Li-Dong Zhao

List of Publications by Citations

267 papers	24,463 citations	75 h-index	153 g-index
289 ext. papers	28,990 ext. citations	11.6 avg, IF	7.47 L-index

#	Paper	IF	Citations
267	Ultralow thermal conductivity and high thermoelectric figure of merit in SnSe crystals. *Nature*, **2014**, 508, 373-7	50.4	3074
266	Ultrahigh power factor and thermoelectric performance in hole-doped single-crystal SnSe. *Science*, **2016**, 351, 141-4	33.3	1237
265	Rationally Designing High-Performance Bulk Thermoelectric Materials. *Chemical Reviews*, **2016**, 116, 12123-12149	68.1	1155
264	The panoscopic approach to high performance thermoelectrics. *Energy and Environmental Science*, **2014**, 7, 251-268	35.4	718
263	High-performance nanostructured thermoelectric materials. *NPG Asia Materials*, **2010**, 2, 152-158	10.3	679
262	Thermoelectric materials: Energy conversion between heat and electricity. *Journal of Materiomics*, **2015**, 1, 92-105	6.7	583
261	3D charge and 2D phonon transports leading to high out-of-plane in n-type SnSe crystals. *Science*, **2018**, 360, 778-783	33.3	569
260	All-scale hierarchical thermoelectrics: MgTe in PbTe facilitates valence band convergence and suppresses bipolar thermal transport for high performance. *Energy and Environmental Science*, **2013**, 6, 3346	35.4	532
259	High thermoelectric performance of p-type SnTe via a synergistic band engineering and nanostructuring approach. *Journal of the American Chemical Society*, **2014**, 136, 7006-17	16.4	425
258	BiCuSeO oxyselenides: new promising thermoelectric materials. *Energy and Environmental Science*, **2014**, 7, 2900-2924	35.4	416
257	Non-equilibrium processing leads to record high thermoelectric figure of merit in PbTe-SrTe. *Nature Communications*, **2016**, 7, 12167	17.4	377
256	High performance thermoelectrics from earth-abundant materials: enhanced figure of merit in PbS by second phase nanostructures. *Journal of the American Chemical Society*, **2011**, 133, 20476-87	16.4	377
255	Thermoelectric and mechanical properties of nano-SiC-dispersed Bi2Te3 fabricated by mechanical alloying and spark plasma sintering. *Journal of Alloys and Compounds*, **2008**, 455, 259-264	5.7	312
254	Efficient uranium capture by polysulfide/layered double hydroxide composites. *Journal of the American Chemical Society*, **2015**, 137, 3670-7	16.4	311
253	Codoping in SnTe: Enhancement of Thermoelectric Performance through Synergy of Resonance Levels and Band Convergence. *Journal of the American Chemical Society*, **2015**, 137, 5100-12	16.4	310
252	Bi1⊠SrxCuSeO oxyselenides as promising thermoelectric materials. *Applied Physics Letters*, **2010**, 97, 092118	3.4	301
251	SnSe: a remarkable new thermoelectric material. *Energy and Environmental Science*, **2016**, 9, 3044-3060	35.4	297

