waals Substrates for Energy Conversion Applications. ACS Applied Nano Materials, 2018, 1, 3026-3034.	2.4	43
1399	Impact of Different Morphological Structures on Physical Properties of Nanostructured SnSe. Journal of Physical Chemistry C, 2018, 122, 13182-13192.	1.5	14
1400	High Thermoelectric Performance in Supersaturated Solid Solutions and Nanostructured nâ€Type PbTeâ€“GeTe. Advanced Functional Materials, 2018, 28, 1801617.	7.8	92
1401	A review of ZT measurement for bulk thermoelectric material. AIP Conference Proceedings, 2018, , .	0.3	6
1402	Recent Advances of Layered Thermoelectric Materials. Advanced Sustainable Systems, 2018, 2, 1800046.	2.7	47
1403	Realizing High Thermoelectric Performance in nâ€Type Highly Distorted Sbâ€Doped SnSe Microplates via Tuning High Electron Concentration and Inducing Intensive Crystal Defects. Advanced Energy Materials, 2018, 8, 1800775.	10.2	120
1404	Improvement of Thermoelectricity Through Magnetic Interactions in Layered Cr₂Ge₂Te₆. Physica Status Solidi - Rapid Research Letters, 2018, 12, 1800172.	1.2	9
1405	Synthesis process and thermoelectric properties of n-type tin selenide thin films. Journal of Alloys and Compounds, 2018, 763, 960-965.	2.8	25
1406	A promising thermoelectric response of HfRhSb half Heusler compound at high temperature: A first principle study. Journal of Alloys and Compounds, 2018, 763, 1018-1023.	2.8	54
1407	A review on fabrication methods for segmented thermoelectric structure. AIP Conference Proceedings, 2018, , .	0.3	11
1408	Coherent phonons in a Bi2Se3 film generated by an intense single-cycle THz pulse. Physical Review B, 2018, 97, .	1.1	30
1409	Fabrication and excellent performances of Bi0.5Sb1.5Te3/epoxy flexible thermoelectric cooling devices. Nano Energy, 2018, 50, 766-776.	8.2	80

#	Article	IF	Citations
1410	Realizing high performance n-type PbTe by synergistically optimizing effective mass and carrier mobility and suppressing bipolar thermal conductivity. Energy and Environmental Science, 2018, 11, 2486-2495.	15.6	200
1411	Entropy optimized phase transitions and improved thermoelectric performance in n-type liquid-like Ag9GaSe6 materials. Materials Today Physics, 2018, 5, 20-28.	2.9	70
1412	Influence of defects on the thermoelectricity in SnSe: A comprehensive theoretical study. Physical Review B, 2018, 97, .	1.1	53
1413	Black Arsenic: A Layered Semiconductor with Extreme Inâ€Plane Anisotropy. Advanced Materials, 2018, 30, e1800754.	11.1	161
1414	Ga-Doping-Induced Carrier Tuning and Multiphase Engineering in n-type PbTe with Enhanced Thermoelectric Performance. ACS Applied Materials & Interfaces, 2018, 10, 22401-22407.	4.0	49
1415	Stability of SnSe_{1â^'x}S_x solid solutions revealed by first-principles cluster expansion. Journal of Physics Condensed Matter, 2018, 30, 29LT01.	0.7	14
1416	Nano-scale dislocations induced by self-vacancy engineering yielding extraordinary n-type thermoelectric Pb0.96-yInySe. Nano Energy, 2018, 50, 785-793.	8.2	51
1417	Thermoelectric Advances to Capture Waste Heat in Automobiles. ACS Energy Letters, 2018, 3, 1523-1524.	8.8	35
1418	High-Performance Solid-State Thermionic Energy Conversion Based on 2D van der Waals Heterostructures: A First-Principles Study. Scientific Reports, 2018, 8, 9303.	1.6	21
1419	Anisotropic thermal transport in van der Waals layered alloys WSe2(1-x)Te2x. Applied Physics Letters, 2018, 112, .	1.5	32
1420	New Way to Synthesize Robust and Porous Ni1â€“xFex Layered Double Hydroxide for Efficient Electrocatalytic Oxygen Evolution. ACS Applied Materials & Interfaces, 2019, 11, 32909-32916.	4.0	16
1421	Modulation of lattice constants by changing the composition and strain in incommensurate Nowotny chimney-ladder phase FeGe epitaxially grown on Si. Surface Science, 2019, 690, 121470.	0.8	2
1422	Phonon band gaps in the IV-VI monochalcogenides. Physical Review B, 2019, 100, .	1.1	24
1423	Mechanical and transport properties of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si44.svg"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Bi</mml:mtext></mml:mrow><mml:mrow><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:mrow></mml:math> single quin. Computational Materials Science, 2019, 170, 109182.	1.4	3
1424	Facile design of a domestic thermoelectric generator by tailoring the thermoelectric performance of volume-controlled expanded graphite/PVDF composites. Composites Part B: Engineering, 2019, 176, 107234.	5.9	19
1425	Theoretical model for the Seebeck coefficient in superlattice materials with energy relaxation. Journal of Applied Physics, 2019, 126, 055105.	1.1	11
1426	Electrodeposition of copper-doped SnS thin films and their electric transmission properties control for thermoelectric enhancement. Journal of Materials Science: Materials in Electronics, 2019, 30, 15880-15888.	1.1	7
1427	Defect Chemistry for N-Type Doping of Mg₃Sb₂-Based Thermoelectric Materials. Journal of Physical Chemistry C, 2019, 123, 20781-20788.	1.5	23

#	Article	IF	Citations
1428	An annular thermoelectric couple analytical model by considering temperature-dependent material properties and Thomson effect. Energy, 2019, 187, 115922.	4.5	14
1429	The thermal and thermoelectric transport properties of SiSb, GeSb and SnSb monolayers. Journal of Materials Chemistry C, 2019, 7, 10652-10662.	2.7	36
1430	Energy Scavenging and Powering E-Skin Functional Devices. Proceedings of the IEEE, 2019, 107, 2118-2136.	16.4	34
1431	Electron Density Studies in Materials Research. Chemistry - A European Journal, 2019, 25, 15010-15029.	1.7	26
1432	Thermoelectric cooler and thermoelectric generator devices: A review of present and potential applications, modeling and materials. Energy, 2019, 186, 115849.	4.5	344
1433	Thermoelectric Performance Improvement of Polymer Nanocomposites by Selective Thermal Degradation. ACS Applied Energy Materials, 2019, 2, 5975-5982.	2.5	21
1434	Enhanced thermoelectric properties of Bi₂S₃ polycrystals through an electroless nickel plating process. RSC Advances, 2019, 9, 23029-23035.	1.7	5
1435	Nano-sized Adsorbate Island Formation in Adsorptive Anisotropic Multilayer Systems. Springer Proceedings in Physics, 2019, , 135-152.	0.1	0
1436	Carbon nanomaterials for thermoelectric applications. , 2019, , 121-137.		0
1437	Power-Source-Free Analysis of Pyroelectric Energy Conversion. Physical Review Applied, 2019, 12, .	1.5	10
1438	Oxygen adsorption and its influence on the thermoelectric performance of polycrystalline SnSe. Journal of Materials Chemistry C, 2019, 7, 10507-10513.	2.7	28
1439	Thermoelectric enhancement in multilayer thin-films of tin chalcogenide nanosheets/conductive polymers. Nanoscale, 2019, 11, 16114-16121.	2.8	20
1440	Effect of temperature dependent relaxation time of charge carriers on the thermoelectric properties of LiScX (X=C, Si, Ge) half-Heusler alloys. Journal of Alloys and Compounds, 2019, 806, 1536-1541.	2.8	25
1441	Insights into the design of thermoelectric Mg3Sb2 and its analogs by combining theory and experiment. Npj Computational Materials, 2019, 5, .	3.5	111
1442	Density functional study of Na doped Tin selenide. AIP Conference Proceedings, 2019, , .	0.3	1
1443	Thermoelectric cooling properties of quantum dot superlattice embedded nanowires. Materials Research Express, 2019, 6, 095071.	0.8	1
1444	Electronic and thermoelectric properties of ZrSxSe2â˜'x. Computational Materials Science, 2019, 169, 109109.	1.4	11
1445	Ultralow Thermal Conductivity and High-Temperature Thermoelectric Performance in n-Type K_{2.5}Bi_{8.5}Se₁₄. Chemistry of Materials, 2019, 31, 5943-5952.	3.2	25

#	Article	IF	Citations
1446	Local nanostructures enhanced the thermoelectric performance of n-type PbTe. Journal of Materials Chemistry A, 2019, 7, 18458-18467.	5.2	53
1447	Resolving different scattering effects on the thermal and electrical transport in doped SnSe. Journal of Applied Physics, 2019, 126, .	1.1	33
1448	Ba₂M(C₃N₃O₃)₂ (M = Sr, Pb): Band Engineering from pâ˜Ï€ Interaction via Homovalent Substitution in Metal Cyanurates Containing Planar Ï€-Conjugated Groups. Inorganic Chemistry, 2019, 58, 9553-9556.	1.9	32
1449	Tuning of nanostructured SnSe morphology from rods to flakes and its structural, optical and electrical properties. AIP Conference Proceedings, 2019, , .	0.3	1
1450	Promising materials for thermoelectric applications. Journal of Alloys and Compounds, 2019, 806, 471-486.	2.8	76
1451	Powering the Hydrogen Economy from Waste Heat: Aâ€‰Review of Heatâ€toâ€Hydrogen Concepts. ChemSusChem, 2019, 12, 3882-3895.	3.6	36
1452	Experiments and a simplified theoretical model for a water-cooled, stove-powered thermoelectric generator. Energy, 2019, 185, 437-448.	4.5	27
1453	The pâ€“n transformation and thermoelectric property optimization of Cu_{1+x}FeSe₂ (x = 0â€“0.05) alloys. Journal of Materials Chemistry C, 2019, 7, 9641-9647.	2.7	6
1454	Ba₂Si₃P₆: 1D Nonlinear Optical Material with Thermal Barrier Chains. Journal of the American Chemical Society, 2019, 141, 11976-11983.	6.6	66
1455	Thermoelectric power generation: from new materials to devices. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20180450.	1.6	116
1456	Dynamic response of cracked thermoelectric materials. International Journal of Mechanical Sciences, 2019, 160, 298-306.	3.6	8
1457	Structural and Thermoelectric Properties of Solidâ€“Liquid In4Se3-In Composite. Journal of Electronic Materials, 2019, 48, 5418-5427.	1.0	7
1458	Effects of Ge addition on thermoelectric properties in a nanocomposite of MnSi and SiGe thin films. Materialia, 2019, 7, 100374.	1.3	4
1459	Thermoelectric Property in Orthorhombic-Domained SnSe Film. ACS Applied Materials & Interfaces, 2019, 11, 27057-27063.	4.0	28
1460	Optimal band gap for improved thermoelectric performance of two-dimensional Dirac materials. Journal of Applied Physics, 2019, 126, .	1.1	18
1461	Electric Field Thermopower Modulation of 2D Electron Systems. , 2019, , 97-120.		2
1462	Thermoelectric Properties of Metal Chalcogenides Nanosheets and Nanofilms Grown by Chemical and Physical Routes. , 2019, , 157-184.		2
1463	Improved thermoelectric performance in Pr and Sr Co-doped CaMnO3 materials. Journal of Alloys and Compounds, 2019, 808, 151476.	2.8	30

#	Article	IF	Citations
1464	Topology of triple-point metals*. Chinese Physics B, 2019, 28, 077303.	0.7	25
1465	Hole-doped M4SiTe4 (Mâ€‰=â€‰Ta, Nb) as an efficient p-type thermoelectric material for low-temperature applications. Applied Physics Letters, 2019, 115, .	1.5	7
1466	Evidence of nanostructuring and reduced thermal conductivity in n-type Sb-alloyed SnSe thermoelectric polycrystals. Journal of Applied Physics, 2019, 126, .	1.1	28
1467	Hybrid-Functional and Quasi-Particle Calculations of Band Structures of Mg2Si, Mg2Ge, and Mg2Sn. Journal of the Korean Physical Society, 2019, 75, 144-152.	0.3	20
1468	Rational Design for Optimizing Hybrid Thermo-triboelectric Generators Targeting Human Activities. ACS Energy Letters, 2019, 4, 2069-2074.	8.8	37
1469	Capturing anharmonic and anisotropic natures in the thermotics and mechanics of Bi₂Te₃ thermoelectric material through an accurate and efficient potential. Journal Physics D: Applied Physics, 2019, 52, 425303.	1.3	10
1470	High intrinsic ZT in InP₃ monolayer at room temperature. Journal of Physics Condensed Matter, 2019, 31, 365501.	0.7	6
1471	Enhanced thermoelectric properties of SnSe thin films grown by single-target magnetron sputtering. Journal of Materials Chemistry A, 2019, 7, 17981-17986.	5.2	43
1472	Gate-Tunable In-Plane Ferroelectricity in Few-Layer SnS. Nano Letters, 2019, 19, 5109-5117.	4.5	129
1473	Transport and topological properties of ThOCh(Ch: S, Se and Te) in bulk and monolayer: a first principles study. Journal of Physics Condensed Matter, 2019, 31, 435504.	0.7	0
1474	Enhanced Thermoelectric Cooling through Introduction of Material Anisotropy in Transverse Thermoelectric Composites. Materials, 2019, 12, 2049.	1.3	0
1475	Elastic behavior and intrinsic carrier mobility for monolayer SnS and SnSe: First-principles calculations. Applied Surface Science, 2019, 492, 435-448.	3.1	44
1476	Gigantic Phonon-Scattering Cross Section To Enhance Thermoelectric Performance in Bulk Crystals. ACS Nano, 2019, 13, 8347-8355.	7.3	54
1477	Freely Shapable and 3D Porous Carbon Nanotube Foam Using Rapid Solvent Evaporation Method for Flexible Thermoelectric Power Generators. Advanced Energy Materials, 2019, 9, 1900914.	10.2	63
1478	Tailoring phononic, electronic, and thermoelectric properties of orthorhombic GeSe through hydrostatic pressure. Scientific Reports, 2019, 9, 9490.	1.6	21
1479	Phase Transformation Contributions to Heat Capacity and Impact on Thermal Diffusivity, Thermal Conductivity, and Thermoelectric Performance. Advanced Materials, 2019, 31, e1902980.	11.1	47
1480	Structural and electronic properties of monolayer group III-VII compounds: A first-principle study. Physica E: Low-Dimensional Systems and Nanostructures, 2019, 114, 113605.	1.3	2
1481	Intrinsic Low Thermal Conductivity and Phonon Renormalization Due to Strong Anharmonicity of Single-Crystal Tin Selenide. Nano Letters, 2019, 19, 4941-4948.	4.5	41

#	Article	IF	Citations
1482	Extraordinary Role of Bi for Improving Thermoelectrics in Low-Solubility SnTeâ€“CdTe Alloys. ACS Applied Materials & Interfaces, 2019, 11, 26093-26099.	4.0	35
1483	Unsupervised word embeddings capture latent knowledge from materials science literature. Nature, 2019, 571, 95-98.	13.7	590
1484	Anisotropic Nonlinear Optical Properties of a SnSe Flake and a Novel Perspective for the Application of Allâ€Optical Switching. Advanced Optical Materials, 2019, 7, 1900631.	3.6	74
1485	High yield electrochemical exfoliation synthesis of tin selenide quantum dots for high-performance lithium-ion batteries. Journal of Materials Chemistry A, 2019, 7, 23958-23963.	5.2	26
1486	Development of integrated two-stage thermoelectric generators for large temperature difference. Science China Technological Sciences, 2019, 62, 1596-1604.	2.0	23
1487	Thermoelectric Performance of Ge_{0.99-x}Na_{0.01}Ag_xSe. Journal of Physics: Conference Series, 2019, 1245, 012094.	0.3	2
1488	Intrinsically Low Lattice Thermal Conductivity Derived from Rattler Cations in an AMMâ€²Q3 Family of Chalcogenides. Chemistry of Materials, 2019, 31, 8734-8741.	3.2	26
1489	n-Type TaCoSn-Based Half-Heuslers as Promising Thermoelectric Materials. ACS Applied Materials & Interfaces, 2019, 11, 41321-41329.	4.0	44
1490	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
1491	Design of Highâ€Performance Disordered Halfâ€Heusler Thermoelectric Materials Using 18â€Electron Rule. Advanced Functional Materials, 2019, 29, 1905044.	7.8	81
1492	Enhancing thermoelectric transport properties of n-type PbS through introducing CaS/SrS. Journal of Solid State Chemistry, 2019, 280, 120995.	1.4	15
1493	High performance thermoelectric module through isotype bulk heterojunction engineering of skutterudite materials. Nano Energy, 2019, 66, 104193.	8.2	40
1494	Maximizing Thermoelectric Figures of Merit by Uniaxially Straining Indium Selenide. Journal of Physical Chemistry C, 2019, 123, 25437-25447.	1.5	9
1495	In-Situ Observation of the Continuous Phase Transition in Determining the High Thermoelectric Performance of Polycrystalline Sn_{0.98}Se. Journal of Physical Chemistry Letters, 2019, 10, 6512-6517.	2.1	32
1496	Suspended 2D anisotropic materials thermal diffusivity measurements using dual-wavelength flash Raman mapping method. International Journal of Heat and Mass Transfer, 2019, 145, 118795.	2.5	7
1497	An analytic study of the Wiedemannâ€“Franz law and the thermoelectric figure of merit. Journal of Physics Communications, 2019, 3, 105001.	0.5	33
1499	High Power Factor vs. High zTâ€”A Review of Thermoelectric Materials for High-Temperature Application. Entropy, 2019, 21, 1058.	1.1	105
1500	Single-layer CdPSe3: A promising thermoelectric material persisting in high temperatures. Applied Physics Letters, 2019, 115, 193105.	1.5	10

#	Article	IF	Citations
1501	Boosting Thermoelectric Performance of SnSe via Tailoring Band Structure, Suppressing Bipolar Thermal Conductivity, and Introducing Large Mass Fluctuation. ACS Applied Materials & Interfaces, 2019, 11, 45133-45141.	4.0	38
1502	Improved thermoelectric properties of Ag-doped polycrystalline SnSe with facile electroless plating. Materials Research Express, 2019, 6, 126302.	0.8	3
1503	Large Thermal Conductivity Drops in the Diamondoid Lattice of CuFeS₂ by Discordant Atom Doping. Journal of the American Chemical Society, 2019, 141, 18900-18909.	6.6	66
1504	Spin-entropy induced thermopower and spin-blockade effect in CoO. Physical Review B, 2019, 100, .	1.1	6
1505	Vibration uncoupling of germanium with different valence states lowers thermal conductivity of Cs2Ge3Ga6Se14. Science China Materials, 2019, 62, 1788-1797.	3.5	8
1506	Rational Design of Flexible Two-Dimensional MXenes with Multiple Functionalities. Chemical Reviews, 2019, 119, 11980-12031.	23.0	242
1507	Thermoelectric performance of a metastable thin-film Heusler alloy. Nature, 2019, 576, 85-90.	13.7	232
1508	Thermoelectric Properties of Minerals with the Mawsonite Structure. ACS Applied Energy Materials, 2019, 2, 8068-8078.	2.5	9
1509	Thermoelectric properties improvement in quasi-one-dimensional organic crystals. Journal of Applied Physics, 2019, 126, 175501.	1.1	3
1510	Atomic Layer Deposition of Tin Monosulfide Using Vapor from Liquid Bis(N,Nâ€²-diisopropylformamidinato)tin(II) and H₂S. ACS Applied Materials & Interfaces, 2019, 11, 45892-45902.	4.0	14
1511	Defect-induced electronic structures on SnSe surfaces. Japanese Journal of Applied Physics, 2019, 58, SIIA06.	0.8	4
1513	Comprehensive Investigation on the Thermoelectric Properties of pâ€Type PbTeâ€PbSeâ€PbS Alloys. Advanced Electronic Materials, 2019, 5, 1900609.	2.6	29
1514	Magnetic instabilities in doped <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Fe</mml:mi><mml:mn>2</mml:mn></mml:r full-Heusler thermoelectric compounds. Physical Review B, 2019, 100, .	1.1	5
1515	Rattling-Induced Ultralow Thermal Conductivity Leading to Exceptional Thermoelectric Performance in AgIn₅S₈. ACS Applied Materials & Interfaces, 2019, 11, 33894-33900.	4.0	25
1516	Pressure-induced enhancement of thermoelectric power factor in pristine and hole-doped SnSe crystals. RSC Advances, 2019, 9, 26831-26837.	1.7	7
1517	Enhancement of Thermoelectric Properties in Pdâ€“In Co-Doped SnTe and Its Phase Transition Behavior. ACS Applied Materials & Interfaces, 2019, 11, 33792-33802.	4.0	32
1518	Transparent and Hybrid Multilayer Films with Improved Thermoelectric Performance by Chalcogenide-Interlayer-Induced Transport Enhancement. ACS Applied Materials & Interfaces, 2019, 11, 35354-35361.	4.0	10
1519	Manipulating Localized Vibrations of Interstitial Te for Ultra-High Thermoelectric Efficiency in p-Type Cuâ€“Inâ€“Te Systems. ACS Applied Materials & Interfaces, 2019, 11, 32192-32199.	4.0	16

#	Article	IF	Citations
1520	Layered oxygen-containing thermoelectric materials: Mechanisms, strategies, and beyond. Materials Today, 2019, 29, 68-85.	8.3	66
1521	Scalable Multi-nanostructured Silicon for Room-Temperature Thermoelectrics. ACS Applied Energy Materials, 2019, 2, 7083-7091.	2.5	17
1522	Spectroscopic properties of few-layer tin chalcogenides. JPhys Materials, 2019, 2, 044005.	1.8	12
1523	Thermoelectric properties of inverse perovskites A3TtO (Aâ€‰=â€‰Mg, Ca; Ttâ€‰=â€‰Si,) Tj ETQq1	1.1	13
1524	Phase stabilities of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>C</mml:mi><mml:mi>m</mml:mi><mml:mi>c</mml:mi> and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>P</mml:mi><mml:mi>n</mml:mi><mml:mi>m</mml:mi> SnSe studied by phonon quasiparticle approach. Physical Review B, 2019, 100, .	1.1	14
1525	Feature Selection via Adaptive Spectral Clustering based on Joint Mutual Information. , 2019, , .		1
1526	Low Thermal Conductivity in Thermoelectric Oxide-Based Multiphase Composites. Journal of Electronic Materials, 2019, 48, 7551-7561.	1.0	20
1527	Room-Temperature Ferroelectricity in Group-IV Metal Chalcogenide Nanowires. Journal of the American Chemical Society, 2019, 141, 15040-15045.	6.6	44
1528	Investigation of optical, electrical and optoelectronic properties of SnSe crystals. European Physical Journal B, 2019, 92, 1.	0.6	41
1529	Lattice thermal conductivity of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Bi</mml:mi><mml:mn>2</mml:mn></ and SnSe using Debye-Callaway and Monte Carlo phonon transport modeling: Application to nanofilms and nanowires. Physical Review B, 2019, 100, .	1.1	11
1530	A comparative study of thermoelectric properties between bulk and monolayer SnSe. Results in Physics, 2019, 15, 102631.	2.0	29
1531	TiO2â€“SrTiO3 Biphase Nanoceramics as Advanced Thermoelectric Materials. Materials, 2019, 12, 2895.	1.3	11
1532	Realizing High Thermoelectric Performance in GeTe through Optimizing Ge Vacancies and Manipulating Ge Precipitates. ACS Applied Energy Materials, 2019, 2, 7594-7601.	2.5	61
1533	Modeling of a fiber optic SPR biosensor employing Tin Selenide (SnSe) allotropes. Results in Physics, 2019, 15, 102623.	2.0	22
1534	Superior Thermoelectric Performance of Ordered Double Transition Metal MXenes: Cr₂TiC₂T₂ (T = â^'OH or â^'F). Journal of Physical Chemistry Letters, 2019, 10, 5721-5728.	2.1	49
1535	Enhanced thermoelectric properties in chimney ladder structured Mn(BxSi1-x)1.75 due to the dual lattice occupation of boron. Applied Physics Letters, 2019, 115, 123902.	1.5	5
1536	Structural, stability and thermoelectric properties for the monoclinic phase of NaSbS2 and NaSbSe2: A theoretical investigation. European Physical Journal B, 2019, 92, 1.	0.6	9
1537	Synergistically Optimizing Carrier Concentration and Decreasing Sound Velocity in n-type AgInSe₂ Thermoelectrics. Chemistry of Materials, 2019, 31, 8182-8190.	3.2	23

#	Article	IF	Citations
1538	First-principles investigation into the effect of pressure on structural, electronic, elastic, elastic anisotropy, thermoelectric and thermodynamic properties of CaMgSi. Results in Physics, 2019, 14, 102483.	2.0	7
1539	Recent developments in Earth-abundant copper-sulfide thermoelectric materials. Journal of Applied Physics, 2019, 126, .	1.1	103
1540	Thermoelectricity in graphene nanoribbons: Structural effects of nanopores. Superlattices and Microstructures, 2019, 136, 106264.	1.4	8
1541	Cu₄Bi₄Se₉: A Thermoelectric Symphony of Rattling, Anharmonic Lone-pair, and Structural Complexity. ACS Applied Materials & Interfaces, 2019, 11, 36616-36625.	4.0	20
1542	Band engineering, carrier density control, and enhanced thermoelectric performance in multi-doped SnTe. APL Materials, 2019, 7, .	2.2	14
1543	Thermoelectric properties and stability of Tl-doped SnS. Journal of Alloys and Compounds, 2019, 811, 151902.	2.8	12
1544	2D semiconducting Î±-In2Se3 single crystals: Growth and huge anisotropy during transport. Journal of Alloys and Compounds, 2019, 810, 151968.	2.8	7
1545	Suppressing bipolar effect to broadening the optimum range of thermoelectric performance for p-type bismuth telluride–based alloys via calcium doping. Materials Today Physics, 2019, 9, 100130.	2.9	45
1546	Thermo-photoelectric coupled effect induced electricity in N-type SnSe:Br single crystals for enhanced self-powered photodetectors. Nano Energy, 2019, 66, 104111.	8.2	42
1547	Structural and optical properties of a mechanically alloyed thermoelectric lamellar SnSeS solid solution. Journal of Applied Physics, 2019, 126, .	1.1	6
1548	A review on thermoelectric energy harvesting from asphalt pavement: Configuration, performance and future. Construction and Building Materials, 2019, 228, 116818.	3.2	57
1549	Enhanced thermoelectric performance of N-type eco-friendly material Cu1-xAgxFeS2 (x=0–0.14) via bandgap tuning. Journal of Alloys and Compounds, 2019, 809, 151717.	2.8	26
1550	Screen printed tin selenide films used as the counter electrodes in dye sensitized solar cells. Solar Energy, 2019, 190, 28-33.	2.9	24
1551	High thermoelectric performance in low-cost SnS _{0.91} Se _{0.09} crystals. Science, 2019, 365, 1418-1424.	6.0	395
1552	Crystal structure and improved thermoelectric performance of iron stabilized cubic Cu₃SbS₃compound. Journal of Materials Chemistry C, 2019, 7, 394-404.	2.7	41
1553	Large reduction of thermal conductivity leading to enhanced thermoelectric performance in p-type Mg₃Bi₂–YbMg₂Bi₂ solid solutions. Journal of Materials Chemistry C, 2019, 7, 434-440.	2.7	26
1554	Influence of the planar orientation of the substrate on thermoelectric response of SnSe thin films. Journal of Physics and Chemistry of Solids, 2019, 129, 347-353.	1.9	20
1555	Two-dimensional SnSe/GeSe van der Waals heterostructure with strain-tunable electronic and optical properties. Journal of Physics and Chemistry of Solids, 2019, 131, 223-229.	1.9	20

#	Article	IF	Citations
1556	Effect of single metal doping on the thermoelectric properties of SnTe. Sustainable Energy and Fuels, 2019, 3, 251-263.	2.5	21
1557	Origins of ultralow thermal conductivity in 1-2-1-4 quaternary selenides. Journal of Materials Chemistry A, 2019, 7, 2589-2596.	5.2	28
1558	Mixed phononic and non-phononic transport in hybrid lead halide perovskites: glass-crystal duality, dynamical disorder, and anharmonicity. Energy and Environmental Science, 2019, 12, 216-229.	15.6	51
1559	High Thermoelectric Power Factor and Efficiency from a Highly Dispersive Band in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msub><mml:mi>Ba</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi>Bi</mml:mi><mml:mi>Au</mml:m Physical Review Applied, 2019, 11, .	1.5	49
1560	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
1561	Size effect enhanced thermoelectric properties of nanoscale Cu2-xSe. Ceramics International, 2019, 45, 8866-8872.	2.3	21
1562	Universal behavior of the thermoelectric figure of merit, zT, vs. quality factor. Materials Today Physics, 2019, 8, 43-48.	2.9	29
1563	Design and characterization of novel polymorphs of single-layered tin-sulfide for direction-dependent thermoelectric applications using first-principles approaches. Physical Chemistry Chemical Physics, 2019, 21, 4624-4632.	1.3	37
1564	Transport properties and crystal structure of layered LaSb2. Journal of Applied Physics, 2019, 125, .	1.1	5
1565	Thermally enhanced FrÃ¶hlich coupling in SnSe. Physical Review B, 2019, 99, .	1.1	19
1566	Recent Advances in Organic Thermoelectric Materials: Principle Mechanisms and Emerging Carbon-Based Green Energy Materials. Polymers, 2019, 11, 167.	2.0	79
1567	High-performance field emission based on nanostructured tin selenide for nanoscale vacuum transistors. Nanoscale, 2019, 11, 3129-3137.	2.8	39
1568	Enhanced thermoelectric performance of BiCuTeO by excess Bi additions. Ceramics International, 2019, 45, 9254-9259.	2.3	11
1569	Roles of AgSbTe₂ nanostructures in PbTe: controlling thermal properties of chalcogenides. Journal of Materials Chemistry C, 2019, 7, 3787-3794.	2.7	10
1570	Low lattice thermal conductivity and high thermoelectric figure of merit in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Na</mml:mi><mml:mn>2</mml:mn></mml: Physical Review B, 2019, 99, .	1.2	18
1571	Surface Oxide Removal for Polycrystalline SnSe Reveals Near-Single-Crystal Thermoelectric Performance. Joule, 2019, 3, 719-731.	11.7	168
1572	Super Large Sn_{1â€“<i>x</i>}Se Single Crystals with Excellent Thermoelectric Performance. ACS Applied Materials & Interfaces, 2019, 11, 8051-8059.	4.0	43
1573	Combined solar concentration and carbon nanotube absorber for high performance solar thermoelectric generators. Energy Conversion and Management, 2019, 183, 109-115.	4.4	46

#	Article	IF	Citations
1574	The remarkable crystal chemistry of the Ca14AlSb11 structure type, magnetic and thermoelectric properties. Journal of Solid State Chemistry, 2019, 271, 88-102.	1.4	56
1575	Pressure-induced conduction band convergence in the thermoelectric ternary chalcogenide CuBiS₂. Physical Chemistry Chemical Physics, 2019, 21, 662-673.	1.3	15
1576	Engineering ferroelectric instability to achieve ultralow thermal conductivity and high thermoelectric performance in Sn_{1â˜'x}Ge_xTe. Energy and Environmental Science, 2019, 12, 589-595.	15.6	155
1577	Realizing high thermoelectric performance in Cu₂Te alloyed Cu_{1.15}In_{2.29}Te₄. Journal of Materials Chemistry A, 2019, 7, 2360-2367.	5.2	16
1578	Extremely high tensile strength and superior thermal conductivity of an sp3-hybridized superhard C24 fullerene crystal. Journal of Materials Chemistry A, 2019, 7, 3426-3431.	5.2	8
1579	Enhanced Cross-Plane Thermoelectric Figure of Merit Observed in an Al₂O₃/ZnO Superlattice Film by Hole Carrier Blocking and Phonon Scattering. Journal of Physical Chemistry C, 2019, 123, 14187-14194.	1.5	12
1580	Silicon carbide particles induced thermoelectric enhancement in SnSeS crystal. Functional Composites and Structures, 2019, 1, 015001.	1.6	4
1581	Flexible Organic Thermoelectric Materials and Devices for Wearable Green Energy Harvesting. Polymers, 2019, 11, 909.	2.0	56
1582	Lattice dynamics of thermoelectric palladium sulfide. Journal of Alloys and Compounds, 2019, 798, 484-492.	2.8	11
1583	Thermoelectric Properties of Two-Dimensional Gallium Telluride. Journal of Electronic Materials, 2019, 48, 5988-5994.	1.0	22
1584	Intrinsic extremely low thermal conductivity in BaIn2Te4: Synthesis, crystal structure, Raman spectroscopy, optical, and thermoelectric properties. Journal of Alloys and Compounds, 2019, 802, 385-393.	2.8	11
1585	Origin of Intrinsically Low Thermal Conductivity in Talnakhite Cu_{17.6}Fe_{17.6}S₃₂ Thermoelectric Material: Correlations between Lattice Dynamics and Thermal Transport. Journal of the American Chemical Society, 2019, 141, 10905-10914.	6.6	50
1586	Composition, Structure, and Semiconductor Properties of Chemically Deposited SnSe Films. Semiconductors, 2019, 53, 853-859.	0.2	5
1587	Origins of promising thermoelectric performance in quaternary selenide BaAg₂SnSe₄. Applied Physics Express, 2019, 12, 071006.	1.1	4
1588	Si-Based Materials for Thermoelectric Applications. Materials, 2019, 12, 1943.	1.3	10
1589	Solvothermal synthesis of high-purity porous Cu1.7Se approaching low lattice thermal conductivity. Chemical Engineering Journal, 2019, 375, 121996.	6.6	28
1590	Thermoelectric transport properties of n-type tin sulfide. Scripta Materialia, 2019, 170, 99-105.	2.6	29
1591	Realizing Highâ€Ranged Outâ€ofâ€Plane ZTs in Nâ€Type SnSe Crystals through Promoting Continuous Phase Transition. Advanced Energy Materials, 2019, 9, 1901334.	10.2	83

#	Article	IF	Citations
1592	The N-type Pb-doped single crystal SnSe thermoelectric material synthesized by a Sn-flux method. Physica B: Condensed Matter, 2019, 570, 128-132.	1.3	13
1593	Enhancing effects of Te substitution on the thermoelectric power factor of nanostructured SnSe_{1â^'x}Te_x. Physical Chemistry Chemical Physics, 2019, 21, 15725-15733.	1.3	25
1594	Silver content dependent thermal conductivity and thermoelectric properties of electrodeposited antimony telluride thin films. Scientific Reports, 2019, 9, 9242.	1.6	13
1595	Synergistically Improved Electronic and Thermal Transport Properties in Nb-Doped Nb_yMo_{1â€“y}Se_{2â€“2x}Te_{2x} Solid Solutions Due to Alloy Phonon Scattering and Increased Valley Degeneracy. ACS Applied Materials & Interfaces, 2019, 11, 26069-26081.	4.0	9
1596	Comprehensive calculations and prominent thermoelectric properties of Li3P and Li3As. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 2802-2808.	0.9	3
1597	Ultralow thermal conductivity of BaAg2SnSe4 and the effect of doping by Ga and In. Materials Today Physics, 2019, 9, 100098.	2.9	17
1598	Thermoelectric properties of electronegatively filled S_yCo_{4â^'x}Ni_xSb₁₂ skutterudites. Journal of Materials Chemistry C, 2019, 7, 8079-8085.	2.7	21
1599	Effectively restricting MnSi precipitates for simultaneously enhancing the Seebeck coefficient and electrical conductivity in higher manganese silicide. Journal of Materials Chemistry C, 2019, 7, 7212-7218.	2.7	8
1600	Micromechanics-Based Homogenization of the Effective Physical Properties of Composites With an Anisotropic Matrix and Interfacial Imperfections. Frontiers in Materials, 2019, 6, .	1.2	23
1601	Microstructure and enhanced thermoelectric performance of Teâ€“SnTe eutectic composites with self-assembled rod and lamellar morphology. Intermetallics, 2019, 112, 106499.	1.8	12
1602	Pure SnSe, In and Sb doped SnSe single crystals â€“ Growth, structural, surface morphology and optical bandgap study. Journal of Crystal Growth, 2019, 522, 16-24.	0.7	22
1603	Highly anisotropic thermoelectric properties of black phosphorus crystals. 2D Materials, 2019, 6, 045009.	2.0	33
1604	Large Enhancement of Thermoelectric Efficiency Due to a Pressure-Induced Lifshitz Transition in SnSe. Physical Review Letters, 2019, 122, 226601.	2.9	46
1605	High Thermoelectric Performance in n-Type Polycrystalline SnSe via Dual Incorporation of Cl and PbSe and Dense Nanostructures. ACS Applied Materials & Interfaces, 2019, 11, 21645-21654.	4.0	47
1606	Anion-exchange synthesis of thermoelectric layered SnS_{0.1}Se_{0.9â^'x}Te_x nano/microstructures in aqueous solution: complexity and carrier concentration. Journal of Materials Chemistry C, 2019, 7, 7572-7579.	2.7	14
1607	First-principles calculation study of Mg₂XH₆ (X=Fe, Ru) on thermoelectric properties. Materials Research Express, 2019, 6, 085536.	0.8	4
1608	Effects of Ba doping on the phase transition of Sr3Sn2O7. Chemical Physics Letters, 2019, 728, 74-79.	1.2	5
1609	Optimizing the thermoelectric performance of Î³-graphyne nanoribbons via introducing disordered surface fluctuation. Solid State Communications, 2019, 298, 113646.	0.9	5

#	Article	IF	Citations
1610	Influence of LO and LA phonon processes on thermal-nonequilibrium excitation and deexcitation dynamics of excitons in GaN, AlN, and ZnO. Journal of Applied Physics, 2019, 125, 205705.	1.1	6
1611	3D Printed SnSe Thermoelectric Generators with High Figure of Merit. Advanced Energy Materials, 2019, 9, 1900201.	10.2	71
1612	Seeing atomic-scale structural origins and foreseeing new pathways to improved thermoelectric materials. Materials Horizons, 2019, 6, 1548-1570.	6.4	27
1613	Nanostructured SnSe integrated with Se quantum dots with ultrahigh power factor and thermoelectric performance from magnetic field-assisted hydrothermal synthesis. Journal of Materials Chemistry A, 2019, 7, 15757-15765.	5.2	45
1614	Single-layer BiOBr: An effective p-type 2D thermoelectric material. Journal of Applied Physics, 2019, 125, .	1.1	22
1615	Exfoliated Snâ€“Seâ€“Te based nanosheets and their flexible thermoelectric composites with poly(3,4-ethylenedioxythiophene):poly(styrenesulfonate) fabricated by solution processing. Organic Electronics, 2019, 71, 131-135.	1.4	14
1616	Production of large-area 2D materials for high-performance photodetectors by pulsed-laser deposition. Progress in Materials Science, 2019, 106, 100573.	16.0	160
1617	An accurate and compact tight-binding model for GeS. Journal of Physics: Conference Series, 2019, 1159, 012008.	0.3	1
1618	Preparation of Gaâ€ZnO Nanoparticles Using Microwave and Ultrasonic Irradiation, and the Application of Poly(3,4â€ethylenedioxythiophene)â€poly(styrenesulfonate) Hybrid Thermoelectric Films. ChemistrySelect, 2019, 4, 6800-6804.	0.7	6
1619	Characteristic fast Hâ˜ ion conduction in oxygen-substituted lanthanum hydride. Nature Communications, 2019, 10, 2578.	5.8	70
1620	Quaternary semiconductor Ba₈Zn₄Ga₂S₁₅ featuring unique one-dimensional chains and exhibiting desirable yellow emission. Chemical Communications, 2019, 55, 7942-7945.	2.2	19
1621	Optimizing the thermoelectric transport properties of Bi₂O₂Se monolayer via biaxial strain. Physical Chemistry Chemical Physics, 2019, 21, 15097-15105.	1.3	76
1622	Optical and transport properties of few quintuple-layers of Bi2-xSbxSe3 nanoflakes synthesized by hydrothermal method. Journal of Alloys and Compounds, 2019, 804, 272-280.	2.8	8
1623	Enhanced thermoelectric performance of a simple method prepared polycrystalline SnSe optimized by spark plasma sintering. Journal of Applied Physics, 2019, 125, .	1.1	10
1624	Heterostructures in two-dimensional colloidal metal chalcogenides: Synthetic fundamentals and applications. Nano Research, 2019, 12, 1750-1769.	5.8	33
1625	Divalent Path to Enhance p-Type Conductivity in a SnO Transparent Semiconductor. Journal of Physical Chemistry C, 2019, 123, 14909-14913.	1.5	5
1626	Improving the Thermoelectric Properties of the Half-Heusler Compound VCoSb by Vanadium Vacancy. Materials, 2019, 12, 1637.	1.3	12
1627	Novel n-type thermoelectric material of ZnIn2Se4. Journal of Alloys and Compounds, 2019, 797, 940-944.	2.8	22

#	Article	IF	Citations
1628	A Review of Strategies for Developing Promising Thermoelectric Materials by Controlling Thermal Conduction. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800904.	0.8	19
1629	Thermal transport properties in monolayer GeS. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 2499-2503.	0.9	12
1630	Synergistically optimizing interdependent thermoelectric parameters of n-type PbSe through alloying CdSe. Energy and Environmental Science, 2019, 12, 1969-1978.	15.6	99
1631	Influence of sulphur doping in snse nanoflakes prepared by microwave assisted solvothermal synthesis. AIP Conference Proceedings, 2019, , .	0.3	2
1632	Ultrahigh figureâ€ofâ€merit of Cu‹sub›2‹/sub›Se incorporated with carbon coated boron nanoparticles. InformaÄnÃ-MateriÃ¡ly, 2019, 1, 108-115.	8.5	47
1633	Phase transition and anharmonicity in SnSe. Materials Today Physics, 2019, 10, 100093.	2.9	45
1634	Quantum and Phonon Interference-Enhanced Molecular-Scale Thermoelectricity. Journal of Physical Chemistry C, 2019, 123, 12556-12562.	1.5	17
1635	Significant enhancement in thermoelectric performance of Mg3Sb2 from bulk to two-dimensional mono layer. Nano Energy, 2019, 62, 212-219.	8.2	100
1636	New horizons in thermoelectric materials: Correlated electrons, organic transport, machine learning, and more. Journal of Applied Physics, 2019, 125, .	1.1	50
1637	N-Type Bismuth Telluride Nanocomposite Materials Optimization for Thermoelectric Generators in Wearable Applications. Materials, 2019, 12, 1529.	1.3	35
1638	Ion Beam Induced Artifacts in Lead-Based Chalcogenides. Microscopy and Microanalysis, 2019, 25, 831-839.	0.2	6
1639	Computational strategies for design and discovery of nanostructured thermoelectrics. Npj Computational Materials, 2019, 5, .	3.5	39
1640	First-principles study of structural stability, electronic properties and lattice thermal conductivity of KAgX (X = S, Se, Te). European Physical Journal B, 2019, 92, 1.	0.6	8
1641	Enhanced thermoelectric performance of GeTe through ‹i›in situ‹/i› microdomain and Ge-vacancy control. Journal of Materials Chemistry A, 2019, 7, 15181-15189.	5.2	56
1642	Band alignment and scattering considerations for enhancing the thermoelectric power factor of complex materials: The case of Co-based half-Heusler alloys. Physical Review B, 2019, 99, .	1.1	47
1643	Performance Analysis of a Direct Carbon Fuel Cell Cogeneration System Combined with a Two-Stage Thermoelectric Generator. International Journal of Electrochemical Science, 2019, 14, 3701-3717.	0.5	10
1644	The Design of a Thermoelectric Generator and Its Medical Applications. Designs, 2019, 3, 22.	1.3	66
1645	Growth of vertical heterostructures based on orthorhombic SnSe/hexagonal In2Se3 for high-performance photodetectors. Nanoscale Advances, 2019, 1, 2606-2611.	2.2	14

#	Article	IF	Citations
1646	Survey of energy scavenging for wearable and implantable devices. Energy, 2019, 178, 33-49.	4.5	97
1647	Atomistic and experimental study on thermal conductivity of bulk and porous cerium dioxide. Scientific Reports, 2019, 9, 6326.	1.6	20
1648	Enhanced thermoelectric transport properties of n-type InSe due to the emergence of the flat band by Si doping. Inorganic Chemistry Frontiers, 2019, 6, 1475-1481.	3.0	39
1649	Two-dimensional pnictogens: A review of recent progresses and future research directions. Applied Physics Reviews, 2019, 6, .	5.5	143
1650	From an atomic layer to the bulk: Low-temperature atomistic structure and ferroelectric and electronic properties of SnTe films. Physical Review B, 2019, 99, .	1.1	39
1651	Reducing Lattice Thermal Conductivity of the Thermoelectric SnSe Monolayer: Role of Phononâ€“Electron Coupling. Journal of Physical Chemistry C, 2019, 123, 12001-12006.	1.5	32
1653	Band alignment tuning in GeS/arsenene staggered heterostructures. Journal of Alloys and Compounds, 2019, 793, 283-288.	2.8	13
1654	Thermodynamics, Electronic Structure, and Vibrational Properties of Snn(S1â€“xSex)m Solid Solutions for Energy Applications. Chemistry of Materials, 2019, 31, 3672-3685.	3.2	11
1655	Pressure-induced superconductivity in tin sulfide. Physical Review B, 2019, 99, .	1.1	24
1656	Non-linear enhancement of thermoelectric performance of a TiSe₂ monolayer due to tensile strain, from first-principles calculations. Journal of Materials Chemistry C, 2019, 7, 7308-7317.	2.7	22
1657	Controllable electrodeposition and mechanism research of nanostructured Bi2Te3 thin films with high thermoelectric properties. Applied Surface Science, 2019, 486, 65-71.	3.1	16
1658	Large scale self-assembly of SnSe nanosheets prepared by the hot-injection method for photodetector and capacitor applications. Materials Today Energy, 2019, 12, 418-425.	2.5	21
1659	Delocalized Carriers and the Electrical Transport Properties of n-Type GeSe Crystals. ACS Applied Energy Materials, 2019, 2, 3703-3707.	2.5	7
1660	Nanowires: A route to efficient thermoelectric devices. Physica E: Low-Dimensional Systems and Nanostructures, 2019, 113, 213-225.	1.3	38
1661	Ultralow lattice thermal conductivity induced high thermoelectric performance in the Î´-Cu₂S monolayer. Nanoscale, 2019, 11, 10306-10313.	2.8	43
1662	Dimensionality reduction of germanium selenide for high-efficiency thermoelectric applications. Ceramics International, 2019, 45, 15122-15127.	2.3	20
1663	Enhanced thermoelectric performance through crystal field engineering in transition metalâ€“doped GeTe. Materials Today Physics, 2019, 9, 100094.	2.9	85
1664	First-principles study of thermal transport properties in the two- and three-dimensional forms of Bi₂O₂Se. Physical Chemistry Chemical Physics, 2019, 21, 10931-10938.	1.3	43