250	A high thermoelectric figure of merit ZT > 1 in Ba heavily doped BiCuSeO oxyselenides. *Energy and Environmental Science*, **2012**, 5, 8543	35.4	292
249	Valence Band Modification and High Thermoelectric Performance in SnTe Heavily Alloyed with MnTe. *Journal of the American Chemical Society*, **2015**, 137, 11507-16	16.4	289
248	High thermoelectric performance of oxyselenides: intrinsically low thermal conductivity of Ca-doped BiCuSeO. *NPG Asia Materials*, **2013**, 5, e47-e47	10.3	286
247	High thermoelectric performance via hierarchical compositionally alloyed nanostructures. *Journal of the American Chemical Society*, **2013**, 135, 7364-70	16.4	281
246	Extraordinary role of Hg in enhancing the thermoelectric performance of p-type SnTe. *Energy and Environmental Science*, **2015**, 8, 267-277	35.4	279
245	High-performance SnSe thermoelectric materials: Progress and future challenge. *Progress in Materials Science*, **2018**, 97, 283-346	42.2	273
244	Texturation boosts the thermoelectric performance of BiCuSeO oxyselenides. *Energy and Environmental Science*, **2013**, 6, 2916	35.4	273
243	Raising the thermoelectric performance of p-type PbS with endotaxial nanostructuring and valence-band offset engineering using CdS and ZnS. *Journal of the American Chemical Society*, **2012**, 134, 16327-36	16.4	264
242	Origin of the high performance in GeTe-based thermoelectric materials upon Bi2Te3 doping. *Journal of the American Chemical Society*, **2014**, 136, 11412-9	16.4	259
241	Remarkable enhancement in thermoelectric performance of BiCuSeO by Cu deficiencies. *Journal of the American Chemical Society*, **2011**, 133, 20112-5	16.4	242
240	High thermoelectric performance in low-cost SnSSe crystals. *Science*, **2019**, 365, 1418-1424	33.3	233
239	Enhanced Thermoelectric Properties in the Counter-Doped SnTe System with Strained Endotaxial SrTe. *Journal of the American Chemical Society*, **2016**, 138, 2366-73	16.4	213
238	Synergistically optimized electrical and thermal transport properties of SnTe via alloying high-solubility MnTe. *Energy and Environmental Science*, **2015**, 8, 3298-3312	35.4	209
237	Polycrystalline BiCuSeO oxide as a potential thermoelectric material. *Energy and Environmental Science*, **2012**, 5, 7188	35.4	203
236	Thermoelectrics with earth abundant elements: low thermal conductivity and high thermopower in doped SnS. *Journal of Materials Chemistry A*, **2014**, 2, 17302-17306	13	201
235	Thermoelectrics with earth abundant elements: high performance p-type PbS nanostructured with SrS and CaS. *Journal of the American Chemical Society*, **2012**, 134, 7902-12	16.4	197
234	Low-cost, abundant binary sulfides as promising thermoelectric materials. *Materials Today*, **2016**, 19, 227-239	21.8	196
233	Enhanced thermoelectric properties in CoSb3-xTex alloys prepared by mechanical alloying and spark plasma sintering. *Journal of Applied Physics*, **2007**, 102, 103717	2.5	187

232	Remarkable Roles of Cu To Synergistically Optimize Phonon and Carrier Transport in n-Type PbTe-CuTe. *Journal of the American Chemical Society*, **2017**, 139, 18732-18738	16.4	179
231	Origin of low thermal conductivity in SnSe. *Physical Review B*, **2016**, 94,	3.3	176
230	Promising Thermoelectric Bulk Materials with 2D Structures. *Advanced Materials*, **2017**, 29, 1702676	24	165
229	Realizing High Figure of Merit in Phase-Separated Polycrystalline SnPbSe. *Journal of the American Chemical Society*, **2016**, 138, 13647-13654	16.4	162
228	Seeking new, highly effective thermoelectrics. *Science*, **2020**, 367, 1196-1197	33.3	161
227	Superior thermoelectric performance in PbTe□PbS pseudo-binary: extremely low thermal conductivity and modulated carrier concentration. *Energy and Environmental Science*, **2015**, 8, 2056-2068	35.4	157
226	Tellurium-Free Thermoelectric: The Anisotropic n-Type Semiconductor Bi2S3. *Advanced Energy Materials*, **2012**, 2, 634-638	21.8	157
225	Structural and Electronic Transport Properties in Sr-Doped BiCuSeO. *Chemistry of Materials*, **2012**, 24, 3168-3178	9.6	143
224	Anharmoncity and low thermal conductivity in thermoelectrics. *Materials Today Physics*, **2018**, 4, 50-57	8	141
223	Improvement of Thermoelectric Performance of CoSb3□Tex Skutterudite Compounds by Additional Substitution of IVB-Group Elements for Sb. *Chemistry of Materials*, **2008**, 20, 7526-7531	9.6	137
222	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	16.4	135
221	Synergistically Optimizing Electrical and Thermal Transport Properties of BiCuSeO via a Dual-Doping Approach. *Advanced Energy Materials*, **2016**, 6, 1502423	21.8	135
220	Thermoelectric properties of Mg doped p-type BiCuSeO oxyselenides. *Journal of Alloys and Compounds*, **2013**, 551, 649-653	5.7	131
219	Charge and phonon transport in PbTe-based thermoelectric materials. *Npj Quantum Materials*, **2018** , 3,	5	131
218	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	35.4	129
217	Integrating Band Structure Engineering with All-Scale Hierarchical Structuring for High Thermoelectric Performance in PbTe System. *Advanced Energy Materials*, **2017**, 7, 1601450	21.8	125
216	High-performance tellurium-free thermoelectrics: all-scale hierarchical structuring of p-type PbSe-MSe systems (M = Ca, Sr, Ba). *Journal of the American Chemical Society*, **2013**, 135, 5152-60	16.4	123
215	Strong enhancement of phonon scattering through nanoscale grains in lead sulfide thermoelectrics. *NPG Asia Materials*, **2014**, 6, e108-e108	10.3	119