#	Article	IF	Citations
1665	First-principles study of the layered thermoelectric material TiNBr. RSC Advances, 2019, 9, 12886-12894.	1.7	18
1666	Effect of sulphur doping in SnSe single crystals on thermoelectric power. Materials Research Express, 2019, 6, 085910.	0.8	12
1667	DFT based study on structural stability and transport properties of Sr₃AsN: A potential thermoelectric material. Journal of Materials Research, 2019, 34, 2635-2642.	1.2	5
1668	Thermoelectric Properties of Pure SnSe Single Crystal Prepared by a Vapor Deposition Method. Crystal Research and Technology, 2019, 54, 1900032.	0.6	8
1669	Realizing n-type BiCuSeO through halogens doping. Ceramics International, 2019, 45, 14953-14957.	2.3	11
1670	Thermoelectric Properties of Hexagonal M2C3 (M = As, Sb, and Bi) Monolayers from First-Principles Calculations. Nanomaterials, 2019, 9, 597.	1.9	22
1671	Anharmonic lattice dynamics of Te and its counter-intuitive strain dependent lattice thermal conductivity. Journal of Materials Chemistry C, 2019, 7, 5970-5974.	2.7	9
1672	Enhanced Photoenergy Harvesting and Extreme Thomson Effect in Hydrodynamic Electronic Systems. Physical Review Letters, 2019, 122, 166802.	2.9	5
1673	Emerging inâ€plane anisotropic twoâ€dimensional materials. InformaÄnÃ-MateriÃ¡ly, 2019, 1, 54-73.	8.5	247
1674	Fabrication and Thermoelectric Properties of Single-Crystal Argyrodite Ag₈SnSe₆. Chemistry of Materials, 2019, 31, 2603-2610.	3.2	35
1675	Thermoelectric Figure-of-Merit of Fully Dense Single-Crystalline SnSe. ACS Omega, 2019, 4, 5442-5450.	1.6	40
1676	Active-Transition-Metal Tellurides: Through Crystal Structures to Physical Properties. Crystal Growth and Design, 2019, 19, 5429-5440.	1.4	3
1677	Dynamic Ag⁺-intercalation with AgSnSe₂ nano-precipitates in Cl-doped polycrystalline SnSe₂ toward ultra-high thermoelectric performance. Journal of Materials Chemistry A, 2019, 7, 9761-9772.	5.2	50
1678	High thermoelectric power factor in SnSe₂ thin film grown on Al₂O₃ substrate. Materials Research Express, 2019, 6, 066420.	0.8	4
1679	Thermoelectric Properties of Zn Doped BiCuSeO. Journal of Electronic Materials, 2019, 48, 3631-3642.	1.0	8
1680	Realizing high thermoelectric performance of polycrystalline SnS through optimizing carrier concentration and modifying band structure. Journal of Alloys and Compounds, 2019, 789, 485-492.	2.8	34
1681	Enhanced Thermoelectric Performance of SnSe with Trace Au Particles via Transport Channel Design. ACS Applied Energy Materials, 2019, 2, 2604-2610.	2.5	9
1682	Optimizing the average power factor of p-type (Na, Ag) co-doped polycrystalline SnSe. RSC Advances, 2019, 9, 7115-7122.	1.7	20

#	Article	IF	Citations
1683	First-principles study of electronic transport coefficients of point-defective metallic species: aluminum and its bimetallic alloys. Modelling and Simulation in Materials Science and Engineering, 2019, 27, 035009.	0.8	0
1684	van der Waals Layered Tin Selenide as Highly Nonlinear Ultrafast Saturable Absorber. Advanced Optical Materials, 2019, 7, 1801745.	3.6	82
1685	Dramatically reduced lattice thermal conductivity of Mg2Si thermoelectric material from nanotwinning. Acta Materialia, 2019, 169, 9-14.	3.8	30
1686	Carrier tuning and multiple phonon scattering induced high thermoelectric performance in n-type Sb-doped PbTe alloys. Applied Physics A: Materials Science and Processing, 2019, 125, 1.	1.1	14
1687	Optical, Electrical, and Thermoelectric Properties of Hydrothermally Synthesized Bi₂Te₃ Nanoflakes. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800958.	0.8	6
1688	Design Strategy for High-Performance Thermoelectric Materials: The Prediction of Electron-Doped KZrCuSe₃. Chemistry of Materials, 2019, 31, 3018-3024.	3.2	23
1689	First-principles assessment of thermoelectric properties of CuFeS2. Journal of Applied Physics, 2019, 125, .	1.1	22
1690	Low Lattice Thermal Conductivity of a Two-Dimensional Phosphorene Oxide. Scientific Reports, 2019, 9, 5149.	1.6	16
1691	Electronic structure of SnSe2 films grown by molecular beam epitaxy. Applied Physics Letters, 2019, 114, 091602.	1.5	12
1692	Medium-temperature thermoelectric GeTe: vacancy suppression and band structure engineering leading to high performance. Energy and Environmental Science, 2019, 12, 1396-1403.	15.6	233
1693	Growth of large size SnSe single crystal and comparison of its thermoelectric property with polycrystal. Materials Research Bulletin, 2019, 114, 156-160.	2.7	14
1694	Temperature dependence of band gaps in sputtered SnSe thin films. Journal of Physics and Chemistry of Solids, 2019, 131, 22-26.	1.9	18
1695	Transport properties of 2D As1-xPx binary compounds as a potential thermoelectric materials. Physica E: Low-Dimensional Systems and Nanostructures, 2019, 111, 79-83.	1.3	10
1696	Aguilarite Ag₄SSe Thermoelectric Material: Natural Mineral with Low Lattice Thermal Conductivity. ACS Applied Materials & Interfaces, 2019, 11, 12632-12638.	4.0	30
1697	Black phosphorus and its isoelectronic materials. Nature Reviews Physics, 2019, 1, 306-317.	11.9	196
1698	A promising thermoelectric response of fully compensated ferrimagnetic spin gapless semiconducting Heusler alloy Zr₂MnAl at high temperature: DFT study. Materials Research Express, 2019, 6, 076307.	0.8	19
1699	Chemical exfoliation of SnSe1â€“xTex nanosheets with conductive PEDOT:PSS for flexible thermoelectric composite films. Journal of Alloys and Compounds, 2019, 792, 638-643.	2.8	19
1700	Coupling of spin-orbit interaction with phonon anharmonicity leads to significant impact on thermoelectricity in SnSe. Nano Energy, 2019, 60, 673-679.	8.2	17

#	Article	IF	Citations
1701	Spin-related thermoelectric transport in wedge-shaped graphene nanoribbon junctions. Physica E: Low-Dimensional Systems and Nanostructures, 2019, 112, 109-114.	1.3	2
1702	Effect of polymer nanolayers on tin-chalcogenide nanosheet/conductive polymer flexible composite films and their enhanced thermoelectric performance. Nanoscale, 2019, 11, 8502-8509.	2.8	12
1703	SnTe monolayer: Tuning its electronic properties with doping. Superlattices and Microstructures, 2019, 130, 12-19.	1.4	8
1704	Six Quaternary Chalcogenides of the Pavonite Homologous Series with Ultralow Lattice Thermal Conductivity. Chemistry of Materials, 2019, 31, 3430-3439.	3.2	28
1705	Superior performance and high service stability for GeTe-based thermoelectric compounds. National Science Review, 2019, 6, 944-954.	4.6	96
1706	Enhanced thermoelectric properties of Ag-doped MnO2 single crystal nanowires for room-temperature application. Materials Research Express, 2019, 6, 075073.	0.8	4
1707	Thermoelectric Properties of Thiospinel-Type CuCo2S4. Journal of Electronic Materials, 2019, 48, 4179-4187.	1.0	24
1708	Maximization of transporting bands for high-performance SnTe alloy thermoelectrics. Materials Today Physics, 2019, 9, 100091.	2.9	45
1709	Stretchable and dynamically stable promising two-dimensional thermoelectric materials: ScPÂand ScAs. Journal of Materials Chemistry A, 2019, 7, 12604-12615.	5.2	40
1710	From thermoelectricity to phonoelectricity. Applied Physics Reviews, 2019, 6, 021305.	5.5	13
1711	Islands growth control in adsorptive multilayer plasma-condensate systems. Journal of Crystal Growth, 2019, 514, 1-7.	0.7	4
1712	Unprecedented New Crystalline Forms of SnSe in Narrow to Medium Diameter Carbon Nanotubes. Nano Letters, 2019, 19, 2979-2984.	4.5	34
1713	Tunable Ohmic, p-Type Quasi-Ohmic, and n-Type Schottky Contacts of Monolayer SnSe with Metals. ACS Applied Nano Materials, 2019, 2, 2767-2775.	2.4	20
1714	A Natural 2D Heterostructure [Pb_{3.1}Sb_{0.9}S₄][Au_xTe_{2â€“x}] with Large Transverse Nonsaturating Negative Magnetoresistance and High Electron Mobility. Journal of the American Chemical Society, 2019, 141, 7544-7553.	6.6	8
1715	Understanding the Chemical Nature of the Buried Nanostructures in Low Thermal Conductive Sb-Doped SnTe by Variable-Energy Photoelectron Spectroscopy. Journal of Physical Chemistry C, 2019, 123, 10272-10279.	1.5	10
1716	Toward New Thermoelectrics: Tin Selenide/Modified Graphene Oxide Nanocomposites. ACS Omega, 2019, 4, 6010-6019.	1.6	13
1717	Penta-PdX₂ (X = S, Se, Te) monolayers: promising anisotropic thermoelectric materials. Journal of Materials Chemistry A, 2019, 7, 11134-11142.	5.2	117
1718	Review and Trends of Thermoelectric Generator Heat Recovery in Automotive Applications. IEEE Transactions on Vehicular Technology, 2019, 68, 5366-5378.	3.9	45

#	Article	IF	Citations
1719	Spacer strategy for exceptionally low thermal conductivity and high zT in antimony-doped bulk silicon. Materials Today Energy, 2019, 12, 327-335.	2.5	4
1720	Structural and electronic properties of the Î±-GeSe surface. Surface Science, 2019, 686, 17-21.	0.8	4
1721	Effects of temperature and pressure on the optical and vibrational properties of thermoelectric SnSe. Physical Chemistry Chemical Physics, 2019, 21, 8663-8678.	1.3	20
1722	Superseding van der Waals with Electrostatic Interactions: Intercalation of Cs into the Interlayer Space of SiAs₂. Inorganic Chemistry, 2019, 58, 4997-5005.	1.9	8
1723	Realization of High Thermoelectric Figure of Merit in Solution Synthesized 2D SnSe Nanoplates via Ge Alloying. Journal of the American Chemical Society, 2019, 141, 6141-6145.	6.6	127
1724	A Game-Changing Strategy in SnSe Thermoelectrics. Joule, 2019, 3, 636-638.	11.7	14
1725	Geometric structural design for lead tellurium thermoelectric power generation application. Renewable Energy, 2019, 141, 88-95.	4.3	29
1726	Substantial enhancement of mechanical properties for SnSe based composites with potassium titanate whiskers. Journal of Materials Science: Materials in Electronics, 2019, 30, 8502-8507.	1.1	9
1727	2D SnSe/Si heterojunction for self-driven broadband photodetectors. 2D Materials, 2019, 6, 034004.	2.0	43
1728	Adjusting Na doping via wet-chemical synthesis to enhance thermoelectric properties of polycrystalline SnS. Science China Materials, 2019, 62, 1005-1012.	3.5	20
1729	High thermoelectric efficiency in monolayer PbI₂ from 300 K to 900 K. Inorganic Chemistry Frontiers, 2019, 6, 920-928.	3.0	29
1730	Phonon Collapse and Second-Order Phase Transition in Thermoelectric SnSe. Physical Review Letters, 2019, 122, 075901.	2.9	92
1731	Thermoelectric Power Generation from Waste Heat. , 2019, , 961-979.		2
1732	High Thermoelectric Performance in pâ€type Polycrystalline Cdâ€doped SnSe Achieved by a Combination of Cation Vacancies and Localized Lattice Engineering. Advanced Energy Materials, 2019, 9, 1803242.	10.2	150
1733	Thermoelectric properties of multi-walled carbon nanotube-embedded Cu2S thermoelectric materials. Journal of Materials Science: Materials in Electronics, 2019, 30, 5177-5184.	1.1	20
1734	Thermoelectric GeTe with Diverse Degrees of Freedom Having Secured Superhigh Performance. Advanced Materials, 2019, 31, e1807071.	11.1	197
1735	Crystallographically textured SnSe nanomaterials produced from the liquid phase sintering of nanocrystals. Dalton Transactions, 2019, 48, 3641-3647.	1.6	16
1736	Progress on PEDOT:PSS/Nanocrystal Thermoelectric Composites. Advanced Electronic Materials, 2019, 5, 1800822.	2.6	70

#	Article	IF	Citations
1737	High Thermoelectric Power Factor in IntermetallicCoSiArising from Energy Filtering of Electrons by Phonon Scattering. Physical Review Applied, 2019, 11, .	1.5	31
1738	Synergetic Enhancement of Thermoelectric Performance by Selective Charge Anderson Localizationâ€“Delocalization Transition in n-Type Bi-Doped PbTe/Ag₂Te Nanocomposite. ACS Nano, 2019, 13, 3806-3815.	7.3	70
1739	Extraordinary thermoelectric performance in MgAgSb alloy with ultralow thermal conductivity. Nano Energy, 2019, 59, 311-320.	8.2	59
1740	Highâ€Performance Solutionâ€Processable Flexible SnSe Nanosheet Films for Lower Grade Waste Heat Recovery. Advanced Electronic Materials, 2019, 5, 1800774.	2.6	32
1741	Emerging Theory, Materials, and Screening Methods: New Opportunities for Promoting Thermoelectric Performance. Annalen Der Physik, 2019, 531, 1800437.	0.9	83
1742	Electron Sandwich Doubles the Thermoelectric Power Factor of SrTiO₃. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800832.	0.8	4
1743	Anisotropy thermoelectric and mechanical property of polycrystalline SnSe prepared under different processes. Journal of Materials Science: Materials in Electronics, 2019, 30, 6403-6410.	1.1	10
1744	Synergistically optimized electrical and thermal transport properties of polycrystalline SnSe via alloying SnS. Journal of Solid State Chemistry, 2019, 273, 85-91.	1.4	23
1745	Origin of Ultralow Thermal Conductivity in n-Type Cubic Bulk AgBiS₂: Soft Ag Vibrations and Local Structural Distortion Induced by the Bi 6s² Lone Pair. Chemistry of Materials, 2019, 31, 2106-2113.	3.2	70
1746	High Thermoelectric Performance in Mg₂(Si_{0.3}Sn_{0.7}) by Enhanced Phonon Scattering. ACS Applied Energy Materials, 2019, 2, 2129-2137.	2.5	44
1747	Promising thermoelectric properties and anisotropic electrical and thermal transport of monolayer SnTe. Applied Physics Letters, 2019, 114, .	1.5	25
1748	Recent progress in 2D group IVâ€“IV monochalcogenides: synthesis, properties and applications. Nanotechnology, 2019, 30, 252001.	1.3	104
1749	Synthesis of SrTiO3 Fibers and Their Effects on the Thermoelectric Properties of La0.1Dy0.1Sr0.75TiO3 Ceramics. Electronic Materials Letters, 2019, 15, 278-286.	1.0	7
1750	Achieving an excellent thermoelectric performance in nanostructured copper sulfide bulk via a fast doping strategy. Materials Today Physics, 2019, 8, 71-77.	2.9	44
1751	Effects of the cross-sectional area ratios and contact resistance on the performance of a cascaded thermoelectric generator. International Journal of Energy Research, 2019, 43, 2172-2187.	2.2	19
1752	Composition change-driven texturing and doping in solution-processed SnSe thermoelectric thin films. Nature Communications, 2019, 10, 864.	5.8	62
1753	Strain-Tunable Electronic and Optical Properties of Monolayer Germanium Monosulfide: Ab-Initio Study. Journal of Electronic Materials, 2019, 48, 2902-2909.	1.0	14
1754	Quasi-two-dimensional GeSbTe compounds as promising thermoelectric materials with anisotropic transport properties. Applied Physics Letters, 2019, 114, .	1.5	23

#	Article	IF	Citations
1755	Rapid Prediction of Anisotropic Lattice Thermal Conductivity: Application to Layered Materials. Chemistry of Materials, 2019, 31, 2048-2057.	3.2	20
1756	Factors affecting irradiation of nano & micro materials by laser treatment industrial unit. IOP Conference Series: Materials Science and Engineering, 2019, 610, 012005.	0.3	0
1757	Thermoelectric performance of (GeTe)_{1â^'x}(Sb₂Te₃)_x fabricated by high pressure sintering method. Materials Research Express, 2019, 6, 1250h5.	0.8	4
1758	Topological current for transverse electrical and thermal conductivity in thermoelectric effect. Journal of Physics Communications, 2019, 3, 115020.	0.5	0
1759	Concentration dependences of electrical conductivity and the Hall effect of the CexSn1â€“xSe single crystals. Low Temperature Physics, 2019, 45, 1277-1280.	0.2	1
1760	High-performance electron-doped GeMnTe₂: hierarchical structure and low thermal conductivity. Journal of Materials Chemistry A, 2019, 7, 27361-27366.	5.2	20
1761	A new indium selenide phase: controllable synthesis, phase transformation and photoluminescence properties. Journal of Materials Chemistry C, 2019, 7, 13573-13584.	2.7	7
1762	Significant enhancement in the thermoelectric performance of Bi₂O₂S through dimensionality reduction. Journal of Materials Chemistry C, 2019, 7, 14986-14992.	2.7	33
1763	SnSe: Breakthrough or Not Breakthrough?. , 2019, , 23-46.		1
1764	Synthesis of low-symmetry 2D Ge_(1â^'x)Sn_xSe₂ alloy flakes with anisotropic optical response and birefringence. Nanoscale, 2019, 11, 23116-23125.	2.8	9
1765	Synergistically optimized thermoelectric properties of Ag_{1+x}In₅Se₈ alloys. Inorganic Chemistry Frontiers, 2019, 6, 3545-3553.	3.0	5
1766	Electronic band structure and superconducting properties of SnAs. Physical Review B, 2019, 100, .	1.1	15
1767	Achieving high power factor and thermoelectric performance through dual substitution of Zn and Se in tetrahedrites Cu12Sb4S13. Applied Physics Letters, 2019, 115, .	1.5	19
1768	Electrical Transport and Thermoelectric Properties of SnSeâ€“SnTe Solid Solution. Materials, 2019, 12, 3854.	1.3	17
1769	Thermal analysis of some novel pyrimidine derivatives. Revista Colombiana De Ciencias QuÃmico FarmacÃ©uticas, 2019, 48, 436-454.	0.3	0
1770	Influence of periodic table in designing solid-state metal chalcogenides for thermoelectric energy conversion. Journal of Chemical Sciences, 2019, 131, 1.	0.7	4
1771	Nanostructured potential well/barrier engineering for realizing unprecedentedly large thermoelectric power factors. Materials Today Physics, 2019, 11, 100159.	2.9	18
1772	Oxidized Silicon Sulfide: Stability and Electronic Properties of a Novel Two-Dimensional Material. Journal of Physical Chemistry C, 2019, 123, 29986-29993.	1.5	2

#	Article	IF	Citations
1773	Achieving an Ultrahigh Power Factor in Sb₂Te₂Se Monolayers via Valence Band Convergence. ACS Applied Materials & Interfaces, 2019, 11, 46688-46695.	4.0	21
1774	A₂Cu₃In₃Te₈ (A = Cd, Zn, Mn, Mg): A Type of Thermoelectric Material with Complex Diamond-like Structure and Low Lattice Thermal Conductivities. ACS Applied Energy Materials, 2019, 2, 8956-8965.	2.5	17
1775	The emerging ferroic orderings in two dimensions. Science China Information Sciences, 2019, 62, 1.	2.7	8
1776	Ultralow Thermal Conductivity in Chain-like TlSe Due to Inherent Tl⁺ Rattling. Journal of the American Chemical Society, 2019, 141, 20293-20299.	6.6	61
1777	Towards the Use of Cuâ€“S Based Synthetic Minerals for Thermoelectric Applications. Semiconductors, 2019, 53, 1817-1824.	0.2	6
1778	Strong anharmonicity and high thermoelectric efficiency in high-temperature SnS from first principles. Physical Review B, 2019, 100, .	1.1	35
1779	Birefringence of SnSe single crystals in excitonic and electronic transitions region. Materials Research Express, 2019, 6, 125909.	0.8	0
1780	Novel Thermoelectric Materials and Device Design Concepts. , 2019, , .		12
1781	A theoretical model of the thermoelectric properties of SnSxSe1â^'x and how to further enhance its thermoelectric performance. Journal of Applied Physics, 2019, 126, .	1.1	24
1782	Extremely space and time restricted thermal transport in the high temperature Cmcm phase of thermoelectric SnSe. Materials Today Physics, 2019, 11, 100171.	2.9	11
1783	Dopant-induced indirect-direct transition and semiconductor-semimetal transition of bilayer SnSe. Journal of Applied Physics, 2019, 126, .	1.1	2
1784	One-Order Decreased Lattice Thermal Conductivity of SnSe Crystals by the Introduction of Nanometer SnSe₂ Secondary Phase. Journal of Physical Chemistry C, 2019, 123, 27666-27671.	1.5	14
1785	Realizing high thermoelectric performance with comparable p- and n-type figure-of-merits in a graphene/h-BN superlattice monolayer. Physical Chemistry Chemical Physics, 2019, 21, 26630-26636.	1.3	6
1786	Ultralow lattice thermal conductivity and high thermoelectric performance of monolayer KCuTe: a first principles study. RSC Advances, 2019, 9, 36301-36307.	1.7	27
1787	Fabrication of porous SnS nanosheets and their combination with conductive polymer for hybrid thermoelectric application. Chemical Engineering Journal, 2019, 356, 950-954.	6.6	18
1788	Half-filled bands from Bi-Se sigma bonds and Bi 6s â€œlone-pairsâ€•induced superior thermoelectric properties of Bi/Cl codoped SnSe. Journal of Alloys and Compounds, 2019, 772, 1061-1066.	2.8	3
1789	Enhancing the thermoelectric performance of Bi2S3: A promising earth-abundant thermoelectric material. Frontiers of Physics, 2019, 14, 1.	2.4	24
1790	Realizing tremendous electrical transport properties of polycrystalline SnSe2 by Cl-doped and anisotropy. Ceramics International, 2019, 45, 82-89.	2.3	22

#	Article	IF	Citations
1791	Enhancing thermoelectric performance of SnTe via stepwisely optimizing electrical and thermal transport properties. Journal of Alloys and Compounds, 2019, 773, 571-584.	2.8	37
1792	Advanced Multimaterial Electronic and Optoelectronic Fibers and Textiles. Advanced Materials, 2019, 31, e1802348.	11.1	200
1793	High-Temperature Structural and Thermoelectric Study of Argyrodite Ag₈GeSe₆. ACS Applied Materials & Interfaces, 2019, 11, 2168-2176.	4.0	51
1794	Ink Processing for Thermoelectric Materials and Powerâ€Generating Devices. Advanced Materials, 2019, 31, e1804930.	11.1	48
1795	Linear and Nonlinear Optical Properties of Fewâ€Layer Exfoliated SnSe Nanosheets. Advanced Optical Materials, 2019, 7, 1800579.	3.6	43
1796	Silver Telluride Nanowire Assembly for Highâ€Performance Flexible Thermoelectric Film and Its Application in Selfâ€Powered Temperature Sensor. Advanced Electronic Materials, 2019, 5, 1800612.	2.6	58
1797	Melt spinning: A rapid and cost effective approach over ball milling for the production of nanostructured p-type Si80Ge20 with enhanced thermoelectric properties. Journal of Alloys and Compounds, 2019, 781, 344-350.	2.8	6
1798	Optimization of thermoelectric properties achieved in Cu doped Î²-In2S3 bulks. Journal of Alloys and Compounds, 2019, 782, 641-647.	2.8	14
1799	Enhancement of Thermoelectric Performance of Sr1â^'xTi0.8Nb0.2O3 Ceramics by Introducing Sr Vacancies. Journal of Electronic Materials, 2019, 48, 1147-1152.	1.0	7
1800	Inhomogeneity and anisotropy of chemical bonding and thermoelectric properties of materials. Journal of Solid State Chemistry, 2019, 274, 329-336.	1.4	34
1801	Enhanced performance of thermoelectric nanocomposites based on Cu12Sb4S13 tetrahedrite. Nano Energy, 2019, 57, 835-841.	8.2	41
1802	Thermoelectric Material SnPb2Bi2S6: The 4,4L Member of Lillianite Homologous Series with Low Lattice Thermal Conductivity. Inorganic Chemistry, 2019, 58, 1339-1348.	1.9	10
1803	Raman Characterization on Two-Dimensional Materials-Based Thermoelectricity. Molecules, 2019, 24, 88.	1.7	19
1804	High Thermoelectric Performance in the Wide Bandâ€Gap AgGa_{1â€}_xTe₂ Compounds: Directional Negative Thermal Expansion and Intrinsically Low Thermal Conductivity. Advanced Functional Materials, 2019, 29, 1806534.	7.8	65
1805	Thermoelectric Properties of Zn4Sb3 Composites with Incomplete Reaction. Journal of Electronic Materials, 2019, 48, 1159-1163.	1.0	4
1806	Triple-phase ceramic 2D nanocomposite with enhanced thermoelectric properties. Journal of the European Ceramic Society, 2019, 39, 1237-1244.	2.8	16
1807	Electrical characteristics and detailed interfacial structures of Ag/Ni metallization on polycrystalline thermoelectric SnSe. Journal of Materials Science and Technology, 2019, 35, 711-718.	5.6	15
1808	Intrinsically Low Thermal Conductivity in BiSbSe₃: A Promising Thermoelectric Material with Multiple Conduction Bands. Advanced Functional Materials, 2019, 29, 1806558.	7.8	86

#	Article	IF	Citations
1809	High Thermoelectric Performance in Polycrystalline SnSe Via Dualâ€Doping with Ag/Na and Nanostructuring With Ag₈SnSe₆. Advanced Energy Materials, 2019, 9, 1803072.	10.2	98
1810	Synergistic effects on thermoelectric properties of Sn0.5Ge0.4875Te with Pb alloying. Journal of Alloys and Compounds, 2019, 777, 1334-1339.	2.8	7
1811	Thermoelectric properties of silicon and recycled silicon sawing waste. Journal of Materiomics, 2019, 5, 15-33.	2.8	24
1812	Multiple-valley effect on modulation of thermoelectric properties of n-type ZrCuSiAs-structure oxyantimonides LnTSbO (Ln= lanthanides and T=Zn, Mn). Journal of Materiomics, 2019, 5, 51-55.	2.8	4
1813	Silica aerogel derived from rice husk: an aggregate replacer for lightweight and thermally insulating cement-based composites. Construction and Building Materials, 2019, 195, 312-322.	3.2	57
1814	Chalcogenides as thermoelectric materials. Journal of Solid State Chemistry, 2019, 270, 273-279.	1.4	121
1815	Organic Thermoelectrics: Materials Preparation, Performance Optimization, and Device Integration. Joule, 2019, 3, 53-80.	11.7	189
1816	Recent Progress in Thermoelectric Materials Based on Conjugated Polymers. Polymers, 2019, 11, 107.	2.0	176
1817	Influence of Local Heterojunction on the Thermoelectric Properties of Mo-SnSe Multilayer Films Deposited by Magnetron Sputtering. Journal of Electronic Materials, 2019, 48, 1153-1158.	1.0	11
1818	Enhancement of monolayer SnSe light absorption by strain engineering: A DFT calculation. Chemical Physics, 2019, 521, 5-13.	0.9	54
1819	Study on thermoelectric properties of co-evaporated Sn-Se films with different phase formations. Thin Solid Films, 2019, 672, 133-137.	0.8	10
1820	Discovery of TaFeSb-based half-Heuslers with high thermoelectric performance. Nature Communications, 2019, 10, 270.	5.8	227
1821	Ultralow-Frequency Raman Spectroscopy of Two-dimensional Materials. Springer Series in Materials Science, 2019, , 203-230.	0.4	1
1822	Raman Spectroscopy of Anisotropic Two-Dimensional Materials. Springer Series in Materials Science, 2019, , 53-80.	0.4	3
1823	Effect of substrate temperature on structural and thermoelectric properties of RF magnetron sputtered SnSe thin film. Functional Materials Letters, 2019, 12, 1950040.	0.7	6
1824	Discovery of colossal Seebeck effect in metallic Cu2Se. Nature Communications, 2019, 10, 72.	5.8	122
1825	Vacancies in SnSe single crystals in a near-equilibrium state. Physical Review B, 2019, 99, .	1.1	33
1826	Unique mechanical responses of layered phosphorus-like group-IV monochalcogenides. Journal of Applied Physics, 2019, 125, 082519.	1.1	8

#	Article	IF	Citations
1827	Tuneable thermal expansion of poly (3,4-ethylenedioxythiophene) polystyrene sulfonate. Journal of Physics Condensed Matter, 2019, 31, 125101.	0.7	7
1828	Joint effect of magnesium and yttrium on enhancing thermoelectric properties of n-type Zintl Mg3+Y0.02Sb1.5Bi0.5. Materials Today Physics, 2019, 8, 25-33.	2.9	82
1829	Sensitivity Enhancement of a Surface Plasmon Resonance with Tin Selenide (SnSe) Allotropes. Sensors, 2019, 19, 173.	2.1	50
1830	Thermoelectric Properties of Co- and Mn-Doped Al2Fe3Si3. Journal of Electronic Materials, 2019, 48, 475-482.	1.0	8
1831	Effect of material anisotropy on the transverse thermoelectricity of layered composites. International Journal of Energy Research, 2019, 43, 181-188.	2.2	9
1832	Single nanowire measurements of room temperature ferromagnetism in FeSi nanowires and the effects of Mn-doping. Nanotechnology, 2019, 30, 014001.	1.3	2
1833	Enhanced Spontaneous Polarization in Ultrathin SnTe Films with Layered Antipolar Structure. Advanced Materials, 2019, 31, e1804428.	11.1	88
1834	Thermoelectrics: From history, a window to the future. Materials Science and Engineering Reports, 2019, 138, 100501.	14.8	341
1835	Copper Sulfides: Earthâ€Abundant and Lowâ€Cost Thermoelectric Materials. Energy Technology, 2019, 7, 1800850.	1.8	45
1836	Thermoelectric properties of Mn doped BiCuSeO. Materials Research Express, 2019, 6, 086305.	0.8	8
1837	State-of-the-Art Reviews and Analyses of Emerging Research Findings and Achievements of Thermoelectric Materials over the Past Years. Journal of Electronic Materials, 2019, 48, 745-777.	1.0	39
1838	SnO2 improved thermoelectric properties under compressive strain. Computational Condensed Matter, 2019, 18, e00356.	0.9	4
1839	Realizing High Thermoelectric Performance in p-Type SnSe through Crystal Structure Modification. Journal of the American Chemical Society, 2019, 141, 1141-1149.	6.6	137
1840	Improved thermoelectric properties of n-type Bi2S3 via grain boundaries and in-situ nanoprecipitates. Journal of the European Ceramic Society, 2019, 39, 1214-1221.	2.8	31
1841	SnSe/SiO₂/Si Heterostructures for Ultrahigh-Sensitivity and Broadband Optical Position Sensitive Detectors. IEEE Electron Device Letters, 2019, 40, 55-58.	2.2	26
1842	Investigations on distinct thermoelectric transport behaviors of Cu in n-type PbS. Journal of Alloys and Compounds, 2019, 781, 820-830.	2.8	32
1843	Thermoelectric properties of nano-bulk bismuth telluride prepared with spark plasma sintered nano-plates. Current Applied Physics, 2019, 19, 97-101.	1.1	8
1844	Thicknessâ€Dependent Inâ€Plane Thermal Conductivity and Enhanced Thermoelectric Performance in pâ€Type ZrTe₅ Nanoribbons. Physica Status Solidi - Rapid Research Letters, 2019, 13, 1800529.	1.2	22

#	Article	IF	Citations
1845	Thermoelectric transport properties of Pb doped SnSe alloys (PbxSn1-xSe): DFT-BTE simulations. Journal of Solid State Chemistry, 2019, 270, 413-418.	1.4	11
1846	Effects of doping IIIB elements (Al, Ga, In) on thermoelectric properties of nanostructured n-type filled skutterudite compounds. Journal of Alloys and Compounds, 2019, 774, 731-738.	2.8	11
1847	Selective breakdown of phonon quasiparticles across superionic transition in CuCrSe2. Nature Physics, 2019, 15, 73-78.	6.5	88
1848	Spin current generation by thermal gradient in graphene/h-BN/graphene lateral heterojunctions. Journal Physics D: Applied Physics, 2019, 52, 015303.	1.3	11
1849	An Integrated Approach to Thermoelectrics: Combining Phonon Dynamics, Nanoengineering, Novel Materials Development, Module Fabrication, and Metrology. Advanced Energy Materials, 2019, 9, 1801304.	10.2	26
1850	Fiberâ€Based Energy Conversion Devices for Humanâ€Body Energy Harvesting. Advanced Materials, 2020, 32, e1902034.	11.1	204
1851	Achieving high thermoelectric properties of Bi2S3 via InCl3 doping. Journal of Materials Science, 2020, 55, 263-273.	1.7	25
1852	High anisotropy in the electronic and thermoelectric properties of layered oxysulfides: A case study of LaOPbBiS3. Journal of Alloys and Compounds, 2020, 814, 152137.	2.8	5
1853	Strain-tunable electronic and optical properties of monolayer GeSe: Promising for photocatalytic water splitting applications. Chemical Physics, 2020, 529, 110543.	0.9	60
1854	Thermoelectric properties of S-substituted BiCuSeO at O sites: First-principles study. Science China: Physics, Mechanics and Astronomy, 2020, 63, 1.	2.0	4
1855	Predicting excellent anisotropic thermoelectric performance of the layered oxychalcogenides BiAgOCh (Châ€¯=â€¯S, Se, and Te). Computational Materials Science, 2020, 171, 109273.	1.4	12
1856	Enhanced Thermoelectric Properties of In-Filled Co₄Sb₁₂ with InSb Nanoinclusions. ACS Applied Energy Materials, 2020, 3, 635-646.	2.5	29
1857	Thermal Transport in 2D Semiconductorsâ€"Considerations for Device Applications. Advanced Functional Materials, 2020, 30, 1903929.	7.8	71
1858	Electrical and Thermal Transport Properties of n â€ type Bi 6 Cu 2 Se 4 O 6 (2BiCuSeO + 2Bi 2 O 2 Se). Annalen Der Physik, 2020, 532, 1900340.	0.9	11
1859	Machine learning-based design of porous graphene with low thermal conductivity. Carbon, 2020, 157, 262-269.	5.4	65
1860	Electrical properties of tin oxide materials. , 2020, , 41-60.		5
1861	Design study of Bismuth-Telluride-based thermoelectric generators based on thermoelectric and mechanical performance. Energy, 2020, 190, 116226.	4.5	22
1862	Glass-like electronic and thermal transport in crystalline cubic germanium selenide. Journal of Energy Chemistry, 2020, 45, 83-90.	7.1	16

#	Article	IF	Citations
1863	Chalcogenide Thermoelectrics Empowered by an Unconventional Bonding Mechanism. Advanced Functional Materials, 2020, 30, 1904862.	7.8	148
1864	Women in Nanotechnology. Women in Engineering and Science, 2020, , .	0.2	1
1865	Thermoelectric Materials: Improving Energy Efficiency and Decreasing CO2 Emissions. , 2020, , 780-794.		0
1866	Quaternary chalcogenides: Promising thermoelectric material and recent progress. Science China Materials, 2020, 63, 8-15.	3.5	17
1867	Power Generation Using Solid-State Heat Engines. Women in Engineering and Science, 2020, , 71-83.	0.2	0
1868	Thermoelectric properties of Bi-doped SnS: First-principle study. Journal of Physics and Chemistry of Solids, 2020, 137, 109182.	1.9	17
1869	Realizing High Thermoelectric Performance in Polycrystalline SnSe via Silver Doping and Germanium Alloying. ACS Applied Energy Materials, 2020, 3, 2049-2054.	2.5	52
1870	Dislocation-induced ultra-low lattice thermal conductivity in rare earth doped Î²-Zn4Sb3. Scripta Materialia, 2020, 174, 95-101.	2.6	14
1871	Emerging Applications of Elemental 2D Materials. Advanced Materials, 2020, 32, e1904302.	11.1	336
1872	Electronic and Magnetic Tunability of SnSe Monolayer via Doping of Transition-Metal Atoms. Journal of Electronic Materials, 2020, 49, 290-296.	1.0	13
1873	Structural, Electronic and Thermoelectric Properties of Pb1â^'xSnxTe Alloys. Journal of Electronic Materials, 2020, 49, 586-592.	1.0	4
1874	DFT modeling of thermoelectric and optical features of novel MgxSn1-xSe (xÂ= 6%, 12% & 18%). Journal of Molecular Graphics and Modelling, 2020, 94, 107484.	1.3	6
1875	Thermoelectric properties of ZnO ceramics densified through spark plasma sintering. Ceramics International, 2020, 46, 5229-5238.	2.3	25
1876	Pulse mode of operation â€“ A new booster of TEG, improving power up to X2.7 â€“ to better fit IoT requirements. Nano Energy, 2020, 68, 104204.	8.2	8
1877	Diboron-porphyrin monolayer: A new 2D semiconductor. Computational Materials Science, 2020, 172, 109338.	1.4	11
1878	Controlled thermoelectric performance in a nanojunction: A theoretical approach. Journal of Applied Physics, 2020, 127, 024302.	1.1	2
1879	Electrodeposition and texture control of Ag-doped SnS thin films with high-electrical transmission properties. Journal of Materials Science: Materials in Electronics, 2020, 31, 2854-2861.	1.1	2
1881	First-principles prediction of large thermoelectric efficiency in superionic Li₂SnX₃ (X = S, Se). Physical Chemistry Chemical Physics, 2020, 22, 878-889.	1.3	9

#	Article	IF	Citations
1882	Discordant nature of Cd in PbSe: off-centering and coreâ€“shell nanoscale CdSe precipitates lead to high thermoelectric performance. Energy and Environmental Science, 2020, 13, 200-211.	15.6	57
1883	In-plane anisotropic electronics based on low-symmetry 2D materials: progress and prospects. Nanoscale Advances, 2020, 2, 109-139.	2.2	84
1884	Facile in situ solution synthesis of SnSe/rGO nanocomposites with enhanced thermoelectric performance. Journal of Materials Chemistry A, 2020, 8, 1394-1402.	5.2	117
1885	Quaternary compounds Ag₂XYSe₄ (Xâ€‰â€‰=â€‰â€‰Ba, Sr; Yâ€‰â€‰=â€‰â€‰Sn, Ge) as novel p thermoelectric materials. Journal Physics D: Applied Physics, 2020, 53, 115302.	1.3	14
1886	Tuning ferroelectricity by charge doping in two-dimensional SnSe. Journal of Applied Physics, 2020, 127, 014101.	1.1	12
1887	Effective Mass Enhancement and Thermal Conductivity Reduction for Improving the Thermoelectric Properties of Pseudoâ€Binary Ge₂Sb₂Te₅. Annalen Der Physik, 2020, 532, 1900390.	0.9	8
1888	Bi and Zn co-doped SnTe thermoelectrics: interplay of resonance levels and heavy hole band dominance leading to enhanced performance and a record high room temperature ZT. Journal of Materials Chemistry C, 2020, 8, 2036-2042.	2.7	76
1889	Origin of inhomogeneity in spark plasma sintered bismuth antimony telluride thermoelectric nanocomposites. Nano Research, 2020, 13, 1339-1346.	5.8	4
1890	Thermoelectric properties of Sn doped GeTe thin films. Applied Surface Science, 2020, 507, 145025.	3.1	21
1891	Experimental study of the thermoelectric properties of YbH2. Journal of Alloys and Compounds, 2020, 821, 153496.	2.8	3
1892	Revealing nano-chemistry at lattice defects in thermoelectric materials using atom probe tomography. Materials Today, 2020, 32, 260-274.	8.3	73
1893	High Thermoelectric Performance of New Two-Dimensional IVâ€“VI Compounds: A First-Principles Study. Journal of Physical Chemistry C, 2020, 124, 1812-1819.	1.5	51
1894	Enhanced Thermoelectric Properties of n-Type Bi₂Te_{3â€“x}Se_x Alloys following Melt-Spinning. ACS Applied Energy Materials, 2020, 3, 2090-2095.	2.5	26
1895	Strain and Doping in Two-Dimensional SnTe Nanosheets: Implications for Thermoelectric Conversion. ACS Applied Nano Materials, 2020, 3, 114-119.	2.4	12
1896	GeI₂ monolayer: a model thermoelectric material from 300 to 600â€…K. Philosophical Magazine, 2020, 100, 782-796.	0.7	18
1897	Enhanced thermoelectric properties in MgAgSb composite with Ag₃Sb fabricated by the microwave-assisted process and subsequent spark plasma sintering. Advances in Applied Ceramics, 2020, 119, 107-113.	0.6	4
1898	Tuning the Thermoelectric Materialâ€™s Parameter: A Comprehensive Review. Journal of Nanoscience and Nanotechnology, 2020, 20, 3636-3646.	0.9	24
1899	Unraveling the Structure-Valence-Property Relationships in AMMâ€²Q₃ Chalcogenides with Promising Thermoelectric Performance. ACS Applied Energy Materials, 2020, 3, 2110-2119.	2.5	23

#	Article	IF	Citations
1900	Polycrystalline SnSeâ€“Sn1â€“vS solid solutions: Vacancy engineering and nanostructuring leading to high thermoelectric performance. Nano Energy, 2020, 69, 104393.	8.2	25
1901	Flexible Thermoelectric Devices of Ultrahigh Power Factor by Scalable Printing and Interface Engineering. Advanced Functional Materials, 2020, 30, 1905796.	7.8	93
1902	Enhanced Thermoelectric Performance of n-Type Polycrystalline SnSe via MoCl5 Doping. Journal of Electronic Materials, 2020, 49, 621-626.	1.0	16
1903	Quasi-bonding driven abnormal isotropic thermal transport in intrinsically anisotropic nanostructure: a case of study of a phosphorus nanotube array. Nanotechnology, 2020, 31, 095704.	1.3	3
1904	Long-Term Stability of the Colossal Seebeck Effect in Metallic Cu2Se. Journal of Electronic Materials, 2020, 49, 2855-2861.	1.0	11
1905	Thermoelectric generator optimization for hybrid electric vehicles. Applied Thermal Engineering, 2020, 167, 114761.	3.0	21
1906	Closely Packed Polypyrroles via Ionic Cross-Linking: Correlation of Molecular Structureâ€“Morphologyâ€“Thermoelectric Properties. ACS Applied Materials & Interfaces, 2020, 12, 1110-1119.	4.0	21
1907	Thermal Conductivity of HfTe 5 : A Critical Revisit. Advanced Functional Materials, 2020, 30, 1907286.	7.8	9
1908	Efficient and stable hydrogen evolution based on earth-abundant SnSe nanocrystals. Applied Catalysis B: Environmental, 2020, 264, 118526.	10.8	16
1909	Highly Efficient Solar Steam Generation by Glassy Carbon Foam Coated with Two-Dimensional Metal Chalcogenides. ACS Applied Materials & Interfaces, 2020, 12, 2490-2496.	4.0	34
1910	An approach of enhancing thermoelectric performance for p-type PbS: Decreasing electronic thermal conductivity. Journal of Alloys and Compounds, 2020, 820, 153453.	2.8	22
1911	High thermoelectric figure of merit ZT > 1 in SnS polycrystals. Journal of Materiomics, 2020, 6, 77-85.	2.8	46
1912	Interfacing Boron Monophosphide with Molybdenum Disulfide for an Ultrahigh Performance in Thermoelectrics, Two-Dimensional Excitonic Solar Cells, and Nanopiezotronics. ACS Applied Materials & Interfaces, 2020, 12, 3114-3126.	4.0	84
1913	Optimization of sodium hydroxide for securing high thermoelectric performance in polycrystalline Sn_{1 â^' x}Se via anisotropy and vacancy synergy. InformaÄnÃ-MateriÃ¡ly, 2020, 2, 1201-1215.	8.5	46
1914	Low thermal conductivity of 2D borocarbonitride nanosheets. Journal of Solid State Chemistry, 2020, 282, 121105.	1.4	24
1915	High-Performance Thermoelectrics from Cellular Nanostructured Sb2Si2Te6. Joule, 2020, 4, 159-175.	11.7	103
1916	Enhancement of thermoelectric performance through synergy of Pb acceptor doping and superstructure modulation for p-type Bi2Te3. Journal of Materials Science: Materials in Electronics, 2020, 31, 1200-1209.	1.1	1
1917	2D Materials for Largeâ€Area Flexible Thermoelectric Devices. Advanced Energy Materials, 2020, 10, 1902842.	10.2	143

#	Article	IF	Citations
1918	Thermoelectric Flexible Silver Selenide Films: Compositional and Length Optimization. IScience, 2020, 23, 100753.	1.9	42
1919	Cu Intercalation and Br Doping to Thermoelectric SnSe₂ Lead to Ultrahigh Electron Mobility and Temperatureâ€Independent Power Factor. Advanced Functional Materials, 2020, 30, 1908405.	7.8	53
1920	AICON: A program for calculating thermal conductivity quickly and accurately. Computer Physics Communications, 2020, 251, 107074.	3.0	20
1921	Effect of substrates on thermoelectric properties of Agâ€“Sbâ€“Te thin films within the temperature annealing. Physica B: Condensed Matter, 2020, 582, 411977.	1.3	8
1922	Anomalous electronic and thermoelectric transport properties in cubic <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Rb</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math> antiperovskite. Physical Review B, 2020, 102, .	1.1	24
1923	Localized dimers drive strong anharmonicity and low lattice thermal conductivity in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Zn</mml:mi><mml:msub><mml:mi>Sb</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> Physical Review B, 2020, 102, .	1.1	11
1924	Functional Monochalcogenides: Raman Evidence Linking Properties, Structure, and Metavalent Bonding. Physical Review Letters, 2020, 125, 145301.	2.9	15
1925	Template-Free Electrochemical Deposition of t-Se Nano- and Sub-micro Structures With Controlled Morphology and Dimensions. Frontiers in Chemistry, 2020, 8, 785.	1.8	9
1926	Rashba Effect Maximizes Thermoelectric Performance of GeTe Derivatives. Joule, 2020, 4, 2030-2043.	11.7	138
1927	Tuning the Electronic Structure of an Î±-Antimonene Monolayer through Interface Engineering. Nano Letters, 2020, 20, 8408-8414.	4.5	33
1928	Lowâ€Symmetry PdSe₂ for High Performance Thermoelectric Applications. Advanced Functional Materials, 2020, 30, 2004896.	7.8	49
1929	Polymer based thermoelectric nanocomposite materials and devices: Fabrication and characteristics. Nano Energy, 2020, 78, 105186.	8.2	185
1930	Suppressed phase transition and enhanced thermoelectric performance in iodine-doped AgCuTe. Nano Energy, 2020, 77, 105297.	8.2	21
1931	High-Quality SnSe₂ Single Crystals: Electronic and Thermoelectric Properties. ACS Applied Energy Materials, 2020, 3, 10787-10792.	2.5	34
1932	Electronic and optical properties of low-dimensional group-IV monochalcogenides. Journal of Applied Physics, 2020, 128, .	1.1	29
1933	Enhancement of thermoelectric performance of PbTe by embedding NaCl. Materialia, 2020, 14, 100912.	1.3	3
1934	Electronic, vibrational, and electronâ€“phonon coupling properties in SnSe₂ and SnS₂ under pressure. Journal of Materials Chemistry C, 2020, 8, 16404-16417.	2.7	12
1935	Thermoelectric properties of hydrogenated Sn2Bi monolayer under mechanical strain: a DFT approach. Physical Chemistry Chemical Physics, 2020, 22, 23246-23257.	1.3	10

#	Article	IF	Citations
1936	Remarkable High Thermoelectric Conversion Efficiency Materials of BeMF₃ (M = Al, Y). Advanced Theory and Simulations, 2020, 3, 2000171.	1.3	9
1937	Shaping the role of germanium vacancies in germanium telluride: metastable cubic structure stabilization, band structure modification, and stable N-type conduction. NPG Asia Materials, 2020, 12, .	3.8	32
1938	A 2D-SnSe film with ferroelectricity and its bio-realistic synapse application. Nanoscale, 2020, 12, 21913-21922.	2.8	28
1939	Computational thermodynamics and its applications. Acta Materialia, 2020, 200, 745-792.	3.8	91
1940	A Device-to-Material Strategy Guiding the â€œDouble-Highâ€•Thermoelectric Module. Joule, 2020, 4, 2475-2483.	11.7	64
1941	Thermal transport properties of novel two-dimensional CSe. Physical Chemistry Chemical Physics, 2020, 22, 17833-17841.	1.3	10
1942	Thermal and Photo Sensing Capabilities of Mono- and Few-Layer Thick Transition Metal Dichalcogenides. Micromachines, 2020, 11, 693.	1.4	6
1943	Î±-Bi₂Sn₂O₇: a potential room temperature n-type oxide thermoelectric. Journal of Materials Chemistry A, 2020, 8, 16405-16420.	5.2	17
1944	HPHT Synthesis: Effects of the Synergy of Pressure Regulation and Atom Filling on the Microstructure and Thermoelectric Properties of Yb_xBa_{8â€“x}Ga₁₆Ge₃₀. ACS Omega, 2020, 5, 11202-11209.	1.6	2
1945	KAgX (X = S, Se): High-Performance Layered Thermoelectric Materials for Medium-Temperature Applications. ACS Applied Materials & Interfaces, 2020, 12, 36102-36109.	4.0	68
1946	Enhancing power factor of SnSe sheet with grain boundary by doping germanium or silicon. Npj Computational Materials, 2020, 6, .	3.5	9
1947	Evenâ€“odd effect of spin-dependent transport and thermoelectric properties for ferromagnetic zigzag phosphorene nanoribbons under an electric field. Journal of Physics Condensed Matter, 2020, 32, 435502.	0.7	7
1948	Bulk and monolayer As2S3 as promising thermoelectric material with high conversion performance. Computational Materials Science, 2020, 183, 109913.	1.4	24
1949	Flexible SnSe Photodetectors with Ultrabroad Spectral Response up to 10.6 Î¼m Enabled by Photobolometric Effect. ACS Applied Materials & Interfaces, 2020, 12, 35250-35258.	4.0	73
1950	Hierarchical Structuring to Break the Amorphous Limit of Lattice Thermal Conductivity in High-Performance SnTe-Based Thermoelectrics. ACS Applied Materials & Interfaces, 2020, 12, 36370-36379.	4.0	20
1951	Optical phonons of SnSe(1â^'x)Sx layered semiconductor alloys. Scientific Reports, 2020, 10, 11761.	1.6	24
1952	Thermal decomposition study of SnSe single crystals. European Physical Journal Plus, 2020, 135, 1.	1.2	3
1953	Effect of selenization temperature on the physical properties of Cu2SnSe3 thin films. Thin Solid Films, 2020, 709, 138238.	0.8	4