214	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	17.1	117
213	SnTe–AgBiTe2 as an efficient thermoelectric material with low thermal conductivity. *Journal of Materials Chemistry A*, **2014**, 2, 20849-20854	13	117
212	The roles of Na doping in BiCuSeO oxyselenides as a thermoelectric material. *Journal of Materials Chemistry A*, **2014**, 2, 4903	13	116
211	Effect of mixed grain sizes on thermoelectric performance of Bi2Te3 compound. *Journal of Applied Physics*, **2009**, 105, 023704	2.5	112
210	Strong phonon scattering by layer structured PbSnS(2) in PbTe based thermoelectric materials. *Advanced Materials*, **2012**, 24, 4440-4	24	111
209	Role of sodium doping in lead chalcogenide thermoelectrics. *Journal of the American Chemical Society*, **2013**, 135, 4624-7	16.4	111
208	A mimetic transpiration system for record high conversion efficiency in solar steam generator under one-sun. *Materials Today Energy*, **2018**, 8, 166-173	7	106
207	Effects of annealing on electrical properties of n-type Bi2Te3 fabricated by mechanical alloying and spark plasma sintering. *Journal of Alloys and Compounds*, **2009**, 467, 91-97	5.7	104
206	Enhanced thermoelectric performance of a BiCuSeO system via band gap tuning. *Chemical Communications*, **2013**, 49, 8075-7	5.8	98
205	Multiple Converged Conduction Bands in KBiSe: A Promising Thermoelectric Material with Extremely Low Thermal Conductivity. *Journal of the American Chemical Society*, **2016**, 138, 16364-16371	16.4	95
204	Realizing High Thermoelectric Performance in p-Type SnSe through Crystal Structure Modification. *Journal of the American Chemical Society*, **2019**, 141, 1141-1149	16.4	91
203	Morphology control of nanostructures: Na-doped PbTe-PbS system. *Nano Letters*, **2012**, 12, 5979-84	11.5	90
202	Simultaneously enhancing the power factor and reducing the thermal conductivity of SnTe via introducing its analogues. *Energy and Environmental Science*, **2017**, 10, 2420-2431	35.4	89
201	Subtle Roles of Sb and S in Regulating the Thermoelectric Properties of N-Type PbTe to High Performance. *Advanced Energy Materials*, **2017**, 7, 1700099	21.8	88
200	Raising thermoelectric performance of n-type SnSe via Br doping and Pb alloying. *RSC Advances*, **2016**, 6, 98216-98220	3.7	86
199	Record high thermoelectric performance in bulk SrTiO3 via nano-scale modulation doping. *Nano Energy*, **2017**, 35, 387-395	17.1	85
198	Effects of Sb compensation on microstructure, thermoelectric properties and point defect of CoSb3compound. *Journal Physics D: Applied Physics*, **2007**, 40, 6784-6790	3	85
197	Enhanced thermoelectric properties of bismuth sulfide polycrystals prepared by mechanical alloying and spark plasma sintering. *Journal of Solid State Chemistry*, **2008**, 181, 3278-3282	3.3	84

196	Influence of Pb doping on the electrical transport properties of BiCuSeO. *Applied Physics Letters*, **2013**, 102, 023902	3.4	81
195	Direct observation of vast off-stoichiometric defects in single crystalline SnSe. *Nano Energy*, **2017**, 35, 321-330	17.1	80
194	Power generation and thermoelectric cooling enabled by momentum and energy multiband alignments. *Science*, **2021**, 373, 556-561	33.3	79
193	Highly-anisotropic optical and electrical properties in layered SnSe. *Nano Research*, **2018**, 11, 554-564	10	77
192	Emulating Bilingual Synaptic Response Using a Junction-Based Artificial Synaptic Device. *ACS Nano*, **2017**, 11, 7156-7163	16.7	75
191	Significantly Enhanced Thermoelectric Performance in n-type Heterogeneous BiAgSeS Composites. *Advanced Functional Materials*, **2014**, 24, 7763-7771	15.6	74
190	Band Sharpening and Band Alignment Enable High Quality Factor to Enhance Thermoelectric Performance in -Type PbS. *Journal of the American Chemical Society*, **2020**, 142, 4051-4060	16.4	71
189	Thermoelectric property of fine-grained CoSb3skutterudite compound fabricated by mechanical alloying and spark plasma sintering. *Journal Physics D: Applied Physics*, **2007**, 40, 566-572	3	69
188	Pressure induced thermoelectric enhancement in SnSe crystals. *Journal of Materials Chemistry A*, **2016**, 4, 12073-12079	13	65
187	Synergistically optimizing interdependent thermoelectric parameters of n-type PbSe through alloying CdSe. *Energy and Environmental Science*, **2019**, 12, 1969-1978	35.4	63
186	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	13	59
185	High thermoelectric performance in n-type BiAgSeS due to intrinsically low thermal conductivity. *Energy and Environmental Science*, **2013**, 6, 1750	35.4	59
184	BiCuSeO Thermoelectrics: An Update on Recent Progress and Perspective. *Materials*, **2017**, 10,	3.5	59
183	Realizing high thermoelectric performance in GeTe through decreasing the phase transition temperature via entropy engineering. *Journal of Materials Chemistry A*, **2019**, 7, 26393-26401	13	58
182	Wear behavior of HVOF-sprayed Al0.6TiCrFeCoNi high entropy alloy coatings at different temperatures. *Surface and Coatings Technology*, **2019**, 358, 215-222	4.4	56
181	Band inversion induced multiple electronic valleys for high thermoelectric performance of SnTe with strong lattice softening. *Nano Energy*, **2020**, 69, 104395	17.1	55
180	Intrinsically Low Thermal Conductivity in BiSbSe3: A Promising Thermoelectric Material with Multiple Conduction Bands. *Advanced Functional Materials*, **2019**, 29, 1806558	15.6	53
179	The Thermoelectric Properties of SnSe Continue to Surprise: Extraordinary Electron and Phonon Transport. *Chemistry of Materials*, **2018**, 30, 7355-7367	9.6	52