#	Article	IF	Citations
1954	Freeâ€Standing Singleâ€Walled Carbon Nanotube/SnSe Nanosheet/Poly(3,4â€Ethylenedioxythiophene):Poly(4â€Styrenesulfonate) Nanocomposite Films for Flexible Thermoelectric Power Generators. Advanced Engineering Materials, 2020, 22, 2000605.	1.6	17
1955	Nanostructured conducting polymers and their composites: synthesis methodologies, morphologies and applications. Journal of Materials Chemistry C, 2020, 8, 10136-10159.	2.7	53
1956	Thermoelectric Properties of Low Te Concentrationâ€Doped Cu 2 ZnSnSe 4 â€Based Quaternary Alloys. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 2000198.	0.8	4
1957	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
1958	Unveiling the phonon scattering mechanisms in half-Heusler thermoelectric compounds. Energy and Environmental Science, 2020, 13, 5165-5176.	15.6	49
1959	A new type of novel salt-inclusion chalcogenide with ultralow thermal conductivity. Chemical Communications, 2020, 56, 15149-15152.	2.2	9
1960	Hierarchically nanostructured thermoelectric materials: challenges and opportunities for improved power factors. European Physical Journal B, 2020, 93, 1.	0.6	12
1961	Crystal Structure and Atomic Vacancy Optimized Thermoelectric Properties in Gadolinium Selenides. Chemistry of Materials, 2020, 32, 10130-10139.	3.2	36
1962	Influence of nonstoichiometry point defects on electronic thermal conductivity. Applied Physics Letters, 2020, 117, 213901.	1.5	1
1963	High frequency atomic tunneling yields ultralow and glass-like thermal conductivity in chalcogenide single crystals. Nature Communications, 2020, 11, 6039.	5.8	36
1964	Thermoelectric power factor of doped Bi₂O₂Se: a computational study. Physical Chemistry Chemical Physics, 2020, 22, 27096-27104.	1.3	5
1965	Tailoring the thermoelectric and structural properties of Cuâ€“Sn based thiospinel compounds [CuM_{1+x}Sn_{1â^'x}S₄ (M = Ti, V, Cr, Co)]. Journal of Materials Chemistry C, 2020, 8, 16368-16383.	2.7	21
1966	Kinetics-Limited Two-Step Growth of van der Waals Puckered Honeycomb Sb Monolayer. ACS Nano, 2020, 14, 16755-16760.	7.3	20
1967	Quantized thermoelectric Hall effect induces giant power factor in a topological semimetal. Nature Communications, 2020, 11, 6167.	5.8	43
1968	Realization of High Thermoelectric Performance in Polycrystalline Tin Selenide through Schottky Vacancies and Endotaxial Nanostructuring. Chemistry of Materials, 2020, 32, 9761-9770.	3.2	22
1969	Robust Metallic Nanolaminates Having Phonon-Glass Thermal Conductivity. Materials, 2020, 13, 4954.	1.3	3
1970	Supramolecular Functionalization for Improving Thermoelectric Properties of Single-Walled Carbon Nanotubesâ€“Small Organic Molecule Hybrids. ACS Applied Materials & Interfaces, 2020, 12, 51387-51396.	4.0	13
1971	High Quality Factor Enabled by Multiscale Phonon Scattering for Enhancing Thermoelectrics in Low-Solubility n-Type PbTeâ€“Cu₂Te Alloys. ACS Applied Materials & Interfaces, 2020, 12, 52952-52958.	4.0	11

#	Article	IF	Citations
1972	Structural characterization of layered tin mono-selenide crystals doped with copper grown by DVT technique. AIP Conference Proceedings, 2020, , .	0.3	0
1973	High thermoelectric figure of merit in monolayer Tl2O from first principles. Journal of Applied Physics, 2020, 128, .	1.1	6
1974	Improved thermoelectric performance of Bi2Se3 alloyed Bi2Te3 thin films via low pressure chemical vapour deposition. Journal of Alloys and Compounds, 2020, 848, 156523.	2.8	10
1975	Gapped metals as thermoelectric materials revealed by high-throughput screening. Journal of Materials Chemistry A, 2020, 8, 17579-17594.	5.2	19
1976	High pressure effect on the phase transition and in-plane anisotropy of SnSe. Journal of Alloys and Compounds, 2020, 849, 155915.	2.8	11
1977	Predicting the Potential Performance in P-Type SnS Crystals via Utilizing the Weighted Mobility and Quality Factor. Chinese Physics Letters, 2020, 37, 087104.	1.3	19
1978	A density functional theory study of the thermoelectric properties of K3AuO. Computational Condensed Matter, 2020, 24, e00484.	0.9	4
1979	The nature of 2D:3D SnS:Bi2Te3 interface and its effect on enhanced electrical and thermoelectric properties. Journal of Alloys and Compounds, 2020, 847, 156233.	2.8	12
1980	Comparison of computational and experimental inorganic crystal structures. Journal of Solid State Chemistry, 2020, 290, 121557.	1.4	15
1981	The Effect of Janus Asymmetry on Thermal Transport in SnSSe. Journal of Physical Chemistry C, 2020, 124, 17476-17484.	1.5	30
1982	Janus two-dimensional materials based on group IV monochalcogenides. Journal of Applied Physics, 2020, 128, .	1.1	29
1983	Recent Advances of Spatial Selfâ€Phase Modulation in 2D Materials and Passive Photonic Device Applications. Small, 2020, 16, e2002252.	5.2	35
1984	Ternary Chalcogenides GeSb2Se3 and Ge3Sb4Se7 Containing a âˆž1[Sb2Se2]2â€“ 1D Chain and a 2D Structure Related to SnSe. Inorganic Chemistry, 2020, 59, 11207-11212.	1.9	4
1985	Enhanced Average Thermoelectric Figure of Merit of p-Type Zintl Phase Mg₂ZnSb₂ via Zn Vacancy Tuning and Hole Doping. ACS Applied Materials & Interfaces, 2020, 12, 37330-37337.	4.0	10
1986	Theoretical model for predicting thermoelectric properties of tin chalcogenides. Physical Chemistry Chemical Physics, 2020, 22, 18989-19008.	1.3	26
1987	Symmetry and asymmetry in thermoelectrics. Journal of Materials Chemistry C, 2020, 8, 12054-12061.	2.7	14
1988	Investigation of thermoelectric properties of Cu2SnSe3 composites incorporated with SnSe. Physica B: Condensed Matter, 2020, 596, 412411.	1.3	5
1989	Rational structural design and manipulation advance SnSe thermoelectrics. Materials Horizons, 2020, 7, 3065-3096.	6.4	73

#	Article	IF	Citations
1990	Micro-Structural and Thermoelectric Characterization of Zinc-Doped In0.6Se0.4 Crystal Grown by Direct Vapour Transport Method. Semiconductors, 2020, 54, 923-928.	0.2	6
1991	Enhancement of the Thermoelectric Performance of 2D SnSe Nanoplates through Incorporation of Magnetic Nanoprecipitates. ACS Applied Energy Materials, 2020, 3, 9051-9057.	2.5	27
1992	Enhanced Thermoelectric Properties of Bilayer-Like Structural Graphene Quantum Dots/Single-Walled Carbon Nanotubes Hybrids. ACS Applied Materials & Interfaces, 2020, 12, 39145-39153.	4.0	19
1993	High Thermoelectric Performance in the New Cubic Semiconductor AgSnSbSe₃ by High-Entropy Engineering. Journal of the American Chemical Society, 2020, 142, 15187-15198.	6.6	108
1994	Enhancement of power generation of thermoelectric generator using phase change material. IOP Conference Series: Materials Science and Engineering, 2020, 892, 012055.	0.3	1
1995	Recent progress on PEDOT:PSS based polymer blends and composites for flexible electronics and thermoelectric devices. Materials Chemistry Frontiers, 2020, 4, 3130-3152.	3.2	161
1996	Singleâ€Crystal SnSe Thermoelectric Fibers via Laserâ€Induced Directional Crystallization: From 1D Fibers to Multidimensional Fabrics. Advanced Materials, 2020, 32, e2002702.	11.1	57
1997	Influences of different barrier films on microstructures and electrical properties of Bi2Te3-based joints. Journal of Materials Science: Materials in Electronics, 2020, 31, 14714-14729.	1.1	7
1998	Anion-exchanged porous SnTe nanosheets for ultra-low thermal conductivity and high-performance thermoelectrics. Chemical Engineering Journal, 2020, 402, 126274.	6.6	20
1999	Routes for advancing SnTe thermoelectrics. Journal of Materials Chemistry A, 2020, 8, 16790-16813.	5.2	87
2000	Bismuth Telluride/Halfâ€Heusler Segmented Thermoelectric Unicouple Modules Provide 12% Conversion Efficiency. Advanced Energy Materials, 2020, 10, 2001924.	10.2	40
2001	Low thermal conductivity and good thermoelectric performance in mercury chalcogenides. Computational Materials Science, 2020, 185, 109960.	1.4	7
2002	Pure V2O5 high-electricity transmission properties at low temperatures by structural changes. Materials Letters, 2020, 279, 128493.	1.3	1
2003	Intrinsically Ultralow Thermal Conductivity in Ruddlesdenâ€“Popper 2D Perovskite Cs₂PbI₂Cl₂: Localized Anharmonic Vibrations and Dynamic Octahedral Distortions. Journal of the American Chemical Society, 2020, 142, 15595-15603.	6.6	82
2004	Ultrahigh Thermoelectric Power Generation from Both Ion Diffusion by Temperature Fluctuation and Hole Accumulation by Temperature Gradient. Advanced Energy Materials, 2020, 10, 2001633.	10.2	44
2005	Influence of stacking disorder on cross-plane thermal transport properties in TMPS3 (TM = Mn, Ni, Fe). Applied Physics Letters, 2020, 117, 063103.	1.5	2
2006	Characterization and thermoelectric properties of polyol method-synthesized (Cu7Te4)1Ââ^'Âx(Ag2Te)x (xâ€‰=â€‰0, 0.03) nanocomposites. Journal of Materials Science: Materials in Electronics, 2020, 31, 20964-20971.	1.1	3
2007	Geometry Optimization of Thermoelectric Modules: Deviation of Optimum Power Output and Conversion Efficiency. Entropy, 2020, 22, 1233.	1.1	10

#	Article	IF	Citations
2008	Excellent thermoelectric properties of monolayer RbAgM (M = Se and Te): first-principles calculations. Physical Chemistry Chemical Physics, 2020, 22, 26364-26371.	1.3	13
2009	Ultrafast carrier relaxation in SnSe (x=1, 2) thin films observed using femtosecond time-resolved transient absorption spectroscopy. Optical Materials, 2020, 108, 110440.	1.7	7
2010	Ultralow Lattice Thermal Conductivity in Double Perovskite Cs₂PtI₆: A Promising Thermoelectric Material. ACS Applied Energy Materials, 2020, 3, 11293-11299.	2.5	120
2011	Charge transport anisotropy in hot extruded bismuth telluride: Scattering by acoustic phonons. Journal of Applied Physics, 2020, 128, .	1.1	9
2014	High-throughput computational screening of 2D materials for thermoelectrics. Journal of Materials Chemistry A, 2020, 8, 19674-19683.	5.2	38
2015	Nanostructuring SnTe to improve thermoelectric properties through Zn and Sb co-doping. Sustainable Energy and Fuels, 2020, 4, 5645-5653.	2.5	19
2016	High-Performance n-Type Carbon Nanotubes Doped by Oxidation of Neighboring Sb₂Te₃ for a Flexible Thermoelectric Generator. ACS Applied Materials & Interfaces, 2020, 12, 43778-43784.	4.0	14
2017	Chemical Communications, 2020, 56, 11839-11842.	2.2	4
2018	Isolated flat bands and physics of mixed dimensions in a 2D covalent organic framework. Nanoscale, 2020, 12, 20279-20286.	2.8	7
2019	Extended anharmonic collapse of phonon dispersions in SnS and SnSe. Nature Communications, 2020, 11, 4430.	5.8	46
2020	Liquid-Phase Exfoliated GeSe Nanoflakes for Photoelectrochemical-Type Photodetectors and Photoelectrochemical Water Splitting. ACS Applied Materials & Interfaces, 2020, 12, 48598-48613.	4.0	56
2021	In Situ Synthesis of Conducting Polymers: A Novel Approach toward Polymer Thermoelectrics. Journal of Physical Chemistry C, 2020, 124, 22884-22892.	1.5	2
2022	Dimension reduction of thermoelectric properties using barycentric polynomial interpolation at Chebyshev nodes. Scientific Reports, 2020, 10, 13456.	1.6	2
2023	Revealing the origin of dislocations in Pb_{1â^'x}Sb_{2x/3}Se (0 < x â‰¤ 0.07). Nanoscale, 2020, 12, 19165-19169.	2.8	3
2024	Structure-Dependent Thermoelectric Properties of GeSe_{1â€“x}Te_x (0 â‰¤ x â‰¤ 0.5). ACS Applied Materials & Interfaces, 2020, 12, 41381-41389.	4.0	18
2025	Power Conversion and Its Efficiency in Thermoelectric Materials. Entropy, 2020, 22, 803.	1.1	18
2026	Optical excitations and thermoelectric properties of two-dimensional holey graphene. Physical Review B, 2020, 102, .	1.1	28
2027	Two-Dimensional SnSe Composited with One-Dimensional Mn Nanowires: A Promising Thermoelectric with Ultrahigh Power Factor. ACS Applied Energy Materials, 2020, 3, 9234-9245.	2.5	9

#	Article	IF	Citations
2028	Ultralow Thermal Conductivity and High Thermoelectric Figure of Merit in Two-Dimensional Thallium Selenide. ACS Applied Energy Materials, 2020, 3, 9315-9325.	2.5	24
2029	High Thermoelectric Performance in Two-Dimensional Janus Monolayer Material WS-X (X = Se) Tj ETQq1 1 0.784314 rgBT /Ove	4.0	130
2030	Leveraging Deep Levels in Narrow Bandgap Bi_{0.5}Sb_{1.5}Te₃ for Recordâ€High zT_{ave} Near Room Temperature. Advanced Functional Materials, 2020, 30, 2005202.	7.8	57
2031	Recent Advances in 2D Metal Monochalcogenides. Advanced Science, 2020, 7, 2001655.	5.6	58
2032	Ultralow thermal conductivity in diamondoid lattices: high thermoelectric performance in chalcopyrite Cu_{0.8+y}Ag_{0.2}In_{1â^'y}Te₂. Energy and Environmental Science, 2020, 13, 3693-3705.	15.6	52
2033	Achieving Enhanced Thermoelectric Performance in (SnTe)_{1-x}(Sb₂Te₃)_x and (SnTe)_{1-y}(Sb₂Se₃)_y Synthesized via Solvothermal Reaction and Sintering. ACS Applied Materials & Interfaces, 2020, 12, 44805-44814.	4.0	26
2034	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
2035	Thermosensitive crystallizationâ€“boosted liquid thermocells for low-grade heat harvesting. Science, 2020, 370, 342-346.	6.0	289
2036	Computational Discovery of Stable Heteroanionic Oxychalcogenides ABXO (A, B = Metals; X = S, Se, and) Tj ETQq0 0 0 rgBT /Overlock 1	3.2	21
2037	Framework for analyzing the thermoreflectance spectra of metal thermal transducers with spectrally tunable time-domain thermoreflectance. Journal of Applied Physics, 2020, 128, 055107.	1.1	7
2038	Transparent flexible thin-film pâ€“n junction thermoelectric module. Npj Flexible Electronics, 2020, 4, .	5.1	37
2039	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
2040	CuAlSe2 Inclusions Trigger Dynamic Cu+ Ion Depletion from the Cu2Se Matrix Enabling High Thermoelectric Performance. ACS Applied Materials & Interfaces, 2020, 12, 58018-58027.	4.0	6
2041	Temperature-dependent phonon lifetimes and thermal conductivity of silicon by inelastic neutron scattering and ab initio calculations. Physical Review B, 2020, 102, .	1.1	18
2042	High-Performance n-type SnSe Thermoelectric Polycrystal Prepared by Arc-Melting. Cell Reports Physical Science, 2020, 1, 100263.	2.8	23
2043	First-principles study on the electron and phonon transport properties of layered Bi2OX2 (X = S, Se). AIP Advances, 2020, 10, .	0.6	4
2044	Enhancement of thermoelectric performance of n-type AgBi1+xSe2 via improvement of the carrier mobility by modulation doping. Bulletin of Materials Science, 2020, 43, 1.	0.8	5
2045	Crystal structure and thermoelectric transport properties of Cuâ^'deficient BiCuSeO oxyselenides. Journal of Materials Research and Technology, 2020, 9, 16202-16213.	2.6	17

#	Article	IF	Citations
2046	Thermoelectric properties of flexible PEDOT:PSS-based films tuned by SnSe via the vacuum filtration method. RSC Advances, 2020, 10, 43840-43846.	1.7	16
2047	Growth and Interlayer Engineering of 2D Layered Semiconductors for Future Electronics. ACS Nano, 2020, 14, 16266-16300.	7.3	30
2048	Phonon and Carrier Transport Properties in Low-Cost and Environmentally Friendly SnS₂: A Promising Thermoelectric Material. Chemistry of Materials, 2020, 32, 10348-10356.	3.2	32
2049	Significant Enhancement in the Thermoelectric Performance of Aluminum-Doped ZnO Tuned by Pore Structure. ACS Applied Materials & Interfaces, 2020, 12, 51669-51678.	4.0	37
2050	Realization of high thermoelectric power factor in Ta-doped ZnO by grain boundary engineering. Journal of Applied Physics, 2020, 128, .	1.1	3
2051	Current Status of the Taiwanese Cold Triple Axis Spectrometer, SIKA, at ANSTO. Journal of Surface Investigation, 2020, 14, S207-S212.	0.1	6
2052	Hierarchical Structures Advance Thermoelectric Properties of Porous n-type Î²-Ag₂Se. ACS Applied Materials & Interfaces, 2020, 12, 51523-51529.	4.0	51
2053	Discrepancy between Constant Properties Model and Temperature-Dependent Material Properties for Performance Estimation of Thermoelectric Generators. Entropy, 2020, 22, 1128.	1.1	6
2054	Defect Compensation Weakening Induced Mobility Enhancement in Thermoelectric BiTeI by Iodine Deficiency. Chemistry - an Asian Journal, 2020, 15, 4124-4129.	1.7	3
2055	Synthesis and optical properties of single-crystalline SnS1â^'xSex nanobelts. Powder Diffraction, 2020, 35, 276-281.	0.4	3
2056	Mg₃(Bi,Sb)₂ single crystals towards high thermoelectric performance. Energy and Environmental Science, 2020, 13, 1717-1724.	15.6	91
2057	Composition Tuning of Nanostructured Binary Copper Selenides through Rapid Chemical Synthesis and Their Thermoelectric Property Evaluation. Nanomaterials, 2020, 10, 854.	1.9	17
2058	Influence of growth rate and orientation on thermoelectric properties in Mg3Sb2 crystal. Journal of Materials Science: Materials in Electronics, 2020, 31, 9773-9782.	1.1	4
2059	Improvement of Thermoelectric Properties of Evaporated ZnO:Al Films by CNT and Au Nanocomposites. Journal of Physical Chemistry C, 2020, 124, 12713-12722.	1.5	8
2060	Review on thermoelectric properties of transition metal dichalcogenides. Nano Futures, 2020, 4, 032008.	1.0	36
2061	Thermoelectric materials and devices fabricated by additive manufacturing. Vacuum, 2020, 178, 109384.	1.6	42
2062	Enhanced Thermoelectric Performance in Li Doped SnS via Carrier Concentration Optimization. IOP Conference Series: Materials Science and Engineering, 2020, 738, 012016.	0.3	4
2063	Thermoelectric power generation efficiency of zigzag monolayer nanoribbon of bismuth. Nanotechnology, 2020, 31, 375403.	1.3	13

#	Article	IF	Citations
2064	Computer-aided design of high-efficiency GeTe-based thermoelectric devices. Energy and Environmental Science, 2020, 13, 1856-1864.	15.6	103
2065	iâ€MXenes for Energy Storage and Catalysis. Advanced Functional Materials, 2020, 30, 2000894.	7.8	126
2066	A flexible, printable, thin-film thermoelectric generator based on reduced graphene oxideâ€“carbon nanotubes composites. Journal of Materials Science, 2020, 55, 10572-10581.	1.7	10
2067	Quartic anharmonicity and anomalous thermal conductivity in cubic antiperovskites <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>A</mml:mi><mml:mn>3</mml:mn></mml:mrow><mml:mi mathvariant="normal">O</mml:mi></mml:msub></mml:mrow></mml:math> <mml:math

#	Article	IF	Citations
2082	Crystal Structure, Lattice Dynamics, and Thermodynamic Properties of a Thermoelectric Orthorhombic BaCu₂Se₂ Compound. Journal of Physical Chemistry C, 2020, 124, 13627-13638.	1.5	6
2083	Hexagonal layered group IVâ€“VI semiconductors and derivatives: fresh blood of the 2D family. Nanoscale, 2020, 12, 13450-13459.	2.8	20
2084	Layered materials with 2D connectivity for thermoelectric energy conversion. Journal of Materials Chemistry A, 2020, 8, 12226-12261.	5.2	74
2085	Unification of optimization criteria and energetic analysis of a thermoelectric cooler and heater. Physica A: Statistical Mechanics and Its Applications, 2020, 555, 124700.	1.2	7
2086	Semiconducting High-Entropy Chalcogenide Alloys with Ambi-ionic Entropy Stabilization and Ambipolar Doping. Chemistry of Materials, 2020, 32, 6070-6077.	3.2	35
2087	Strain-enhanced power conversion efficiency of a BP/SnSe van der Waals heterostructure. Physical Chemistry Chemical Physics, 2020, 22, 14787-14795.	1.3	21
2088	Graphene inclusion induced ultralow thermal conductivity and improved figure of merit in p-type SnSe. Nanoscale, 2020, 12, 12760-12766.	2.8	16
2089	Thermoelectric properties of tin sulphide nanoparticles. AIP Conference Proceedings, 2020, , .	0.3	2
2090	Two-Dimensional SnSe Nanonetworks: Growth and Evaluation for Li-Ion Battery Applications. ACS Applied Energy Materials, 2020, 3, 6602-6610.	2.5	25
2091	Large enhancement of thermoelectric performance in MoS ₂ / h -BN heterostructure due to vacancy-induced band hybridization. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 13929-13936.	3.3	34
2092	Te Nanoneedles Induced Entanglement and Thermoelectric Improvement of SnSe. Materials, 2020, 13, 2523.	1.3	3
2093	Crystallographically Controlled Synthesis of SnSe Nanowires: Potential in Resistive Memory Devices. Advanced Materials Interfaces, 2020, 7, 2000474.	1.9	19
2094	Extremely low thermal conductivity from bismuth selenohalides with 1D soft crystal structure. Science China Materials, 2020, 63, 1759-1768.	3.5	38
2095	Fabrication and thermoelectric properties of bulk VSe2 with layered structure. Solid State Communications, 2020, 318, 113983.	0.9	5
2096	Engineering trace AuNPs on monodispersed carbonized organosilica microspheres drives highly efficient and low-cost solar water purification. Journal of Materials Chemistry A, 2020, 8, 13311-13319.	5.2	48
2097	Achieving high thermoelectric quality factor toward high figure of merit in GeTe. Materials Today Physics, 2020, 14, 100239.	2.9	61
2098	Ultra-low thermal conductivity and super-slow hot-carrier thermalization induced by a huge phononic gap in multifunctional nanoscale boron pnictides. Physica E: Low-Dimensional Systems and Nanostructures, 2020, 124, 114222.	1.3	21
2099	Influence of Nanoarchitecture on Charge Donation and the Electrical-Transport Properties in [(SnSe)_{1+Î´}][TiSe₂]_q Heterostructures. Chemistry of Materials, 2020, 32, 5802-5813.	3.2	6

#	Article	IF	Citations
2100	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
2101	Review of current high-ZT thermoelectric materials. Journal of Materials Science, 2020, 55, 12642-12704.	1.7	187
2102	Ferroelectric Instability Induced Ultralow Thermal Conductivity and High Thermoelectric Performance in Rhombohedral p-Type GeSe Crystal. Journal of the American Chemical Society, 2020, 142, 12237-12244.	6.6	69
2103	Bi₈Se₇: Delocalized Interlayer Ï€-Bond Interactions Enhancing Carrier Mobility and Thermoelectric Performance near Room Temperature. Journal of the American Chemical Society, 2020, 142, 12536-12543.	6.6	27
2104	Thermoelectric properties of monolayer GeAsSe and SnSbTe. Journal of Materials Chemistry C, 2020, 8, 9763-9774.	2.7	22
2105	Thermoelectric Properties of Off-Stoichiometric Bi2Te2Se Compounds. Journal of Electronic Materials, 2020, 49, 5308-5316.	1.0	4
2106	A comprehensive study of phonon thermal transport in 2D IV-VI semiconductors MX (M = Ge, Sn; X = S,) Tj ETQq0 0 0 rgBT /Overlock 10	0.9	6
2107	Facile microwave-assisted hydrothermal synthesis of SnSe: impurity removal and enhanced thermoelectric properties. Journal of Materials Chemistry C, 2020, 8, 10333-10341.	2.7	18
2108	From microstructure evolution to thermoelectric and mechanical properties enhancement of SnSe. Journal of Materials Science and Technology, 2020, 58, 10-15.	5.6	16
2109	Accurate measurement of in-plane thermal conductivity of layered materials without metal film transducer using frequency domain thermoreflectance. Review of Scientific Instruments, 2020, 91, 064903.	0.6	29
2110	2D layered noble metal dichalcogenides (Pt, Pd, Se, S) for electronics and energy applications. Materials Today Advances, 2020, 7, 100076.	2.5	55
2111	Mn absorbed on the surface of the monolayer of GeSe Sheet. , 2020, , .		0
2112	Extreme In-Plane Thermal Conductivity Anisotropy in Titanium Trisulfide Caused by Heat-Carrying Optical Phonons. Nano Letters, 2020, 20, 5221-5227.	4.5	21
2113	Microscopic origin of the extremely low thermal conductivity and outstanding thermoelectric performance of BiSbX₃ (X = S, Se) revealed by first-principles study. Physical Chemistry Chemical Physics, 2020, 22, 15559-15566.	1.3	12
2114	Comparison of Structural, Electrical and Thermoelectric Properties of Vacuum Evaporated SnTe Films of Varied Thickness. Journal of Nanoscience and Nanotechnology, 2020, 20, 3879-3887.	0.9	2
2115	Anisotropic electronâ€“photonâ€“phonon coupling in layered MoS₂. Journal of Physics Condensed Matter, 2020, 32, 415702.	0.7	6
2116	A Peridynamic Computational Scheme for Thermoelectric Fields. Materials, 2020, 13, 2546.	1.3	4
2117	A Layered Tin Bismuth Selenide with Three Different Building Blocks that Account for an Extremely Large Lattice Parameter of 283â€…Ã…. Chemistry - A European Journal, 2020, 26, 10676-10681.	1.7	1

#	Article	IF	Citations
2118	Estimation of the potential performance in p-type SnSe crystals through evaluating weighted mobility and effective mass. Journal of Materiomics, 2020, 6, 671-676.	2.8	38
2119	Twoâ€Dimensional Palladium Diselenide with Strong Inâ€Plane Optical Anisotropy and High Mobility Grown by Chemical Vapor Deposition. Advanced Materials, 2020, 32, e1906238.	11.1	81
2120	Improved Response/Recovery Time and Sensitivity of SnSe Nanosheet Humidity Sensor by LiCl Incorporation. Advanced Electronic Materials, 2020, 6, 1901330.	2.6	14
2121	Applications of Tin Sulfideâ€Based Materials in Lithiumâ€Ion Batteries and Sodiumâ€Ion Batteries. Advanced Functional Materials, 2020, 30, 2001298.	7.8	154
2122	Smart Textileâ€Based Personal Thermal Comfort Systems: Current Status and Potential Solutions. Advanced Materials Technologies, 2020, 5, 1901155.	3.0	82
2123	Sb2Si2Te6: A Robust New Thermoelectric Material. Trends in Chemistry, 2020, 2, 89-91.	4.4	15
2124	Enhanced thermoelectric performance of spark plasma sintered p-type Ca3â^'Y Co4O9+ systems. Journal of Materials Science and Technology, 2020, 55, 212-222.	5.6	13
2125	Wafer-size growth of 2D layered SnSe films for UV-Visible-NIR photodetector arrays with high responsitivity. Nanoscale, 2020, 12, 7358-7365.	2.8	53
2126	Inorganic thermoelectric materials: A review. International Journal of Energy Research, 2020, 44, 6170-6222.	2.2	119
2127	Synchronized enhancement of thermoelectric properties of higher manganese silicide by introducing Fe and Co nanoparticles. Nano Energy, 2020, 72, 104698.	8.2	24
2128	Î±-Ag₂S: A Ductile Thermoelectric Material with High ZT. ACS Omega, 2020, 5, 5796-5804.	1.6	64
2129	Experimental study of a mesoscale combustor-powered thermoelectric generator. Energy Reports, 2020, 6, 507-517.	2.5	8
2130	First principles study of electronic structure and thermoelectric transport in tin selenide and phase separated tin seleniedâ€“copper selenide alloy. Journal of Physics Condensed Matter, 2020, 32, 265501.	0.7	8
2131	The influence of S vacancy on the adsorption of toxic gas molecules on SnS monolayer: A DFT study. Physica E: Low-Dimensional Systems and Nanostructures, 2020, 120, 114054.	1.3	18
2132	Ultralow Thermal Conductivity and Thermoelectric Properties of Rb2Bi8Se13. Chemistry of Materials, 2020, 32, 3561-3569.	3.2	23
2133	Effect of TiO₂ additive on thermoelectric properties of SrTiO₃. Functional Materials Letters, 2020, 13, 2051001.	0.7	4
2134	High Thermoelectric Figure of Merit of Fullâ€Heusler Ba₂AuX (Xâ€‰=â€‰As, Sb, and Bi). Physica Status Solidi - Rapid Research Letters, 2020, 14, 2000084.	1.2	11
2135	Tweaking the Physics of Interfaces between Monolayers of Buckled Cadmium Sulfide for a Superhigh Piezoelectricity, Excitonic Solar Cell Efficiency, and Thermoelectricity. ACS Applied Materials & Interfaces, 2020, 12, 18123-18137.	4.0	44

#	Article	IF	Citations
2136	The crystallization, thermodynamic and thermoelectric properties of vast off-stoichiometric Snâ€“Se crystals. Journal of Materials Chemistry C, 2020, 8, 6422-6434.	2.7	14
2137	Two-Dimensional Square-A₂B (A = Cu, Ag, Au, and B = S, Se): Auxetic Semiconductors with High Carrier Mobilities and Unusually Low Lattice Thermal Conductivities. Journal of Physical Chemistry Letters, 2020, 11, 2925-2933.	2.1	40
2138	Realizing a High ZT of 1.6 in N-Type Mg₃Sb₂-Based Zintl Compounds through Mn and Se Codoping. ACS Applied Materials & Interfaces, 2020, 12, 21799-21807.	4.0	26
2139	Enhancing the thermoelectric performance of Sn_{0.5}Ge_{0.5}Te via doping with Sb/Bi and alloying with Cu₂Te: Optimization of transport properties and thermal conductivities. Dalton Transactions, 2020, 49, 6135-6144.	1.6	5
2140	Enhanced thermoelectric performance in polycrystalline N-type Pr-doped SnSe by hot forging. Acta Materialia, 2020, 190, 1-7.	3.8	35
2141	A synergy of strain loading and laser radiation in determining the high-performing electrical transports in the single Cu-doped SnSe microbelt. Materials Today Physics, 2020, 13, 100198.	2.9	18
2142	Prediction of high carrier mobility for a novel two-dimensional semiconductor of BC₆N: first principles calculations. Journal of Materials Chemistry C, 2020, 8, 5882-5893.	2.7	51
2143	Bond-photon-phonon thermal relaxation in the M(X, X₂) (M = Mo, Re, Ta, Ge, Sn; X = S, Se,) Tj ETQq1 1 0.784314 rgBT /O	1.7	0
2144	Excitons and Electronâ€“Hole Liquid State in 2D Î³â€Phase Groupâ€IV Monochalcogenides. Advanced Functional Materials, 2020, 30, 2000533.	7.8	39
2145	Thermoelectric Penta-Silicene with a High Room-Temperature Figure of Merit. ACS Applied Materials & Interfaces, 2020, 12, 14298-14307.	4.0	71
2146	Modulating electrical transport properties of SnSe crystal to improve the thermoelectric power factor by adjusting growth method. Applied Physics Letters, 2020, 116, .	1.5	5
2147	Thermoelectric applications of chalcogenides. , 2020, , 31-56.		6
2148	Ultrahigh Average ZT Realized in p-Type SnSe Crystalline Thermoelectrics through Producing Extrinsic Vacancies. Journal of the American Chemical Society, 2020, 142, 5901-5909.	6.6	94
2149	Ferromagnetic phase transition and anomalies of thermodynamic characteristics of copper-deficient EuCu2P2 at low temperatures. Journal of Alloys and Compounds, 2020, 844, 156150.	2.8	1
2150	Development of Na0.5CoO2 Thick Film Prepared by Screen-Printing Process. Materials, 2020, 13, 2805.	1.3	2
2151	Enhanced Spin Seebeck Effect in Monolayer Tungsten Diselenide Due to Strong Spin Current Injection at Interface. Advanced Functional Materials, 2020, 30, 2003192.	7.8	22
2152	Enhanced thermoelectric performance of ternary compound Cu3PSe4 by defect engineering. Rare Metals, 2020, 39, 1256-1261.	3.6	20
2153	Fracture of thermoelectric materials: An electrical and thermal strip saturation model. Engineering Fracture Mechanics, 2020, 235, 107186.	2.0	6

#	Article	IF	Citations
2154	Enhancing thermoelectric performance of BiSbSe3 through improving carrier mobility via percolating carrier transports. Journal of Alloys and Compounds, 2020, 836, 155473.	2.8	13
2155	Direct synthesis of p-type bulk BiCuSeO oxyselenides by reactive spark plasma sintering and related thermoelectric properties. Scripta Materialia, 2020, 187, 317-322.	2.6	9
2156	Effects of Preparation Methods on the Thermoelectric Performance of SWCNT/Bi2Te3 Bulk Composites. Materials, 2020, 13, 2636.	1.3	8
2157	Grain size and structure distortion characterization of Î±-MgAgSb thermoelectric material by powder diffraction*. Chinese Physics B, 2020, 29, 106101.	0.7	1
2158	Highly improved thermoelectric performance of BiCuTeO achieved by decreasing the oxygen content. Materials Today Physics, 2020, 15, 100248.	2.9	9
2159	Advanced Thermoelectric Design: From Materials and Structures to Devices. Chemical Reviews, 2020, 120, 7399-7515.	23.0	1,248
2160	Recent Progress in Organic Thermoelectric Materials and Devices. Macromolecular Research, 2020, 28, 531-552.	1.0	74
2161	Substitutional doping of hybrid organicâ€“inorganic perovskite crystals for thermoelectrics. Journal of Materials Chemistry A, 2020, 8, 13594-13599.	5.2	51
2162	Ultralow thermal conductivity and high thermoelectric figure of merit in mixed valence In₅X₅Br (X = S, and Se) compounds. Journal of Materials Chemistry A, 2020, 8, 13812-13819.	5.2	16
2163	Large thermoelectric figure of merit in hexagonal phase of <scp>2D</scp> selenium and tellurium. International Journal of Quantum Chemistry, 2020, 120, e26267.	1.0	19
2164	High thermoelectric performance of rapidly microwave-synthesized Sn_{1â^'Î´}S. Materials Advances, 2020, 1, 845-853.	2.6	8
2165	Transport and Thermoelectric Properties of SnX (X = S or Se) Bilayers and Heterostructures. ACS Applied Energy Materials, 2020, 3, 6946-6955.	2.5	13
2166	Effects of isovalent doping on the thermoelectric properties of environmentally-friendly phosphide Ag6Ge10P12. Japanese Journal of Applied Physics, 2020, 59, 075508.	0.8	3
2167	Thermal conduction around a circular nanoinhomogeneity. International Journal of Heat and Mass Transfer, 2020, 150, 119297.	2.5	8
2168	Anisotropic Phonon Response of Fewâ€Layer PdSe₂ under Uniaxial Strain. Advanced Functional Materials, 2020, 30, 2003215.	7.8	26
2169	Electronic properties of two-dimensional materials. , 2020, , 77-109.		11
2170	Nanoscale defect structures advancing high performance n-type PbSe thermoelectrics. Coordination Chemistry Reviews, 2020, 421, 213437.	9.5	41
2171	Comparative investigation of the thermal transport properties of Janus SnSSe and SnS₂ monolayers. Physical Chemistry Chemical Physics, 2020, 22, 16796-16803.	1.3	19

#	Article	IF	Citations
2172	Data-driven discovery of 3D and 2D thermoelectric materials. Journal of Physics Condensed Matter, 2020, 32, 475501.	0.7	42
2173	Ultralow lattice thermal conductivity and anisotropic thermoelectric performance of AA stacked SnSe bilayer. Applied Surface Science, 2020, 512, 145640.	3.1	37
2174	Off-stoichiometry effect on thermoelectric properties of the new p-type sulfides compounds Cu2CoGeS4. Journal of Alloys and Compounds, 2020, 826, 154240.	2.8	14
2175	Systematic over-estimation of lattice thermal conductivity in materials with electrically-resistive grain boundaries. Energy and Environmental Science, 2020, 13, 1250-1258.	15.6	48
2176	Effect of Co content on [Ca2CoO3â˜Î]0.62[CoO2] thermoelectric properties. Journal of Materials Science: Materials in Electronics, 2020, 31, 5353-5359.	1.1	2
2177	Manipulating the Ge Vacancies and Ge Precipitates through Cr Doping for Realizing the Highâ€Performance GeTe Thermoelectric Material. Small, 2020, 16, e1906921.	5.2	129
2178	Confinement Effect in Thermoelectric Properties of Twoâ€“Dimensional Materials. MRS Advances, 2020, 5, 469-479.	0.5	16
2179	Enhanced Peltier Effect in Wrinkled Graphene Constriction by Nanoâ€Bubble Engineering. Small, 2020, 16, e1907170.	5.2	19
2180	Î±-CsCu₅Se₃: Discovery of a Low-Cost Bulk Selenide with High Thermoelectric Performance. Journal of the American Chemical Society, 2020, 142, 5293-5303.	6.6	46
2181	Thin film thermoelectric elements of pâ€“n tin chalcogenides from chemically deposited SnSâ€“SnSe stacks of cubic crystalline structure. Semiconductor Science and Technology, 2020, 35, 045006.	1.0	5
2182	Lattice dynamics of Pnma Sn(S_{1â€“x}Se_x) solid solutions: energetics, phonon spectra and thermal transport. JPhys Energy, 2020, 2, 025006.	2.3	4
2183	Enhanced Field Emission Properties of Au/SnSe Nano-heterostructure: A Combined Experimental and Theoretical Investigation. Scientific Reports, 2020, 10, 2358.	1.6	10
2184	Emergence of the giant out-of-plane Rashba effect and tunable nanoscale persistent spin helix in ferroelectric SnTe thin films. Applied Physics Letters, 2020, 116, .	1.5	38
2185	Effect of sintering pressure on electrical transport and thermoelectric properties of polycrystalline SnSe. Bulletin of Materials Science, 2020, 43, 1.	0.8	11
2186	Temperature dependence of Raman scattering in single crystal SnSe. Vibrational Spectroscopy, 2020, 107, 103034.	1.2	22
2187	Bipolar Thermoelectrical Transport of SnSe Nanoplate in Low Temperature*. Chinese Physics Letters, 2020, 37, 017301.	1.3	6
2188	Screening Promising Thermoelectric Materials in Binary Chalcogenides through High-Throughput Computations. ACS Applied Materials & Interfaces, 2020, 12, 11852-11864.	4.0	51
2189	Enhanced thermoelectric performance of AgBi3S5 by antimony doping. Rare Metals, 2020, 39, 289-295.	3.6	7

#	Article	IF	Citations
2190	Molecular design strategies for spin-crossover (SCO) metal complexes (Fe(II) and Co(II)) for thermoelectricity. Materials Research Bulletin, 2020, 126, 110828.	2.7	13
2191	Si2Ge: A New VII-Type Clathrate with Ultralow Thermal Conductivity and High Thermoelectric Property. Scientific Reports, 2020, 10, 3068.	1.6	6
2192	Synthesis process and thermoelectric properties of the layered crystal structure SnS2. Journal of Materials Science: Materials in Electronics, 2020, 31, 5425-5433.	1.1	5
2193	Synergetic Evolution of Sacrificial Bonds and Strain-Induced Defects Facilitating Large Deformation of the Bi₂Te₃ Semiconductor. ACS Applied Energy Materials, 2020, 3, 3042-3048.	2.5	12
2194	Effects of Sb Deviation from Its Stoichiometric Ratio on the Micro- and Electronic Structures and Thermoelectric Properties of Cu₁₂Sb₄S₁₃. ACS Applied Materials & Interfaces, 2020, 12, 14145-14153.	4.0	9
2195	Enhancing the Thermoelectric Performance of Polycrystalline SnSe by Decoupling Electrical and Thermal Transport through Carbon Fiber Incorporation. ACS Applied Materials & Interfaces, 2020, 12, 12910-12918.	4.0	22
2196	Defect repair of tin selenide photocathode via in situ selenization: enhanced photoelectrochemical performance and environmental stability. Journal of Materials Chemistry A, 2020, 8, 5342-5349.	5.2	8
2198	Growth of SnSe single crystal via vertical vapor deposition method and characterization of its thermoelectric performance. Materials Research Bulletin, 2020, 126, 110819.	2.7	9
2199	Significant Enhancement in the Seebeck Coefficient and Power Factor of p-Type Poly(3,4-ethylenedioxythiophene):Poly(styrenesulfonate) through the Incorporation of n-Type MXene. ACS Applied Materials & Interfaces, 2020, 12, 13013-13020.	4.0	82
2200	Enhanced performance of SnSe-Graphene hybrid photonic surface plasmon refractive sensor for biosensing applications. Photonics and Nanostructures - Fundamentals and Applications, 2020, 39, 100779.	1.0	23
2201	Graphene-Based Thermoelectrics. ACS Applied Energy Materials, 2020, 3, 2224-2239.	2.5	70
2202	Thickness-dependent thermoelectric properties of evaporated ZnO:Al films assisted by RF atomic source. Journal of Applied Physics, 2020, 127, .	1.1	4
2203	Effects of sintering temperature on thermoelectric properties of Cu_{1.8}S bulk materials. Materials Research Express, 2020, 7, 015923.	0.8	13
2204	Abnormally low thermal conductivity of 2D selenene: An ab initio study. Journal of Applied Physics, 2020, 127, .	1.1	26
2205	Synergistic optimization of thermoelectric performance of Sb doped GeTe with a strained domain and domain boundaries. Journal of Materials Chemistry A, 2020, 8, 5332-5341.	5.2	42
2206	Enhanced thermoelectric properties of pristine CrSi2 synthesized using a facile single-step spark plasma assisted reaction sintering. Materials Science in Semiconductor Processing, 2020, 109, 104917.	1.9	8
2207	Morphology and Texture Engineering Enhancing Thermoelectric Performance of Solvothermal Synthesized Ultralarge SnS Microcrystal. ACS Applied Energy Materials, 2020, 3, 2192-2199.	2.5	23
2208	Layered <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mrow><mml:mi>La</mml:mi><mml:mi>Cu</mml:mi><mml:mi mathvariant="normal">O</mml:mi><mml:mi>Se</mml:mi></mml:mrow></mml:math> : A Promising Anisotropic Thermoelectric Material. Physical Review Applied, 2020, 13, .	1.5	80

#	Article	IF	Citations
2209	Highâ€Performance Thermoelectric SnSe: Aqueous Synthesis, Innovations, and Challenges. Advanced Science, 2020, 7, 1902923.	5.6	156
2210	Using the constant properties model for accurate performance estimation of thermoelectric generator elements. Applied Energy, 2020, 262, 114587.	5.1	31
2211	Excitonic and band parameters in SnSe crystals. Journal of Luminescence, 2020, 221, 117093.	1.5	0
2212	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
2213	Promising and Ecoâ€Friendly Cu₂Xâ€Based Thermoelectric Materials: Progress and Applications. Advanced Materials, 2020, 32, e1905703.	11.1	165
2214	Establishing the Golden Range of Seebeck Coefficient for Maximizing Thermoelectric Performance. Journal of the American Chemical Society, 2020, 142, 2672-2681.	6.6	137
2215	Normal-to-topological insulator martensitic phase transition in group-IV monochalcogenides driven by light. NPG Asia Materials, 2020, 12, .	3.8	18
2216	A Review on Silicide-Based Materials: Thermoelectric and Mechanical Properties. Metals and Materials International, 2021, 27, 2205.	1.8	21
2217	Recent Progress of Two-Dimensional Thermoelectric Materials. Nano-Micro Letters, 2020, 12, 36.	14.4	218
2218	Rational Design of Spinel-Type Cu₄Mn₂Te₄/TMTe (TM = Co, Ni) Composites with Synergistically Manipulated Electrical and Thermal Transport Properties. ACS Applied Energy Materials, 2020, 3, 2096-2102.	2.5	5
2219	Thermal transport of chalcogenides. , 2020, , 339-370.		1
2220	Nearly Identical but Not Isotypic: Influence of Lanthanide Contraction on Cs₂NaLn(PS₄)₂ (Ln = Laâ€“Nd, Sm, and Gdâ€“Ho). Inorganic Chemistry, 2020, 59, 1905-1916.	1.9	15
2221	Scalable and Universal Route for the Deposition of Binary, Ternary, and Quaternary Metal Sulfide Materials from Molecular Precursors. ACS Applied Energy Materials, 2020, 3, 1952-1961.	2.5	30
2222	A dual mode electronic synapse based on layered SnSe films fabricated by pulsed laser deposition. Nanoscale Advances, 2020, 2, 1152-1160.	2.2	8
2223	Intrinsically Low Thermal Conductivity and High Carrier Mobility in Dual Topological Quantum Material, nâ€Type BiTe. Angewandte Chemie, 2020, 132, 4852-4859.	1.6	19
2224	Intrinsically Low Thermal Conductivity and High Carrier Mobility in Dual Topological Quantum Material, nâ€Type BiTe. Angewandte Chemie - International Edition, 2020, 59, 4822-4829.	7.2	45
2225	Interface tuning charge transport and enhanced thermoelectric properties in flower-like SnSe2 hierarchical nanostructures. Applied Surface Science, 2020, 510, 145478.	3.1	13
2226	A Critical Review of Machine Learning of Energy Materials. Advanced Energy Materials, 2020, 10, 1903242.	10.2	319

#	Article	IF	Citations
2227	Toward Accelerated Thermoelectric Materials and Process Discovery. ACS Applied Energy Materials, 2020, 3, 2240-2257.	2.5	75
2228	Cu3ErTe3: a new promising thermoelectric material predicated by high-throughput screening. Materials Today Physics, 2020, 12, 100180.	2.9	20
2229	Achieving high room-temperature thermoelectric performance in cubic AgCuTe. Journal of Materials Chemistry A, 2020, 8, 4790-4799.	5.2	46
2230	Growth of large size SnSe crystal via directional solidification and evaluation of its properties. Journal of Alloys and Compounds, 2020, 824, 153869.	2.8	5
2231	Structuralâ€Phase Catalytic Redox Reactions in Energy and Environmental Applications. Advanced Materials, 2020, 32, e1905739.	11.1	56
2232	Realizing Improved Thermoelectric Performance in BiI₃-Doped Sb₂Te₃(GeTe)₁₇ via Introducing Dual Vacancy Defects. Chemistry of Materials, 2020, 32, 1693-1701.	3.2	36
2233	High Thermoelectric Performance of Co-Doped P-Type Polycrystalline SnSe via Optimizing Electrical Transport Properties. ACS Applied Materials & Interfaces, 2020, 12, 8446-8455.	4.0	31
2234	Enhancing the Thermoelectric Performance of p-Type Mg₃Sb₂ via Codoping of Li and Cd. ACS Applied Materials & Interfaces, 2020, 12, 8359-8365.	4.0	54
2235	Few-Layer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>Î²</mml:mi></mml:math> - <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mrow><mml:mi>Sn</mml:mi><mml:mi>Se</mml:mi></mml:mrow></mml:math> with Strong Visible Light Absorbance and Ultrahigh Carrier Mobility. Physical Review Applied, 2020, 13, .	1.5	8
2236	A Novel Way to Enhance the Thermoelectric Efficiency of Carbon Nanotube through Cobaltoceneâ€decamethyl Cobaltocene Encapsulation. ChemistrySelect, 2020, 5, 1539-1546.	0.7	1
2237	High thermoelectric performance in nano-SiC dispersed Bi1.6Pb0.4Sr2Co2Oy compounds. Journal of Alloys and Compounds, 2020, 825, 154065.	2.8	18
2238	Assessing the limitations of transparent conducting oxides as thermoelectrics. Journal of Materials Chemistry A, 2020, 8, 11948-11957.	5.2	28
2239	Optimization analysis of a segmented thermoelectric generator based on genetic algorithm. Renewable Energy, 2020, 156, 710-718.	4.3	45
2240	The influence of Ca doping in Bi2O2Se: A first-principles investigation. Computational Materials Science, 2020, 179, 109684.	1.4	1
2241	Thermal analysis of direct vapour transport technique grown tin selenide single crystals. Thermochimica Acta, 2020, 689, 178614.	1.2	11
2242	High ZT 2D Thermoelectrics by Design: Strong Interlayer Vibration and Complete Bandâ€Extrema Alignment. Advanced Functional Materials, 2020, 30, 2001200.	7.8	32
2243	Responsive Nanomaterials for Sustainable Applications. Springer Series in Materials Science, 2020, , .	0.4	2
2244	Enhancing thermoelectric properties of monolayer GeSe via strain-engineering: A first principles study. Applied Surface Science, 2020, 521, 146256.	3.1	27

#	Article	IF	Citations
2245	GeTe Thermoelectrics. Joule, 2020, 4, 986-1003.	11.7	215
2246	High-quality textured SnSe thin films for self-powered, rapid-response photothermoelectric application. Nano Energy, 2020, 72, 104742.	8.2	58
2247	Manipulating the intrinsic vacancies for enhanced thermoelectric performance in Eu2ZnSb2 Zintl phase. Nano Energy, 2020, 73, 104771.	8.2	28
2248	Phase Transitions and Phonon Mode Dynamics of Ba(Cu_{1/3}Nb_{2/3})O₃ and Sr(Cu_{1/3}Nb_{2/3})O₃ for Understanding Thermoelectric Response. ACS Applied Energy Materials, 2020, 3, 3939-3945.	2.5	3
2249	Understanding the thermally activated charge transport in NaPb_mSbQ_{m+2} (Q) Tj ETQq0 0 0 rgBT /Overlock 1 carrier scattering. Energy and Environmental Science, 2020, 13, 1509-1518.	15.6	63
2250	Large-scale MoS₂ thin films with a chemically formed holey structure for enhanced Seebeck thermopower and their anisotropic properties. Journal of Materials Chemistry A, 2020, 8, 8669-8677.	5.2	13
2251	Exploring electronic, optoelectronic, and thermoelectric properties of ternary compound MgSrSe2 from first-principles study. AIP Advances, 2020, 10, 045010.	0.6	3
2252	Seeking new, highly effective thermoelectrics. Science, 2020, 367, 1196-1197.	6.0	313
2253	Record thermopower found in an IrMn-based spintronic stack. Nature Communications, 2020, 11, 2023.	5.8	16
2254	Synergistically optimized electrical and thermal properties by introducing electron localization and phonon scattering centers in CuGaTe₂ with enhanced mechanical properties. Journal of Materials Chemistry C, 2020, 8, 7534-7542.	2.7	13
2255	Terahertz emission from in-plane and out-of-plane dipoles in layered SnS2 crystal. Applied Physics Letters, 2020, 116, .	1.5	16
2256	Distinct anisotropy and a high power factor in highly textured TiS₂ ceramics via mechanical exfoliation. Chemical Communications, 2020, 56, 5961-5964.	2.2	9
2257	Spin-orbit coupling effect on the thermopower and power factor of CoSbS. Physical Review B, 2020, 101, .	1.1	6
2258	Elastic thermoelectric sponge for pressure-induced enhancement of power generation. Nano Energy, 2020, 74, 104824.	8.2	17
2259	Thermoelectric properties of two-dimensional magnet CrI₃. Nanotechnology, 2020, 31, 315713.	1.3	12
2260	Halide Perovskites: Thermal Transport and Prospects for Thermoelectricity. Advanced Science, 2020, 7, 1903389.	5.6	129
2261	Study of Structural, Thermoelectric, and Photoelectric Properties of Layered Tin Monochalcogenides SnX (X = S, Se) for Energy Application. ACS Applied Energy Materials, 2020, 3, 4896-4905.	2.5	22
2262	All-Inorganic Halide Perovskites as Potential Thermoelectric Materials: Dynamic Cation off-Centering Induces Ultralow Thermal Conductivity. Journal of the American Chemical Society, 2020, 142, 9553-9563.	6.6	155

#	Article	IF	Citations
2263	Group-IV monochalcogenides GeS, GeSe, SnS, SnSe. , 2020, , 119-151.		7
2264	Co dopant drives surface smooth and improves power factor of evaporated SnSe films. Ceramics International, 2020, 46, 16578-16582.	2.3	10
2265	Energy-Efficient Synthesis and Superior Thermoelectric Performance of Sb-doped Mg2Si0.3Sn0.7 Solid Solutions by Rapid Thermal Explosion. Materials Research Bulletin, 2020, 128, 110885.	2.7	6
2266	Anisotropic thermoelectric figure-of-merit in Mg3Sb2. Materials Today Physics, 2020, 13, 100217.	2.9	36
2267	Ultralow thermal conductivity and negative thermal expansion of CuSCN. Nano Energy, 2020, 73, 104822.	8.2	25
2268	Thermoelectric properties of doped Î²-InSe by Bi: First principle calculations. Physica B: Condensed Matter, 2020, 587, 412105.	1.3	11
2269	Optimizing the thermoelectric performance of p-type Mg3Sb2 by Sn doping. Vacuum, 2020, 177, 109388.	1.6	28
2270	Bi8Se9: Effective Reduction of Bipolar Diffusion via Increasing Band Gap. Crystal Growth and Design, 2020, 20, 3555-3560.	1.4	11
2271	Salt doping to improve thermoelectric power factor of organic nanocomposite thin films. RSC Advances, 2020, 10, 11800-11807.	1.7	14
2272	Rapid synthesis of thermoelectric SnSe thin films by MPCVD. RSC Advances, 2020, 10, 11990-11993.	1.7	17
2273	Electronic structure modulation strategies in high-performance thermoelectrics. APL Materials, 2020, 8, .	2.2	52
2274	Lower temperature of the structural transition, and thermoelectric properties in Sn-substituted GeTe. Materials Today: Proceedings, 2021, 44, 3450-3457.	0.9	5
2275	First-principles study of electron-phonon coupling factor and lattice thermal conductivity of L12 type alloys. Materials Today: Proceedings, 2021, 44, 3445-3449.	0.9	3
2276	Boosting thermoelectric performance of n-type PbS through synergistically integrating In resonant level and Cu dynamic doping. Journal of Physics and Chemistry of Solids, 2021, 148, 109640.	1.9	26
2277	Epitaxial Growth of Main Group Monoelemental 2D Materials. Advanced Functional Materials, 2021, 31, 2006997.	7.8	37
2278	Ultralow Lattice Thermal Conductivity at Room Temperature in Cu 4 TiSe 4. Angewandte Chemie, 2021, 133, 9188-9195.	1.6	2
2279	Ultralow Lattice Thermal Conductivity at Room Temperature in Cu₄TiSe₄. Angewandte Chemie - International Edition, 2021, 60, 9106-9113.	7.2	24
2280	Evidence of Highly Anharmonic Soft Lattice Vibrations in a Zintl Rattler. Angewandte Chemie, 2021, 133, 4305-4311.	1.6	11

#	Article	IF	Citations
2281	Topological Quantum Materials from the Viewpoint of Chemistry. Chemical Reviews, 2021, 121, 2780-2815.	23.0	70
2282	Thermionic and thermoelectric energy conversion. , 2021, , 253-284.		3
2283	Review of experimental approaches for improving zT of thermoelectric materials. Materials Science in Semiconductor Processing, 2021, 121, 105303.	1.9	91
2284	Synergistic optimization of electrical and thermal transport in n-type Bi-doped PbTe by introducing coherent nanophase Cu1.75Te. Journal of Materiomics, 2021, 7, 146-155.	2.8	13
2285	Highly (100)-orientated SnSe thin films deposited by pulsed-laser deposition. Applied Surface Science, 2021, 535, 147694.	3.1	11
2286	Exploring the potential of lead-chalcogenide monolayers for room-temperature thermoelectric applications. Ceramics International, 2021, 47, 3380-3388.	2.3	18
2287	Strain engineering of electronic structure, phonon, and thermoelectric properties of p-type half-Heusler semiconductor. Journal of Alloys and Compounds, 2021, 850, 156615.	2.8	51
2288	Influence of pressure on phase transition, electronic and thermoelectric properties of SnSe. Journal of Alloys and Compounds, 2021, 853, 157362.	2.8	6
2289	Significantly enhanced chemical stability in interface-controlled Cu2+Se-reduced graphene oxide composites and related thermoelectric performances. Journal of the European Ceramic Society, 2021, 41, 459-465.	2.8	13
2290	Theoretically investigating the physical properties of fcc-C32 and mediating its electronic band structure. Materials Chemistry and Physics, 2021, 258, 123853.	2.0	3
2291	The thermoeletric performance of nanoporous SnSe assembled by hollow cage cluster. Applied Surface Science, 2021, 537, 147692.	3.1	2
2292	Construction of a hierarchical multiscale conducting network for enhanced thermoelectric response in organic PEDOT:PSS based nanocomposites. Journal of Materiomics, 2021, 7, 34-39.	2.8	10
2293	Synergistic effect of indium nano-inclusions to enhance interface phonon scattering in polycrystalline SnSe for thermoelectric applications. Journal of Alloys and Compounds, 2021, 856, 157358.	2.8	8
2294	Thermoelectric properties of finite two-dimensional quantum dot arrays with band-like electronic states. Physica E: Low-Dimensional Systems and Nanostructures, 2021, 126, 114406.	1.3	0
2295	Incorporating element doping and quantum dot embedding effects to enhance the thermoelectric properties of higher manganese silicides. Journal of Materiomics, 2021, 7, 377-387.	2.8	7
2296	Recent developments in flexible thermoelectrics: From materials to devices. Renewable and Sustainable Energy Reviews, 2021, 137, 110448.	8.2	84
2297	Band flattening and phonon-defect scattering in cubic SnSeâ€“AgSbTe2 alloy for thermoelectric enhancement. Materials Today Physics, 2021, 16, 100298.	2.9	20
2298	Elucidating the role of lattice thermal conductivity in<scp>Ï€â€phases</scp>of<scp>IVâ€VI</scp>monochalcogenides for highly efficient thermoelectric performance. International Journal of Energy Research, 2021, 45, 6369-6382.	2.2	6

#	Article	IF	Citations
2299	Enhanced thermoelectric performance in Cl-doped BiSbSe3 with optimal carrier concentration and effective mass. Journal of Materials Science and Technology, 2021, 70, 67-72.	5.6	17
2300	Double Charge Polarity Switching in Sbâ€Doped SnSe with Switchable Substitution Sites. Advanced Functional Materials, 2021, 31, 2008092.	7.8	7
2301	Phase controllable synthesis of SnSe and SnSe2 films with tunable photoresponse properties. Applied Surface Science, 2021, 541, 148615.	3.1	31
2302	Low thermal conductivity and good thermoelectric performance in mercury chalcogenides. Computational Materials Science, 2021, 188, 110192.	1.4	0
2303	Preparing bulk Cu-Ni-Mn based thermoelectric alloys and synergistically improving their thermoelectric and mechanical properties using nanotwins and nanoprecipitates. Materials Today Physics, 2021, 17, 100332.	2.9	17
2304	Mechanistic insight of KBiQ₂ (Q = S, Se) using panoramic synthesis towards synthesis-by-design. Chemical Science, 2021, 12, 1378-1391.	3.7	11
2305	Thermodynamic phase diagram and thermoelectric properties of LiMgZ (Zâ€‰=â€‰P, As, Bi): ab initio method study. Philosophical Magazine, 2021, 101, 369-386.	0.7	17
2306	Realizing enhanced thermoelectric properties in Cu2S-alloyed SnSe based composites produced via solution synthesis and sintering. Journal of Materials Science and Technology, 2021, 78, 121-130.	5.6	38
2307	Anisotropic thermal conductivity tensor measurements using beam-offset frequency domain thermoreflectance (BO-FDTR) for materials lacking in-plane symmetry. International Journal of Heat and Mass Transfer, 2021, 164, 120600.	2.5	14
2308	Morphological modulation to improve thermoelectric performances of PEDOT:PSS films by DMSO vapor post-treatment. Synthetic Metals, 2021, 271, 116628.	2.1	18
2309	Formation mechanism and antisite defects of scalable room-temperature aqueous synthesis of SnSe: Effects of the pH value on the reaction yield, mean crystallite size, chemical composition, and carrier concentration. Journal of Alloys and Compounds, 2021, 857, 158250.	2.8	2
2310	The Origin of Quantum Effects in Lowâ€Dimensional Thermoelectric Materials. Advanced Quantum Technologies, 2021, 4, .	1.8	14
2311	Wearable fiber-based thermoelectrics from materials to applications. Nano Energy, 2021, 81, 105684.	8.2	92
2312	Gateâ€Tunable Polar Optical Phonon to Piezoelectric Scattering in Fewâ€Layer Bi₂O₂Se for Highâ€Performance Thermoelectrics. Advanced Materials, 2021, 33, e2004786.	11.1	48
2313	High thermoelectric performance by chemical potential tuning and lattice anharmonicity in GeTe_{1â^'x}I_x compounds. Inorganic Chemistry Frontiers, 2021, 8, 1205-1214.	3.0	4
2314	Interfacial advances yielding high efficiencies for thermoelectric devices. Journal of Materials Chemistry A, 2021, 9, 3209-3230.	5.2	12
2315	Order-disorder transition-induced band nestification in AgBiSe₂â€“CuBiSe₂ solid solutions for superior thermoelectric performance. Journal of Materials Chemistry A, 2021, 9, 4648-4657.	5.2	22
2316	Ultralow thermal conductivity in the quaternary semiconducting chalcogenide Cs₄[Ho₂₆Cd₇Se₄₈] with an unprecedented closed cavity architecture. Inorganic Chemistry Frontiers, 2021, 8, 1049-1055.	3.0	4

#	Article	IF	Citations
2317	Facile preparation of poly(3,4-ethylenedioxythiophene): poly(styrenesulfonate)/Ag2Te nanorod composite films for flexible thermoelectric generator. Journal of Materiomics, 2021, 7, 302-309.	2.8	16
2318	Influences of texture, off-stoichiometry, and phases on thermoelectric properties of Snâ€“Se polycrystals sintered by SPS from millimeter-scale crystal sheets. Journal of Solid State Chemistry, 2021, 293, 121760.	1.4	0
2319	Boosting the thermoelectric performance of p-type polycrystalline SnSe with high doping efficiency via precipitation design. Journal of Materials Chemistry A, 2021, 9, 2991-2998.	5.2	10
2320	Quartic anharmonicity and ultraâ€low lattice thermal conductivity of alkali antimonide compounds M 3 Sb (M = K, Rb and Cs). International Journal of Energy Research, 2021, 45, 6958-6965.	2.2	8
2321	Thermoelectric properties of doped organic semiconductors. , 2021, , 165-197.		4
2322	Recent advances in anisotropic two-dimensional materials and device applications. Nano Research, 2021, 14, 897-919.	5.8	69
2323	Lattice dynamics in kesterite-type Cu2ZnSnS4: Inelastic neutron scattering studies and thermoelectric properties. Journal of Physics and Chemistry of Solids, 2021, 150, 109819.	1.9	5
2324	Low intrinsic thermal conductivity of Spark Plasma Sintered dense KNbO3 and NaNbO3 perovskite ceramics. Thermochimica Acta, 2021, 695, 178807.	1.2	8
2325	Evidence of Highly Anharmonic Soft Lattice Vibrations in a Zintl Rattler. Angewandte Chemie - International Edition, 2021, 60, 4259-4265.	7.2	32
2326	Improvement of electrical characteristics of SnSe/Si heterostructure by integration of Si nanowires. Physica B: Condensed Matter, 2021, 604, 412669.	1.3	4
2327	Strong Valence Band Convergence to Enhance Thermoelectric Performance in PbSe with Two Chemically Independent Controls. Angewandte Chemie, 2021, 133, 272-277.	1.6	7
2328	Strong Valence Band Convergence to Enhance Thermoelectric Performance in PbSe with Two Chemically Independent Controls. Angewandte Chemie - International Edition, 2021, 60, 268-273.	7.2	28
2329	Enhanced thermoelectric performance of tin oxide through antimony doping and introducing pore structures. Journal of Materials Science, 2021, 56, 2360-2371.	1.7	4
2330	Emerging Pyroelectric Nanogenerators to Convert Thermal Energy into Electrical Energy. Small, 2021, 17, e1903469.	5.2	84
2331	Anisotropic Electrical Conductivity of Oxygen-Deficient Tungsten Oxide Films with Epitaxially Stabilized 1D Atomic Defect Tunnels. ACS Applied Materials & Interfaces, 2021, 13, 6864-6869.	4.0	6
2332	Boosting the performance of printed thermoelectric materials by inducing morphological anisotropy. Nanoscale, 2021, 13, 5202-5215.	2.8	7
2333	Review of inorganic thermoelectric materials. , 2021, , 81-145.		1
2334	Dynamic stabilization and heat transport characteristics of monolayer SnSe at finite temperature: A study by phonon quasiparticle approach. Physical Review B, 2021, 103, .	1.1	3

#	Article	IF	Citations
2335	Effects of Synthesis Parameters and Thickness on Thermoelectric Properties of Bi2Te3 Fabricated Using Mechanical Alloying and Spark Plasma Sintering. Journal of Electronic Materials, 2021, 50, 1331-1339.	1.0	14
2336	Tin-selenide as a futuristic material: properties and applications. RSC Advances, 2021, 11, 6477-6503.	1.7	71
2337	The impact of electronâ€“phonon coupling on the figure of merit of Nb₂SiTe₄ and Nb₂GeTe₄ ternary monolayers. Physical Chemistry Chemical Physics, 2021, 23, 15613-15619.	1.3	7
2338	Facile synthesis of copper selenides with different stoichiometric compositions and their thermoelectric performance at a low temperature range. RSC Advances, 2021, 11, 25955-25960.	1.7	13
2339	Investigating charge carrier scattering processes in anisotropic semiconductors through first-principles calculations: the case of p-type SnSe. Physical Chemistry Chemical Physics, 2021, 23, 900-913.	1.3	13
2340	Optimization of thermoelectric transport performance of nickel-doped CuGaTe₂. Wuli Xuebao/Acta Physica Sinica, 2021, 70, 207101.	0.2	1
2341	Complementary effect of co-doping aliovalent elements Bi and Sb in self-compensated SnTe-based thermoelectric materials. Journal of Materials Chemistry C, 2021, 9, 9922-9931.	2.7	33
2342	Modulation of the electronic structure and thermoelectric properties of orthorhombic and cubic SnSe by AgBiSe₂ alloying. Chemical Science, 2021, 12, 13074-13082.	3.7	20
2343	Cation disorder and bond anharmonicity synergistically boosts the thermoelectric performance of p-type AgSbSe₂. CrystEngComm, 2021, 23, 5522-5530.	1.3	15
2344	Synthesis of Advanced Inorganic Materials Through Molecular Precursors. Indian Institute of Metals Series, 2021, , 467-501.	0.2	3
2345	Microscopic mechanism of unusual lattice thermal transport in TlInTe2. Npj Computational Materials, 2021, 7, .	3.5	26
2346	Approximate models for the lattice thermal conductivity of alloy thermoelectrics. Journal of Materials Chemistry C, 2021, 9, 11772-11787.	2.7	12
2347	Phase stability of the tin monochalcogenides SnS and SnSe: a quasi-harmonic lattice-dynamics study. Physical Chemistry Chemical Physics, 2021, 23, 19219-19236.	1.3	14
2348	The Effect of Anchor Group on the Phonon Thermal Conductance of Single Molecule Junctions. Applied Sciences (Switzerland), 2021, 11, 1066.	1.3	10
2349	Advances in half-Heusler alloys for thermoelectric power generation. Materials Advances, 2021, 2, 6246-6266.	2.6	90
2350	Anomalous thermoelectricity at the two-dimensional structural transition of SnSe monolayers. Physical Review B, 2021, 103, .	1.1	18
2351	SnSe, the rising star thermoelectric material: a new paradigm in atomic blocks, building intriguing physical properties. Materials Horizons, 2021, 8, 1847-1865.	6.4	29
2352	Ultralow Thermal Conductivity and Enhanced Figure of Merit for CuSbSe₂ via Cd-Doping. ACS Applied Energy Materials, 2021, 4, 1637-1643.	2.5	16

#	Article	IF	Citations
2353	Energy-efficient routes of fabricating thermoelectric materials. , 2021, , 521-548.		1
2354	Achievements and Prospects of Thermoelectric and Hybrid Energy Harvesters for Wearable Electronic Applications. , 2021, , 3-40.		1
2355	First-principles predictions of low lattice thermal conductivity and high thermoelectric performance of AZnSb (A = Rb, Cs). RSC Advances, 2021, 11, 15486-15496.	1.7	6
2356	Oxide thermoelectric materials. , 2021, , 303-331.		2
2357	Multi length scale porosity as a playground for organic thermoelectric applications. Journal of Materials Chemistry C, 2021, 9, 10173-10192.	2.7	8
2358	Energy Harvesters for Wearable Electronics and Biomedical Devices. Advanced Materials Technologies, 2021, 6, 2000771.	3.0	49
2359	Synergistic manifestation of band and scattering engineering in single aliovalent Sb alloyed anharmonic SnTe alloy in concurrence with rule of parsimony. Materials Advances, 0, , .	2.6	4
2360	Anharmonicity and ultralow thermal conductivity in layered oxychalcogenides BiAgOCh (Ch = S, Se,) Tj ETQq1 1 0.784314 rgBT /Over	2.6	9
2361	Thermoelectric properties of Î± -In2Se3 monolayer. Applied Physics Letters, 2021, 118, .	1.5	36
2362	Controlling phase separation in thermoelectric Pb1â^'xGexTe to minimize thermal conductivity. Journal of Materials Chemistry A, 2021, 9, 12340-12349.	5.2	2
2363	Traditional thermoelectric materials and challenges. , 2021, , 139-161.		0
2364	Application of Entropy Engineering in Thermoelectrics. Wuji Cailiao Xuebao/Journal of Inorganic Materials, 2021, 36, 347.	0.6	11
2366	Growth of MSe semiconductor nanowires on metal substrates through an Ag₂Se-catalyzed solutionâ€“solidâ€“solid mechanism (M = Zn, Cd and Mn). CrystEngComm, 2021, 23, 6899-6908.	1.3	1
2367	Bonding heterogeneity in mixed-anion compounds realizes ultralow lattice thermal conductivity. Journal of Materials Chemistry A, 2021, 9, 22660-22669.	5.2	14
2368	Bridging Structural Inhomogeneity to Functionality: Pair Distribution Function Methods for Functional Materials Development. Advanced Science, 2021, 8, 2003534.	5.6	44
2369	CALPHAD as a powerful technique for design and fabrication of thermoelectric materials. Journal of Materials Chemistry A, 2021, 9, 6634-6649.	5.2	16
2370	NaInX2 (Xâ€‰=â€‰S, Se) layered materials for energy harvesting applications: first-principles insights into optoelectronic and thermoelectric properties. Journal of Materials Science: Materials in Electronics, 2021, 32, 3878-3893.	1.1	9
2371	Enhanced thermoelectric performance of band structure engineered GeSe_{1â^'x}Te_x alloys. Sustainable Energy and Fuels, 2021, 5, 1734-1746.	2.5	20

#	Article	IF	Citations
2372	Novel optimization perspectives for thermoelectric properties based on Rashba spin splitting: a mini review. Nanoscale, 2021, 13, 18032-18043.	2.8	10
2373	Extraordinary thermoelectric performance of NaBaBi with degenerate and highly non-parabolic bands compared to LiBaSb and Bi₂Te₃. Sustainable Energy and Fuels, 2021, 5, 2441-2450.	2.5	3
2374	Solution-Processed Metal Chalcogenide Thermoelectric Thin Films. , 2021, , 59-77.		0
2375	Thermoelectric effect and devices on <scp>IVA</scp> and <scp>VA</scp> Xenes. InformaÄnÃ-MateriÃ¡ly, 2021, 3, 271-292.	8.5	17
2376	High-performance thermoelectrics based on metal selenides. , 2021, , 217-246.		2
2377	Evaluation of Thermoelectric Performance of Bi2Te3 Films as a Function of Temperature Increase Rate during Heat Treatment. Coatings, 2021, 11, 38.	1.2	9
2378	Significant improvement in thermoelectric performance of SnSe/SnS via nano-heterostructures. Physical Chemistry Chemical Physics, 2021, 23, 3794-3801.	1.3	13
2379	Optical properties of two-dimensional materials. , 2021, , 165-206.		0
2380	Universal lower bounds on energy and momentum diffusion in liquids. Physical Review B, 2021, 103, .	1.1	26
2381	Ultralow Thermal Conductivity and High Thermoelectric Performance in AgCuTe_{1â€“x}Se_x through Isoelectronic Substitution. ACS Applied Materials & Interfaces, 2021, 13, 868-877.	4.0	28
2382	Towards a stoichiometric electrodeposition of SnS. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	1.1	3
2383	Spintronics. , 2021, , 305-424.		1
2384	A general strategy for designing two-dimensional high-efficiency layered thermoelectric materials. Energy and Environmental Science, 2021, 14, 4059-4066.	15.6	24
2385	Advances in the applications of thermoelectric materials. , 2021, , 313-337.		0
2386	Ultralow thermal conductivity through the interplay of composition and disorder between thick and thin layers of makovickyite structure. Journal of Materials Chemistry C, 2021, 9, 11207-11215.	2.7	3
2387	Research progress of puckered honeycomb monolayers. Wuli Xuebao/Acta Physica Sinica, 2021, 70, 148101.	0.2	7
2388	Boosting the thermoelectric performance of GeTe by manipulating the phase transition temperature via Sb doping. Journal of Materials Chemistry C, 2021, 9, 6484-6490.	2.7	19
2389	A mixed ion-electron conducting carbon nanotube ionogel to efficiently harvest heat from both a temperature gradient and temperature fluctuation. Journal of Materials Chemistry A, 2021, 9, 13588-13596.	5.2	22

#	Article	IF	Citations
2390	Thermoelectric transport properties of two-dimensional materials <i>X</i>Te₂ (<i>X</i> = Pd, Pt) via first-principles calculations. Wuli Xuebao/Acta Physica Sinica, 2021, 70, 116301.	0.2	2
2391	A material catalogue with glass-like thermal conductivity mediated by crystallographic occupancy for thermoelectric application. Energy and Environmental Science, 2021, 14, 3579-3587.	15.6	37
2392	Advances in thermal conductivity for energy applications: a review. Progress in Energy, 2021, 3, 012002.	4.6	24
2393	Fabrication of High-Performance Flexible Thermoelectric Generators by Using Semiconductor Packaging Technologies. , 2021, , 191-203.		0
2394	Mechanical Property of SnSe Single Crystal Prepared via Vertical Bridgman Method. Wuji Cailiao Xuebao/Journal of Inorganic Materials, 2021, 36, 313.	0.6	0
2396	Strongly reduced lattice thermal conductivity in Sn-doped rare-earth (M) filled skutterudites M_xCo₄Sb_{12â^'y}Sn_y, promoted by Sbâ€“Sn disordering and phase segregation. RSC Advances, 2021, 11, 26421-26431.	1.7	5
2397	Intrinsically ultralow thermal conductive inorganic solids for high thermoelectric performance. Chemical Communications, 2021, 57, 4751-4767.	2.2	45
2398	Wafer-scale single crystals: crystal growth mechanisms, fabrication methods, and functional applications. Journal of Materials Chemistry C, 2021, 9, 7829-7851.	2.7	11
2399	Remarkable thermoelectric property enhancement in Cu₂SnS₃â€“CuCo₂S₄ nanocomposites via 3D modulation doping. Journal of Materials Chemistry A, 2021, 9, 16928-16935.	5.2	18
2400	Improved thermoelectric transport properties of Ge₄Se₃Te through dimensionality reduction. Journal of Materials Chemistry C, 2021, 9, 1804-1813.	2.7	17
2401	Pressure-Induced Enhancement of Thermoelectric Figure of Merit and Structural Phase Transition in TiNiSn. Journal of Physical Chemistry Letters, 2021, 12, 1046-1051.	2.1	12
2402	High thermoelectric efficiency in electrodeposited silver selenide films: from Pourbaix diagram to a flexible thermoelectric module. Sustainable Energy and Fuels, 2021, 5, 4597-4605.	2.5	9
2403	Strategies for Manipulating Phonon Transport in Solids. ACS Nano, 2021, 15, 2182-2196.	7.3	22
2404	High efficiency GeTe-based materials and modules for thermoelectric power generation. Energy and Environmental Science, 2021, 14, 995-1003.	15.6	101
2405	Ca₄Sb₂O and Ca₄Bi₂O: two promising mixed-anion thermoelectrics. Journal of Materials Chemistry A, 2021, 9, 20417-20435.	5.2	22
2406	Quadruple-layer group-IV tellurides: low thermal conductivity and high performance two-dimensional thermoelectric materials. Physical Chemistry Chemical Physics, 2021, 23, 6388-6396.	1.3	17
2407	Outstanding Thermoelectric Performance of MCu3X4 (M = V, Nb, Ta; X = S, Se, Te) with Unaffected Band Degeneracy under Pressure. ACS Applied Energy Materials, 2021, 4, 1942-1953.	2.5	12
2408	A Review on the Processing Technologies for Corrosion Resistant Thermoelectric Oxide Coatings. Coatings, 2021, 11, 284.	1.2	5

#	Article	IF	Citations
2409	Complex Dirac-like Electronic Structure in Atomic Site-Ordered Rh₃In_{3.4}Ge_{3.6}. Chemistry of Materials, 2021, 33, 1218-1227.	3.2	1
2410	Enhanced atomic ordering leads to high thermoelectric performance in AgSbTe ₂. Science, 2021, 371, 722-727.	6.0	306
2411	Incorporation of GTR (generationâ€“transportâ€“recombination) in semiconductor simulations. Journal of Applied Physics, 2021, 129, .	1.1	2
2412	Enhanced thermoelectric performance of hydrothermally synthesized polycrystalline Te-doped SnSe. Chinese Chemical Letters, 2021, 32, 811-815.	4.8	18
2413	Enhanced Power Factor and Figure of Merit of Cu₂ZnSnSe₄-Based Thermoelectric Composites by Ag Alloying. Inorganic Chemistry, 2021, 60, 3452-3459.	1.9	18
2414	Exploring a Superlattice of SnO-PbO: A New Material for Thermoelectric Applications. ACS Applied Energy Materials, 2021, 4, 2081-2090.	2.5	7
2415	As-doped SnSe single crystals: Ambivalent doping and interaction with intrinsic defects. Physical Review B, 2021, 103, .	1.1	7
2416	Directional Design of Materials Based on Multi-Objective Optimization: A Case Study of Two-Dimensional Thermoelectric SnSe. Chinese Physics Letters, 2021, 38, 027301.	1.3	14
2417	Anisotropic elasticity drives negative thermal expansion in monocrystalline SnSe. Physical Review B, 2021, 103, .	1.1	11
2418	Thermoelectric Properties of PbSe Nanocomposites from Solution-Processed Building Blocks. ACS Applied Energy Materials, 2021, 4, 2014-2019.	2.5	16
2419	Atomic mechanism of ionic confinement in the thermoelectric Cu2Se based on a low-cost electric-current method. Cell Reports Physical Science, 2021, 2, 100345.	2.8	12
2420	Improved Thermoelectric Properties of N-Type Mg₃Sb₂ through Cation-Site Doping with Gd or Ho. ACS Applied Materials & Interfaces, 2021, 13, 10964-10971.	4.0	21
2421	PEDOT:PSS-polyethylene oxide composites for stretchable and 3D-Printed thermoelectric devices. Composites Communications, 2021, 23, 100599.	3.3	18
2422	The measurement of anisotropic thermal transport using time-resolved magneto-optical Kerr effect. AIP Advances, 2021, 11, 025024.	0.6	3
2423	High electrochemical energy-storage performance promoted by SnSe nanorods anchored on rGO nanosheets. Journal of Electroanalytical Chemistry, 2021, 883, 115063.	1.9	27
2424	Spectroscopic trace of the Lifshitz transition and multivalley activation in thermoelectric SnSe under high pressure. NPG Asia Materials, 2021, 13, .	3.8	8
2425	Multivalley Band Structure and Phonon-Glass Behavior of TlAgTe. ACS Applied Energy Materials, 2021, 4, 2174-2180.	2.5	5
2426	Thermally insulative thermoelectric argyrodites. Materials Today, 2021, 48, 198-213.	8.3	52

#	Article	IF	Citations
2427	Phonon transport in multiphase nanostructured silicon fabricated by high-pressure torsion. Journal of Applied Physics, 2021, 129, .	1.1	8
2428	Electronic structure and thermoelectric properties of half-Heusler alloys NiTZ. AIP Advances, 2021, 11, .	0.6	26
2429	A brief review of thermal transport in mesoscopic systems from nonequilibrium Greenâ€™s function approach. Frontiers of Physics, 2021, 16, 1.	2.4	14
2430	Optimal band structure for thermoelectrics with realistic scattering and bands. Npj Computational Materials, 2021, 7, .	3.5	25
2431	Abnormal Seebeck effect in doped conducting polymers. Applied Physics Letters, 2021, 118, .	1.5	9
2432	Super deformability and thermoelectricity of bulk Î³-InSe single crystals*. Chinese Physics B, 2021, 30, 078101.	0.7	12
2433	Reversible 3D-2D structural phase transition and giant electronic modulation in nonequilibrium alloy semiconductor, lead-tin-selenide. Science Advances, 2021, 7, .	4.7	6
2434	Metavalent Bonding in GeSe Leads to High Thermoelectric Performance. Angewandte Chemie - International Edition, 2021, 60, 10350-10358.	7.2	58
2435	Composition-segmented BiSbTe thermoelectric generator fabricated by multimaterial 3D printing. Nano Energy, 2021, 81, 105638.	8.2	43
2436	Thermoelectric and magnetic properties of Ce3Cu3â^'xAuxSb4 compounds. Journal of Applied Physics, 2021, 129, 125110.	1.1	2
2437	Thermal conductivity and enhanced thermoelectric performance of SnTe bilayer. Journal of Materials Science, 2021, 56, 10424-10437.	1.7	11
2438	Cu₂Se as Textured Adjuvant for Pb-Doped BiCuSeO Materials Leading to High Thermoelectric Performance. ACS Applied Materials & Interfaces, 2021, 13, 11977-11984.	4.0	14
2439	Lowâ€Symmetry and Nontoxic 2D SiP with Strong Polarizationâ€Sensitivity and Fast Photodetection. Advanced Optical Materials, 2021, 9, 2100198.	3.6	29
2440	Buckled hexagonal carbon selenium nanosheet for thermoelectric performance. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	1.1	1
2441	Preparation and thermoelectric performance of tetrahedrite-like cubic Cu3SbS3 compound. Journal of Materials Science: Materials in Electronics, 2021, 32, 10789-10802.	1.1	8
2442	Anomalous Thermopower and High ZT in GeMnTe ₂ Driven by Spinâ€™s Thermodynamic Entropy. Research, 2021, 2021, 1949070.	2.8	4
2443	From thin films to shaped platelets: effects of temperature gradient on SnS synthesis. Thin Solid Films, 2021, 721, 138507.	0.8	4
2444	Origin of low thermal conductivity in monolayer PbI2. Solid State Communications, 2021, 327, 114223.	0.9	7

#	Article	IF	Citations
2445	Br-Doped n-Type SnSe₂: Single-Crystal Growth and Thermoelectric Properties. ACS Applied Energy Materials, 2021, 4, 2908-2913.	2.5	12
2446	Thermoelectric materials for space applications. CEAS Space Journal, 2021, 13, 325-340.	1.1	13
2447	Evenâ€“odd effect of the thermoelectric information for zigzag phosphorene nanoribbons under an electric field. Physica B: Condensed Matter, 2021, 605, 412774.	1.3	2
2448	Low-Toxic, Earth-Abundant Nanostructured Materials for Thermoelectric Applications. Nanomaterials, 2021, 11, 895.	1.9	29
2449	Semiconducting Chalcogenide Alloys Based on the (Ge, Sn, Pb) (S, Se, Te) Formula with Outstanding Properties: A First-Principles Calculation Study. ACS Omega, 2021, 6, 9433-9441.	1.6	20
2450	Parallel Dislocation Networks and Cottrell Atmospheres Reduce Thermal Conductivity of PbTe Thermoelectrics. Advanced Functional Materials, 2021, 31, 2101214.	7.8	41
2451	Metavalent Bonding in GeSe Leads to High Thermoelectric Performance. Angewandte Chemie, 2021, 133, 10438-10446.	1.6	12
2452	Mechanical alloying boosted SnTe thermoelectrics. Materials Today Physics, 2021, 17, 100340.	2.9	28
2453	Minimizing Thermal Conductivity for Boosting Thermoelectric Properties of Cuâ€“Ni-Based Alloys through All-Scale Hierarchical Architectures. ACS Applied Energy Materials, 2021, 4, 5015-5023.	2.5	9
2454	Relationship Between Tensile Strength and Durability of Oxide Thermoelectric Modules. Journal of Electronic Materials, 2021, 50, 3996-4005.	1.0	3
2455	Realizing ranged performance in SnTe through integrating bands convergence and DOS distortion. Journal of Materiomics, 2022, 8, 184-194.	2.8	17
2456	Feasibility of using chemically exfoliated SnSe nanobelts in constructing flexible SWCNTs-based composite films for high-performance thermoelectric applications. Composites Communications, 2021, 24, 100612.	3.3	35
2457	Inelastic Tunnel Transport and Nanoscale Junction Thermoelectricity with Varying Electrode Topology. Advanced Theory and Simulations, 2021, 4, 2100054.	1.3	5
2458	High-Stability Memristive Devices Based on Pd Conductive Filaments and Its Applications in Neuromorphic Computing. ACS Applied Materials & Interfaces, 2021, 13, 17844-17851.	4.0	24
2459	Prediction of high thermoelectric performance in the low-dimensional metal halide Cs3Cu2I5. Npj Computational Materials, 2021, 7, .	3.5	26
2460	Growth and electrical properties of SnS1-xSex (0â€‰â‰â€‰xâ€‰â‰â€‰1) single crystals grown using the temperature gradient method. Journal of the Korean Physical Society, 2021, 78, 1095-1100.	0.3	6
2461	Synthesis, crystal structure, and thermoelectric properties of ternary phosphide BaCu5P3. Journal of Solid State Chemistry, 2021, 296, 122017.	1.4	4
2462	Ultralow Thermal Conductivity in Diamondoid Structures and High Thermoelectric Performance in (Cu_{1â€“x}Ag_x)(In_{1â€“y}Ga_y)Te₂. Journal of the American Chemical Society, 2021, 143, 5978-5989.	6.6	49

#	Article	IF	Citations
2463	Highly Anisotropic Thermoelectric Properties of Two-Dimensional As₂Te₃. ACS Applied Electronic Materials, 2021, 3, 1610-1620.	2.0	24
2465	Allâ€Scale Hierarchical Structure Contributing to Ultralow Thermal Conductivity of Zintl Phase CaAg_{0.2}Zn_{0.4}Sb. Advanced Science, 2021, 8, 2100109.	5.6	12
2466	Few-layer tin sulfide (SnS): Controlled synthesis, thickness dependent vibrational properties, and ferroelectricity. Nano Today, 2021, 37, 101082.	6.2	34
2467	Understanding the role of defects in influencing the thermoelectric properties of SnSe. Current Applied Physics, 2021, 24, 19-23.	1.1	6
2468	Versatile Vanadium Doping Induces High Thermoelectric Performance in GeTe via Band Alignment and Structural Modulation. Advanced Energy Materials, 2021, 11, 2100544.	10.2	43
2469	Impact of Graphene or Reduced Graphene Oxide on Performance of Thermoelectric Composites. Journal of Carbon Research, 2021, 7, 37.	1.4	8
2470	Electronic properties of co-doped nonstoichiometric germanium telluride. Intermetallics, 2021, 131, 107118.	1.8	2
2471	Effect of vacancy on thermoelectric properties of polycrystalline SnSe. Journal of Materials Science: Materials in Electronics, 2021, 32, 11568-11576.	1.1	2
2472	In Situ Detection of Local Structure Transformation of 2D SnSe Nanosheets through Nanothermomechanical Behavior. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2100121.	1.2	5
2473	The origin of the lattice thermal conductivity enhancement at the ferroelectric phase transition in GeTe. Npj Computational Materials, 2021, 7, .	3.5	42
2474	First-principles calculations to investigate mechanical, optoelectronic and thermoelectric properties of half-Heusler p-type semiconductor BaAgP. Results in Physics, 2021, 23, 104068.	2.0	25
2475	Î±-Cu2Se thermoelectric thin films prepared by copper sputtering into selenium precursor layers. Chemical Engineering Journal, 2021, 410, 128444.	6.6	48
2476	Ab initio thermoelectric calculations of ring-shaped bands in two-dimensional <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Bi</mml:mi><mml:mn>2</mml:mn></mml:n width="0.28em" /><mml:msub><mml:mi>Bi</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi>Se</mml:mi><mml:mn>3</mml:mn><, and <mml:math xmlns:mml="http://www.w3.org/1998/Math/. Physical Review B, 2021, 103, .	1.1	12
2477	Ultralow Thermal Conductivity in Earth-Abundant Cu_{1.6}Bi_{4.8}S₈: Anharmonic Rattling of Interstitial Cu. Chemistry of Materials, 2021, 33, 2993-3001.	3.2	26
2478	Influence of cation size on the thermoelectric behavior of salt-doped organic nanocomposite thin films. Applied Physics Letters, 2021, 118, 151904.	1.5	3
2480	Lattice Strain Leads to High Thermoelectric Performance in Polycrystalline SnSe. ACS Nano, 2021, 15, 8204-8215.	7.3	66
2481	Thermoelectric performance of n-type polycrystalline SnSe with surface depletion by pressureless sintering. Applied Surface Science, 2021, 544, 148834.	3.1	6
2482	Manipulation of Defects for Highâ€Performance Thermoelectric PbTeâ€Based Alloys. Small Structures, 2021, 2, 2100016.	6.9	10

#	Article	IF	Citations
2483	Exceptional Performance Driven by Planar Honeycomb Structure in a New High Temperature Thermoelectric Material BaAgAs. Advanced Functional Materials, 2021, 31, 2100583.	7.8	25
2484	Low thermal conductivity of SrTiO 3 â^'LaTiO 3 and SrTiO 3 â^'SrNbO 3 thermoelectric oxide solid solutions. Journal of the American Ceramic Society, 2021, 104, 4075-4085.	1.9	5
2485	Augmentation of the thermoelectric properties of polycrystalline Tin selenides via formation of SnSe/SnSe$$_2$$ composites. Journal of Materials Science: Materials in Electronics, 2021, 32, 11781-11790.	1.1	5
2486	Efficient calculation of carrier scattering rates from first principles. Nature Communications, 2021, 12, 2222.	5.8	205
2487	Unprecedently low thermal conductivity of unique tellurium nanoribbons. Nano Research, 2021, 14, 4725-4731.	5.8	14
2488	Thermoelectric Performance Enhancement of the Cost-Effective Phosphide ZnCu2P8. ACS Applied Energy Materials, 2021, 4, 4861-4866.	2.5	7
2489	Soft anharmonic phonons and ultralow thermal conductivity in Mg ₃ (Sb, Bi) ₂ thermoelectrics. Science Advances, 2021, 7, .	4.7	52
2490	Fabrication of wooden thermoelectric legs to construct a generator. Green Materials, 0, , 1-8.	1.1	2
2491	Recent progress on antimonene: from theoretical calculation to epitaxial growth. Japanese Journal of Applied Physics, 2021, 60, SE0805.	0.8	13
2492	Realizing high thermoelectric properties in p-type polycrystalline SnSe by inducing DOS distortion. Rare Metals, 2021, 40, 2819-2828.	3.6	33
2493	Enhanced Thermoelectric Performance in Ge_{0.955â^'}_xSb_xTe/FeGe₂ Composites Enabled by Hierarchical Defects. Small, 2021, 17, e2100915.	5.2	8
2494	Realizing a 14% single-leg thermoelectric efficiency in GeTe alloys. Science Advances, 2021, 7, .	4.7	91
2495	High-performance half-Heusler thermoelectric devices through direct bonding technique. Journal of Power Sources, 2021, 493, 229695.	4.0	24
2496	Tuning network topology and vibrational mode localization to achieve ultralow thermal conductivity in amorphous chalcogenides. Nature Communications, 2021, 12, 2817.	5.8	29
2497	Bottom-Up Engineering Strategies for High-Performance Thermoelectric Materials. Nano-Micro Letters, 2021, 13, 119.	14.4	48
2498	Simple linear response model for predicting energy band alignment of two-dimensional vertical heterostructures. Physical Review B, 2021, 103, .	1.1	2
2499	Entropy engineering promotes thermoelectric performance in p-type chalcogenides. Nature Communications, 2021, 12, 3234.	5.8	105
2500	Modulated Anisotropic Growth of 2D SnSe Based on the Difference in a/b/c-Axis Edge Atomic Structures. Chemistry of Materials, 2021, 33, 4231-4239.	3.2	8

#	Article	IF	Citations
2501	Surprisingly high in-plane thermoelectric performance in a-axis-oriented epitaxial SnSe thin films. Materials Today Physics, 2021, 18, 100399.	2.9	17
2502	Thermoelectric Materials for Textile Applications. Molecules, 2021, 26, 3154.	1.7	16
2503	Strong anharmonicity in tin monosulfide evidenced by local distortion, high-energy optical phonons, and anharmonic potential. Physical Review B, 2021, 103, .	1.1	5
2504	Structural Evolution of Highâ€Performance Mnâ€Alloyed Thermoelectric Materials: A Case Study of SnTe. Small, 2021, 17, e2100525.	5.2	21
2505	Identification of vibrational mode symmetry and phonon anharmonicity in SbCrSe3 single crystal using Raman spectroscopy. Science China Materials, 2021, 64, 2824-2834.	3.5	4
2506	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
2507	Alloying Cr2/3Te in AgCrSe2 compound for improving thermoelectrics. Applied Physics Letters, 2021, 118, 193902.	1.5	3
2508	High Thermopower and Optical Properties of A 2 MoS 4 (Aâ€‰=â€‰K, Rb, Cs) and Cs 2 MoSe 4. Physica Status Solidi (B): Basic Research, 2021, 258, 2000587.	0.7	0
2509	Progress in the Research on Promising High-Performance Thermoelectric Materials. Nanobiotechnology Reports, 2021, 16, 268-281.	0.2	3
2510	Î³-GeSe: A New Hexagonal Polymorph from Group IVâ€“VI Monochalcogenides. Nano Letters, 2021, 21, 4305-4313.	4.5	52
2511	Recyclable, Healable, and Stretchable Highâ€Power Thermoelectric Generator. Advanced Energy Materials, 2021, 11, 2100920.	10.2	65
2512	Two-dimensional Haeckelite GeS with high carrier mobility and exotic polarization orders. Physical Review Materials, 2021, 5, .	0.9	7
2513	Realizing high thermoelectric performance in n-type SnSe polycrystals via (Pb, Br) co-doping and multi-nanoprecipitates synergy. Journal of Alloys and Compounds, 2021, 864, 158401.	2.8	19
2514	Structural, electronic, mechanical, and thermoelectric properties of <scp>LiTiCoX</scp> (XÂ=ÂSi, Ge) compounds. International Journal of Energy Research, 2021, 45, 16891-16900.	2.2	19
2515	Two-Dimensional and Three-Dimensional Tetrel-Arsenide Frameworks Templated by Li and Cs Cations. Chemistry of Materials, 2021, 33, 4586-4595.	3.2	2
2516	Optical and thermoelectric properties of Sb2Te3/ZnTe nanostructured composites. Journal of Alloys and Compounds, 2021, 865, 158621.	2.8	5
2517	A review on GeTe thin film-based phase-change materials. Applied Nanoscience (Switzerland), 2023, 13, 95-110.	1.6	15
2518	Contrasting Thermoelectric Transport Properties of n-Type PbS Induced by Adding Ni and Zn. ACS Applied Energy Materials, 2021, 4, 6284-6289.	2.5	5

#	Article	IF	Citations
2519	Cu2Se-based thermoelectric cellular architectures for efficient and durable power generation. Nature Communications, 2021, 12, 3550.	5.8	41
2520	Theoretically comparative study of spectrally selective solar absorbers in concentrated solar-thermoelectric generators working at high temperature. Applied Optics, 2021, 60, 5291.	0.9	2
2521	Device Characteristics and Tight-Binding Based Modeling of a SnSe Field Effect Transistor. Journal of Electronic Materials, 2021, 50, 5412.	1.0	0
2522	Structural features and thermoelectric performance of chalcopyrite Cu(In, Ga)Te2 system by isoelectronic substitution. Current Applied Physics, 2021, 26, 24-34.	1.1	5
2523	A Review on Performance Evaluation of Bi2Te3-based and some other Thermoelectric Nanostructured Materials. Current Nanoscience, 2021, 17, 423-446.	0.7	16
2524	Tuning thermoelectric efficiency of monolayer indium nitride by mechanical strain. Journal of Applied Physics, 2021, 129, 234302.	1.1	3
2525	Magnetic Ni doping induced high power factor of Cu2GeSe3-based bulk materials. Journal of the European Ceramic Society, 2021, 41, 3473-3479.	2.8	11
2526	High-Throughput Computations of Cross-Plane Thermal Conductivity in Multilayer Stanene. International Journal of Heat and Mass Transfer, 2021, 171, 121073.	2.5	10
2527	High thermoelectric figure of merit of porous Si nanowires from 300 to 700â€‰K. Nature Communications, 2021, 12, 3926.	5.8	26
2528	Review of Thermoelectric Generators at Low Operating Temperatures: Working Principles and Materials. Micromachines, 2021, 12, 734.	1.4	29
2529	Thermoelectric properties of armchair phosphorene nanoribbons in the presence of vacancy-induced impurity band. Nanotechnology, 2021, 32, 375704.	1.3	11
2530	Preparation and thermoelectric properties of screen-printable rGO/Sb2Te3/SV4/PEDOT:PSS composite thermoelectric film. Materials Research Express, 2021, 8, 065503.	0.8	5
2531	Automated temperature monitoring and cooling system using Thermoelectric generators and W1209 temperature actuators. , 2021, , .		0
2532	First-Principles Calculations of Heteroanionic Monochalcogenide Alloy Nanosheets with Direction-dependent Properties for Anisotropic Optoelectronics. ACS Applied Nano Materials, 2021, 4, 5912-5920.	2.4	3
2533	Crystal structure prediction in a continuous representative space. Computational Materials Science, 2021, 194, 110436.	1.4	11
2534	N-Type Flexible Films and a Thermoelectric Generator of Single-Walled Carbon Nanotube-Grafted Tin Selenide Nanocrystal Composites. ACS Applied Materials & Interfaces, 2021, 13, 30731-30738.	4.0	18
2535	Polaronic transport and thermoelectricity in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow><mml:mi>Mn</mml:mi></mml:mrow><mml:mn>3</m single crystals. Physical Review B, 2021, 103, .		1.6
2536	Low carrier concentration leads to high in-plane thermoelectric performance in n-type SnS crystals. Science China Materials, 2021, 64, 3051-3058.	3.5	16

#	Article	IF	Citations
2537	Influence of Adatoms Diffusion Between Layers on Structurization of Growing Thin Film during Condensation. Metallofizika I Noveishie Tekhnologii, 2021, 43, 289-304.	0.2	0
2538	Point Defect Engineering: Coâ€Doping Synergy Realizing Superior Performance in nâ€Type Bi₂Te₃ Thermoelectric Materials. Small, 2021, 17, e2101328.	5.2	45
2539	Exceptionally high open circuit thermoelectric figure of merit in two-dimensional tin sulphide. Journal of Physics Condensed Matter, 2021, 33, 315705.	0.7	4
2540	The thermoelectric performance of new structure SnSe studied by quotient graph and deep learning potential. Materials Today Energy, 2021, 20, 100665.	2.5	11
2541	Preparation and thermoelectric properties of ZnTe-doped Bi0.5Sb1.5Te3 single crystal. Materials Letters, 2021, 292, 129619.	1.3	5
2542	Physical Insights on the Lattice Softening Driven Midâ€Temperature Range Thermoelectrics of Ti/Zrâ€Inserted SnTeâ€”An Outlook Beyond the Horizons of Conventional Phonon Scattering and Excavation of Heikesâ€™ Equation for Estimating Carrier Properties. Advanced Energy Materials, 2021, 11, 2101122.	10.2	39
2543	Thermoelectric performances for both p- and n-type GeSe. Royal Society Open Science, 2021, 8, 201980.	1.1	13
2544	An Atomistic Study of the Thermoelectric Signatures of CNT Peapods. Journal of Physical Chemistry C, 2021, 125, 13721-13731.	1.5	5
2545	Facile preparation of flexible all organic PEDOT:PSS/methyl cellulose thermoelectric composite film by a screen printing process. Synthetic Metals, 2021, 276, 116752.	2.1	13
2546	Realizing High Thermoelectric Performance in Earthâ€Abundant Bi₂S₃ Bulk Materials via Halogen Acid Modulation. Advanced Functional Materials, 2021, 31, 2102838.	7.8	27
2547	Investigation of lattice anharmonicity in thermoelectric LaOBiS_{2â€“x}Se_x through GrÃ¼neisen parameter. Applied Physics Express, 2021, 14, 071002.	1.1	9
2548	Bi-doped GaTe single crystals: Growth and thermoelectric properties. Journal of Solid State Chemistry, 2021, 298, 122155.	1.4	3
2550	Accelerated discovery of a large family of quaternary chalcogenides with very low lattice thermal conductivity. Npj Computational Materials, 2021, 7, .	3.5	32
2551	Monolayer square-Ag2X (XÂ=ÂS, Se): Excellent n-type thermoelectric materials with high power factors. Applied Surface Science, 2021, 550, 149230.	3.1	4
2552	Deep texture cartoonization via unsupervised appearance regularization. Computers and Graphics, 2021, 97, 99-107.	1.4	1
2553	Arsenic-Doped SnSe Thin Films Prepared by Pulsed Laser Deposition. ACS Omega, 2021, 6, 17483-17491.	1.6	6
2554	Slowing down the heat in thermoelectrics. InformaÄnÃ-MateriÃ¡ly, 2021, 3, 755-789.	8.5	57
2555	Compositional ratio effect on the physicochemical properties of SnSe thin films. Physica B: Condensed Matter, 2021, 612, 412890.	1.3	9

#	Article	IF	Citations
2556	Micromechanics-based theoretical prediction for thermoelectric properties of anisotropic composites and porous media. International Journal of Thermal Sciences, 2021, 165, 106918.	2.6	5
2557	Synthesis and thermoelectric properties of Bi-doped SnSe thin films*. Chinese Physics B, 2021, 30, 116302.	0.7	7
2558	Thermal diffusivity and its lower bound in orthorhombic SnSe. Physical Review B, 2021, 104, .	1.1	4
2559	Tuning the electronic properties and band alignment of GeSe/phosphorene lateral heterostructure. Computational Materials Science, 2021, 195, 110501.	1.4	4
2560	High-temperature phonon transport properties of SnSe from machine-learning interatomic potential. Journal of Physics Condensed Matter, 2021, 33, 405401.	0.7	24
2561	Hierarchical molecular design of high-performance infrared nonlinear Ag2HgI4 material by defect engineering strategy. Materials Today Physics, 2021, 19, 100432.	2.9	91
2562	Strain-Driven Switchable Thermal Conductivity in Ferroelastic PdSe₂. ACS Applied Materials & Interfaces, 2021, 13, 34724-34731.	4.0	14
2563	An Update Review on N-Type Layered Oxyselenide Thermoelectric Materials. Materials, 2021, 14, 3905.	1.3	12
2564	Solution-Synthesized SnSe_{1â€“x}S_x: Dual-Functional Materials with Enhanced Electrochemical Storage and Thermoelectric Performance. ACS Applied Materials & Interfaces, 2021, 13, 37201-37211.	4.0	10
2565	Promising thermoelectric performance of full-Heusler compound Sr2AuBi. Physics Letters, Section A: General, Atomic and Solid State Physics, 2021, 404, 127413.	0.9	4
2566	Lead-free SnTe-based compounds as advanced thermoelectrics. Materials Today Physics, 2021, 19, 100405.	2.9	38
2567	A FRACTAL MODEL FOR EFFECTIVE THERMAL CONDUCTIVITY OF DUAL-POROSITY MEDIA WITH RANDOMLY DISTRIBUTED TREE-LIKE NETWORKS. Fractals, 2021, 29, 2150146.	1.8	13
2568	Effect of air gap on a novel hybrid photovoltaic/thermal and thermally regenerative electrochemical cycle system. Applied Energy, 2021, 293, 116963.	5.1	11
2569	Defect Engineering in Ultrathin SnSe Nanosheets for High-Performance Optoelectronic Applications. ACS Applied Materials & Interfaces, 2021, 13, 33226-33236.	4.0	35
2570	Electron-phonon coupling and electronic thermoelectric properties of n -type PbTe driven near the soft-mode phase transition via lattice expansion. Physical Review B, 2021, 104, .	1.1	3
2571	Enhancement and manipulation of the thermoelectric properties of n-type argyrodite Ag8SnSe6 with ultralow thermal conductivity by controlling the carrier concentration through Ta doping. AIP Advances, 2021, 11, .	0.6	6
2572	Understanding the anisotropic phonon thermal transport through 2D Î²-siligraphene. Carbon, 2021, 179, 523-530.	5.4	1
2573	Thermoelectric CoGeTe with an Orthorhombic Crystal Symmetry and Balance of the Electrical and Thermal Properties. Inorganic Chemistry, 2021, 60, 12331-12338.	1.9	1

#	Article	IF	Citations
2574	Thermoelectric response as a tool to observe electrocaloric effect in a thin conducting ferroelectric SnSe flake. Physical Review B, 2021, 104, .	1.1	5
2575	New <scp>leadâ€free</scp> double perovskites <scp> X ₂ GeI ₆ </scp> (XÂ=ÂK, Rb,) Tj ETQq1 1 0.784314 of Energy Research, 2021, 45, 19645-19652.	2.2	20
2576	Physical insights on the low lattice thermal conductivity of AgInSe2. Materials Today Physics, 2021, 19, 100428.	2.9	20
2577	Power generation and thermoelectric cooling enabled by momentum and energy multiband alignments. Science, 2021, 373, 556-561.	6.0	270
2578	Understanding the electrical transports of p-type polycrystalline SnSe with effective medium theory. Applied Physics Letters, 2021, 119, .	1.5	8
2579	Optimization of Thermoelectric Properties Based on Rashba Spin Splitting. , 0, , .		0
2580	Ab initio study of effect of Se vacancies on the electronic and thermoelectric properties of the two-dimensional Mo$$Se_2$$ monolayer. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	1.1	6
2581	Effect of Br substitution on thermoelectric transport properties in layered SnSe2. Journal of Alloys and Compounds, 2021, 868, 159161.	2.8	21
2582	First principle study of anisotropic thermoelectric material: Sb2Si2Te6. Journal of Applied Physics, 2021, 130, 025102.	1.1	3
2583	Magnetic and phonon transport properties of two-dimensional room-temperature ferromagnet VSe2. Journal of Materials Science, 2021, 56, 15844-15858.	1.7	11
2584	Photovoltaic and Supercapacitor performance of SnSe nanoparticles prepared through co-precipitation method. Materials Technology, 2022, 37, 1396-1409.	1.5	18
2585	The Verification of Thermoelectric Performance Obtained by High-Throughput Calculations: The Case of GeS2 Monolayer From First-Principles Calculations. Frontiers in Materials, 2021, 8, .	1.2	5
2586	Two-dimensional square-Au₂S monolayer: A promising thermoelectric material with ultralow lattice thermal conductivity and high power factor*. Chinese Physics B, 2021, 30, 077405.	0.7	2
2587	Realizing high thermoelectric performance in hot-pressed polycrystalline AlxSn1-xSe through band engineering tuning. Journal of Materiomics, 2022, 8, 475-488.	2.8	9
2588	Performance Analysis and Optimization of a SnSe-Based Thermoelectric Generator. ACS Applied Energy Materials, 2021, 4, 8211-8219.	2.5	7
2589	Enhanced thermoelectric performance in Ti(Fe, Co, Ni)Sb pseudo-ternary Half-Heusler alloys. Journal of Materiomics, 2021, 7, 756-765.	2.8	29
2590	Pipe-diffusion-enriched dislocations and interfaces in SnSe/PbSe heterostructures. Physical Review Materials, 2021, 5, .	0.9	4
2591	New honeycomb-like M-based (MÂ=ÂC, Si, Ge and Sn) monochalcogenides polymorphs: An extended family as isoelectronic photocatalysts of Group-VA for water splitting. Applied Surface Science, 2021, 554, 149644.	3.1	10

#	Article	IF	Citations
2592	Doping-mediated stabilization of copper vacancies to promote thermoelectric properties of Cu2â^'xS. Nano Energy, 2021, 85, 105991.	8.2	26
2593	Longâ€Range Forces in Rockâ€Saltâ€Type Tellurides and How they Mirror the Underlying Chemical Bonding. Advanced Materials, 2021, 33, e2100163.	11.1	26
2594	Geometry and Greatly Enhanced Thermoelectric Performance of Monolayer MXY Transitionâ€Metal Dichalcogenide: MoSTe as an Example. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2100166.	1.2	5
2595	Spark plasma sintered Bi-Sb-Te alloys derived from ingot scrap: Maximizing thermoelectric performance by tailoring their composition and optimizing sintering time. Nano Energy, 2021, 85, 106040.	8.2	36
2596	Abnormal thermal conduction in argyrodite-type Ag9FeS6-Te materials. Materials Today Physics, 2021, 19, 100410.	2.9	8
2597	Mechanical and dynamic stability of ZnX chalcogenide (X=O, S, Se, Te) monolayers and their electronic, optical, and thermoelectric properties. Journal of Applied Physics, 2021, 130, .	1.1	4
2598	High-Performance Thermoelectric Energy Conversion: A Tale of Atomic Ordering in AgSbTe₂. ACS Energy Letters, 2021, 6, 2825-2837.	8.8	42
2599	Thermoelectric properties of phosphorus-doped van der Waals crystal Ta4SiTe4. Materials Today Physics, 2021, 19, 100417.	2.9	13
2600	The effect of finite-temperature and anharmonic lattice dynamics on the thermal conductivity of ZrS₂ monolayer: self-consistent phonon calculations. Journal of Physics Condensed Matter, 2021, 33, 425405.	0.7	5
2601	Low thermal conductivity and semimetallic behavior in some TiNiSi structure-type compounds. Physical Review Materials, 2021, 5, .	0.9	3
2602	Phase Tuning for Enhancing the Thermoelectric Performance of Solution-Synthesized Cu2â€“xS. ACS Applied Materials & Interfaces, 2021, 13, 39541-39549.	4.0	8
2603	Novel thermoelectric performance of 2D 1T- Se₂Te and SeTe₂ with ultralow lattice thermal conductivity but high carrier mobility. Nanotechnology, 2021, 32, 455401.	1.3	18
2604	High thermoelectric performance enabled by convergence of nested conduction bands in Pb7Bi4Se13 with low thermal conductivity. Nature Communications, 2021, 12, 4793.	5.8	53
2605	High Thermoelectric Performance of ZnO by Coherent Phonon Scattering and Optimized Charge Transport. Advanced Functional Materials, 2021, 31, 2105008.	7.8	19
2606	Regulating Te Vacancies through Dopant Balancing via Excess Ag Enables Rebounding Power Factor and High Thermoelectric Performance in pâ€Type PbTe. Advanced Science, 2021, 8, e2100895.	5.6	18
2607	Investigation of iron(III) ionic structural complexes for seebeck coefficient enhancement using variation of ligand lengths with extended Î-conjugated bipyridyl ligands. Journal of Molecular Structure, 2021, 1237, 130202.	1.8	0
2608	SPR biosensor using SnSe-phosphorene heterostructure. Sensing and Bio-Sensing Research, 2021, 33, 100442.	2.2	19
2609	Polycrystalline SnSe with a thermoelectric figure of merit greater than the single crystal. Nature Materials, 2021, 20, 1378-1384.	13.3	340

#	Article	IF	Citations
2610	High Thermoelectric Performance Achieved in Bulk Selenium with Nanostructural Building Blocks. ACS Applied Electronic Materials, 2021, 3, 3824-3834.	2.0	5
2611	Blocking of radiative thermal conduction in Zn2+-Incorporated high-entropy A2B2O7 fluorite oxides. Ceramics International, 2021, 47, 33544-33553.	2.3	10
2612	Switching ferroelectricity in SnSe across phase transition. Europhysics Letters, 2021, 135, 37002.	0.7	6
2613	Breaking thermoelectric performance limits. Nature Materials, 2021, 20, 1309-1310.	13.3	22
2614	Computational study of mechanical stability and phonon properties of MXenes Mo2ScC2T2 (Tâ€‰=â€‰O and) Tj ETQq0 0 0 rgBT /Ov	1.1	2
2615	Thermoelectric properties of Bi2O2Se single crystals. Applied Physics Letters, 2021, 119, 081901.	1.5	9
2616	Intrinsic anharmonicity and thermal properties of ultralow thermal conductivity <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Ba</mml:mi><mml:mn>8</mml:mn></mml:m Physical Review Materials, 2021, 5, .	3.1	8
2617	Cubic AgMnSbTe₃ Semiconductor with a High Thermoelectric Performance. Journal of the American Chemical Society, 2021, 143, 13990-13998.	6.6	56
2618	Decoupling of the Electrical and Thermal Transports in Strongly Coupled Interlayer Materials. Journal of Physical Chemistry Letters, 2021, 12, 7832-7839.	2.1	8
2619	The effect of graphene structural integrity on the power factor of tin selenide nanocomposite. Journal of Alloys and Compounds, 2021, 872, 159584.	2.8	6
2620	Conducting polymer-based flexible thermoelectric materials and devices: From mechanisms to applications. Progress in Materials Science, 2021, 121, 100840.	16.0	160
2621	Transient Cooling and Heating Effects in Holey Silicon-Based Lateral Thermoelectric Devices for Hot Spot Thermal Management. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2021, 11, 1214-1222.	1.4	5
2622	Thermoelectric Materials: Current Status and Future Challenges. Frontiers in Electronic Materials, 2021, 1, .	1.6	41
2623	Anisotropic thermoelectric and superconducting properties of the bulk misfit-layered (SnSe)1.17(TaSe2) compound. Current Applied Physics, 2021, 28, 1-6.	1.1	2
2624	Effects of van der Waals interactions on the phonon transport properties of tetradymite compounds. New Journal of Physics, 2021, 23, 083002.	1.2	2
2625	Thermoelectric properties of the SnS monolayer: Fully ab initio and accelerated calculations. Journal of Applied Physics, 2021, 130, .	1.1	15
2626	Current Stateâ€ofâ€theâ€Art in the Interface/Surface Modification of Thermoelectric Materials. Advanced Energy Materials, 2021, 11, 2101877.	10.2	37
2627	Thermoelectric Property of n-Type Bismuth-Doped SnSe Film: Influence of Characteristic Film Defect. ACS Applied Energy Materials, 2021, 4, 9563-9571.	2.5	7

#	Article	IF	Citations
2628	AICON2: A program for calculating transport properties quickly and accurately. Computer Physics Communications, 2021, 266, 108027.	3.0	22
2629	Microscopic origin of the high thermoelectric figure of merit of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>n</mml:mi></mml:math> -doped SnSe. Physical Review B, 2021, 104, .	1.1	7
2630	Universal Zigzag Edge Reconstruction of an Î±-Phase Puckered Monolayer and Its Resulting Robust Spatial Charge Separation. Nano Letters, 2021, 21, 8095-8102.	4.5	5
2631	Introducing PbSe quantum dots and manipulating lattice strain contributing to high thermoelectric performance in polycrystalline SnSe. Materials Today Physics, 2021, 21, 100542.	2.9	14
2632	High ZT Value of Pure SnSe Polycrystalline Materials Prepared by High-Energy Ball Milling plus Hot Pressing Sintering. ACS Applied Materials & Interfaces, 2021, 13, 43011-43021.	4.0	5
2633	Oxidation-enhanced thermoelectric efficiency in a two-dimensional phosphorene oxide. Scientific Reports, 2021, 11, 18525.	1.6	3
2634	Realizing high doping efficiency and thermoelectric performance in n-type SnSe polycrystals via bandgap engineering and vacancy compensation. Materials Today Physics, 2021, 20, 100452.	2.9	16
2635	High thermoelectric performance in cubic inorganic halide perovskite material AgCdX3 (XÂ= F and Cl) from first principles. Materials Today Energy, 2021, 21, 100820.	2.5	7
2636	Layers engineering optoelectronic properties of 2D hexagonal GeS materials. Physica E: Low-Dimensional Systems and Nanostructures, 2021, 133, 114791.	1.3	9
2637	Effects of SiC doping on the thermoelectric properties of Bi1.9Ba0.1Sr2Co2Oy ceramics. Ceramics International, 2021, 47, 25045-25050.	2.3	9
2638	Superior room-temperature power factor in GeTe systems via multiple valence band convergence to a narrow energy range. Materials Today Physics, 2021, 20, 100484.	2.9	5
2639	Thermoelectric degrees of freedom determining thermoelectric efficiency. IScience, 2021, 24, 102934.	1.9	15
2640	Analysis of ternary AlGaX₂(XÂ=ÂAs, Sb) compounds for opto-electronic and renewable energy devices using density functional theory. Physica Scripta, 2021, 96, 125706.	1.2	19
2641	Synergistic effects of B-In codoping in zone-melted Bi0.48Sb1.52Te3-based thermoelectric. Chemical Engineering Journal, 2021, 420, 130381.	6.6	20
2642	Two-dimensional Al2I2Se2: A promising anisotropic thermoelectric material. Journal of Alloys and Compounds, 2021, 876, 160191.	2.8	37
2643	Efficient and Anisotropic Second Harmonic Generation in Fewâ€Layer SnS Film. Advanced Optical Materials, 2021, 9, 2101200.	3.6	24
2644	Large contribution of quasi-acoustic shear phonon modes to thermal conductivity in novel monolayer Ga2O3. Journal of Applied Physics, 2021, 130, .	1.1	5
2645	Optimizing thermocoupleâ€™s ZT through design innovation. Scientific Reports, 2021, 11, 19338.	1.6	2

#	Article	IF	Citations
2646	Stable two-dimensional pentagonal tellurene: A high ZT thermoelectric material with a negative Poissonâ€™s ratio. Applied Surface Science, 2021, 559, 149851.	3.1	8
2647	Ultralow Thermal Conductivity, Multiband Electronic Structure and High Thermoelectric Figure of Merit in TlCuSe. Advanced Materials, 2021, 33, e2104908.	11.1	29
2648	Enhancing thermoelectric performance of SrFBiS2â^'Se via band engineering and structural texturing. Journal of Materiomics, 2021, , .	2.8	2
2649	Pulse energy and wavelength-dependent ultrafast dynamics of SnSe2 thin film studied by transient absorption. Journal Physics D: Applied Physics, 2021, 54, 495101.	1.3	2
2650	Optimized Mn and Bi co-doping in SnTe based thermoelectric material: A case of band engineering and density of states tuning. Journal of Materials Science and Technology, 2021, 85, 76-86.	5.6	43
2651	Intrinsic nanostructure induced ultralow thermal conductivity yields enhanced thermoelectric performance in Zintl phase Eu2ZnSb2. Nature Communications, 2021, 12, 5718.	5.8	34
2652	Thermoelectric effect and a thermoelectric generator based on carbon nanostructures: achievements and prospects. Physics-Uspekhi, 2021, 64, 535-557.	0.8	2
2653	Continuous phase transition in thermoelectric Zn4Sb3. Materials Today Energy, 2021, 21, 100787.	2.5	7
2654	Doping engineering: Highly improving hydrogen evolution reaction performance of monolayer SnSe. International Journal of Hydrogen Energy, 2021, 46, 37907-37914.	3.8	7
2655	Thermal transport property of novel two-dimensional nitride phosphorus: An ab initio study. Applied Surface Science, 2021, 559, 149463.	3.1	16
2656	High thermoelectric performance of (Bi 1â€•x Pr x) 2 (Te 0.9 Se 0.1) 3 alloys prepared by highâ€pressure sintering method. International Journal of Applied Ceramic Technology, 2021, 18, 2075.	1.1	0
2657	Defect Engineering in Solution-Processed Polycrystalline SnSe Leads to High Thermoelectric Performance. ACS Nano, 2022, 16, 78-88.	7.3	50
2658	Anisotropic thermoelectric transport properties in polycrystalline SnSe₂ *. Chinese Physics B, 2021, 30, 067101.	0.7	5
2659	BaBi₂O₆: A Promising n-Type Thermoelectric Oxide with the PbSb₂O₆Crystal Structure. Chemistry of Materials, 2021, 33, 7441-7456.	3.2	11
2660	Low thermal conductivity: fundamentals and theoretical aspects in thermoelectric applications. Materials Today Energy, 2021, 21, 100744.	2.5	42
2661	High-performance copper selenide thermoelectric thin films for flexible thermoelectric application. Materials Today Energy, 2021, 21, 100743.	2.5	26
2662	Enhanced thermoelectric performance of BiSe by Sn doping and ball milling. Ceramics International, 2021, 47, 26375-26382.	2.3	10
2663	High and Anomalous Thermal Conductivity in Monolayer MSi₂Z₄ Semiconductors. ACS Applied Materials & Interfaces, 2021, 13, 45907-45915.	4.0	27

#	Article	IF	Citations
2664	Mechanical Properties and Thermal Stability of the High-Thermoelectric-Performance Cu₂Se Compound. ACS Applied Materials & Interfaces, 2021, 13, 45736-45743.	4.0	19
2665	Thermoelectric enhancement in triple-doped strontium titanate with multi-scale microstructure*. Chinese Physics B, 2021, 30, 097204.	0.7	2
2666	Drastic reduction of thermal conductivity in hexagonal AX (AÂ=ÂGa, In & Tl, XÂ=ÂS, Se & Te) monolayers due to alternative atomic configuration. Nano Energy, 2021, 88, 106248.	8.2	19
2667	Effect of exchange-correlation functional type and spin-orbit coupling on thermoelectric properties of ZrTe2. Journal of Solid State Chemistry, 2021, 302, 122414.	1.4	6
2668	Ductile inorganic amorphous/crystalline composite Ag4TeS with phonon-glass electron-crystal transport behavior and excellent stability of high thermoelectric performance on plastic deformation. Acta Materialia, 2021, 218, 117231.	3.8	29
2669	On the microscopic view of the low thermal conductivity of buckling two-dimensional materials from molecular dynamics. Chemical Physics Letters, 2021, 780, 138954.	1.2	0
2670	Study on the performance of a solid-state thermoelectric refrigeration system equipped with ionic wind fans for ultra-quiet operation. International Journal of Refrigeration, 2021, 130, 441-451.	1.8	6
2671	A novel 2D/2D MoSe2/SnSe heterojunction photocatalyst with large carrier transmission channel shows excellent photoelectrochemical performance. Applied Surface Science, 2021, 563, 150311.	3.1	15
2672	Effects of biaxial strain and local constant potential on electronic structure of monolayer SnSe. Physica B: Condensed Matter, 2021, 618, 413177.	1.3	1
2673	Boosting thermoelectrics by alloying Cu2Se in SnTe-CdTe compounds. Journal of Materials Science and Technology, 2021, 89, 45-51.	5.6	9
2674	Performance analysis of a novel hybrid electrical generation system using photovoltaic/thermal and thermally regenerative electrochemical cycle. Energy, 2021, 232, 120998.	4.5	14
2675	Influence of vacancy defects on the thermoelectric performance of SnSe sheet. Physica E: Low-Dimensional Systems and Nanostructures, 2021, 134, 114814.	1.3	10
2676	High-performance PEDOT:PSS-based thermoelectric composites. Composites Communications, 2021, 27, 100877.	3.3	37
2677	Ultralow lattice thermal conductivity and enhanced power generation efficiency realized in Bi2Te2.7Se0.3/Bi2S3 nanocomposites. Acta Materialia, 2021, 218, 117230.	3.8	45
2678	Enhancing the thermoelectric performance of CoSb3-based skutterudite by decoupling the electrical and thermal properties by embedding Cu nanoparticles. Ceramics International, 2021, 47, 28268-28273.	2.3	11
2679	A record high average ZT over a wide temperature range in a Single-layer Sb2Si2Te6. Applied Surface Science, 2021, 567, 150873.	3.1	3
2680	Tin selenide: A promising black-phosphorus-analogue nonlinear optical material and its application as all-optical switcher and all-optical logic gate. Materials Today Physics, 2021, 21, 100500.	2.9	6
2681	Enhancing the thermoelectric performance of SnSe by the introduction of Au nano dots. Journal of Alloys and Compounds, 2021, 882, 160697.	2.8	6

#	Article	IF	Citations
2682	Fast synthesis and improved electrical stability in n-type Ag2Te thermoelectric materials. Journal of Materials Science and Technology, 2021, 91, 241-250.	5.6	28
2683	High temperature Siâ€“Ge alloy towards thermoelectric applications: A comprehensive review. Materials Today Physics, 2021, 21, 100468.	2.9	38
2684	Recent advances in flexible thermoelectric films and devices. Nano Energy, 2021, 89, 106309.	8.2	61
2685	Band convergence and nanostructure modulations lead to high thermoelectric performance in SnPb0.04Te-y% AgSbTe2. Materials Today Physics, 2021, 21, 100505.	2.9	17
2686	Ultralow and glass-like lattice thermal conductivity in crystalline BaAg2Te2: Strong fourth-order anharmonicity and crucial diffusive thermal transport. Materials Today Physics, 2021, 21, 100487.	2.9	17
2687	Optimising the thermoelectric properties of Bi2Sr2Co2Oy using Ag substitution and Nano-SiC doping. Ceramics International, 2021, 47, 30657-30664.	2.3	17
2688	Simulation-based analysis of novel phase change memory structure with separated program and read paths for low program current and endurance enhancement. Materials Science in Semiconductor Processing, 2021, 134, 105987.	1.9	2
2689	Enhanced thermoelectric power factor in in-situ high-vacuum annealed Bi1-xSbx films with compact morphology by magnetron sputtering. Thin Solid Films, 2021, 737, 138948.	0.8	1
2690	Unveiling the origins of low lattice thermal conductivity in 122-phase Zintl compounds. Materials Today Physics, 2021, 21, 100480.	2.9	20
2691	Enhanced electrical and optoelectronic performance of SnS crystal by Se doping. Journal of Alloys and Compounds, 2021, 883, 160941.	2.8	20
2692	Design of thermoelectric battery based on BN aerogels and Bi2Te3 composites. Journal of Alloys and Compounds, 2021, 887, 161280.	2.8	4
2693	Enhancement of thermoelectric performance of argyrodite Ag8GeSe6 via isoelectronic substitution of Sn for Ge. Chemical Engineering Journal, 2021, 426, 131752.	6.6	7
2694	Atomistic manipulation of interfacial properties in HfN2/MoTe2 van der Waals heterostructure via strain and electric field for next generation multifunctional nanodevice and energy conversion. Applied Surface Science, 2021, 568, 150928.	3.1	15
2695	Anharmonicity and low-thermal conductivity in the multi-phase composition of Cu3Bi0.75Sb0.25S3. Materials Letters, 2021, 304, 130399.	1.3	2
2696	Mechanics and strain engineering of bulk and monolayer Bi2O2Se. Journal of the Mechanics and Physics of Solids, 2021, 157, 104626.	2.3	6
2697	Enhanced thermoelectric composite performance from mesoporous carbon additives in a commercial Bi0.5Sb1.5Te3 matrix. Journal of Materials Science and Technology, 2021, 94, 175-182.	5.6	16
2698	Ultra-low lattice thermal conductivity and enhanced thermoelectric performance in Ag2â^'xSe1/3S1/3Te1/3 via anion permutation and cation modulation. Journal of Alloys and Compounds, 2021, 885, 161378.	2.8	6
2699	Study of lead-free double perovskites halides Cs2TiCl6, and Cs2TiBr6 for optoelectronics, and thermoelectric applications. Materials Science in Semiconductor Processing, 2022, 137, 106180.	1.9	32

#	Article	IF	Citations
2700	Type controlled thermoelectric properties in tin selenide fabricated using room-temperature synthesis and hot pressing. Journal of Alloys and Compounds, 2022, 889, 161639.	2.8	1
2701	Decoupling of thermoelectric transport performance of Ag doped and Se alloyed tellurium induced by carrier mobility compensation. Journal of Materials Science and Technology, 2022, 101, 71-79.	5.6	2
2702	Achieving high-performance n-type PbTe via synergistically optimizing effective mass and carrier concentration and suppressing lattice thermal conductivity. Chemical Engineering Journal, 2022, 428, 132601.	6.6	23
2703	In-situ micro-Raman study of SnSe single crystals under atmosphere: Effect of laser power and temperature. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2022, 265, 120375.	2.0	11
2704	Thermoelectricity. , 2022, , 187-247.		2
2705	Artificial neural network enabled accurate geometrical design and optimisation of thermoelectric generator. Applied Energy, 2022, 305, 117800.	5.1	46
2706	Thermal transport by phonons in thermoelectrics. , 2021, , 23-42.		0
2707	Organic thermoelectric materials and devices. , 2021, , 347-365.		0
2708	Photo-enhanced Seebeck effect of a highly conductive thermoelectric material. Journal of Materials Chemistry A, 2021, 9, 16725-16732.	5.2	21
2709	High carrier mobility and ultralow thermal conductivity in the synthetic layered superlattice Sn₄Bi₁₀Se₁₉. Materials Advances, 2021, 2, 2382-2390.	2.6	8
2710	Thermoelectric performance of Dy/Y co-doped SrTiO₃ ceramic composites with submicron A₂Ti₂O₇ (A = Dy, Y) pyrochlore. Journal Physics D: Applied Physics, 2021, 54, 155501.	1.3	5
2711	Two-dimensional (2D) thermoelectric materials. , 2021, , 233-260.		3
2712	Improving the thermoelectric performance of Cu₂SnSe₃ via regulating micro- and electronic structures. Nanoscale, 2021, 13, 4233-4240.	2.8	11
2713	ⁿBu₂Sn(SⁿBu)₂ and ⁿBu₃SnEⁿBu (E = S or Se) â€“ effective single source precursors for the CVD of SnS and SnSe thermoelectric thin films. Materials Advances, 0, , .	2.6	5
2714	First-principles prediction of strain-induced gas-sensing tuning in tin sulfide. Physical Chemistry Chemical Physics, 2021, 23, 18712-18723.	1.3	10
2715	Effect of the polar distortion on the thermoelectric properties of GeTe. European Physical Journal B, 2021, 94, 1.	0.6	5
2716	Thermoelectricity of near-resonant tunnel junctions and their relation to Carnot efficiency. Scientific Reports, 2021, 11, 2031.	1.6	6
2717	Unveiling the Intrinsic Low Thermal Conductivity of BiAgSeS through Entropy Engineering in SHS Kinetic Process. Wuji Cailiao Xuebao/Journal of Inorganic Materials, 2021, 36, 991.	0.6	5

#	Article	IF	Citations
2718	Rationally optimized carrier effective mass and carrier density leads to high average ZT value in n-type PbSe. Journal of Materials Chemistry A, 2021, 9, 23011-23018.	5.2	15
2719	Defect engineering in thermoelectric materials: what have we learned?. Chemical Society Reviews, 2021, 50, 9022-9054.	18.7	201
2720	Boosting Thermoelectric Properties of AgBi₃(Se_yS_{1â€“y})₅ Solid Solution via Entropy Engineering. ACS Applied Materials & Interfaces, 2021, 13, 4185-4191.	4.0	13
2721	Fiber-based thermoelectrics for solid, portable, and wearable electronics. Energy and Environmental Science, 2021, 14, 729-764.	15.6	143
2722	Quasiparticle band structures, spontaneous polarization, and spin-splitting in noncentrosymmetric few-layer and bulk Î³-GeSe. Journal of Materials Chemistry C, 2021, 9, 9683-9691.	2.7	15
2723	Environmentally friendly thermoelectric sulphide Cu₂ZnSnS₄ single crystals achieving a 1.6 dimensionless figure of merit ZT. Journal of Materials Chemistry A, 2021, 9, 15595-15604.	5.2	17
2724	Oxidation-induced thermopower inversion in nanocrystalline SnSe thin film. Scientific Reports, 2021, 11, 1637.	1.6	7
2725	Effects of Bi doping on thermoelectric properties of Cu2Se materials by high-pressure synthesis. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	1.1	9
2726	Prediction of Process Parameters of Ultrasonically Welded PC/ABS Material Using Soft-Computing Techniques. IEEE Access, 2021, 9, 33849-33859.	2.6	4
2727	The ultralow thermal conductivity and tunable thermoelectric properties of surfactant-free SnSe nanocrystals. RSC Advances, 2021, 11, 28072-28080.	1.7	4
2728	Structural, elemental and optical properties of Fe doped (SnSe)1-xSbx bulk alloys. Materials Today: Proceedings, 2021, 47, 677-681.	0.9	2
2729	Unusual interlayer coupling in layered Cu-based ternary chalcogenides CuMCh₂ (M = Sb,) Tj ETQq1 1 0.784314 rgBT /Ov	2.8	7
2730	Effect of iodine doping on the electrical, thermal and mechanical properties of SnSe for thermoelectric applications. Physical Chemistry Chemical Physics, 2021, 23, 4230-4239.	1.3	13
2731	Enhancing the thermoelectric efficiency in p-type Mg₃Sb₂via Mg site co-doping. Sustainable Energy and Fuels, 2021, 5, 4104-4114.	2.5	19
2732	Realizing high thermoelectric performance in SnSe₂<i>via</i> intercalating Cu. Wuli Xuebao/Acta Physica Sinica, 2021, 70, 208401.	0.2	3
2733	Up-scalable emerging energy conversion technologies enabled by 2D materials: from miniature power harvesters towards grid-connected energy systems. Energy and Environmental Science, 2021, 14, 3352-3392.	15.6	26
2734	Thermoelectric properties and prospects of <i>MAX</i> phases and derived <i>MX</i>ene phases. Wuli Xuebao/Acta Physica Sinica, 2021, 70, 206501.	0.2	0
2735	Band degeneracy enhanced thermoelectric performance in layered oxyselenides by first-principles calculations. Npj Computational Materials, 2021, 7, .	3.5	62

#	Article	IF	Citations
2736	Î³-GeSe nanotubes: a one-dimensional semiconductor with high carrier mobility potential for photocatalytic water splitting. Journal of Materials Chemistry C, 2021, 9, 15158-15164.	2.7	15
2738	Facile Synthesis of 2D Tin Selenide for Nearâ€•and Midâ€Infrared Ultrafast Photonics Applications. Advanced Optical Materials, 2020, 8, 1902183.	3.6	23
2739	Inâ€Plane Isotropic/Anisotropic 2D van der Waals Heterostructures for Future Devices. Small, 2019, 15, e1804733.	5.2	46
2740	Tin Sulfide: A New Nontoxic Earth-Abundant Thermoelectric Material. , 2019, , 47-61.		1
2741	Ionic thermoelectric materials for waste heat harvesting. Colloid and Polymer Science, 2021, 299, 465-479.	1.0	16
2742	Enhanced Thermoelectric Performance of Polythiophene/Carbon Nanotube-Based Composites. Journal of Electronic Materials, 2020, 49, 2371-2380.	1.0	7
2743	Polymer-derived Si3N4 nanofelts for flexible, high temperature, lightweight and easy-manufacturable super-thermal insulators. Applied Materials Today, 2020, 20, 100648.	2.3	21
2744	One-step rapid synthesis of Cu2Se with enhanced thermoelectric properties. Journal of Alloys and Compounds, 2019, 786, 557-564.	2.8	40
2745	Se/Sn flux ratio effects on epitaxial SnSe thin films; crystallinity & domain rotation. Journal of Alloys and Compounds, 2020, 840, 155680.	2.8	10
2746	Investigation of thermal radiation effects on thermoelectric module performance by an improved model. Journal of Power Sources, 2020, 477, 228713.	4.0	1
2747	Phase structure, phase transition and thermoelectric properties of pristine and Br doped SnSe2. Journal of Solid State Chemistry, 2020, 289, 121468.	1.4	15
2748	Simultaneously improving thermopower and electrical conductivity via polar organic solvents aided layer-by-layer technique. Materials Science in Semiconductor Processing, 2020, 108, 104909.	1.9	3
2749	Cu2Se thermoelectrics: property, methodology, and device. Nano Today, 2020, 35, 100938.	6.2	119
2750	Thermal expansion induced reduction of lattice thermal conductivity in light crystals. Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 3514-3518.	0.9	9
2751	Experimental and Ab Initio Study of Cu₂SnS₃ (CTS) Polymorphs for Thermoelectric Applications. Journal of Physical Chemistry C, 2021, 125, 178-188.	1.5	21
2752	Tin Selenide Molecular Precursor for the Solution Processing of Thermoelectric Materials and Devices. ACS Applied Materials & Interfaces, 2020, 12, 27104-27111.	4.0	15
2753	Phonon Dynamics and Transport Properties of Copper Thiocyanate and Copper Selenocyanate Pseudohalides. ACS Omega, 2020, 5, 28637-28642.	1.6	10
2754	Chalcogenide Thermoelectric Materials. RSC Energy and Environment Series, 2016, , 27-59.	0.2	8

#	Article	IF	Citations
2755	Quest for New Thermoelectric Materials. , 2018, , 240-292.		1
2756	Graphene and 2D Materials Based Membranes for Water Treatment. RSC Nanoscience and Nanotechnology, 2018, , 211-224.	0.2	1
2757	Thermoelectric Materials by Organic Intercalation. RSC Energy and Environment Series, 2019, , 246-273.	0.2	1
2758	Lone-pair self-containment in pyritohedron-shaped closed cavities: optimized hydrothermal synthesis, structure, magnetism and lattice thermal conductivity of Co₁₅F₂(TeO₃)₁₄. Dalton Transactions, 2020, 49, 2234-2243.	1.6	9
2759	Computation-guided design of high-performance flexible thermoelectric modules for sunlight-to-electricity conversion. Energy and Environmental Science, 2020, 13, 3480-3488.	15.6	57
2760	Significant enhancement of the thermoelectric properties of CaP₃ through reducing the dimensionality. Materials Advances, 2020, 1, 3322-3332.	2.6	14
2761	The unique evolution of transport bands and thermoelectric performance enhancement by extending low-symmetry phase to high temperature in tin selenide. Journal of Materials Chemistry C, 2020, 8, 9345-9351.	2.7	8
2762	Synthesis, structure, and transport properties of Ba8Cu16â€‰â€“â€‰xAuxP30 clathrate solid solution. Journal of Applied Physics, 2020, 127, 055104.	1.1	3
2763	Anisotropic electronic transport properties of Ag-oped Mg3Sb2 crystal prepared by directional solidification. Journal of Applied Physics, 2020, 127, .	1.1	6
2764	Variation of thermoelectric figure-of-merits for Mg2Si x Sn1-x solid solutions. Journal Physics D: Applied Physics, 2021, 54, 055504.	1.3	6
2765	Widely tunable direct bandgap of two-dimensional GeSe. Journal of Physics Condensed Matter, 2020, 33, 115301.	0.7	3
2766	Novel concepts and nanostructured materials for thermionic-based solar and thermal energy converters. Nanotechnology, 2021, 32, 024002.	1.3	14
2767	Strong lattice anharmonicity exhibited by the high-energy optical phonons in thermoelectric material. New Journal of Physics, 2020, 22, 083083.	1.2	11
2768	Low lattice thermal conductivity and high figure of merit in p-type doped K₃IO*. Chinese Physics B, 2020, 29, 126501.	0.7	7
2769	Effect of nanoinclusions on the lattice thermal conductivity of SnSe. Nano Express, 2020, 1, 030035.	1.2	4
2770	Origin of a Simultaneous Suppression of Thermal Conductivity and Increase of Electrical Conductivity and Seebeck Coefficient in Disordered Cubic Cu ₂ ZnSnS ₄. First-principles study on thermoelectric transport properties of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">C</mml:mi><mml:msub><mml:mi mathvariant="normal">a</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mi mathvariant="normal">S</mml:mi><mml:msub><mml:mi mathvariant="normal">i</mml:mi><mml:mn>4</mml:mn></mml:msub></mml:mrow></mml:math>. Physic	1.5	17
2772		0.9	6
2773	Ab initio design of new cobalt-based half-Heusler materials for thermoelectric applications. Physical Review Materials, 2017, 1, .	0.9	29

#	Article	IF	Citations
2774	Tin monochalcogenide heterostructures as mechanically rigid infrared band gap semiconductors. Physical Review Materials, 2018, 2, .	0.9	12
2775	Widely tunable band gap in a multivalley semiconductor SnSe by potassium doping. Physical Review Materials, 2018, 2, .	0.9	17
2776	Critical mode and band-gap-controlled bipolar thermoelectric properties of SnSe. Physical Review Materials, 2018, 2, .	0.9	13
2777	Anisotropic model with truncated linear dispersion for lattice and interfacial thermal transport in layered materials. Physical Review Materials, 2018, 2, .	0.9	13
2778	New two-dimensional phase of tin chalcogenides: Candidates for high-performance thermoelectric materials. Physical Review Materials, 2019, 3, .	0.9	44
2779	Remarkable thermoelectric performance in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>BaPdS</mml:mi><mml:mn>2</mml:mn></mml:msub><m via pudding-mold band structure, band convergence, and ultralow lattice thermal conductivity. Physical Review Materials, 2019, 3, .	0.9	11
2780	Development of semiconducting ScN. Physical Review Materials, 2019, 3, .	0.9	50
2781	Ternary mixed-anion semiconductors with tunable band gaps from machine-learning and crystal structure prediction. Physical Review Materials, 2019, 3, .	0.9	16
2782	High thermoelectric performance in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>BaAgYTe</mml:mi><mml:mn>3</mml:mn></mml:msub><m via low lattice thermal conductivity induced by bonding heterogeneity. Physical Review Materials, 2019, 3, .	0.9	30
2783	Thermoelectric properties of semimetals. Physical Review Materials, 2019, 3, .	0.9	47
2784	Superconductivity in tin selenide under pressure. Physical Review Materials, 2019, 3, .	0.9	10
2785	Lattice instabilities and phonon thermal transport in TlBr. Physical Review Materials, 2020, 4, .	0.9	8
2786	Manifestation of the thermoelectric properties in Ge-based halide perovskites. Physical Review Materials, 2020, 4, .	0.9	14
2787	Expression and interactions of stereochemically active lone pairs and their relation to structural distortions and thermal conductivity. IUCrJ, 2020, 7, 480-489.	1.0	18
2788	Design and Simulation of Smart Flooring Tiles using Two-Phased Triangular Bimorph Piezoelectric Energy Harvester. , 2020, , .		3
2789	Kerr Nonlinearity in germanium selenide nanoflakes measured by Z-scan and spatial self-phase modulation techniques and its applications in all-optical information conversion. Optics Express, 2019, 27, 20857.	1.7	40
2790	Revealing of the ultrafast third-order nonlinear optical response and enabled photonic application in two-dimensional tin sulfide. Photonics Research, 2019, 7, 494.	3.4	159
2791	Decreasing the Effective Thermal Conductivity in Glass Supported Thermoelectric Layers. PLoS ONE, 2016, 11, e0151708.	1.1	10

#	Article	IF	Citations
2792	Enhancement of Thermoelectric Properties of Layered Chalcogenide Materials. Reviews on Advanced Materials Science, 2020, 59, 371-378.	1.4	26
2793	Harvesting of the infrared energy: Direct collection, up-conversion, and storage. Semiconductor Physics, Quantum Electronics and Optoelectronics, 2019, 22, 457-469.	0.3	6
2794	Macroscopic thermoelectric efficiency of carbon nanocomposites. Nanosystems: Physics, Chemistry, Mathematics, 2016, , 919-924.	0.2	5
2795	Highly Textured N-Type SnSe Polycrystals with Enhanced Thermoelectric Performance. Research, 2019, 2019, 9253132.	2.8	39
2796	Recent advances and future prospects in energy harvesting technologies. Japanese Journal of Applied Physics, 2020, 59, 110201.	0.8	68
2797	Fabrication of Silicide-based Thermoelectric Nanocomposites: A Review. Journal of the Korean Ceramic Society, 2019, 56, 435-442.	1.1	5
2798	Dimethyltin(<scp>iv</scp>)-4,6-dimethyl-2-pyridylselenolate: an efficient single source precursor for the preparation of SnSe nanosheets as anode material for lithium ion batteries. Dalton Transactions, 2021, 50, 15730-15742.	1.6	12
2799	Structural study and evaluation of thermoelectric properties of single-phase isocubanite (CuFe₂S₃) synthesized via an ultra-fast efficient microwave radiation technique. Sustainable Energy and Fuels, 2021, 5, 5804-5813.	2.5	6
2800	Structural Dynamics and Thermal Transport in Bismuth Chalcogenide Alloys. Chemistry of Materials, 2021, 33, 8404-8417.	3.2	10
2801	Simultaneous Optimization of Power Factor and Thermal Conductivity towards High-Performance InSb-Based Thermoelectric Materials. Chinese Physics Letters, 2021, 38, 097201.	1.3	0
2802	Strategy of Extra Zr Doping on the Enhancement of Thermoelectric Performance for TiZr_xNiSn Synthesized by a Modified Solid-State Reaction. ACS Applied Materials & Interfaces, 2021, 13, 48801-48809.	4.0	12
2803	Ink-jet printing and drop-casting deposition of 2H-phase SnSe₂ and WSe₂ nanoflake assemblies for thermoelectric applications. Nanotechnology, 2022, 33, 035302.	1.3	2
2804	The Importance of Surface Adsorbates in Solutionâ€Processed Thermoelectric Materials: The Case of SnSe. Advanced Materials, 2021, 33, e2106858.	11.1	19
2805	Improved Thermoelectric Performance of Monolayer HfS₂ by Strain Engineering. ACS Omega, 2021, 6, 29820-29829.	1.6	22
2806	High Thermoelectric Properties in the Sodalite Compounds BaGe8As14 and AGe7As15 (A = Rb, Cs). Chemistry of Materials, 0, , .	3.2	0
2807	Enhancement of Thermoelectric Properties in n-type NbCoSn Half-Heusler Compounds via Ta Alloying. ACS Applied Energy Materials, 2021, 4, 12458-12465.	2.5	11
2808	Evaluation on the Thermoelectric Cooling Ability of PbTe. ACS Applied Energy Materials, 2021, 4, 11813-11818.	2.5	5
2810	Phonon anharmonicity in bulk ZrTe₅. Journal of Raman Spectroscopy, 2022, 53, 104-112.	1.2	5

#	Article	IF	Citations
2811	Metal Halide Perovskites as Emerging Thermoelectric Materials. ACS Energy Letters, 2021, 6, 3882-3905.	8.8	40
2812	Role of Dopants in Organic and Halide Perovskite Energy Conversion Devices. Chemistry of Materials, 2021, 33, 8147-8172.	3.2	23
2813	High-performance thermoelectrics and challenges for practical devices. Nature Materials, 2022, 21, 503-513.	13.3	248
2814	A Flash Vacuumâ€Induced Reaction in Preparing High Performance Thermoelectric Cu₂S. Advanced Functional Materials, 2022, 32, 2107284.	7.8	11
2815	Thermoelectric Transport in a Correlated Electron System on the Surface of Liquid Helium. Physical Review Letters, 2021, 127, 186801.	2.9	0
2816	First-principles study of the structural, optoelectronic and thermophysical properties of the Ï€-SnSe for thermoelectric applications. Beilstein Journal of Nanotechnology, 2021, 12, 1101-1114.	1.5	4
2817	New Progress on Fiber-Based Thermoelectric Materials: Performance, Device Structures and Applications. Materials, 2021, 14, 6306.	1.3	11
2818	High Anisotropic Optoelectronics in Two Dimensional Layered PbSnX₂ (X = S/Se). Journal of Physical Chemistry Letters, 2021, 12, 10574-10580.	2.1	5
2819	Enhanced thermoelectric performance of polycrystalline SnSe by compositing with layered Ti3C2. Journal of Materials Science: Materials in Electronics, 2021, 32, 28192-28203.	1.1	1
2820	Colloidal Two-Dimensional Metal Chalcogenides: Realization and Application of the Structural Anisotropy. Accounts of Chemical Research, 2021, 54, 3792-3803.	7.6	15
2821	Temperatureâ€induced phase transition in Cu4TiSe4. European Journal of Inorganic Chemistry, 0, , .	1.0	3
2822	Lattice Thermal Transport in the Homogeneous Cageâ€Like Compounds Cu₃VSe₄ and Cu₃NbSe₄: Interplay between Phononâ€Phase Space, Anharmonicity, and Atomic Mass. ChemPhysChem, 2021, 22, 2579-2584.	1.0	3
2823	Enhanced Thermoelectric Performance Achieved in SnTe via the Synergy of Valence Band Regulation and Fermi Level Modulation. ACS Applied Materials & Interfaces, 2021, 13, 50037-50045.	4.0	18
2824	Single-Crystalline SnSe2 Nanosheets with Enhanced Lithium Storage Properties. Energy & Fuels, 0, , .	2.5	7
2825	Enhancement of monolayer HfSe2 thermoelectric performance by strain engineering: A DFT calculation. Chemical Physics Letters, 2021, 784, 139109.	1.2	10
2826	Large Anharmonicity and Low Lattice Thermal Conductivity of Thermoelectric Sn(SbTe₂)₂. Physica Status Solidi - Rapid Research Letters, 2022, 16, 2100482.	1.2	2
2827	Synergistic optimization of photothermoelectric performance of a perovskite/graphene composite. Ceramics International, 2022, 48, 4366-4370.	2.3	5
2828	Inspecting the electronic structure and thermoelectric power factor of novel p-type half-Heuslers. Scientific Reports, 2021, 11, 20756.	1.6	43

#	Article	IF	Citations
2829	Essential Considerations for Reporting Thermoelectric Properties. ACS Energy Letters, 2021, 6, 3715-3718.	8.8	9
2830	High Thermoelectric Performance through Crystal Symmetry Enhancement in Triply Doped Diamondoid Compound Cu₂SnSe₃. Advanced Energy Materials, 2021, 11, 2100661.	10.2	39
2831	Solid-State Heat Convertors. , 2016, , 3781-3798.		0
2832	Solid-State Heat Convertors. , 2016, , 1-19.		0
2833	Formation of Nanosize Structures of Adsorbate in Processes of Condensation of a Gas Phase with Due Regard for Temperature Effects. Metallofizika I Noveishie Tekhnologii, 2016, 38, 205-227.	0.2	0
2834	Polymer-Derived Ceramics: A Novel Inorganic Thermoelectric Material System. , 2019, , 229-252.		0
2835	Carbon Based Thermoelectric Materials. RSC Energy and Environment Series, 2019, , 133-169.	0.2	0
2836	Recent progress in polarization-sensitive photodetectors based on low-dimensional semiconductors. Wuli Xuebao/Acta Physica Sinica, 2019, 68, 163201.	0.2	11
2837	Thermoelectric Oxide Materials for Energy Conversion. Inorganic Materials Series, 2019, , 188-245.	0.5	0
2838	Chapter 5. Properties and Applications of Layered Thermoelectric Materials. RSC Smart Materials, 2019, , 129-164.	0.1	0
2839	DETERMINATION OF THE QUASI BINARY SECTIONS IN THE TERNARY RECIPROCAL SYSTEM Tl2Se+SnTeâ†"Tl2Te+SnSe. Scientific Bulletin of the Uzhhorod University Series Â«ChemistryÂ», 2019, 41, 43-48.	0.0	0
2841	Boltzmann Transport Method for Electronic Transport in Complex Bandstructure Materials. SpringerBriefs in Physics, 2020, , 9-35.	0.2	0
2842	Topology Optimization of Multimaterial Thermoelectric Structures. Journal of Mechanical Design, Transactions of the ASME, 2021, 143, .	1.7	5
2843	Thickness-dependent thermoelectric transporting properties of few-layered SnSe. Journal of Alloys and Compounds, 2022, 894, 162542.	2.8	12
2844	Optimization of the Intrinsic Electrical and Thermal Transport Properties of Sb₂Si₂Te₆ via Tensile Strain: A First-Principles Study. ACS Applied Energy Materials, 2021, 4, 12285-12289.	2.5	3
2845	Electronic structure, optical and thermoelectric properties of Ge2SeS monolayer via first-principles study. Physica E: Low-Dimensional Systems and Nanostructures, 2022, 136, 115022.	1.3	15
2846	Optoelectronic properties of thermally coated tin selenide thin films for photovoltaics. International Journal of Energy Research, 2022, 46, 3725-3731.	2.2	0
2847	Effect of Powder ALD Interface Modification on the Thermoelectric Performance of Bismuth. Advanced Materials Technologies, 2022, 7, 2100953.	3.0	20

#	Article	IF	Citations
2848	Electrodeposition of Tin Selenide from Oxalate-Based Aqueous Solution. Journal of the Electrochemical Society, 2020, 167, 162502.	1.3	2
2849	Research Advances of Typical Two Dimensional Layered Thermoelectric Materials. Research and Application of Materials Science, 2020, 2, .	0.2	1
2850	Thermoelectric properties of MoC monolayers from first-principles calculations. AIP Advances, 2020, 10, .	0.6	3
2852	Significant Improvement in Thermoelectric Performance of AgInSe₂-Based Composites through In Situ Formation of Ag₂Se. ACS Applied Energy Materials, 2020, 3, 12468-12474.	2.5	7
2853	Realizing enhanced thermoelectric properties in Cu2GeSe3 via a synergistic effect of In and Ag dual-doping. Journal of the European Ceramic Society, 2022, 42, 169-174.	2.8	4
2854	Low lattice thermal conductivity and its role in the remarkable thermoelectric performance of newly predicted SiS2 and SiSe2 monolayers. Computational Materials Science, 2022, 201, 110931.	1.4	12
2855	The room-temperature thermoelectric property of PbTe enhanced by mean-free-path filtering. Journal of Alloys and Compounds, 2022, 893, 162296.	2.8	5
2856	Lattice thermal conductivity of half-Heuslers with density functional theory and machine learning: Enhancing predictivity by active sampling with principal component analysis. Computational Materials Science, 2022, 202, 110938.	1.4	17
2857	Tunable optoelectronic properties of two-dimensional PbSe by strain: First-principles study. Computational Materials Science, 2022, 202, 110957.	1.4	7
2858	The thermoelectric properties of Î±-XP (X = Sb and Bi) monolayers from first-principles calculations. Physical Chemistry Chemical Physics, 2021, 23, 24598-24606.	1.3	8
2859	Promising thermoelectric candidate based on a CaAs₃ monolayer: A first principles study. Physical Chemistry Chemical Physics, 2021, 23, 24039-24046.	1.3	2
2860	Effect of In As Sb substitute on thermoelectric properties of Yb filled CoSb3 skutterudite. AIP Conference Proceedings, 2020, , .	0.3	1
2861	Structural, electronic and thermoelectric properties of two-dimensional GeSe bilayer. AIP Conference Proceedings, 2020, , .	0.3	0
2862	Thermo-Responsive Nanomaterials for Thermoelectric Generation. Springer Series in Materials Science, 2020, , 269-293.	0.4	1
2863	Temperature Trapping Theory: Energy-Free Thermostat. , 2020, , 107-117.		0
2864	Thermoelectric Fibers. Progress in Optical Science and Photonics, 2020, , 175-197.	0.3	0
2865	Cation vacancy related crystal structure and bandgap and their effects on the thermoelectric performance of Cu-ternary systems Cu_{3+Î´}In₅Te₉ (Î´ = 0â€“0.175). Physical Chemistry Chemical Physics, 2020, 22, 7004-7011.	1.3	0
2866	Growth and Thermoelectric Properties of Cl Doped SnSe Single Crystal. Material Sciences, 2020, 10, 877-884.	0.0	0

#	Article	IF	Citations
2867	The Family of Two-dimensional Transition Metal Chalcogenides Materials. RSC Smart Materials, 2020, , 226-240.	0.1	0
2868	Approximate Analytical Solution to the Temperature Field in Annular Thermoelectric Generator Made of Temperature- Dependent Material. IEEE Transactions on Electron Devices, 2021, 68, 6386-6392.	1.6	2
2869	Flexible n-Type Abundant Chalcopyrite/PEDOT:PSS/Graphene Hybrid Film for Thermoelectric Device Utilizing Low-Grade Heat. ACS Applied Materials & Interfaces, 2021, 13, 51245-51254.	4.0	24
2870	Electrostatic interaction determines thermal conductivity anisotropy of Bi2O2Se. Cell Reports Physical Science, 2021, 2, 100624.	2.8	8
2871	Realizing Enhanced Thermoelectric Performance and Hardness in Icosahedral Cu₅FeS_{4â^'}_xSe_x with Highâ€Density Twin Boundaries. Small, 2022, 18, e2104592.	5.2	15
2872	Ultralow lattice thermal conductivity and high thermoelectric performance of penta-Sb2C monolayer: A first principles study. Journal of Applied Physics, 2021, 130, 185104.	1.1	7
2873	Thermal transport in organic semiconductors. Journal of Applied Physics, 2021, 130, .	1.1	18
2874	Achieving Ultralow Lattice Thermal Conductivity and High Thermoelectric Performance in GeTe Alloys via Introducing Cu₂Te Nanocrystals and Resonant Level Doping. ACS Nano, 2021, 15, 19345-19356.	7.3	37
2875	The challenge of tuning the ratio of lattice/total thermal conductivity toward conversion efficiency vs power density. Applied Physics Letters, 2021, 119, .	1.5	9
2876	The Highâ€Pressure Processed Cu₂S: Phase Intergrowth with Strained Lamella Leading to an Improved Thermoelectric Performance. Advanced Electronic Materials, 2022, 8, 2100835.	2.6	5
2877	Pressure and doping effects on the structural stability of thermoelectric BaAg₂Te₂. Journal of Physics Condensed Matter, 2022, 34, 065401.	0.7	0
2878	Effect of Point Defects on Electronic Structure of Monolayer GeS. Nanomaterials, 2021, 11, 2960.	1.9	2
2879	SnSex (xÂ=Â1, 2) nanoparticles encapsulated in carbon nanospheres with reversible electrochemical behaviors for lithium-ion half/full cells. Chemical Engineering Journal, 2022, 431, 133463.	6.6	12
2880	Ultrahigh Power Factor and Ultralow Thermal Conductivity at Room Temperature in PbSe/SnSe Superlattice: Role of Quantumâ€Well Effect. Small, 2022, 18, e2104916.	5.2	10
2881	The Quest for High-Efficiency Thermoelectric Generators for Extracting Electricity from Waste Heat. Jom, 2021, 73, 4070-4084.	0.9	2
2882	Tuning the carrier type and density of monolayer tin selenide via organic molecular doping. Journal of Physics Condensed Matter, 2022, 34, 085001.	0.7	1
2883	Thermal conductivity of two-dimensional group IV-element thermocrystals. Case Studies in Thermal Engineering, 2021, 28, 101626.	2.8	0
2884	High figure of merit in an ac driven graphene nanoribbon. Journal of Physics: Conference Series, 2020, 1579, 012005.	0.3	1

#	Article	IF	Citations
2885	Momentum Dependent Band Renormalization and Surface Aging Effect on a Zone Center Electron Pocket in NaSn₂As₂ Revealed by Angle-Resolved Photoemission Spectroscopy. Journal of the Physical Society of Japan, 2020, 89, 114707.	0.7	1
2886	Probing the martensite transition and thermoelectric properties of Co_xTaZ (Z = Si, Ge, Sn) Tj ETQq1 1 0.784314 rgBT /Ov 045402.	0.7	5
2887	Thermoelectric properties of orthorhombic silicon allotrope Si (oP32) from first-principles calculations*. Chinese Physics B, 2020, 29, 118401.	0.7	1
2888	Strong interlayer coupling in two-dimensional PbSe with high thermoelectric performance. Journal of Physics Condensed Matter, 2021, 33, 325701.	0.7	4
2889	Strain-induced enhancement in the electronic and thermal transport properties of the tin sulphide bilayer. Physical Chemistry Chemical Physics, 2021, 24, 211-221.	1.3	2
2890	Identifying resonant dopants in BaCu2S2 for thermoelectric applications: A density functional theory based study. Solid State Communications, 2022, 342, 114592.	0.9	0
2891	Entropy engineering induced exceptional thermoelectric and mechanical performances in Cu2-Ag Te1-2S Se. Acta Materialia, 2022, 224, 117512.	3.8	36
2892	Effect of pressure on structural and elastic properties of SnSe: First-principles calculations. Solid State Communications, 2022, 342, 114596.	0.9	0
2893	Synergistically Enhanced Thermoelectric Performance of Cu₂SnSe₃-Based Composites via Ag Doping Balance. ACS Applied Materials & Interfaces, 2021, 13, 55178-55187.	4.0	9
2894	First-principle predictions of the electric and thermal transport performance on high-temperature thermoelectric semiconductor MnTe2. Journal of Alloys and Compounds, 2022, 898, 162813.	2.8	3
2895	Synthesis of Cu2 â€“ nSe via Autowave Combustion of an Elemental Powder Mixture. Inorganic Materials, 2021, 57, 1124-1134.	0.2	1
2896	Review of the thermoelectric properties of layered oxides and chalcogenides. Journal Physics D: Applied Physics, 2022, 55, 143001.	1.3	11
2897	Limits of thermoelectric performance with a bounded transport distribution. Physical Review B, 2021, 104, .	1.1	6
2898	Constructed Ge Quantum Dots and Sn Precipitate SiGeSn Hybrid Film with High Thermoelectric Performance at Low Temperature Region. Advanced Energy Materials, 2022, 12, .	10.2	22
2899	Photoinduced anisotropic lattice dynamic response and domain formation in thermoelectric SnSe. Npj Quantum Materials, 2021, 6, .	1.8	6
2900	Onset of anharmonicity and thermal conductivity in SnSe. Physical Review B, 2021, 104, .	1.1	5
2901	Room temperature ferromagnetism and dielectric properties of cobalt doped Tin Selenide for spintronic applications. Physica B: Condensed Matter, 2022, 627, 413534.	1.3	3
2902	Enhanced performance of SnSe/PEDOT: PSS composite films by MWCNTs for flexible thermoelectric power generator. Journal of Alloys and Compounds, 2022, 898, 162844.	2.8	12

#	Article	IF	Citations
2903	Achieving synergistic performance through highly compacted microcrystalline rods induced in Mo doped GeTe based compounds. Materials Today Physics, 2022, 22, 100571.	2.9	3
2904	Dimensionality reduction made high-performance mid-infrared nonlinear halide crystal. Materials Today Physics, 2021, 21, 100569.	2.9	44
2905	Synergistically Optimizing Electrical and Thermal Transport Properties of ZrCoSb through Ru Doping. ACS Applied Energy Materials, 2021, 4, 13997-14003.	2.5	9
2906	Strategies for boosting thermoelectric performance of PbSe: A review. Chemical Engineering Journal, 2022, 431, 133699.	6.6	38
2907	Honeycomb-like puckered PbSe with wide bandgap as promising thermoelectric material: a first-principles prediction. Materials Today Energy, 2022, 23, 100914.	2.5	11
2908	Electronic properties, stability, and lattice thermal conductivity of bulk Janus 3R-PtXY (X, Y=S, Se, Te) transition-metal dichalcogenide. European Physical Journal B, 2021, 94, 1.	0.6	5
2909	Efficient Calculation of the Lattice Thermal Conductivity by Atomistic Simulations with Ab Initio Accuracy. Advanced Theory and Simulations, 2022, 5, .	1.3	14
2910	Simultaneous enhancements of thermopower and electrical conductivity in quasi-one-dimensional Î±-YbAlB4 single crystal. Applied Physics Letters, 2021, 119, 223905.	1.5	4
2911	Synthesis and Characterization of Al- and SnO2-Doped ZnO Thermoelectric Thin Films. Materials, 2021, 14, 6929.	1.3	6
2912	Direct observation of one-dimensional disordered diffusion channel in a chain-like thermoelectric with ultralow thermal conductivity. Nature Communications, 2021, 12, 6709.	5.8	21
2913	An Overview of the Strategies for Tin Selenide Advancement in Thermoelectric Application. Micromachines, 2021, 12, 1463.	1.4	7
2914	Impressive Thermoelectric Figure of Merit in Two-Dimensional Tetragonal Pnictogens: a Combined First-Principles and Machine-Learning Approach. ACS Applied Materials & Interfaces, 2021, 13, 59092-59103.	4.0	24
2915	Improving electrical and thermal properties synchronously via introducing CsPbBr3 QDs into higher manganese silicides. Journal of Materials Science and Technology, 2022, 111, 279-286.	5.6	3
2916	Achieving Highâ€Performance Ge_{0.92}Bi_{0.08}Te Thermoelectrics via LaB₆â€Alloyingâ€Induced Band Engineering and Multiâ€Scale Structure Manipulation. Small, 2022, 18, e2105923.	5.2	5
2917	Defect Engineering Boosted Ultrahigh Thermoelectric Power Conversion Efficiency in Polycrystalline SnSe. ACS Applied Materials & Interfaces, 2021, 13, 58701-58711.	4.0	14
2918	Metal phosphide CuP₂ as a promising thermoelectric material: an insight from a first-principles study. New Journal of Chemistry, 2021, 45, 21569-21576.	1.4	7
2919	Quasi-1D electronic transport and isotropic phonon transport in the Zintl Ca5In2Sb6. Materials Today Physics, 2022, 22, 100597.	2.9	3
2920	Exceptionally low thermal conductivity realized in the chalcopyrite CuFeS2 via atomic-level lattice engineering. Nano Energy, 2022, 94, 106941.	8.2	19

#	Article	IF	Citations
2921	Enhanced thermoelectric performance in Sbâ€“Br codoped Bi₂Se₃ with complex electronic structure and chemical bond softening. RSC Advances, 2022, 12, 1653-1662.	1.7	10
2922	Routes to High-Carrier-Density Doping in Thermoelectric SnSe. Journal of Physical Chemistry C, 0, , .	1.5	9
2923	Comparative Study of Thermoelectric Properties of Sb₂Si₂Te₆ and Bi₂Si₂Te₆. ACS Applied Materials & Interfaces, 2022, 14, 1270-1279.	4.0	15
2924	Selectively tuning ionic thermopower in all-solid-state flexible polymer composites for thermal sensing. Nature Communications, 2022, 13, 221.	5.8	56
2925	Direct visualization of polaron formation in the thermoelectric SnSe. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	23
2926	A highly sensitive surface plasmon resonance biosensor using SnSe allotrope and heterostructure of BlueP/MoS2 for cancerous cell detection. Optik, 2022, 252, 168506.	1.4	27
2927	Vibrational and electronic structures of tin selenide nanowires confined inside carbon nanotubes. Synthetic Metals, 2022, 284, 116968.	2.1	9
2928	Non-monotonic thickness dependent and anisotropic in-plane thermal transport in layered titanium trisulphide. Materials Today Nano, 2022, 17, 100165.	2.3	5
2929	First-principle investigation on the thermoelectric properties of XCoGe (X = V, Nb, and Ta) half-Heusler compounds. Materials Science in Semiconductor Processing, 2022, 140, 106387.	1.9	9
2930	Synthesis and characterization of new multinary selenides Sn4In5Sb9Se25 and Sn6.13Pb1.87In5.00Sb10.12Bi2.88Se35. Journal of Solid State Chemistry, 2022, 307, 122855.	1.4	3
2931	Double charge polarity switching in Sb-doped SnSe for enhanced thermo-electric power generation. Journal of Alloys and Compounds, 2022, 899, 163269.	2.8	4
2932	Layered thermoelectric materials: Structure, bonding, and performance mechanisms. Applied Physics Reviews, 2022, 9, .	5.5	25
2933	Enhancing thermoelectric performance of K-doped polycrystalline SnSe through band engineering tuning and hydrogen reduction. Journal of Alloys and Compounds, 2022, 899, 163358.	2.8	8
2934	Prediction of a high-ZT and strong anisotropic thermoelectric material: Monolayer InClSe. Physica E: Low-Dimensional Systems and Nanostructures, 2022, 138, 115108.	1.3	5
2935	Abnormal enhancement of thermal conductivity by planar structure: A comparative study of graphene-like materials. International Journal of Thermal Sciences, 2022, 174, 107438.	2.6	14
2936	In situ transmission electron microscopy and artificial intelligence enabled data analytics for energy materials. Journal of Energy Chemistry, 2022, 68, 454-493.	7.1	33
2937	Anisotropies of angle-resolved polarized Raman response identifying in low miller index Î²-Ga2O3 single crystal. Applied Surface Science, 2022, 581, 152426.	3.1	7
2938	Influence of SnSe on Thermoelectric Properties of TiS ₂- xSnSe Composites via Liquid-Assisted Shear Exfoliation. SSRN Electronic Journal, 0, , .	0.4	0

#	Article	IF	Citations
2939	Quantum Physical Interpretation of Thermoelectric Properties of Ruthenate Pyrochlores. , 0, , .		0
2940	Achieving Enhanced Thermoelectric Performance in Multiphase Materials. Accounts of Materials Research, 2022, 3, 237-246.	5.9	23
2941	Printed Thermoelectrics. Advanced Materials, 2022, 34, e2108183.	11.1	33
2942	Direct evaluation of hole effective mass of SnSâ€“SnSe solid solutions with ARPES measurement. Physical Chemistry Chemical Physics, 2022, 24, 634-638.	1.3	6
2943	Solution phase growth and analysis of super-thin zigzag tin selenide nanoribbons. Nanotechnology, 2022, 33, 135601.	1.3	3
2944	Characteristic Electronic Structure of SnO Film Showing High Hole Mobility. Journal of Physical Chemistry Letters, 2022, 13, 1165-1171.	2.1	5
2945	Room Temperature Cmcm Phase of CaxSn1â€“xSe for Thermoelectric Energy Conversion. ACS Applied Energy Materials, 0, , .	2.5	2
2946	Investigating the key role of carrier transport mechanism in SnSe nanoflakes with enhanced thermoelectric power factor. Nanotechnology, 2022, 33, 155710.	1.3	1
2947	Characterizing thermoelectric stability. Dalton Transactions, 2022, , .	1.6	6
2948	A sketch for super-thermoelectric materials. Materials Today Physics, 2022, 22, 100618.	2.9	8
2949	Thermoelectric Coolers: Progress, Challenges, and Opportunities. Small Methods, 2022, 6, e2101235.	4.6	77
2950	Effect of Substrate Temperature on Structural, Electrical and Optical Properties of Sprayed Tin Selenide Thin Films Applicable for Photovoltaic Measurements. ECS Journal of Solid State Science and Technology, 2022, 11, 024002.	0.9	2
2951	Nanostructured Bulk Thermoelectric Materials for Energy Harvesting. NIMS Monographs, 2022, , 199-231.	0.1	5
2952	Doping Achieves High Thermoelectric Performance in SnS: A First-Principles Study. ACS Applied Materials & Interfaces, 2022, 14, 6916-6925.	4.0	8
2953	Photoinduced Ultrafast Symmetry Switch in SnSe. Journal of Physical Chemistry Letters, 2022, 13, 442-448.	2.1	8
2954	Tuning valley degeneracy with band inversion. Journal of Materials Chemistry A, 2022, 10, 1588-1595.	5.2	6
2955	Tuning and Sensitivity Improvement of Bi-Metallic Structure-Based Surface Plasmon Resonance Biosensor with 2-D $$upvarepsilon$$-Tin Selenide Nanosheets. Plasmonics, 2022, 17, 1001-1008.	1.8	18
2956	Atomic layer deposition of SnSe_x thin films using Sn(N(CH₃)₂)₄ and Se(Si(CH₃)₃)₂ with NH₃ co-injection. Dalton Transactions, 2022, 51, 594-601.	1.6	2

#	Article	IF	Citations
2957	SnSe:Kx intermetallic thermoelectric polycrystals prepared by arc-melting. Journal of Materials Science, 2022, 57, 8489-8503.	1.7	6
2958	Enhanced covalency and nanostructured-phonon scattering lead to high thermoelectric performance in n-type PbS. Materials Today Energy, 2022, 24, 100953.	2.5	5
2959	PEDOT-based thermoelectric nanocomposites/hybrids. , 2022, , 165-198.		0
2960	Flexible and wearable thermoelectric PEDOT devices. , 2022, , 219-256.		1
2961	Realizing High Thermoelectric Performance in p-Type SnSe Crystals via Convergence of Multiple Electronic Valence Bands. ACS Applied Materials & Interfaces, 2022, 14, 4091-4099.	4.0	8
2962	Effects of electron-phonon intervalley scattering and band non-parabolicity on electron transport properties of high-temperature phase SnSe: An ab initio study. Materials Today Physics, 2022, 22, 100592.	2.9	5
2963	Improved Thermal Stability and Enhanced Thermoelectric Properties of p-Type BaCu2Te2 by Doping of Cl. ACS Applied Materials & Interfaces, 2022, 14, 5634-5642.	4.0	10
2964	Enhanced Thermoelectric Properties of Cu₂SnSe₃-Based Materials with Ag₂Se Addition. ACS Applied Materials & Interfaces, 2022, 14, 5439-5446.	4.0	7
2965	Low-cost pentagonal NiX₂ (X = S, Se, and Te) monolayers with strong anisotropy as potential thermoelectric materials. Physical Chemistry Chemical Physics, 2022, 24, 5185-5198.	1.3	17
2966	Thermoelectric properties of polycrystalline (SnSe)1-x(AgSnSe2)x/2 alloys. Progress in Natural Science: Materials International, 2022, 32, 242-247.	1.8	7
2967	Key properties of inorganic thermoelectric materialsâ€”tables (version 1). JPhys Energy, 2022, 4, 022002.	2.3	51
2968	Microwave-assisted synthesis of thermoelectric oxides and chalcogenides. Ceramics International, 2022, , .	2.3	3
2969	Outstanding CdSe with Multiple Functions Leads to High Performance of GeTe Thermoelectrics. Advanced Energy Materials, 2022, 12, .	10.2	21
2970	Next-generation thermoelectric cooling modules based on high-performance Mg3(Bi,Sb)2 material. Joule, 2022, 6, 193-204.	11.7	89
2971	Enhancement of the thermoelectric properties of Zintl phase SrMg₂Bi₂ by Na-doping. Dalton Transactions, 2022, 51, 1513-1520.	1.6	3
2972	Sintering pressure as a â€œscalpelâ€• to enhance the thermoelectric performance of MgAgSb. Journal of Materials Chemistry C, 2022, 10, 3360-3367.	2.7	5
2973	Thermoelectric Performance of the 2D Bi₂Si₂Te₆ Semiconductor. Journal of the American Chemical Society, 2022, 144, 1445-1454.	6.6	37
2974	Giant anisotropic in-plane thermal conduction induced by Anomalous phonons in pentagonal PdSe2. Materials Today Physics, 2022, 22, 100599.	2.9	8

#	Article	IF	Citations
2975	Broadening temperature plateau of high zTs in PbTe doped Bi0Â·3Sb1Â·7Te3 through defect carrier regulation and multi-scale phonon scattering. Materials Today Physics, 2022, 22, 100610.	2.9	9
2976	Thermoelectric performance of ZrNX (X = Cl, Br and I) monolayers. Physical Chemistry Chemical Physics, 2021, 24, 560-567.	1.3	10
2977	Thermoelectric characteristics of flexible reduced graphene oxide/silver selenide nanowire composites prepared by a facile vacuum filtration process. Chinese Physics B, 2022, 31, 028103.	0.7	2
2978	Extraordinary role of Zn in enhancing thermoelectric performance of Ga-doped n-type PbTe. Energy and Environmental Science, 2022, 15, 368-375.	15.6	107
2979	Thermoelectric Enhancement in Single Organic Radical Molecules. Nano Letters, 2022, 22, 948-953.	4.5	28
2980	Experiments on Waste Heat Thermoelectric Generation for Passenger Vehicles. Micromachines, 2022, 13, 107.	1.4	3
2981	Seeing Structural Mechanisms of Optimized Piezoelectric and Thermoelectric Bulk Materials through Structural Defect Engineering. Materials, 2022, 15, 487.	1.3	3
2982	Theoretical design of SnS2â€“graphene heterojunctions with vacancy and impurity defects for multi-purpose photoelectric devices. Physical Chemistry Chemical Physics, 2022, 24, 966-974.	1.3	1
2983	Optimization of LPCVD phosphorous-doped SiGe thin films for CMOS-compatible thermoelectric applications. Applied Physics Letters, 2022, 120, .	1.5	10
2984	Low Thermal Conductivity in Heteroanionic Materials with Layers of Homoleptic Polyhedra. Journal of the American Chemical Society, 2022, 144, 2569-2579.	6.6	13
2985	Study on the thermoelectric properties of p-type doped CsCdF3 and CsHgF3 with quartic anharmonicity. Physics Letters, Section A: General, Atomic and Solid State Physics, 2022, 428, 127946.	0.9	8
2986	Development of a powerful hybrid micro thermoelectric generator based on an ultrahigh capacity miniature combustor. Applied Thermal Engineering, 2022, 206, 118039.	3.0	10
2987	Combined effects of indium nanoinclusion and Se-deficiency on thermoelectric performance of n-type indium selenide. Journal of Alloys and Compounds, 2022, 901, 163653.	2.8	2
2988	An optimum thermoelectric figure of merit using Ge2Se2 monolayer: An ab-initio approach. Physica E: Low-Dimensional Systems and Nanostructures, 2022, 138, 115060.	1.3	5
2989	Enhanced thermoelectric performance of PbSe-graphene nanocomposite manufactured with acoustic cavitation induced defects. Nano Energy, 2022, 94, 106943.	8.2	11
2990	Enhanced thermoelectric perfromance in cubic form of SnSe stabilized through enformatingly alloying AgSbTe2. Acta Materialia, 2022, 227, 117681.	3.8	16
2991	Effects of strain and electric field on electronic and optical properties of monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e1140" altimg="si41.svg"><mml:mi>Î³</mml:mi></mml:math>-GeX (X <mml:math) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 102 Td (xmlns:mml="h	3.1	17
2992	152321. Electronic structure and engineered thermoelectric properties of SnSe. Physica B: Condensed Matter, 2022, 630, 413668.	1.3	1

#	Article	IF	Citations
2993	Promoted thermoelectric performance of (Ag, Na) co-doped polycrystalline BiSe by optimizing the thermal and electrical transports simultaneously. Journal of Alloys and Compounds, 2022, 901, 163652.	2.8	8
2994	Recent progress of halide perovskites for thermoelectric application. Nano Energy, 2022, 94, 106949.	8.2	18
2995	New record high thermoelectric ZT of delafossite-based CuCrO2 thin films obtained by simultaneously reducing electrical resistivity and thermal conductivity via heavy doping with controlled residual stress. Applied Surface Science, 2022, 583, 152526.	3.1	5
2996	Superior thermoelectric properties of ternary chalcogenides CsAg₅Q₃ (Q =) Tj ETQq1 1 0.784314 rgBT /Ov 5729-5737.	1.3	4
2997	Quantum Sensing of Thermoelectric Power in Lowâ€Dimensional Materials. Advanced Materials, 2023, 35, e2106871.	11.1	6
2998	Hygroscopic Chemistry Enables Fireâ€Tolerant Supercapacitors with a Selfâ€Healable â€œSoluteâ€inâ€Airâ€• Electrolyte. Advanced Materials, 2022, 34, e2109857.	11.1	12
2999	Geometric Study of Polymer Embedded Micro Thermoelectric Cooler with Optimized Contact Resistance. Advanced Electronic Materials, 2022, 8, .	2.6	9
3000	Local Symmetry Breaking Suppresses Thermal Conductivity in Crystalline Solids. Angewandte Chemie, 2022, 134, .	1.6	4
3001	Temperature Modulating Fermi Level Pinning in 2D GeSe for Highâ€Performance Transistor. Advanced Electronic Materials, 2022, 8, .	2.6	12
3002	Local Symmetry Breaking Suppresses Thermal Conductivity in Crystalline Solids. Angewandte Chemie - International Edition, 2022, 61, .	7.2	16
3003	Modification of electronic and thermoelectric properties of InSe/GaSe superlattices by strain engineering. Physical Review Materials, 2022, 6, .	0.9	6
3004	Interface-Induced Seebeck Effect in PtSe₂/PtSe₂ van der Waals Homostructures. ACS Nano, 2022, 16, 3404-3416.	7.3	24
3005	Ultralow lattice thermal conductivity and high thermoelectric performance of the WS2/WTe2 van der Waals superlattice. Physics Letters, Section A: General, Atomic and Solid State Physics, 2022, 430, 127986.	0.9	3
3006	TOSSPB: Thermoelectric optimization based on scattering-dependent single-parabolic band model. Computational Materials Science, 2022, 206, 111152.	1.4	8
3007	First-Principles Investigation on the Significant Anisotropic Thermoelectric Transport Performance of a Hf₂Cl₄ Monolayer. Journal of Physical Chemistry C, 2022, 126, 525-533.	1.5	13
3008	Stretchable Thermoelectrics: Strategies, Performances, and Applications. Advanced Functional Materials, 2022, 32, .	7.8	40
3009	Thermoelectric Generator: Materials and Applications in Wearable Health Monitoring Sensors and Internet of Things Devices. Advanced Materials Technologies, 2022, 7, .	3.0	42
3010	Soft Organic Thermoelectric Materials: Principles, Current State of the Art and Applications. Small, 2022, 18, e2104922.	5.2	32

#	Article	IF	Citations
3011	Germanium Antimony Bonding in Ba₄Ge₂Sb₂Te₁₀ with Low Thermal Conductivity. Inorganic Chemistry, 2022, 61, 968-981.	1.9	10
3012	Effects of Different Lacl3 Doping Processes on the Thermoelectric Properties of Snse Bulk Materials. SSRN Electronic Journal, 0, , .	0.4	0
3013	Recent advances in n-type organic thermoelectric materials, dopants, and doping strategies. Journal of Materials Chemistry C, 2022, 10, 6114-6140.	2.7	35
3014	Twofold rattling mode-induced ultralow thermal conductivity in vacancy-ordered double perovskite Cs₂SnI₆. Chemical Communications, 2022, 58, 4223-4226.	2.2	10
3015	Realizing high thermoelectric performance in non-nanostructured n-type PbTe. Energy and Environmental Science, 2022, 15, 1920-1929.	15.6	53
3017	Bi₂Te₃-based wearable thermoelectric generator with high power density: from structure design to application. Journal of Materials Chemistry C, 2022, 10, 6456-6463.	2.7	13
3018	Synergistically enhanced electrical transport properties of SrTiO₃<i>via</i> Fermi level regulation and modulation doping. Journal of Materials Chemistry C, 2022, 10, 13851-13859.	2.7	1
3019	18-Electron half-Heusler compound Ti_{0.75}NiSb with intrinsic Ti vacancies as a promising thermoelectric material. Journal of Materials Chemistry A, 2022, 10, 9655-9669.	5.2	12
3020	New Quaternary Sulfide LiGaSiS ₄: Synthesis, Structure and Optical Propertiesâ€‹. SSRN Electronic Journal, 0, , .	0.4	0
3021	Synergetic Optimization of Thermoelectric Properties in Snse Film Via Manipulating Se Vacancies. SSRN Electronic Journal, 0, , .	0.4	0
3022	Charge density wave in a SnSe₂ layer on and the effect of surface hydrogenation. Physical Chemistry Chemical Physics, 2022, 24, 6820-6827.	1.3	0
3023	General strategies to improve thermoelectric performance with an emphasis on tin and germanium chalcogenides as thermoelectric materials. Journal of Materials Chemistry A, 2022, 10, 6872-6926.	5.2	26
3024	BiSeå•æ™¶åŠå…¶SbæŽºæ‚å•æ™¶çš„å ̂¶å‡å'Œçƒç"µè¾"è¿æ€§èƒ. Scientia Sinica: Physica, Mechanica Et Astronomica, 2022, , .	0.2	0
3025	Direction-Dependent Thermoelectric Properties of a Layered Compound In2Te5 Single Crystal. Journal of Electronic Materials, 2022, 51, 2266-2272.	1.0	2
3026	Remarkable electron and phonon transports in low-cost SnS: A new promising thermoelectric material. Science China Materials, 2022, 65, 1143-1155.	3.5	9
3027	High-Temperature Thermoelectric Monolayer Bi₂TeSe₂ with High Power Factor and Ultralow Thermal Conductivity. ACS Applied Energy Materials, 2022, 5, 2564-2572.	2.5	35
3028	Observation of a Novel Lattice Instability in Ultrafast Photoexcited SnSe. Physical Review X, 2022, 12, .	2.8	10
3029	Extremely Anisotropic Thermoelectric Properties of SnSe Under Pressure. Energy and Environmental Materials, 2023, 6, .	7.3	8

#	Article	IF	Citations
3030	Screening for new thermoelectric material: A semiconducting TaS3 with nanoporous structure. Journal of Materiomics, 2022, 8, 1031-1037.	2.8	1
3031	Four-Phonon Scattering Effect and Two-Channel Thermal Transport in Two-Dimensional Paraelectric SnSe. ACS Applied Materials & Interfaces, 2022, 14, 11493-11499.	4.0	25
3032	Selfâ€Driven High Performance Broadband Photodetector Based on SnSe/InSe van der Waals Heterojunction. Advanced Materials Interfaces, 2022, 9, .	1.9	16
3033	Giant Roomâ€Temperature Power Factor inpâ€Type Thermoelectric SnSe under High Pressure. Advanced Science, 2022, 9, e2103720.	5.6	7
3034	Electronic and Lattice Thermal Conductivity Switching by 3Dâ”2D Crystal Structure Transition in Nonequilibrium (Pb_{1â”}_xSn_x)Se. Advanced Electronic Materials, 2022, 8, .	2.6	6
3035	Strain effects on the structural, electronic, optical and thermoelectric properties of <scp>Si₂SeS</scp> monolayer with puckered honeycomb structure: A firstâ€principles study. International Journal of Quantum Chemistry, 2022, 122, .	1.0	9
3036	Geometry design and performance evaluation of thermoelectric generator. European Physical Journal: Special Topics, 2022, 231, 1587-1597.	1.2	3
3037	Highly sensitive gold-film surface plasmon resonance (SPR) sensor employing germanium selenide (GeSe) nanosheets. Instrumentation Science and Technology, 2022, 50, 577-588.	0.9	3
3038	Intrinsic Ultralow Lattice Thermal Conductivity in the Full-Heusler Compound <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msub><mml:mi>Ba</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mrow><mml:mi>Ag</mml:mi><mml:m Physical Review Applied, 2022, 17, .	1.5	17
3039	A Review on Doped/Composite Bismuth Chalcogenide Compounds for Thermoelectric Device Applications: Various Synthesis Techniques and Challenges. Journal of Electronic Materials, 2022, 51, 2014-2042.	1.0	12
3040	Enhanced visible-light photoresponse of DVT-grown Ni-doped SnSe crystal. Journal of Materials Science: Materials in Electronics, 2022, 33, 10086-10095.	1.1	5
3041	Phase and Composition Tunable Out-of-Plane Seebeck Coefficients for MoS₂-Based Films. ACS Applied Electronic Materials, 2022, 4, 1576-1582.	2.0	5
3042	Attosecond-Resolved Coherent Control of Lattice Vibrations in Thermoelectric SnSe. Journal of Physical Chemistry Letters, 2022, 13, 2584-2590.	2.1	4
3043	Thermally Chargeable Ammoniumâ€Ion Capacitor for Energy Storage and Lowâ€Grade Heat Harvesting. Batteries and Supercaps, 2022, 5, .	2.4	7
3044	Scale-invariant machine-learning model accelerates the discovery of quaternary chalcogenides with ultralow lattice thermal conductivity. Npj Computational Materials, 2022, 8, .	3.5	18
3045	Phase Modulation Enabled High Thermoelectric Performance in Polycrystalline GeSe_{0.75}Te_{0.25}. Advanced Functional Materials, 2022, 32, .	7.8	7
3046	Wide-spectrum polarization-sensitive and fast-response photodetector based on 2D group IV-VI semiconductor tin selenide. Fundamental Research, 2022, 2, 985-992.	1.6	8
3047	High-Throughput Screening of Rattling-Induced Ultralow Lattice Thermal Conductivity in Semiconductors. Journal of the American Chemical Society, 2022, 144, 4448-4456.	6.6	26

#	Article	IF	Citations
3048	Low thermal conductivity and high thermoelectric performance via Cd underbonding in half-Heusler PCdNa. Physical Review B, 2022, 105, .	1.1	15
3049	Thermoelectric Properties of Pnma and Rocksalt SnS and SnSe. Solids, 2022, 3, 155-176.	1.1	7
3050	The effect of molybdenum-doped tin selenide semiconductor material (SnSe) synthesized via electrochemical deposition technique for photovoltaic application. Journal of Materials Science: Materials in Electronics, 2022, 33, 10379-10387.	1.1	2
3051	Degenerated Hole Doping and Ultraâ€Low Lattice Thermal Conductivity in Polycrystalline SnSe by Nonequilibrium Isovalent Te Substitution. Advanced Science, 2022, 9, e2105958.	5.6	7
3052	Ï€-SnS Colloidal Nanocrystals with Size-Dependent Band Gaps. Journal of Physical Chemistry C, 2022, 126, 5323-5332.	1.5	3
3053	Imprints of interfaces in thermoelectric materials. Critical Reviews in Solid State and Materials Sciences, 2023, 48, 361-410.	6.8	6
3054	Highâ€Ranged ZT Value Promotes Thermoelectric Cooling and Power Generation in nâ€Type PbTe. Advanced Energy Materials, 2022, 12, .	10.2	36
3055	A promising thermoelectrics In4SnSe4 with a wide bandgap and cubic structure composited by layered SnSe and In4Se3. Journal of Materiomics, 2022, 8, 982-991.	2.8	5
3056	High thermoelectric performance realized through manipulating layered phonon-electron decoupling. Science, 2022, 375, 1385-1389.	6.0	194
3057	Enhanced thermoelectric performance of n-type polycrystalline SnSe via NdCl3 doping. Journal of Alloys and Compounds, 2022, 910, 164900.	2.8	9
3058	Distinct electron and hole transports in SnSe crystals. Science Bulletin, 2022, 67, 1105-1107.	4.3	16
3059	A first-principles prediction on the structural, electronic, elastic, phonon, and transport properties of BaSiN2. Indian Journal of Physics, 0, , 1.	0.9	1
3060	Electronic structure and thermoelectric properties of biaxial strained SnSe from first principles calculations. Physica Scripta, 0, , .	1.2	1
3061	Current-induced control of the polarization state in a polar metal based heterostructure SnSe/WTe2. Europhysics Letters, 0, , .	0.7	1
3062	Influence of SnSe on thermoelectric properties of TiS2-xSnSe composites via liquid-assisted shear exfoliation. Journal of Alloys and Compounds, 2022, , 164914.	2.8	0
3063	Synergistically enhanced thermoelectric properties in n-type Bi6Cu2Se4O6 through inducing resonant levels. Acta Materialia, 2022, 232, 117930.	3.8	13
3064	Intrinsically Low Thermal Conductivity in the n-Type Vacancy-Ordered Double Perovskite Cs₂SnI₆: Octahedral Rotation and Anharmonic Rattling. Chemistry of Materials, 2022, 34, 3301-3310.	3.2	32
3065	Flat phonon modes driven ultralow thermal conductivities in Sr3AlSb3 and Ba3AlSb3 Zintl compounds. Applied Physics Letters, 2022, 120, .	1.5	6

#	Article	IF	Citations
3066	Ultralow Thermal Conductivity of Highly Dense ZrW₂O₈ Ceramics with Negative Thermal Expansion. Advanced Engineering Materials, 2022, 24, .	1.6	3
3067	Ionization energy theory program to improve thermoelectricity in SnSe. Solid State Communications, 2022, 350, 114767.	0.9	1
3068	First-principles study on the structural, electronic, vibrational, and optical properties of the Ru-doped SnSe. Physica B: Condensed Matter, 2022, 633, 413789.	1.3	4
3069	Large-scale SHS based 3D printing of high-performance n-type BiTeSe: Comprehensive development from materials to modules. Materials Today Physics, 2022, 24, 100670.	2.9	1
3070	Realizing high thermoelectric performance in highly (0l0)-textured flexible Cu2Se thin film for wearable energy harvesting. Materials Today Physics, 2022, 24, 100659.	2.9	29
3071	Multiple emerging nano-phases are at the origin of the low lattice thermal conductivity of SnSe?. Materials Today Physics, 2022, 24, 100656.	2.9	3
3072	Effect of graphene on thermal stability of tin selenide. Journal of Materials Research and Technology, 2022, 18, 896-908.	2.6	2
3073	Transport behavior and thermoelectric properties of SnSe/SnS heterostructure modulated with asymmetric strain engineering. Computational Materials Science, 2022, 207, 111271.	1.4	5
3074	Mobility-enhanced thermoelectric performance in textured nanograin Bi2Se3, effect on scattering and surface-like transport. Materials Today Physics, 2022, 24, 100669.	2.9	5
3075	Self-powered SnSe photodetectors fabricated by ultrafast laser. Nano Energy, 2022, 97, 107188.	8.2	22
3076	Cu vacancy engineering of cage-compound BaCu2Se2: Realization of temperature-dependent hole concentration for high average thermoelectric figure-of-merit. Chemical Engineering Journal, 2022, 437, 135302.	6.6	6
3077	Effects of transverse geometry on the thermal conductivity of Si and Ge nanowires. Surfaces and Interfaces, 2022, 30, 101834.	1.5	6
3078	Effects of different LaCl3 doping processes on the thermoelectric properties of SnSe bulk materials. Journal of Solid State Chemistry, 2022, 310, 123037.	1.4	6
3079	Relationship between the density of states effective mass and carrier concentration of thermoelectric phosphide Ag6Ge10P12 with strong mechanical robustness. Materials Today Sustainability, 2022, 18, 100116.	1.9	11
3080	Electron mean-free-path filtering in n-type SnSe for improved thermoelectric performance at room temperature. Journal of Alloys and Compounds, 2022, 906, 164299.	2.8	6
3081	Enhanced thermoelectric performance of polycrystalline SnSe by doping with the heavy rare earth element Yb. Journal of Alloys and Compounds, 2022, 907, 164438.	2.8	4
3082	Designing good compatibility factor in segmented Bi0.5Sb1.5Te3 â€“ GeTe thermoelectrics for high power conversion efficiency. Nano Energy, 2022, 96, 107147.	8.2	24
3083	Honeycomb-like puckered PbTe monolayer: A promising n-type thermoelectric material with ultralow lattice thermal conductivity. Journal of Alloys and Compounds, 2022, 907, 164439.	2.8	25

#	Article	IF	Citations
3084	Energy-dependent carrier scattering at weak localizations leading to decoupling of thermopower and conductivity. Carbon, 2022, 194, 62-71.	5.4	3
3085	Improvement of anisotropic thermoelectric performance in polycrystalline SnSe by metallic AgSnSe2 compositing. Journal of Alloys and Compounds, 2022, 908, 164649.	2.8	9
3086	Integrating band engineering with point defect scattering for high thermoelectric performance in Bi2Si2Te6. Chemical Engineering Journal, 2022, 441, 135968.	6.6	15
3087	High-entropy Sm2B2O7 (B=Ti, Zr, Sn, Hf, Y, Yb, Nb, and Ta) oxides with highly disordered B-site cations for ultralow thermal conductivity. Journal of Materials Science and Technology, 2022, 119, 182-189.	5.6	26
3088	Investigation of mechanical, lattice dynamical, electronic and thermoelectric properties of half Heusler chalcogenides: A DFT study. Journal of Physics and Chemistry of Solids, 2022, 167, 110704.	1.9	5
3089	Attaining enhanced thermoelectric performance in p-type (SnSe)1â€“(SnS2) produced via sintering their solution-synthesized micro/nanostructures. Journal of Materials Science and Technology, 2022, 120, 205-213.	5.6	5
3090	Enhanced thermoelectric properties of polycrystalline CuCrS_{2â^'x}Se_x (x = 0,) Tj ETQq0 0 0 rgBT /Overlock 10 55, 135302.	1.3	5
3091	Anomalous suppressed thermal conductivity in CuInTe2 under pressure. Applied Physics Letters, 2021, 119, .	1.5	11
3092	Improvement of Thermoelectric Properties via Texturation Using a Magnetic Slip Casting Processâ€“The Illustrative Case of CrSi₂. Chemistry of Materials, 2022, 34, 1143-1156.	3.2	3
3093	High thermoelectric performance of ZrTe2/SrTiO3 heterostructure. Journal of Materiomics, 2022, 8, 570-576.	2.8	4
3094	Thermoelectric performance of tetragonal silicon allotrope tP36-Si from first-principles study. European Physical Journal B, 2021, 94, .	0.6	1
3095	Crystal growth of quantum materials: a review of selective materials and techniques. Bulletin of Materials Science, 2022, 45, 1.	0.8	4
3096	First-Principles Study of the Structural, Electronic, and Enhanced Optical Properties of SnS/TaS₂ Heterojunction. ACS Applied Materials & Interfaces, 2022, 14, 2177-2184.	4.0	5
3097	Biaxial Tensile Strain-Induced Enhancement of Thermoelectric Efficiency of Î±-Phase Se2Te and SeTe2 Monolayers. Nanomaterials, 2022, 12, 40.	1.9	2
3098	Lattice thermal conductivity including phonon frequency shifts and scattering rates induced by quartic anharmonicity in cubic oxide and fluoride perovskites. Physical Review B, 2021, 104, .	1.1	40
3099	High-performance thermoelectric properties of strained two-dimensional tellurium. Physical Review Materials, 2021, 5, .	0.9	5
3100	Ultralow thermal conductivity of thermoelectric compound Ag₂BaGeSe₄. AIP Advances, 2021, 11, 125320.	0.6	1
3101	High-Performance Thermoelectrics Based on Solution-Grown SnSe Nanostructures. ACS Nano, 2022, 16, 7-14.	7.3	31

#	Article	IF	Citations
3102	Anisotropic thermal and electrical transport properties induced high thermoelectric performance in an Ir₂Cl₂O₂ monolayer. Physical Chemistry Chemical Physics, 2022, 24, 11268-11277.	1.3	17
3103	Doped 2D SnS materials derived from liquid metal-solution for tunable optoelectronic devices. Nanoscale, 2022, 14, 6802-6810.	2.8	17
3104	SnSe/SnS: Multifunctions Beyond Thermoelectricity. , 0, 1, 1-20.		18
3105	A Solvothermal Synthetic Environmental Design for Highâ€Performance SnSeâ€Based Thermoelectric Materials. Advanced Energy Materials, 2022, 12, .	10.2	82
3106	High-Mobility Metastable Rock-Salt Type (Sn,Ca)Se Thin Film Stabilized by Direct Epitaxial Growth on a YSZ (111) Single-Crystal Substrate. ACS Applied Materials & Interfaces, 2022, 14, 18682-18689.	4.0	1
3107	Estimation of the GrÃ¼neisen Parameter of High-Entropy Alloy-Type Functional Materials: The Cases of REO0.7F0.3BiS2 and MTe. Condensed Matter, 2022, 7, 34.	0.8	0
3108	Remarkable Thermoelectric Performance in K₂CdPb Crystals with 1D Building Blocks via Structure Particularity and Bond Heterogeneity. ACS Applied Energy Materials, 2022, 5, 5146-5158.	2.5	6
3109	Realizing ultrahigh average figure of merit through manipulating layered phonon-electron decoupling. Science China Materials, 0, , .	3.5	1
3110	High thermoelectric performance of BiCuSeO via minimizing the electronegativity difference in Biâ€“O layer. Materials Today Physics, 2022, 24, 100688.	2.9	1
3111	Hidden Local Symmetry Breaking in Silver Diamondoid Compounds is Root Cause of Ultralow Thermal Conductivity. Advanced Materials, 2022, 34, e2202255.	11.1	20
3112	Valence Disproportionation of GeS in the PbS Matrix Forms Pb₅Ge₅S₁₂ Inclusions with Conduction Band Alignment Leading to High n-Type Thermoelectric Performance. Journal of the American Chemical Society, 2022, 144, 7402-7413.	6.6	24
3113	Nanocomposites of GO/D-Mannitol Assisted Thermoelectric Power Generator for Transient Waste Heat Recovery. Journal of Nanomaterials, 2022, 2022, 1-9.	1.5	2
3114	Facile and Low-Cost Fabrication of Cu/Zn/Sn-Based Ternary and Quaternary Chalcogenides Thermoelectric Generators. ACS Applied Energy Materials, 2022, 5, 5909-5918.	2.5	11
3115	The prediction of electronic and thermoelectric performance of bulk and monolayer Sb2TeSeS. Materials Chemistry and Physics, 2022, , 126153.	2.0	0
3116	Stepwise Ge vacancy manipulation enhances the thermoelectric performance of cubic GeSe. Chemical Engineering Journal, 2022, 442, 136332.	6.6	14
3120	Highly Enhanced Thermoelectric Properties of Bi2s3 Via (Se, Cl)-Co Doping in Hydrothermal Synthesis Process. SSRN Electronic Journal, 0, , .	0.4	0
3121	Investigations on the thermoelectric and thermodynamic properties of Y₂CT₂ (T = O, F, OH). RSC Advances, 2022, 12, 14377-14383.	1.7	3
3122	Super high-performance 7-atomic-layer thermoelectric material ZrGe₂N₄. Nanoscale, 2022, 14, 8797-8805.	2.8	5

#	Article	IF	Citations
3123	The Structural, Electronic and Thermal Transport Properties of Pentagonal Ms2 (M = Zn, Cd) Monolayers: A First-Principles Studyâ€. SSRN Electronic Journal, 0, , .	0.4	0
3124	Revealing Excellent Electronic, Optical, and Thermoelectric Behavior of EU Based Euag2y2 (Y= S/Se): For Solar Cell Applications. SSRN Electronic Journal, 0, , .	0.4	0
3125	Multistage nanostructures induced by precursor phase spontaneous partitioning lead to an excellent thermoelectric performance in Cu_{1.8}S_{0.8}Se_{0.2}. Journal of Materials Chemistry C, 0, , .	2.7	3
3126	Î²-Ga₂O₃: a potential high-temperature thermoelectric material. Physical Chemistry Chemical Physics, 2022, 24, 12052-12062.	1.3	5
3127	Routes to High-Ranged Thermoelectric Performance. , 0, 1, .		10
3128	Telluride semiconductor nanocrystals: progress on their liquid-phase synthesis and applications. Rare Metals, 2022, 41, 2527-2551.	3.6	10
3129	Recent Advances in SnSe Nanostructures beyond Thermoelectricity. Advanced Functional Materials, 2022, 32, .	7.8	28
3130	Zintl Phase Compounds Mg3Sb2â^'xBix (x = 0, 1, and 2) Monolayers: Electronic, Phonon and Thermoelectric Properties From ab Initio Calculations. Frontiers in Mechanical Engineering, 2022, 8, .	0.8	7
3131	Improvement of the thermoelectric properties of GeTe- and SnTe-based semiconductors aided by the engineering based on phase diagram. International Journal of Materials Research, 2022, 113, 340-350.	0.1	1
3132	Andreev Reflection Spectroscopy on SnAs Single Crystals. Journal of Superconductivity and Novel Magnetism, 0, , .	0.8	2
3133	Enhancement of the Thermoelectric Performance of Cu₂GeSe₃ via Isoelectronic (Ag, S)-co-substitution. ACS Applied Materials & Interfaces, 2022, 14, 20972-20980.	4.0	5
3134	Structural, microstructural, magnetic, and thermoelectric properties of bulk and nanostructured n-type CuFeS2 Chalcopyrite. Ceramics International, 2022, 48, 29039-29048.	2.3	11
3135	High Thermoelectric Performance in Chalcopyrite Cu_{1â€“x}Ag_xGaTe₂â€“ZnTe: Nontrivial Band Structure and Dynamic Doping Effect. Journal of the American Chemical Society, 2022, 144, 9113-9125.	6.6	29
3136	Near-zero Poissonâ€™s ratio and suppressed mechanical anisotropy in strained black phosphorene/SnSe van der Waals heterostructure: a first-principles study. Applied Mathematics and Mechanics (English) Tj ETQq1 1 0.784314 rgBT /Ove	1.8	lo
3137	DFT investigations of AgMC7H10N2 (Mâ€‰=â€‰Cl, Br, and I) metal organic molecules: NMR, optoelectronic, and transport properties. Journal of Molecular Modeling, 2022, 28, 136.	0.8	2
3138	Preparation of novel titanium-niobium-oxygen composite ceramic with excellent thermoelectric properties using the high-pressure and high-temperature method. Journal of the European Ceramic Society, 2022, 42, 4980-4986.	2.8	4
3139	New quaternary sulfide LiGaSiS4: Synthesis, structure and optical properties. Journal of Solid State Chemistry, 2022, , 123230.	1.4	0
3140	Highly in-plane anisotropy of thermal transport in suspended ternary chalcogenide Ta2NiS5. Nano Research, 2022, 15, 6601-6606.	5.8	10

#	Article	IF	Citations
3141	Polycrystalline NiSe-Alloyed SnSe with Improved Medium-Temperature Thermoelectric Performance. Energy & Fuels, 2022, 36, 5352-5359.	2.5	6
3142	Enhanced Thermoelectric Properties of Te Doped Polycrystalline Sn0.94Pb0.01Se. Nanomaterials, 2022, 12, 1575.	1.9	2
3143	Ultrahigh Power Factor of Ternary Composites with Abundant Se Nanowires for Thermoelectric Application. ACS Applied Materials & Interfaces, 2022, 14, 23765-23774.	4.0	7
3144	3dâ€Transition metal doped two-dimensional SnTe: Modulation of thermoelectric properties. Materials Today Communications, 2022, 31, 103656.	0.9	2
3145	Out-of-plane thermoelectric performance for <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>p</mml:mi></mml:math> -doped GeSe. Physical Review B, 2022, 105, .	1.1	6
3146	Machine learning for accelerated prediction of the Seebeck coefficient at arbitrary carrier concentration. Materials Today Physics, 2022, 25, 100706.	2.9	5
3147	Unidentified major p-type source in SnSe: Multivacancies. NPG Asia Materials, 2022, 14, .	3.8	8
3148	Observation of nontrivial topological electronic structure of orthorhombic SnSe. Physical Review Materials, 2022, 6, .	0.9	0
3149	Scattering lifetime and High figure of merit in CsAgO predicted by methods beyond relaxation time approximation. Journal of Physics Condensed Matter, 2022, , .	0.7	0
3150	New phase of lead chalcogenide alloy: Ternary alloy PbSrSe<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si3.svg"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math> for future thermoelectric application. Materialia, 2022, 23, 101443.	1.3	0
3151	Atomistic explanation of failure mechanisms of thermoelectric type-VIII clathrate Ba8Ga16Sn30. Materials Today Communications, 2022, 31, 103605.	0.9	0
3152	Crystallographic design for half-Heuslers with low lattice thermal conductivity. Materials Today Physics, 2022, 25, 100704.	2.9	14
3153	Optoelectronic and vibrational properties of chalcogenides VCu3Q4 (Q= Se, Te) for potential p-type transparent conducting materials: HSE06 approach. Journal of Solid State Chemistry, 2022, 312, 123190.	1.4	4
3154	Biaxial strain tuned electronic structure, lattice thermal conductivity and thermoelectric properties of MgI2 monolayer. Materials Science in Semiconductor Processing, 2022, 148, 106791.	1.9	3
3155	Realization of high thermoelectric performance in solution-synthesized porous Zn and Ga codoped SnSe nanosheets. Journal of Materials Chemistry A, 2022, 10, 12429-12437.	5.2	9
3156	Recent Advances in Energy Harvesting from Waste Heat Using Emergent Thermoelectric Materials. , 2022, , 155-184.		4
3157	Direct observations of thermalization to a Rayleighâ€“Jeans distribution in multimode optical fibres. Nature Physics, 2022, 18, 685-690.	6.5	50
3158	Critical phonon frequency renormalization and dual phonon coexistence in layered Ruddlesden-Popper inorganic perovskites. Physical Review B, 2022, 105, .	1.1	16

#	Article	IF	Citations
3159	The structural, electronic and thermal transport properties of pentagonal MS2 (M = Zn, Cd) monolayers: A first-principles study. Journal of Physics and Chemistry of Solids, 2022, 167, 110792.	1.9	4
3160	Boosting the Thermoelectric Performance of Zinc blende-like Cu2SnSe3 through Phase Structure and Band Structure Regulations. Journal of Materials Chemistry A, 0, , .	5.2	2
3161	Anisotropic Phononic and Electronic Thermal Transport in BeN₄. Journal of Physical Chemistry Letters, 2022, , 4501-4505.	2.1	5
3162	Component wise contribution to total thermal resistance in 2D material based device stacks. International Journal of Thermal Sciences, 2022, 179, 107623.	2.6	0
3163	Si/SnSe-Nanorod Heterojunction with Ultrafast Infrared Detection Enabled by Manipulating Photo-Induced Thermoelectric Behavior. ACS Applied Materials & Interfaces, 2022, 14, 24557-24564.	4.0	7
3164	Tuning weak localization in single-layer disordered SnSe2/graphene/h-BN field-effect device. 2D Materials, 0, , .	2.0	1
3165	Recent Advances in 2D Material/Conducting Polymer Composites for Thermoelectric Energy Conversion. Macromolecular Materials and Engineering, 2022, 307, .	1.7	13
3166	Effect of Ag, Sb and Se coâ€doping on the thermoelectric performance of SnS. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2022, 648, .	0.6	2
3168	Epitaxial Integration and Defect Structure of Layered SnSe Films on PbSe/IIIâ€“V Substrates. Crystal Growth and Design, 0, , .	1.4	5
3169	SnSe nanoparticles with the ultra-low lattice thermal conductivity: synthesis and characterization. Journal of Nanoparticle Research, 2022, 24, .	0.8	3
3170	Solution-Processed Hole-Doped SnSe Thermoelectric Thin-Film Devices for Low-Temperature Power Generation. ACS Energy Letters, 2022, 7, 2092-2101.	8.8	17
3171	Expanding multiple anion superlattice chemistry: Synthesis, structure and properties of Bi4O4SeBr2 and Bi6O6Se2Cl2. Journal of Solid State Chemistry, 2022, 312, 123246.	1.4	3
3172	Synthesis, characterization, and electronic structure of SrBi2S4. Journal of Solid State Chemistry, 2022, 312, 123250.	1.4	1
3173	Neural network-assisted optimization of segmented thermoelectric power generators using active learning based on a genetic optimization algorithm. Energy Reports, 2022, 8, 6633-6644.	2.5	15
3174	Five coordinated Mn in Ba₄Mn₂Si₂Te₉: synthesis, crystal structure, physical properties, and electronic structure. Dalton Transactions, 2022, 51, 9265-9277.	1.6	4
3175	A comparative investigation of different exchangeâ€correlation functionals oriented prediction of structural, electronic, optical, and transport properties of the novel quaternary <scp>LiTiCoSn</scp>. International Journal of Energy Research, 0, , .	2.2	1
3176	Low lattice thermal conductivity of hydrideâ€based cubic antiperovskites <scp> A ₃ HB </scp> (aÂ=ÂLi, Na; BÂ=ÂS, se, Te) with higherâ€order anharmonicity correction. International Journal of Energy Research, 2022, 46, 13687-13697.	2.2	6
3177	Strategies to Improve the Thermoelectric Figure of Merit in Thermoelectric Functional Materials. Frontiers in Chemistry, 2022, 10, .	1.8	22

#	Article	IF	Citations
3179	High Thermoelectric Performance of Al₂X₂Se₂ (X = Cl, Br, I) Monolayers with Strong Anisotropy in Lattice Thermal Conductivity. ACS Applied Energy Materials, 2022, 5, 7371-7381.	2.5	10
3180	Synergistic Effect of Band and Nanostructure Engineering on the Boosted Thermoelectric Performance of nâ€Type Mg₃₊_{Î´}(Sb, Bi)₂ Zintls. Advanced Energy Materials, 2022, 12, .	10.2	41
3181	Excellent Thermoelectric Performance of the Metal Sulfide CuTaS₃. ACS Applied Energy Materials, 2022, 5, 7364-7370.	2.5	5
3182	Insights into Low Thermal Conductivity in Inorganic Materials for Thermoelectrics. Journal of the American Chemical Society, 2022, 144, 10099-10118.	6.6	57
3183	Thermoelectric properties of monolayer and bilayer buckled XTe (XÂ=ÂGe, Sn, and Pb). Advances in Natural Sciences: Nanoscience and Nanotechnology, 2022, 13, 025008.	0.7	2
3184	Enhancing thermoelectric properties in TiNiSi structure-type semimetal ZrNiSi by doping. Physical Review Materials, 2022, 6, .	0.9	3
3185	Beyond T-graphene: Two-dimensional tetragonal allotropes and their potential applications. Applied Physics Reviews, 2022, 9, .	5.5	23
3186	Giant thermoelectric figure of merit in fluorine-doped single walled-carbon nanotubes. Physica E: Low-Dimensional Systems and Nanostructures, 2022, 142, 115292.	1.3	4
3187	Broadband (NIR-Vis-UV) photoresponse of annealed SnSe films and effective oxidation passivation using Si protective layer. Materials Research Bulletin, 2022, 153, 111913.	2.7	9
3188	Simultaneously optimized thermoelectric and mechanical performance of p-type polycrystalline SnSe enabled by CNTs addition. Scripta Materialia, 2022, 218, 114846.	2.6	11
3189	Copper telluride with manipulated carrier concentrations for high-performance solid-state thermoelectrics. Journal of Materials Science and Technology, 2022, 129, 190-195.	5.6	6
3190	High-performance low-cost sulfide/selenide thermoelectric devices. , 2022, , 329-376.		2
3191	Thermoelectric properties of sulfide and selenide-based materials. , 2022, , 293-328.		1
3192	Snse Nanosheet Arrays Film for Trace No2 Detection at Room Temperature. SSRN Electronic Journal, 0, , .	0.4	0
3193	Extremely Low Thermal Conductivity in Basb2se4: Synthesis, Characterization, and Dft Studies. SSRN Electronic Journal, 0, , .	0.4	0
3194	Thermal Transport and Thermoelectric Properties of Alkali-Metal Telluride Na2te from First-Principles Study. SSRN Electronic Journal, 0, , .	0.4	0
3195	Significantly Enhanced Thermoelectric Performance Achieved in CuGaTe₂ through Dual-Element Permutations at Cation Sites. ACS Applied Materials & Interfaces, 2022, 14, 30046-30055.	4.0	8
3196	Modulation of Electrical and Thermal Transports through Lattice Distortion in BaTi_{1â€“x}Nb_xO₃ Solid Solutions. Nanotechnology, 0, , .	1.3	1

#	Article	IF	Citations
3197	Real-time first-principles calculations of ultrafast carrier dynamics of SnSe/TiO₂ heterojunction under Li⁺ implantation. Journal of Physics Condensed Matter, 2022, 34, 355001.	0.7	1
3198	Thermoelectric properties of semiconducting materials with parabolic and pudding-mold band structures. Materials Today Communications, 2022, 31, 103737.	0.9	3
3199	The physical significance of imaginary phonon modes in crystals. Electronic Structure, 2022, 4, 033002.	1.0	41
3200	Anderson transition in stoichiometric Fe2VAl: high thermoelectric performance from impurity bands. Nature Communications, 2022, 13, .	5.8	15
3201	Excellent Medium-Temperature Thermoelectric Performance of Monolayer BiOCl. Langmuir, 2022, 38, 7733-7739.	1.6	13
3202	Ultralow In-Plane Thermal Conductivity in 2D Magnetic Mosaic Superlattices for Enhanced Thermoelectric Performance. ACS Nano, 2022, 16, 11152-11160.	7.3	4
3203	Large thermoelectric power factors by opening the band gap in semimetallic Heusler alloys. Materials Today Physics, 2022, 27, 100742.	2.9	5
3204	Tuning of the electronic bandgap of SnSe compound by oxygen and sulphur doping and their optical characteristics for solar cell applications. Journal of Materials Research and Technology, 2022, 19, 3443-3450.	2.6	1
3205	Measuring and Then Eliminating Twin Domains in SnSe Thin Films Using Fast Optical Metrology and Molecular Beam Epitaxy. ACS Nano, 2022, 16, 9472-9478.	7.3	3
3206	Realizing nearly isotropic thermoelectric properties in 2D-layered SnS nanomaterials through highly symmetric metastable-phase powder precursors. Nano Research, 2022, 15, 7713-7722.	5.8	2
3207	Thermoelectric performance in a Si allotrope with ultralow thermal conductivity: a first-principles study combining phonon-limited electronic transport calculations. Materials Today Physics, 2022, 27, 100756.	2.9	3
3208	Strong bulk-surface interaction dominated in-plane anisotropy of electronic structure in GaTe. Communications Physics, 2022, 5, .	2.0	10
3209	Influence of temperatures on structure, thermoelectric, and mechanical properties of nanocrystalline SnSe thin films deposited by thermal evaporation. Materials Today Communications, 2022, 32, 103880.	0.9	5
3210	Iso efficiency in nanostructured thermoelectric materials. Energy Conversion and Management, 2022, 266, 115857.	4.4	3
3211	First-principles study on the electronic structure, magnetic and optical properties of strain regulated (V, Cr) co-doped SnSe2. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2022, 283, 115760.	1.7	4
3212	Layered SnSe nanoflakes with anharmonic phonon properties and memristive characteristics. Applied Surface Science, 2022, 599, 153983.	3.1	9
3213	Unravelling the thermoelectric properties and suppression of bipolar effect under strain engineering for the asymmetric Janus SnSSe and PbSSe monolayers. Applied Surface Science, 2022, 599, 153962.	3.1	25
3214	Borophene. , 2022, , 73-106.		0

#	Article	IF	Citations
3215	Manipulation of Phase Structure and Se Vacancy to Enhance the Average Thermoelectric Performance of AgBiSe ₂. SSRN Electronic Journal, 0, , .	0.4	0
3216	Y₂Ti₂O₅S₂ â€“ a promising n-type oxysulphide for thermoelectric applications. Journal of Materials Chemistry A, 2022, 10, 16813-16824.	5.2	12
3217	High-Performance Thermoelectric Î“-Gese and its Group-Iv Monochalcogenide Isostructural Family. SSRN Electronic Journal, 0, , .	0.4	0
3218	A facile way to optimize thermoelectric properties of SnSe thin films via sonication-assisted liquid-phase exfoliation. Journal of Materials Science: Materials in Electronics, 2022, 33, 15385-15392.	1.1	0
3219	Mechanically Induced Highly Efficient Hydrogen Evolution from Water over Piezoelectric SnSe nanosheets. Small, 2022, 18, .	5.2	22
3220	Chemical trends in the high thermoelectric performance of the pyrite-type dichalcogenides <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>ZnS</mml:mi><mml:mn>2</mml:mn></mml:msub><mml , and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>CdSe</mml:mi><mml:mn>2</mml:mn></mml:msub></mm Physical Review B, 2022, 105, .	1.1	6
3221	Secondary phase effect on the thermoelectricity by doping Ag in SnSe. Journal of Alloys and Compounds, 2022, 923, 166251.	2.8	8
3222	High Thermoelectric Performance of Janus Monolayer and Bilayer HfSSe. Physica Status Solidi (B): Basic Research, 2022, 259, .	0.7	4
3223	Ultrahigh transverse thermoelectric power factor in flexible Weyl semimetal WTe2. Nature Communications, 2022, 13, .	5.8	26
3224	Anisotropic Chalcogenide Perovskite CaZrS₃: A Promising Thermoelectric Material. Journal of Physical Chemistry C, 2022, 126, 11751-11760.	1.5	13
3225	Ultralow Lattice Thermal Conductivity in Metastable Ag₂GeS₃ Revealed by a Combined Experimental and Theoretical Study. Chemistry of Materials, 2022, 34, 6420-6430.	3.2	1
3226	Phonon damping in one-dimensional lattices with asymmetric interactions. Science China: Physics, Mechanics and Astronomy, 2022, 65, .	2.0	1
3227	Highâ€Performance Thermoelectrics Î±â€Ag9Ga1â€xTe6 Compounds with Ultraâ€low Lattice Thermal Conductivity Originating from Ag9Te2 Motifs. Angewandte Chemie, 0, , .	1.6	0
3228	Energyâ€Saving Pathways for Thermoelectric Nanomaterial Synthesis: Hydrothermal/Solvothermal, Microwaveâ€Assisted, Solutionâ€Based, and Powder Processing. Advanced Science, 2022, 9, .	5.6	60
3229	Thermoelectric properties of 2D semiconducting Pt₂CO₂. Physica Scripta, 2022, 97, 085706.	1.2	5
3230	High-performance magnesium-based thermoelectric materials: Progress and challenges. Journal of Magnesium and Alloys, 2022, 10, 1719-1736.	5.5	29
3231	Thermoelectric Zintl Compound In1â€xGaxTe: Pure Acoustic Phonon Scattering and Dopantâ€Induced Deformation Potential Reduction and Lattice Shrink. Angewandte Chemie, 0, , .	1.6	0
3232	Highâ€Performance Thermoelectric Î±â€Ag₉Ga_{1â^'x}Te₆ Compounds with Ultralow Lattice Thermal Conductivity Originating from Ag₉Te₂ Motifs. Angewandte Chemie - International Edition, 2022, 61, .	7.2	7

#	Article	IF	Citations
3233	Percolation Process-Mediated Rich Defects in Hole-Doped PbSe with Enhanced Thermoelectric Performance. Chemistry of Materials, 2022, 34, 6450-6459.	3.2	8
3234	Thermoelectric Zintl Compound In_{1â^'x}Ga_xTe: Pure Acoustic Phonon Scattering and Dopantâ€Induced Deformation Potential Reduction and Lattice Shrink. Angewandte Chemie - International Edition, 2022, 61, .	7.2	12
3235	The electronic structure, elastic properties, dynamical stability and thermoelectric properties of rock-salt and orthorhombic phases of CdS: First-principles calculations. Solid State Communications, 2022, 353, 114878.	0.9	4
3236	Elastic properties related energy conversions of coordination polymers and metalâ€“organic frameworks. Coordination Chemistry Reviews, 2022, 470, 214692.	9.5	17
3237	Challenges and strategies to optimize the figure of merit: Keeping eyes on thermoelectric metamaterials. Materials Science in Semiconductor Processing, 2022, 150, 106944.	1.9	10
3238	To improve the thermoelectric properties of Cu2GeSe3 via GeSe compensatory compositing strategy. Journal of Alloys and Compounds, 2022, 921, 166181.	2.8	3
3239	Highly enhanced thermoelectric properties of Bi2S3 via (Se, Cl)-co doping in hydrothermal synthesis process. Journal of Alloys and Compounds, 2022, 922, 166252.	2.8	5
3240	Thermoelectric properties of Bi2O2Se-x%AgSnSe2 composites via liquid assisted shear exfoliation-restacking process. Journal of Alloys and Compounds, 2022, 921, 166087.	2.8	3
3241	One-step post-treatment boosts thermoelectric properties of PEDOT:PSS flexible thin films. Journal of Materials Science and Technology, 2023, 132, 81-89.	5.6	46
3242	Mapping the Real-Time Vibrational Infrastructure of Cs₂SnI₆ Nanocrystals through Coherent Phonon Dynamics. ACS Photonics, 2022, 9, 2756-2766.	3.2	3
3243	Thermal transport and thermoelectric properties of alkali-metal telluride Na2Te from first-principles study. Solid State Communications, 2022, 354, 114890.	0.9	0
3244	Thermoelectric performance of multiphase <scp>GeSeâ€CuSe</scp> composites prepared by hydrogen decrepitation method. International Journal of Energy Research, 2022, 46, 17455-17464.	2.2	2
3245	Vacuum-Deposited Cesium Tin Iodide Thin Films with Tunable Thermoelectric Properties. ACS Applied Energy Materials, 2022, 5, 10216-10223.	2.5	10
3246	Tri-MX: New group-IV monochalcogenide monolayers with excellent piezoelectricity and special optical properties. Applied Surface Science, 2022, 602, 154391.	3.1	4
3247	SnSe nanosheet arrays film for trace NO2 detection at room temperature. Sensors and Actuators B: Chemical, 2022, 370, 132407.	4.0	8
3248	High-Entropy Thermoelectric Materials Emerging. , 0, 1, .		6
3249	High thermoelectric performance in metal phosphides MP₂ (M = Co, Rh and Ir): a theoretical prediction from first-principles calculations. RSC Advances, 2022, 12, 23829-23838.	1.7	1
3250	Multiple valence bands convergence and strong phonon scattering lead to high thermoelectric performance in p-type PbSe. Nature Communications, 2022, 13, .	5.8	37

#	Article	IF	Citations
3251	Theoretical Study of Ba₂X₆ (X = S, Se, Te) for Thermoelectric Applications Based on First-Principles Calculations and Machine Learning. Journal of Physical Chemistry C, 2022, 126, 12735-12741.	1.5	1
3252	Data-Driven Enhancement of ZT in SnSe-Based Thermoelectric Systems. Journal of the American Chemical Society, 2022, 144, 13748-13763.	6.6	16
3253	Recent progress in the edge reconstruction of two-dimensional materials. Journal Physics D: Applied Physics, 2022, 55, 414003.	1.3	3
3254	Strong Anharmonicityâ€Induced Low Thermal Conductivity and High nâ€type Mobility in the Topological Insulator Bi_{1.1}Sb_{0.9}Te₂S. Angewandte Chemie, 2022, 134, .	1.6	5
3255	Modular Nanostructures Facilitate Low Thermal Conductivity and Ultraâ€High Thermoelectric Performance in nâ€Type SnSe. Advanced Materials, 2022, 34, .	11.1	42
3256	Low lattice thermal conductivity in Zintl phases <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Na</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Na</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> - An ab initio study. Physical Review Materials, 2022, 6, .	0.9	2
3257	Synthesis of SnSe_{1â€“x}S_x Polycrystals with Enhanced Thermoelectric Properties Via Hydrothermal Methods Combined with Spark Plasma Sintering. ACS Applied Energy Materials, 2022, 5, 11662-11668.	2.5	0
3258	Strong Anharmonicityâ€Induced Low Thermal Conductivity and High nâ€type Mobility in the Topological Insulator Bi_{1.1}Sb_{0.9}Te₂S. Angewandte Chemie - International Edition, 2022, 61, .	7.2	8
3259	Thermal transport properties of monolayer GeS and SnS: A comparative study based on machine learning and SW interatomic potential models. AIP Advances, 2022, 12, .	0.6	6
3260	Enhanced thermoelectric properties of Cu-Se system via bond-structure adjustment by Ag-doping. Journal of Alloys and Compounds, 2022, 927, 166872.	2.8	7
3261	Recycled Bifunctional Heterostructure Material: g-GaN/SnS for Photocatalytic Decomposition of Water and Efficient Detection of NO₂. Langmuir, 0, , .	1.6	2
3262	Layered Tin Chalcogenides SnS and SnSe: Lattice Thermal Conductivity Benchmarks and Thermoelectric Figure of Merit. Journal of Physical Chemistry C, 2022, 126, 14036-14046.	1.5	7
3263	Unwrapping a full temporal cycle in time domain thermoreflectance for enhanced measurement sensitivity in thermally insulating materials. Review of Scientific Instruments, 2022, 93, .	0.6	1
3264	Theoretical Design of Highly Efficient 2D Thermoelectric Device Based on Janus MoSSe and Graphene Heterostructure. ACS Applied Energy Materials, 2022, 5, 9581-9586.	2.5	7
3265	Glassy thermal conductivity in Cs3Bi2I6Cl3 single crystal. Nature Communications, 2022, 13, .	5.8	28
3266	Energy Interplay in Materials: Unlocking Nextâ€Generation Synchronous Multisource Energy Conversion with Layered 2D Crystals. Advanced Materials, 2022, 34, .	11.1	5
3267	Giant Thermoelectric Power Factor Anisotropy in PtSb_{1.4}Sn_{0.6}. Inorganic Chemistry, 2022, 61, 13586-13590.	1.9	2
3268	<scp>Rare earth</scp> metalâ€doped Zintl phase thermoelectric materials: The <scp>Yb_{5â€“x}</scp>_x<scp>RE</scp>_x<scp>Al₂Sb₆</scp> (<scp>RE</scp>=Pr, Nd, Sm) system. Bulletin of the Korean Chemical Society, 2022, 43, 1191-1199.	1.0	2

#	Article	IF	Citations
3269	Revealing excellent electronic, optical, and thermoelectric behavior of Eu based EuAg2Y2 (Y= S/Se): For solar cell applications. Computational Condensed Matter, 2022, 32, e00723.	0.9	13
3270	Structure and stability of van der Waals layered group-IV monochalcogenides. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, .	0.9	3
3271	Giant phonon anharmonicity driven by the asymmetric lone pairs in Mg3Bi2. Materials Today Physics, 2022, 27, 100791.	2.9	11
3272	Multiple effects result in significantly improved thermoelectric figure-of-merit of InSb semiconductors via embedding metastable Ag/Pt nano particles. Materials Today Physics, 2022, 27, 100818.	2.9	0
3273	Thermoelectric properties of monolayer MoSi2N4 and MoGe2N4 with large Seebeck coefficient and high carrier mobility: A first principles study. Journal of Solid State Chemistry, 2022, 315, 123447.	1.4	13
3274	Characterization of polycrystalline SnSe2 thin films for thermoelectric applications grown by single-stage horizontal tube furnace (SSHTF). Optical Materials, 2022, 133, 112797.	1.7	0
3275	Enhancing thermoelectric properties of isotope graphene nanoribbons via machine learning guided manipulation of disordered antidots and interfaces. International Journal of Heat and Mass Transfer, 2022, 197, 123332.	2.5	4
3276	Low lattice thermal conductance obtained by controllable quasiperiodic long-range disorder in ternary atomic ribbons with rock-salt structure. Journal of Physics and Chemistry of Solids, 2022, 170, 110956.	1.9	0
3277	Advances in the design and assembly of flexible thermoelectric device. Progress in Materials Science, 2023, 131, 101003.	16.0	140
3278	Realizing high thermoelectric performance in magnetic field-assisted solution synthesized nanoporous SnSe integrated with quantum dots. Chemical Engineering Journal, 2023, 451, 138637.	6.6	3
3279	Synthesis and Characterization of New Multinary Selenides A ₁₀ B ₁₈ Se ₃₇ (A=Sn/Pb; B=In/Sb/Bi). European Journal of Inorganic Chemistry, 0, , .	1.0	1
3280	Effects of cation doping on thermoelectric properties of Bi2S3 materials. Journal of Materials Science: Materials in Electronics, 2022, 33, 22291-22299.	1.1	2
3281	Manipulation of phase structure and Se vacancy to enhance the average thermoelectric performance of AgBiSe2. Materials Today Physics, 2022, 27, 100837.	2.9	5
3282	Design and fabrication of thermopower and electrical resistivity setup for bulk and thin film systems. Cryogenics, 2022, 127, 103550.	0.9	1
3283	Extremely low thermal conductivity in BaSb2Se4: Synthesis, characterization, and DFT studies. Journal of Solid State Chemistry, 2022, 315, 123524.	1.4	3
3284	First-principles calculations to investigate structural, elastic, electronic, thermodynamic, and thermoelectric properties of CaPd3B4O12 (BÂ=ÂTi, V) perovskites. Results in Physics, 2022, 42, 105977.	2.0	54
3285	Review on recent development on thermoelectric functions of PEDOT:PSS based systems. Materials Science in Semiconductor Processing, 2022, 152, 107041.	1.9	25
3286	Electronic structure and thermoelectric properties of uniaxial strained SnSe from first-principles calculations. Physica B: Condensed Matter, 2022, 646, 414334.	1.3	5

#	Article	IF	Citations
3287	Thermoelectric generators as an alternative for reliable powering of wearable devices with wasted heat. Journal of Solid State Chemistry, 2022, 316, 123543.	1.4	6
3288	Structural and optical investigations on amorphous SnSe<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si162.svg" display="inline" id="d1e1172"><mml:msub><mml:mrow /><mml:mrow><mml:mn>9</mml:mn></mml:mrow></mml:msub></mml:math> alloy. Journal of Non-Crystalline Solids, 2022, 597, 121897.	1.5	0
3289	Boosting the thermoelectric performance of GeTe via vacancy control and engineering sintering parameters. Materials Today Communications, 2022, 33, 104411.	0.9	2
3290	Pressure-Induced Enhancement of Thermoelectric Performance of CoP ₃ By the Structural Phase Transition. SSRN Electronic Journal, 0, , .	0.4	0
3291	Momentum Dependent Hot Carrier Cooling in Tin Selenide. , 2022, , .		0
3292	Enhancement of the power factor of SnSe by adjusting the crystal and energy band structures. Physical Chemistry Chemical Physics, 2022, 24, 24130-24136.	1.3	3
3294	Breaking the sodium solubility limit for extraordinary thermoelectric performance in p-type PbTe. Energy and Environmental Science, 2022, 15, 3958-3967.	15.6	25
3295	Enhancing the thermoelectric performance of n-type Bi₂Te_{2.7}Se_{0.3} through the incorporation of Ag₉AlSe₆ inclusions. Inorganic Chemistry Frontiers, 2022, 9, 5386-5393.	3.0	11
3296	Thermoelectric pProperties of hHigh-pPerformance n-tType lLead tTelluride mMeasured iInsSitu in a nNuclear rReactor cCore. Journal of Materials Chemistry A, 0, , .	5.2	1
3297	The potential thermoelectric material Tl₃XSe₄ (X = V, Ta, Nb): a first-principles study. Physical Chemistry Chemical Physics, 2022, 24, 24447-24456.	1.3	4
3298	Nir-Driven Snse Particles for Rapid and Effective Bacteria Sterilization. SSRN Electronic Journal, 0, , .	0.4	0
3299	Photo-induced Polaronic Response of SnSe Probed by Ultrafast Multi-THz Spectroscopy. , 2022, , .		0
3300	Raising the solubility of Gd yields superior thermoelectric performance in n-type PbSe. Journal of Materials Chemistry A, 2022, 10, 20386-20395.	5.2	8
3301	Ultralow thermal conductivity and anisotropic thermoelectric performance in layered materials LaMOCh (M = Cu, Ag; Ch = S, Se). Physical Chemistry Chemical Physics, 2022, 24, 21261-21269.	1.3	6
3302	Ba₃Zr₂Cu₄S₉: the first quaternary phase of the Baâ€“Zrâ€“Cuâ€“S system. New Journal of Chemistry, 2022, 46, 15976-15986.	1.4	3
3303	Effects of Biaxial Strain on Thermal Conductivity in Monolayer Alp3. SSRN Electronic Journal, 0, , .	0.4	0
3304	Thermoelectric Properties of Two-Dimensional Materials with Combination of Linear and Nonlinear Band Structures. SSRN Electronic Journal, 0, , .	0.4	0
3305	Highly Enhanced Many-body Interactions in Anisotropic 2D Semiconductors. RSC Nanoscience and Nanotechnology, 2022, , 76-125.	0.2	1

#	Article	IF	Citations
3306	Improvement of thermoelectric performance of SnTe-based solid solution by entropy engineering. Wuli Xuebao/Acta Physica Sinica, 2022, 71, 237302.	0.2	1
3307	First-Principles Investigates on the Electronic Structure and Magnetic Properties of 3d Transition Metal Doped Honeycomb Ins Monolayer. SSRN Electronic Journal, 0, , .	0.4	0
3308	Suppressed Thermal Conductivity of Bilayer Sns: A Comparative Study Among the Monolayer, Bilayer and Bulk Sns. SSRN Electronic Journal, 0, , .	0.4	0
3309	Recent advances in designing thermoelectric materials. Journal of Materials Chemistry C, 2022, 10, 12524-12555.	2.7	33
3310	Influence of post deposition annealing on thermoelectric properties of In2Se3 thin films. Materials Science in Semiconductor Processing, 2023, 153, 107127.	1.9	3
3311	CVD Growth of Tin Selenide Thin Films for Optoelectronic Applications. , 2022, , .		0
3312	Fabrication and thermoelectric properties of SrTiO3â€“TiO2 composite ceramics. Ceramics International, 2022, 48, 36500-36514.	2.3	5
3313	Photoinduced Phase Change in SnSe Probed by Ultrafast Multi-THz Spectroscopy. , 2022, , .		0
3314	Entropy engineering enhances the thermoelectric performance and microhardness of (GeTe)1â^'x(AgSb0.5Bi0.5Te2)x. Science China Materials, 2023, 66, 696-706.	3.5	8
3315	Gigantic Effect due to Phase Transition on Thermoelectric Properties of Ionic Solâ€“Gel Materials. Advanced Functional Materials, 2022, 32, .	7.8	12
3316	Thermoelectric transport properties of XAgP (X = Sr and Ba) from first principles. Journal of Physics Condensed Matter, 2022, 34, 455501.	0.7	1
3317	Machineâ€Learning Modeling for Ultraâ€Stable Highâ€Efficiency Perovskite Solar Cells. Advanced Energy Materials, 2022, 12, .	10.2	23
3318	Isovalent substitution in metal chalcogenide materials for improving thermoelectric power generation – A critical review. , 2022, , .		8
3319	Effects of Bi and Sb doping on the thermoelectric performance of n-type quaternary Mg2.18Ge0.1Si0.3Sn0.6 materials. Journal of Solid State Chemistry, 2022, , 123574.	1.4	0
3320	Tunable quantum gaps to decouple carrier and phonon transport leading to high-performance thermoelectrics. Nature Communications, 2022, 13, .	5.8	23
3321	Realizing High Thermoelectric Performance of Ag/Al Coâ€Doped Polycrystalline SnSe through Band Structure Modification and Hydrogen Reduction. Advanced Electronic Materials, 2022, 8, .	2.6	3
3322	Realizing zT > 2 in Environmentâ€Friendly Monoclinic Cu2S â€“ Tetragonal Cu1.96S Nanoâ€Phase Junctions for Thermoelectrics. Angewandte Chemie, 0, , .	1.6	0
3323	High thermoelectric figure of merit in rhombic porous carbon nitride nanoribbons. Journal of the Chinese Chemical Society, 0, , .	0.8	0

#	Article	IF	Citations
3324	Effect of four-phonon interaction on phonon thermal conductivity and mean-free-path spectrum of high-temperature phase SnSe. Applied Physics Letters, 2022, 121, .	1.5	8
3325	Ultra-broadband SnSe-based photothermoelectric detector for mid-infrared gas spectroscopy. Applied Physics Letters, 2022, 121, .	1.5	5
3326	Engineering Interfacial Effects in Electron and Phonon Transport of Sb₂Te₃/MoS₂ Multilayer for Thermoelectric ZT Above 2.0. Advanced Functional Materials, 2022, 32, .	7.8	6
3327	RealizingzT>2 in Environmentâ€Friendly Monoclinic Cu₂Sâ€”Tetragonal Cu_{1.96}S Nanoâ€Phase Junctions for Thermoelectrics. Angewandte Chemie - International Edition, 2022, 61, .	7.2	13
3328	Lattice strain and band overlap of the thermoelectric composite <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Mg</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi>Sn</mml:mi><mml:mn></mml: Physical Review B, 2022, 106, .	1.2	8
3329	Nernst coefficient measurements in two-dimensional materials. Journal Physics D: Applied Physics, 2022, 55, 455303.	1.3	1
3331	Recent Advances in Solutionâ€processed Inorganic Thermoelectric Thin Films. ChemNanoMat, 2023, 9, .	1.5	1
3332	Magneticâ€Anisotropyâ€Enhanced Electrical Transport Properties of Co/Bi_{0.5}Sb_{1.5}Te₃/PVDF Flexible Thermoelectromagnetic Films. Advanced Functional Materials, 2022, 32, .	7.8	3
3333	Optoelectronics and Transport Phenomena in Rb2InBiX6 (X = Cl, Br) Compounds for Renewable Energy Applications: A DFT Insight. Chemistry, 2022, 4, 1044-1059.	0.9	31
3334	Layer-dependent electronic structure, dynamic stability, and phonon properties of few-layer SnSe. Physical Review B, 2022, 106, .	1.1	3
3335	In Situ Synthesis of Polythiophene and Silver Nanoparticles within a PMMA Matrix: A Nanocomposite Approach to Thermoelectrics. ACS Applied Energy Materials, 2022, 5, 11067-11076.	2.5	3
3336	Crystal Structure and Thermoelectric Properties of Layered Van der Waals Semimetal ZrTiSe₄. Chemistry of Materials, 2022, 34, 8858-8867.	3.2	5
3337	Phonon anharmonicity and thermal conductivity of two-dimensional van der Waals materials: A review. Science China: Physics, Mechanics and Astronomy, 2022, 65, .	2.0	7
3338	Realizing High Thermoelectric Performance in Bi_{0.4}Sb_{1.6}Te₃ Nanosheets by Doping Sn Element. ACS Applied Energy Materials, 2022, 5, 12614-12621.	2.5	2
3339	Thermoelectric and Photovoltaic Properties of Mn-Doped Kesterite Cu₂Zn_{1â€“x}Mn_xSnSe₄. Inorganic Chemistry, 2022, 61, 16390-16404.	1.9	3
3340	Chromium ditelluride monolayer: A novel promising 2H phase thermoelectric material with direct bandgap and ultralow lattice thermal conductivity. Journal of Alloys and Compounds, 2023, 930, 167485.	2.8	14
3341	Giant thermoelectric power in fluorine-doped single-walled carbon nanotubes. Journal of Physics and Chemistry of Solids, 2022, 171, 111020.	1.9	6
3342	Enhancing the thermoelectric performance of solution-synthesized SnSe-based materials via incorporating Ti3C2T MXene. Materials Today Energy, 2022, 30, 101137.	2.5	5

#	Article	IF	Citations
3343	Ultrahigh thermoelectric performance of Janus Î±-STe₂ and Î±-SeTe₂ monolayers. Physical Chemistry Chemical Physics, 0, , .	1.3	0
3344	Thermoelectric Materials. , 2022, , .		0
3345	Crystal Growth and Thermoelectric Properties of Zintl Phase Mg₃X₂ (X=Sb,) Tj ETQq0 0 0 rgBT /Overlock 10 T	0.6	2
3346	Metal chalcogenide materials: Synthesis, structure and properties. , 2022, , .		1
3347	Achieving Low Lattice Thermal Conductivity in Halfâ€Heusler Compound LiCdSb via Zintl Chemistry. Small Science, 0, , 2200065.	5.8	4
3348	A study of anisotropic thermoelectric properties of bulk Germanium Sulfide in its Pnma phase: a combined first-principles and machine-learning approach. Physica Scripta, 2022, 97, 125804.	1.2	6
3349	Facile phase transition to Î²- from Î±-SnSe by uniaxial strain. Current Applied Physics, 2022, , .	1.1	0
3350	Large Magnetoâ€Transverse and Longitudinal Thermoelectric Effects in the Magnetic Weyl Semimetal TbPtBi. Advanced Materials, 2023, 35, .	11.1	6
3351	A thermoelectric materials database auto-generated from the scientific literature using ChemDataExtractor. Scientific Data, 2022, 9, .	2.4	18
3352	Neutron scattering studies on ionic diffusion behaviors of superionic Î±- Cu2âˆ'Î´Se. Applied Physics Letters, 2022, 121, 151901.	1.5	0
3353	Realizing high-ranged thermoelectric performance in PbSnS2 crystals. Nature Communications, 2022, 13, .	5.8	18
3354	Atomic Level Defect Structure Engineering for Unusually High Average Thermoelectric Figure of Merit in nâ€Type PbSe Rivalling PbTe. Advanced Science, 2022, 9, .	5.6	21
3355	Evolution of defect structures leading to high ZT in GeTe-based thermoelectric materials. Nature Communications, 2022, 13, .	5.8	59
3356	First-Principles Investigation of Structural, Thermoelectric, and Optical Properties of Half-Heusler Compound ScRhTe under Varied Pressure. Crystals, 2022, 12, 1472.	1.0	3
3357	Superior Thermoelectric Performance of Black Phosphorus in Elemental Tellurium. Advanced Energy Materials, 2022, 12, .	10.2	3
3358	First-Principles Study of the Phonon Lifetime and Low Lattice Thermal Conductivity of Monolayer Î³-GeSe: A Comparative Study. ACS Applied Nano Materials, 2022, 5, 15441-15448.	2.4	4
3359	When IVâˆ'VI Meets Iâˆ'Vâˆ'VI₂: A Reinvigorating Thermoelectric Strategy for Tin Monochalcogenides. ChemNanoMat, 2023, 9, .	1.5	2
3360	A public database of thermoelectric materials and system-identified material representation for data-driven discovery. Npj Computational Materials, 2022, 8, .	3.5	11

#	Article	IF	Citations
3361	Two-dimensional multiferroic material of metallic p-doped SnSe. Nature Communications, 2022, 13, .	5.8	27
3362	High-pressure and high-temperature synthesis of stable S Co3.6Ni0.4Sb12 skutterudite compounds. Ceramics International, 2023, 49, 6299-6306.	2.3	2
3363	Robust combined modeling of crystalline and amorphous silicon grain boundary conductance by machine learning. Npj Computational Materials, 2022, 8, .	3.5	2
3364	High temperature difference in a new flexible thermoelectric bismuth telluride microgenerator. Sensors and Actuators A: Physical, 2022, 347, 113961.	2.0	3
3365	Physical Insights on the Thermoelectric Performance of Cs₂SnBr₆ with Ultralow Lattice Thermal Conductivity. Journal of Physical Chemistry Letters, 2022, 13, 9736-9744.	2.1	2
3366	Magnetic and Spinâ€Polarized Optical Properties of Co and Mn Adsorbed Î³â€GeSe. Physica Status Solidi - Rapid Research Letters, 2023, 17, .	1.2	0
3367	Energy storage applicability of novel two-dimensional transition metal nitride alloys: First principle study. Solid State Communications, 2022, 358, 115002.	0.9	7
3368	Enhanced thermoelectric performance of p-type Bi2Te3-based materials by suppressing bipolar thermal conductivity. Materials Today Physics, 2022, 29, 100904.	2.9	6
3369	Role of alloying in the phonon and thermal transport of SnSâ€“SnSe across the phase transition. Materials Today Physics, 2022, 28, 100890.	2.9	1
3370	Anisotropic Thermal Conductivity of Inkjet-Printed 2D Crystal Films: Role of the Microstructure and Interfaces. Nanomaterials, 2022, 12, 3861.	1.9	3
3371	Schottky Contacts to ZnO-Nanocoated SnSe Powders by Atomic Layer Deposition. ACS Omega, 2022, 7, 41606-41613.	1.6	1
3372	High performance piezotronic thermoelectric devices based on zigzag MoS2 nanoribbon. Nano Energy, 2022, 104, 107888.	8.2	6
3373	Ex-situ modification of lattice thermal transport through coherent and incoherent heat baths. Materials Today Physics, 2022, 29, 100884.	2.9	0
3374	Thermoelectric properties of two-dimensional materials with combination of linear and nonlinear band structures. Materials Today Communications, 2022, 33, 104596.	0.9	2
3375	Direct observation of multiple conduction-band minima in high-performance thermoelectric SnSe. Scripta Materialia, 2023, 223, 115081.	2.6	1
3376	First-principles investigate on the electronic structure and magnetic properties of 3d transition metal doped honeycomb InS monolayer. Applied Surface Science, 2023, 608, 155240.	3.1	7
3377	Anharmonic phonon renormalization assisted acoustic branch scattering induces ultralow thermal conductivity and high thermoelectric performance of 2D SnSe. Journal of Alloys and Compounds, 2023, 932, 167525.	2.8	6
3378	Tuning of Thermoelectric performance of CrSe2 material using dimension engineering. Journal of Physics and Chemistry of Solids, 2023, 172, 111083.	1.9	8

#	Article	IF	Citations
3379	The ultra-high thermoelectric power factor in facile and scalable single-step thermal evaporation fabricated composite SnSe/Bi thin films. Journal of Materials Chemistry C, 2022, 10, 18017-18024.	2.7	6
3380	Revealing the anisotropic phonon behaviours of layered SnS by angle/temperature-dependent Raman spectroscopy. RSC Advances, 2022, 12, 32262-32269.	1.7	1
3381	High-performance thermoelectric monolayer Î³-GeSe and its group-IV monochalcogenide isostructural family. Chemical Engineering Journal, 2023, 454, 140242.	6.6	16
3382	Charge and heat currents in prismatic tubular nanowires. , 2022, , .		0
3383	Thermal Transport and Thermoelectric Properties of Rb₂PdX₆ (X=Cl, Br) from Firstâ€principles Study. ChemNanoMat, 2023, 9, .	1.5	1
3384	Topological defects and their induced metallicity in monolayer semiconducting Î³-phase group IV monochalcogenides. Science China Materials, 0, .	3.5	0
3385	Theoretical investigation of the structural properties of SnSe<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si51.svg" display="inline" id="d1e1972"><mml:msub><mml:mrow /><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^’</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:math>S<mml:m xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si52.svg" display="inline" id="d1e1984"><mml:msub><mml:mrow /><mml:mrow><mml:mi>x</mml:mi></mml:mrow></mml:msub></	1.9	0
3386	Hopping thermopower in FEGA₃. International Journal of Modern Physics B, 2023, 37, .	1.0	3
3387	Hybrid Photovoltaic/Thermoelectric Systems for Round-the-Clock Energy Harvesting. Molecules, 2022, 27, 7590.	1.7	5
3388	Improving thermoelectric performance of asymmetrical Janus 1T-SnSSe monolayer by the synergistic effect of band convergence and crystal lattice softening under strain engineering. Materials Today Physics, 2022, 29, 100923.	2.9	7
3389	Low thermal conductivity in bournonite <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>PbCuSbS</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math> : A comprehensive study. Physical Review B, 2022, 106, .	1.1	4
3390	Abnormal Seebeck Effect in Vertically Stacked 2D/2D PtSe₂/PtSe₂ Homostructure. Advanced Science, 2022, 9, .	5.6	7
3391	Advances in Versatile GeTe Thermoelectrics from Materials to Devices. Advanced Materials, 2023, 35, .	11.1	38
3392	Electrodeposition of low-cost SnS films with increasing carrier concentration and mobility by aluminum doping and texture adjustment. Journal of Materials Science: Materials in Electronics, 0, , .	1.1	0
3393	Relevance of Solidification Kinetics for Enhanced Thermoelectric Performance in Al-Doped Higher Manganese Silicides. ACS Applied Materials & Interfaces, 2022, 14, 51983-51993.	4.0	6
3394	Synthesis of n-type SnSe polycrystals with high and isotropic thermoelectric performance. Journal of Alloys and Compounds, 2022, , 168043.	2.8	1
3395	Realizing high thermoelectric performance of Cu and Ce co-doped p-type polycrystalline SnSe via inducing nanoprecipitation arrays. Journal of Advanced Ceramics, 2022, 11, 1671-1686.	8.9	11
3396	First-principles study on bilayer SnP₃ as a promising thermoelectric material. Physical Chemistry Chemical Physics, 2022, 24, 29693-29699.	1.3	2

#	Article	IF	Citations
3397	Study on the Thermoelectric Properties of n-Type Polycrystalline SnSe by CeCl₃ Doping. ACS Applied Energy Materials, 2022, 5, 15093-15101.	2.5	6
3398	Recent Advances in Ultrahigh Thermoelectric Performance Material SnSe. , 0, 1, .		1
3399	Twisted grain boundary leads to high thermoelectric performance in tellurium crystals. Energy and Environmental Science, 2023, 16, 125-137.	15.6	5
3400	Stacking pattern induced high ZTs in monolayer SnSSe and bilayer SnXY (X/YÂ=ÂS, Se) materials with strong anharmonic phonon scattering. Chemical Engineering Journal, 2023, 455, 140832.	6.6	10
3401	High thermoelectric properties of shear-exfoliation-derived TiS2-AgSnSe2 nano-composites via ionized impurity scattering. Acta Materialia, 2023, 244, 118564.	3.8	2
3402	Cellular structured Cu₂Sn_{0.8}Co_{0.2}S₃ with enhanced thermoelectric performance realized by liquid-phase sintering. Journal of Materials Chemistry A, 2023, 11, 1447-1454.	5.2	4
3403	Experimental and theoretical study of Î²-As₂Te₃ under hydrostatic pressure. Journal of Materials Chemistry C, 0, , .	2.7	1
3404	Enhanced phonon scattering and thermoelectric performance for N-type Bi2Te2.7Se0.3 through incorporation of conductive polyaniline particles. Chemical Engineering Journal, 2023, 455, 140923.	6.6	17
3405	Ultralow lattice thermal conductivity and promising thermoelectric properties of a new 2D MoW3Te8 membrane. Results in Physics, 2023, 44, 106136.	2.0	2
3406	Thermoelectric performance and optoelectronic properties of Janus monolayer of ZrXY(XÂ=ÂO, S) (YÂ=ÂS,) Tj ETQq1 1 0.784314 rgB	1.4	5
3407	Thermodynamic performance of solar full-spectrum electricity generation system integrating photovoltaic cell with thermally-regenerative ammonia battery. Applied Energy, 2023, 332, 120517.	5.1	3
3408	NIR-driven SnSe particles for rapid and effective bacteria sterilization. Journal of Environmental Chemical Engineering, 2023, 11, 109109.	3.3	4
3409	Understanding the origins of low lattice thermal conductivity in a novel two-dimensional monolayer NaCuS for achieving medium-temperature thermoelectric applications. Applied Surface Science, 2023, 614, 156167.	3.1	4
3410	Structural, dielectric and electrical properties of Se96â^'xSn4Sbx(xÂ=Â0, 2, 4, 6, and 8) glassy alloys. Journal of Alloys and Compounds, 2023, 936, 168336.	2.8	2
3411	First principles thermoelectric performance calculations of TiN, ZnS, and Ag2Se at low temperatures. Computational Condensed Matter, 2023, 34, e00771.	0.9	1
3412	Optimising 1T-NiS2 monolayer thermoelectric performance via valley engineering. Materials Today Communications, 2023, 34, 105169.	0.9	5
3413	Rare earth element Ce enables high thermoelectric performance in n-type SnSe polycrystals. Journal of Materials Science and Technology, 2023, 143, 234-241.	5.6	8
3414	Highly responsive SnSe/GaN heterostructure-based UVC-SWIR broadband photodetector. Materials Science in Semiconductor Processing, 2023, 156, 107277.	1.9	14

#	Article	IF	Citations
3415	Opportunities for thermoelectric generators in supporting a low carbon economy. Nanomaterials and Energy, 2022, 11, 8-26.	0.1	2
3416	Defining shapes of two-dimensional crystals with undefinable edge energies. Nature Computational Science, 2022, 2, 729-735.	3.8	2
3417	Preparation and study of nanodispersed powders of thermoelectric materials. Izvestiya Vysshikh Uchebnykh Zavedenii Materialy Elektronnoi Tekhniki = Materials of Electronics Engineering, 2022, 25, 188-201.	0.1	0
3418	Intrinsic properties and dopability effects on the thermoelectric performance of binary Sn chalcogenides from first principles. Frontiers in Electronic Materials, 0, 2, .	1.6	0
3419	Lattice Distortions and Multiple Valence Band Convergence Contributing to High Thermoelectric Performance in MnTe. Small, 2023, 19, .	5.2	8
3420	Moving fast makes for better cooling. Science, 2022, 378, 832-833.	6.0	39
3422	Low lattice thermal conductivity in alkali metal based Heusler alloys. Physical Review Materials, 2022, 6, .	0.9	3
3423	Thermoelectric Property of SnSe Films on Glass Substrate: Influence of Columnar Grain Boundary on Carrier Scattering. ACS Applied Electronic Materials, 2022, 4, 6364-6372.	2.0	4
3424	A Review of Key Properties of Thermoelectric Composites of Polymers and Inorganic Materials. Materials, 2022, 15, 8672.	1.3	3
3425	Thermoelectric-Powered Sensors for Internet of Things. Micromachines, 2023, 14, 31.	1.4	6
3426	Defectâ€Engineeringâ€Stabilized AgSbTe₂ with High Thermoelectric Performance. Advanced Materials, 2023, 35, .	11.1	20
3427	Elastic Moduli: a Tool for Understanding Chemical Bonding and Thermal Transport in Thermoelectric Materials. Angewandte Chemie, 2023, 135, .	1.6	1
3428	Synergistically optimizing thermoelectric performance of ZnO ceramics by interfacial band alignment and self-doping defects. Journal of the European Ceramic Society, 2023, 43, 1978-1984.	2.8	6
3429	Ba₆Ge₂Se₁₂ and Ba₇Ge₂Se₁₇: Two Centrosymmetric Barium Seleno-Germanates with Polyatomic Anion Disorder. Inorganic Chemistry, 2023, 62, 285-294.	1.9	3
3430	A review on ternary CuFeS2 compound: Fabrication strategies and applications. Journal of Alloys and Compounds, 2023, 938, 168566.	2.8	5
3431	Synthesis and enhanced piezoelectric response of CVD-grown SnSe layered nanosheets for flexible nanogenerators. Nano Research, 0, , .	5.8	2
3432	Tunable thermal transport properties of bilayer GeS with stacking patterns. Journal of Applied Physics, 2022, 132, .	1.1	3
3433	Vacancy-Ordered Double Perovskites Cs₂BI₆ (B = Pt, Pd, Te, Sn): An Emerging Class of Thermoelectric Materials. Journal of Physical Chemistry Letters, 2022, 13, 11655-11662.	2.1	14

#	Article	IF	Citations
3434	Carrier Mobility Modulation in Cu₂Se Composites Using Coherent Cu₄TiSe₄ Inclusions Leads to Enhanced Thermoelectric Performance. ACS Applied Materials & Interfaces, 2022, 14, 56817-56826.	4.0	2
3435	Two-Dimensional Intercalating Multiferroics with Strong Magnetoelectric Coupling. Journal of Physical Chemistry Letters, 2022, 13, 11405-11412.	2.1	11
3436	Tl-based TlAgX (Xâ€‰=â€‰S, Se) monolayers with ultra-low lattice thermal conductivity and high ZT: a first-principles study. Journal of Materials Science, 2022, 57, 21607-21619.	1.7	1
3437	Flexible thermoelectric Cuâ€“Se nanowire/methyl cellulose composite films prepared via screen printing technology. Composites Communications, 2023, 38, 101467.	3.3	7
3438	First-principles study on the electronic structures and topological properties of Bi(110)/IV-VI and Bi(110)/V-V van der Waals heterostructures. Applied Surface Science, 2023, 614, 156027.	3.1	2
3439	Symmetryâ€Guaranteed High Carrier Mobility in Quasiâ€2D Thermoelectric Semiconductors. Advanced Materials, 2023, 35, .	11.1	25
3440	Elastic Moduli: a Tool for Understanding Chemical Bonding and Thermal Transport in Thermoelectric Materials. Angewandte Chemie - International Edition, 2023, 62, .	7.2	15
3441	Thermoelectric Figure of Merit of a Superatomic Crystal <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msub><mml:mi>Re</mml:mi><mml:mn>6</mml:mn></mml:msub><mml:msub><mml:mi>Se</mml:mi><mml:mn>8</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">I</mml:mi></mml:mrow></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:math> Monolayer. Physical Review Applied, 2022, 18, .	4.6	3
3442	Antibonding p-d and s-p Hybridization Induce the Optimization of Thermal and Thermoelectric Performance of MGeTe₃ (M = In and Sb). ACS Applied Energy Materials, 2022, 5, 15566-15577.	2.5	4
3443	Thermoelectric Response Enhanced by Surface/Edge States in Physical Nanogaps. Materials, 2023, 16, 660.	1.3	1
3444	Data-Driven Design of Transparent Thermal Insulating Nanoscale Layered Oxides. Micromachines, 2023, 14, 186.	1.4	0
3445	Predicting lattice thermal conductivity via machine learning: a mini review. Npj Computational Materials, 2023, 9, .	3.5	23
3446	Enhanced Room-Temperature Thermoelectric Performance of 2D-SnSe Alloys via Electric-Current-Assisted Sintering. Materials, 2023, 16, 509.	1.3	1
3447	Intrinsically Low Lattice Thermal Conductivity and Anisotropic Thermoelectric Performance in Inâ€doped GeSb₂Te₄ Single Crystals. Advanced Functional Materials, 2023, 33, .	7.8	11
3448	Recent progress of 2-dimensional layered thermoelectric materials. Wuli Xuebao/Acta Physica Sinica, 2023, 72, 057301.	0.2	2
3449	Thermoelectric properties of C2P4 monolayer: A first principle study. Journal of Applied Physics, 2023, 133, .	1.1	2
3450	Theoretical Prediction of Thermoelectric Performance for Layered LaAgOX (X = S, Se) Materials in Consideration of the Fourâ€Phonon and Multiple Carrier Scattering Processes. Small Methods, 2023, 7, .	4.6	2
3451	Ab initio investigation of the structural, optoelectronic, mechanical, vibrational, and thermoelectric properties of the SixSn1â^'xSe alloys. Journal of Materials Science, 2023, 58, 831-849.	1.7	0

#	Article	IF	Citations
3452	Computational Exploration of Ultralow Lattice Thermal Conductivity and High Figure of Merit in p-Type Bulk RbX₂Sb (X = K, Na). ACS Applied Energy Materials, 2023, 6, 939-949.	2.5	5
3453	Experimental evidence for the significance of optical phonons in thermal transport of tin monosulfide. New Journal of Physics, 0, , .	1.2	0
3454	Enhanced thermoelectric properties and electrical stability for Cu1.8S-based alloys: Entropy engineering and Cu vacancy engineering. Science China Materials, 2023, 66, 2051-2060.	3.5	2
3455	Realization of an ultra-low lattice thermal conductivity in Bi2AgxSe3 nanostructures for enhanced thermoelectric performance. Journal of Colloid and Interface Science, 2023, 637, 340-353.	5.0	9
3456	Strong Antibonding I (p)â€“Cu (d) States Lead to Intrinsically Low Thermal Conductivity in CuBiI₄. Journal of the American Chemical Society, 2023, 145, 1349-1358.	6.6	19
3457	Theoretical determination of superior high-temperature thermoelectricity in an n-type doped 2H-ZrI₂ monolayer. Nanoscale, 2023, 15, 4397-4407.	2.8	5
3458	Kirigami-Inspired Thermal Regulator. Physical Review Applied, 2023, 19, .	1.5	2
3459	Observation of Weak Counterion Size Dependence of Thermoelectric Transport in Ion Exchange Doped Conducting Polymers Across a Wide Range of Conductivities. Advanced Energy Materials, 2023, 13, .	10.2	13
3460	Mechanochemical Synthesis of Sustainable Ternary and Quaternary Nanostructured Cu2SnS3, Cu2ZnSnS4, and Cu2ZnSnSe4 Chalcogenides for Thermoelectric Applications. Nanomaterials, 2023, 13, 366.	1.9	13
3461	Discordant Distortion in Cubic GeMnTe₂ and High Thermoelectric Properties of GeMnTe₂-x%SbTe. Journal of the American Chemical Society, 2023, 145, 1988-1996.	6.6	8
3462	Enhanced Thermoelectric Performance and Mechanical Property in Layered Chalcostibite CuSb_{1â€“x}Pb_xSe₂. ACS Applied Energy Materials, 2023, 6, 723-733.	2.5	6
3463	Influence on electrical properties of pristine bulk Bi2Se3 compound by substitutional doping of â€˜Inâ€™. Journal of Materials Science: Materials in Electronics, 2023, 34, .	1.1	0
3464	Effect of Sn oxides on the thermal conductivity of polycrystalline SnSe. Materials Today Physics, 2023, 31, 100967.	2.9	3
3465	Enhanced photodetector at low-temperature via thermo-phototronic effect in N-type SnSe:Br single crystal. Nano Energy, 2023, 107, 108140.	8.2	2
3466	Experimental and theoretical divulging of electronic structure and optical properties of Zn-doped SnSe thermoelectric materials. Materials Science in Semiconductor Processing, 2023, 156, 107301.	1.9	2
3467	Superconductivity in an Orbitalâ€Reoriented SnAs Square Lattice: A Case Study of Li_{0.6}Sn₂As₂ and NaSnAs. Angewandte Chemie - International Edition, 2023, 62, .	7.2	4
3468	Superconductivity in an Orbitalâ€Reoriented SnAs Square Lattice: A Case Study of Li_{0.6}Sn₂As₂ and NaSnAs. Angewandte Chemie, 2023, 135, .	1.6	3
3469	Enhanced Density of States Facilitates High Thermoelectric Performance in Solution-Grown Ge- and In-Codoped SnSe Nanoplates. ACS Nano, 2023, 17, 801-810.	7.3	9

#	Article	IF	Citations
3470	Broadband and Incident-Angle-Modulation Near-Infrared Polarizers Based on Optically Anisotropic SnSe. Nanomaterials, 2023, 13, 134.	1.9	2
3471	Structural Evolution from Neutron Powder Diffraction of Nanostructured SnTe Obtained by Arc Melting. Crystals, 2023, 13, 49.	1.0	0
3472	Reversible bipolar thermopower of ionic thermoelectric polymer composite for cyclic energy generation. Nature Communications, 2023, 14, .	5.8	13
3473	Improved thermoelectric properties in n-type polycrystalline SnSe_{0.95} by PbCl₂ doping. Materials Advances, 2023, 4, 1372-1377.	2.6	2
3474	Silver Atom Off-Centering in Diamondoid Solid Solutions Causes Crystallographic Distortion and Suppresses Lattice Thermal Conductivity. Journal of the American Chemical Society, 2023, 145, 3211-3220.	6.6	14
3475	NaBeAs and NaBeSb: Novel Ternary Pnictides with Enhanced Thermoelectric Performance. Journal of Physical Chemistry C, 2023, 127, 1733-1743.	1.5	5
3476	In Situ Design of Highâ€Performance Dualâ€Phase GeSe Thermoelectrics by Tailoring Chemical Bonds. Advanced Functional Materials, 2023, 33, .	7.8	9
3478	Operando X-ray scattering study of segmented thermoelectric Zn₄Sb₃. Journal of Materials Chemistry A, 2023, 11, 5819-5829.	5.2	0
3479	Funnel-shaped electronic structure and enhanced thermoelectric performance in ultralight <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi mathvariant="normal">C</mml:mi><mml:mi>x</mml:mi></mml:msub><mml:msub><mml:mrow><mml:mo>(</mml:mo><mml:mi>BN</mml: biphenylene networks. Physical Review B, 2023, 107, .	1.1	7
3480	Phonon Dominated Thermal Transport in Metallic Niobium Diselenide from First Principles Calculations. Nanomaterials, 2023, 13, 315.	1.9	0
3481	Phonon transport in Janus monolayer siblings: a comparison of 1T and 2H-ISbTe. RSC Advances, 2023, 13, 4202-4210.	1.7	1
3482	Thermoelectric energy conversion in buildings. Materials Today Energy, 2023, 32, 101257.	2.5	8
3483	Techno-Economic Evaluation of Future Thermionic Generators for Small-Scale Concentrated Solar Power Systems. Energies, 2023, 16, 1190.	1.6	1
3484	Electrically switchable anisotropic polariton propagation in a ferroelectric van der Waals semiconductor. Nature Nanotechnology, 2023, 18, 350-356.	15.6	11
3485	Layer-Structured Anisotropic Metal Chalcogenides: Recent Advances in Synthesis, Modulation, and Applications. Chemical Reviews, 2023, 123, 3329-3442.	23.0	23
3486	Structural stability, optical and thermoelectric properties of the layered RbSn₂Br₅ halide synthesized using mechanochemistry. CrystEngComm, 2023, 25, 1857-1868.	1.3	1
3487	Texture Engineering to Boost the Thermoelectric Properties. Transactions of Tianjin University, 2023, 29, 189-195.	3.3	1
3488	Synergetic optimization of thermoelectric properties in SnSe film via manipulating Se vacancies. Journal of Alloys and Compounds, 2023, 943, 169115.	2.8	1

#	Article	IF	Citations
3489	Enhanced thermoelectric properties of SnTe through core-shell structures and band engineering. Journal of Alloys and Compounds, 2023, 942, 169010.	2.8	1
3490	Recent progress in phosphide materials for thermoelectric conversion. Journal of Materials Chemistry A, 2023, 11, 8453-8469.	5.2	3
3491	Janus Î²-PdXY (X/Y = S, Se, Te) materials with high anisotropic thermoelectric performance. Nanoscale, 2023, 15, 5964-5975.	2.8	5
3492	Advances in the understanding of the structureâ€“performance relationships of 2D material catalysts based on electron microscopy. Materials Chemistry Frontiers, 2023, 7, 2764-2778.	3.2	6
3493	Microstructural Manipulation for Enhanced Average Thermoelectric Performance: A Case Study of Tin Telluride. ACS Applied Materials & Interfaces, 2023, 15, 9656-9664.	4.0	8
3494	Energy conversion materials for the space solar power station. Chinese Physics B, 2023, 32, 078802.	0.7	1
3495	A review of pressure manipulating structure and performance in thermoelectrics. Journal Physics D: Applied Physics, 2023, 56, 183001.	1.3	1
3496	Development of Alkylthiazole-Based Novel Thermoelectric Conjugated Polymers for Facile Organic Doping. Nanomaterials, 2023, 13, 1286.	1.9	0
3497	Accelerated Discovery of Advanced Thermoelectric Materials via Transfer Learning. Advanced Energy Materials, 0, , .	10.2	0
3498	Electrical Transport Properties Driven by Unique Bonding Configuration in Î³-GeSe. Nano Letters, 2023, 23, 3144-3151.	4.5	4
3499	Pressure-induced enhancement of thermoelectric performance of CoP3 by the structural phase transition. Acta Materialia, 2023, 248, 118773.	3.8	4
3500	The effects of electric field and strain on the BP/GeTe van der Waals heterojunction. Journal Physics D: Applied Physics, 2023, 56, 315102.	1.3	1
3501	Contrasting thermoelectric properties in cubic SnSe-NaSbSe2 and SnSe-NaSbTe2: High performance achieved via increasing cation vacancies and charge densities. Acta Materialia, 2023, 247, 118754.	3.8	5
3502	Promising high temperature thermoelectric performance of layered oxypnictide YZnAsO. Physica B: Condensed Matter, 2023, 657, 414811.	1.3	0
3503	Lower limit to the lattice thermal conductivity of randomly stacked van der Waals (vdW) thin films. Physica E: Low-Dimensional Systems and Nanostructures, 2023, 148, 115658.	1.3	2
3504	First principles insights on the structural, mechanical, dynamical, thermoelectric and thermodynamics properties of novel topological (ScSb) semi-metal. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2023, 291, 116372.	1.7	9
3505	The effects of Zn doping on the thermoelectric performance of Cu₁₂Sb₄S₁₃. Emerging Materials Research, 2023, 12, 1-6.	0.4	1
3506	Contrasting roles of trivalent dopants M (MÂ=ÂIn, Sb, Bi) in enhancing the thermoelectric performance of Ge0.94M0.06Te. Acta Materialia, 2023, 252, 118926.	3.8	3

#	Article	IF	Citations
3507	Epitaxial tin selenide thin film thermoelectrics. Applied Surface Science, 2023, 623, 157034.	3.1	1
3508	Tuning the physico-chemical properties of SnSe films by pulse electrodeposition. Applied Surface Science, 2023, 621, 156845.	3.1	0
3509	Crystal structure modulation of SnSe thermoelectric material by AgBiSe2 solid solution. Journal of the European Ceramic Society, 2023, 43, 3383-3389.	2.8	6
3510	First-principles calculations to investigate structural, optoelectronics and thermoelectric properties of lead free Cs2GeSnX6 (XÂ=ÂCl, Br). Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2023, 292, 116421.	1.7	25
3511	Significant enhancement of the thermoelectric properties for MnSb2Se4 through Ag doping. Materials Today Communications, 2023, 35, 105881.	0.9	0
3512	Supercapacitive performance of a novel binary nanocomposite of metal chalcogenides for advanced hybrid supercapacitor. Journal of Energy Storage, 2023, 65, 107268.	3.9	6
3513	Broadband MIR SnSe nanosheets nonlinear saturable absorber for high peak power pulsed lasers. Optics and Laser Technology, 2023, 163, 109343.	2.2	4
3514	Enhanced thermoelectricity in Bi-sprayed bismuth sulphide particles. Materials Science in Semiconductor Processing, 2023, 162, 107528.	1.9	1
3515	Intrinsically high thermoelectric performance in near-room-temperature Î±-MgAgSb materials. Acta Materialia, 2023, 249, 118847.	3.8	5
3516	Thermoelectric performance of Zintl compound KMgBi with layered structure. Journal of Physics and Chemistry of Solids, 2023, 178, 111308.	1.9	3
3517	Energy performance and enviroeconomic analysis of a novel PV-MCHP-TEG system. Energy, 2023, 274, 127342.	4.5	5
3518	Strain driven anomalous anisotropic enhancement in the thermoelectric performance of monolayer MoS2. Applied Surface Science, 2023, 626, 157139.	3.1	12
3519	Raman structural transition studies and optical band calculation on the multiphase of tin selenides. Materials Chemistry and Physics, 2023, 301, 127622.	2.0	1
3520	SnS/PEDOT:PSS composite films with enhanced surface conductivities induced by solution post-treatment and their application in flexible thermoelectric. Organic Electronics, 2023, 118, 106799.	1.4	1
3521	Uplimit (ZT)max and effective merit parameter B* of thermoelectric semiconductors. Materials Today Physics, 2023, 31, 100989.	2.9	3
3522	SnSe ambipolar thin film transistor arrays with copper-assisted exfoliation. Applied Surface Science, 2023, 617, 156517.	3.1	3
3523	Ultrafast generation and detection of coherent acoustic phonons in SnS0.91Se0.09. Results in Physics, 2023, 45, 106241.	2.0	2
3524	Phase transition enhanced thermoelectric performance for perovskites: The case of AgTaO3. Current Applied Physics, 2023, 48, 84-89.	1.1	2

#	Article	IF	Citations
3525	Impeded thermal transport in aperiodic BN/C nanotube superlattices due to phonon Anderson localization. Chinese Physics B, 2023, 32, 056301.	0.7	2
3526	Strain Tunable Thermoelectric Material: Janus ZrSSe Monolayer. Langmuir, 2023, 39, 2719-2728.	1.6	5
3527	Thermoelectric transportation in Cu-added Ca3Co4O9 ceramics consolidated by spark plasma sintering. Physica B: Condensed Matter, 2023, 654, 414738.	1.3	4
3528	High-Power Factor Enabled by Efficient Manipulation Interaxial Angle for Enhancing Thermoelectrics of GeTe-Cu₂Te Alloys. ACS Applied Materials & Interfaces, 2023, 15, 9315-9323.	4.0	3
3529	Wearable Thermoelectric Generators: Materials, Structures, Fabrications, and Applications. Physica Status Solidi - Rapid Research Letters, 2023, 17, .	1.2	1
3530	Rational Manipulation of Epitaxial Strains Enabled Valence Band Convergence and High Thermoelectric Performances in Mg₃Sb₂ Films. Advanced Functional Materials, 2023, 33, .	7.8	6
3531	Powering internet-of-things from ambient energy: a review. JPhys Energy, 2023, 5, 022001.	2.3	11
3532	Unraveling the structural details and thermoelectric transports of 2D-3D hetero-structure composites. Materials Today Physics, 2023, 32, 101018.	2.9	1
3533	Growth of Largeâ€Sized 2D Ultrathin SnSe Crystals with Inâ€Plane Ferroelectricity. Advanced Electronic Materials, 2023, 9, .	2.6	8
3534	Metalâ€“Chalcogenolates: Synthesis and Applications in Material Chemistry. , 2023, , 58-82.		4
3535	Thermoelectric Power Generation of TiS2/Organic Hybrid Superlattices Below Room Temperature. Nanomaterials, 2023, 13, 781.	1.9	2
3536	Y3Fe0.5SiSe7: A new cation-deficient quaternary mixed transition metal chalcogenide with extremely low thermal conductivity. Solid State Sciences, 2023, 138, 107133.	1.5	0
3537	GaSb doping facilitates conduction band convergence and improves thermoelectric performance in n-type PbS. Energy and Environmental Science, 2023, 16, 1676-1684.	15.6	18
3538	Incommensurately Modulated Structure in AgCuSeâ€Based Thermoelectric Materials for Intriguing Electrical, Thermal, and Mechanical Properties. Small, 2023, 19, .	5.2	7
3539	Pure spin current injection of single-layer monochalcogenides. Materials Research Express, 2023, 10, 035003.	0.8	2
3540	Pushing the limit of synergy in SnTe-based thermoelectric materials leading to an ultra-low lattice thermal conductivity and enhanced ZT. Sustainable Energy and Fuels, 2023, 7, 1916-1929.	2.5	7
3541	Review on Fiber-Based Thermoelectrics: Materials, Devices, and Textiles. Advanced Fiber Materials, 2023, 5, 1105-1140.	7.9	7
3542	Degradation of Methylene Blue by Hot Electrons Transfer in SnSe. Advanced Materials Interfaces, 2023, 10, .	1.9	1

#	Article	IF	Citations
3543	â€œFree-oxygenâ€• A promising functional unit for strengthening electron-phonon coupling effect. , 2023, 42, 100064.		1
3544	Preparation, properties, and applications of Bi₂O₂Se thin films: A review. Journal of Semiconductors, 2023, 44, 031001.	2.0	1
3545	Extended phase homogeneity and improved out-of-plane charge transfer in Sb and Te co-alloyed n-type BiSe layered compound with extraordinary thermoelectric performance. Materials Today Physics, 2023, 33, 101047.	2.9	2
3546	Electrical and Optical Properties of Î³-SnSe: A New Ultra-narrow Band Gap Material. ACS Applied Materials & Interfaces, 2023, 15, 15668-15675.	4.0	1
3547	First-Principles Study on Thermoelectric Properties of Bi$$_2$$O$$_2$$Se. Journal of Electronic Materials, 0, , .	1.0	0
3548	Superior Thermoelectric Properties of Twistâ€Angle Superlattice Borophene Induced by Interlayer Electrons Transport. Small, 2023, 19, .	5.2	16
3549	Doping by Design: Enhanced Thermoelectric Performance of GeSe Alloys Through Metavalent Bonding. Advanced Materials, 2023, 35, .	11.1	22
3550	Thermoelectric response of single quintuple layer sodium copper chalcogenides persisting at high temperature. Physical Chemistry Chemical Physics, 2023, 25, 10082-10089.	1.3	1
3551	Roadmap on energy harvesting materials. JPhys Materials, 2023, 6, 042501.	1.8	19
3552	Large-Scale Colloidal Synthesis of Chalcogenides for Thermoelectric Applications. ACS Applied Materials & Interfaces, 2023, 15, 15498-15508.	4.0	2
3553	Advances in Ag₂Se-based thermoelectrics from materials to applications. Energy and Environmental Science, 2023, 16, 1870-1906.	15.6	35
3554	Strong Scattering from Low-Frequency Rattling Modes Results in Low Thermal Conductivity in Antimonide Clathrate Compounds. Chemistry of Materials, 2023, 35, 2918-2935.	3.2	3
3555	Enhanced thermoelectric properties of n-type CoSb3-based composites by incorporating In particles. Ceramics International, 2023, , .	2.3	3
3556	Enhancing Carrier Mobility and Seebeck Coefficient by Modifying Scattering Factor. Advanced Energy Materials, 2023, 13, .	10.2	12
3557	Giant Nonlinear Optical Response via Coherent Stacking ofÂInâ€Plane Ferroelectric Layers. Advanced Materials, 2023, 35, .	11.1	8
3558	High thermoelectric efficiency realized in SnSe crystals via structural modulation. Nature Communications, 2023, 14, .	5.8	20
3559	Contrasting the Roles of Cu Interstitials and Sb Substitutions in Regulating Ferroelectric Distortions and Thermoelectric Properties of Î±-GeTe. ACS Applied Energy Materials, 2023, 6, 4065-4071.	2.5	4
3560	Realizing Enhanced Thermoelectric Performance in Zintl-Phase SrCuSb by Reducing the Thermal Conductivity. ACS Applied Energy Materials, 2023, 6, 3970-3976.	2.5	1

#	Article	IF	Citations
3561	Theoretical insight into potential thermoelectric performance of ternary metal phosphide CaAgP. Applied Physics Letters, 2023, 122, 133905.	1.5	1
3562	Insight into the intrinsic microstructures of polycrystalline SnSe based compounds. Nanotechnology, 2023, 34, 245704.	1.3	2
3563	Properties of condensed matter from fundamental physical constants. Advances in Physics, 2021, 70, 469-512.	35.9	6
3564	Excellent thermoelectric properties of the Tl₂S₃ monolayer for medium-temperature applications. Nanoscale, 2023, 15, 7971-7979.	2.8	3
3565	Saturation limit and p-type thermoelectric properties of RuAs_{2â^'x}Ge_x. Applied Physics Letters, 2023, 122, 143902.	1.5	0
3566	Physics and technology of thermoelectric materials and devices. Journal Physics D: Applied Physics, 2023, 56, 333001.	1.3	10
3567	High thermoelectric performance of TlInSe3 with ultra-low lattice thermal conductivity. Frontiers in Physics, 0, 11, .	1.0	0
3568	Negative Magnetoresistance in Hopping Regime of Lightly Doped Thermoelectric SnSe. Materials, 2023, 16, 2863.	1.3	1
3569	TEXplorer.org: Thermoelectric material properties data platform for experimental and first-principles calculation results. APL Materials, 2023, 11, .	2.2	4
3570	Roadmap on thermoelectricity. Nanotechnology, 2023, 34, 292001.	1.3	4
3571	Unraveling the Role of Entropy in Thermoelectrics: Entropy-Stabilized Quintuple Rock Salt PbGeSnCd_xTe_{3+x}. Journal of the American Chemical Society, 0, , .	6.6	3
3572	Ultra-low lattice thermal conductivity induces high-performance thermoelectricity in Janus group-VIA binary monolayers: A comparative investigation. Vacuum, 2023, 213, 112075.	1.6	5
3573	Direct Synthesis of Two-Dimensional SnSe and SnSe₂ through Molecular Scale Preorganization. Inorganic Chemistry, 2023, 62, 6274-6287.	1.9	2
3574	Isoelectronic Re-Ge-codoped higher manganese silicides with enhanced thermoelectric propertiesÂvia band optimization, charge transfer, and phonon scattering. Journal of the European Ceramic Society, 2023, 43, 4799-4807.	2.8	1
3575	Layer-Structured GaGeTe Compound as a Promising Thermoelectric Material. ACS Applied Energy Materials, 2023, 6, 4264-4270.	2.5	5
3576	Three dimensional architected thermoelectric devices with high toughness and power conversion efficiency. Nature Communications, 2023, 14, .	5.8	14
3577	Metavalent Bonding-Mediated Dual 6s² Lone Pair Expression Leads to Intrinsic Lattice Shearing in n-Type TlBiSe₂. Journal of the American Chemical Society, 2023, 145, 9292-9303.	6.6	18
3578	Strongly anisotropic ultrafast dynamic behavior of GaTe dominated by the tilted and flat bands. Nanotechnology, 0, , .	1.3	1

#	Article	IF	Citations
3579	Controlling the carrier and phonon transport behavior of SnSe via stoichiometric adjustment. Current Applied Physics, 2023, 51, 13-21.	1.1	1
3580	Structural, electronic and thermoelectric properties of SnTe with dilute co-doping of Ag and Cu. Journal of Alloys and Compounds, 2023, 954, 170182.	2.8	3
3581	Reproducible high thermoelectric figure of merit in Ag2Se. Applied Physics Letters, 2023, 122, .	1.5	4
3582	Enhanced Thermoelectric Efficiency in P-Type Mg₃Sb₂: Role of Monovalent Atoms Codoping at Mg sites. ACS Applied Materials & Interfaces, 2023, 15, 20175-20190.	4.0	4
3583	Low-Dimensionalization Enhancing the Thermoelectric Performance of Higher Manganese Silicide. , 0, 2, .		1
3584	Ultra-low lattice thermal conductivity in tungsten-based scheelite ceramics. Journal of Alloys and Compounds, 2023, , 170167.	2.8	0
3585	Hydride Anion Substitution Boosts Thermoelectric Performance of Polycrystalline SrTiO₃ via Simultaneous Realization of Reduced Thermal Conductivity and High Electronic Conductivity. Advanced Functional Materials, 2023, 33, .	7.8	3
3586	Thermoelectric Performance of Surface-Engineered Cu_{1.5â€“<i>x</i>}Teâ€“Cu₂Se Nanocomposites. ACS Nano, 2023, 17, 8442-8452.	7.3	6
3587	Unusual transport and impact of nonparabolic electronic band structure on the thermoelectric performance in <i>nâ€‹</i> type In ₄ Se ₃ based thermoelectric materials. Physica Status Solidi (B): Basic Research, 0, , .	0.7	2
3588	The influence of strong anharmonicity on high thermoelectric properties for the ternary compound NaMgX (X = As, Sb). Chemical Physics Letters, 2023, 823, 140521.	1.2	1
3589	Effect of crystal field engineering and Fermi level optimization on thermoelectric properties of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow><mml:mi>Ge</mml:mi></mml:mrow><mml:mrow><m : Experimental investigation and theoretical insight. Physical Review Materials, 2023, 7, .	0.9	2
3590	Strain-Induced Medium-Temperature Thermoelectric Performance of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msub><mml:mi>Cu</mml:mi><mml:mn>4</mml:mn></mml:msub><mml:msub><mml:mrow><mml:mi>Ti</m : The Role of Four-Phonon Scattering. Physical Review Applied, 2023, 19, .	1.5	28
3591	High-performance thermoelectric ceramics and their applications. , 2023, , 347-362.		0
3592	Fundamentals of thermoelectrics. , 2023, , 259-281.		1
3614	Organic Semiconductors for Thermoelectric Applications. , 2022, , 1-34.		0
3617	Light absorption in semiconductors with quadratic and quartic energy dispersions. AIP Conference Proceedings, 2023, , .	0.3	0
3618	Recent Advances in 2D Material Theory, Synthesis, Properties, and Applications. ACS Nano, 2023, 17, 9694-9747.	7.3	21
3629	Oxide thermoelectrics: a review and a case study. , 2023, , 137-152.		0

#	Article	IF	Citations
3645	Solid-state devices. , 2023, , 291-373.		0
3648	Optimization of thermoelectric properties of carbon nanotube veils by defect engineering. Materials Horizons, 0, , .	6.4	2
3676	Plainly fixing crystal lattices. Science, 2023, 380, 800-800.	6.0	5
3701	Effects of Dimensionality Reduction for High-Efficiency Mg-Based Thermoelectrics. , 0, , .		0
3790	Metal Oxide Based Thermoelectric Materials. Progress in Optical Science and Photonics, 2023, , 399-430.	0.3	0
3797	Realizing p-type performance in low-thermal-conductivity BiSbSe3 via lead doping. Rare Metals, 2023, 42, 3601-3606.	3.6	4
3845	Thermoelectric Properties of Ag-doped SnSe Microwires and Layers. , 2023, , .		0
3849	A Role of Diffusion of Adatoms Between Layers in Nano-Structured Thin Films Growth at Condensation. , 2023, , .		0
3889	Recent progress in thermoelectric layered cobalt oxide thin films. NPG Asia Materials, 2023, 15, .	3.8	0
3894	Graphene-derived composites: a new Frontier in thermoelectric energy conversion. Energy Advances, 2024, 3, 389-412.	1.4	0
3895	Germanium-telluride-based thermoelectrics. , 2024, 1, 109-123.		0
3907	Resonantly Bonded Semiconductors. Springer Theses, 2023, , 45-64.	0.0	0
3939	Synthesis and Characterization of SnS Nanoparticles by Hydrothermal Method. Advances in Sustainability Science and Technology, 2024, , 337-348.	0.4	0