178	Realizing High-Ranged Out-of-Plane ZTs in N-Type SnSe Crystals through Promoting Continuous Phase Transition. *Advanced Energy Materials*, **2019**, 9, 1901334	21.8	51
177	Ultrahigh Average Realized in p-Type SnSe Crystalline Thermoelectrics through Producing Extrinsic Vacancies. *Journal of the American Chemical Society*, **2020**, 142, 5901-5909	16.4	51
176	CsHgInS3: a New Quaternary Semiconductor for □ray Detection. *Chemistry of Materials*, **2012**, 24, 4434-4441	9.6	50
175	Approaching Topological Insulating States Leads to High Thermoelectric Performance in n-Type PbTe. *Journal of the American Chemical Society*, **2018**, 140, 13097-13102	16.4	49
174	The Role of Ionized Impurity Scattering on the Thermoelectric Performances of Rock Salt AgPbmSnSe2+m. *Advanced Functional Materials*, **2016**, 26, 5149-5157	15.6	47
173	CsCdInQ3 (Q = Se, Te): New Photoconductive Compounds As Potential Materials for Hard Radiation Detection. *Chemistry of Materials*, **2013**, 25, 2089-2099	9.6	46
172	Thermoelectric transport properties of polycrystalline SnSe alloyed with PbSe. *Applied Physics Letters*, **2017**, 110, 053901	3.4	44
171	High temperature oxidation behavior of Al0.6CrFeCoNi and Al0.6CrFeCoNiSi0.3 high entropy alloys. *Journal of Alloys and Compounds*, **2018**, 764, 845-852	5.7	44
170	Understanding Nanostructuring Processes in Thermoelectrics and Their Effects on Lattice Thermal Conductivity. *Advanced Materials*, **2016**, 28, 2737-43	24	43
169	Influence of Te substitution on the structural and electronic properties of thermoelectric BiCuSeO. *Journal of Materials Chemistry A*, **2013**, 1, 2921	13	43
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167	Synergistically optimizing thermoelectric transport properties of n-type PbTe via Se and Sn co-alloying. *Journal of Alloys and Compounds*, **2017**, 724, 208-221	5.7	41
166	Thermoelectric transport properties of PbSnTeSe system. *Rare Metals*, **2018**, 37, 343-350	5.5	40
165	Enhanced Electrical and Optoelectronic Characteristics of Few-Layer Type-II SnSe/MoS van der Waals Heterojunctions. *ACS Applied Materials & Interfaces*, **2017**, 9, 42149-42155	9.5	40
164	Crystal Growth and Characterization of the X-ray and □ray Detector Material Cs2Hg6S7. *Crystal Growth and Design*, **2012**, 12, 3250-3256	3.5	40
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162	Realizing High Thermoelectric Performance in GeTe through Optimizing Ge Vacancies and Manipulating Ge Precipitates. *ACS Applied Energy Materials*, **2019**, 2, 7594-7601	6.1	37
161	Unexpected Large Hole Effective Masses in SnSe Revealed by Angle-Resolved Photoemission Spectroscopy. *Physical Review Letters*, **2017**, 119, 116401	7.4	37

160	Effects of process parameters on electrical properties of n-type Bi2Te3 prepared by mechanical alloying and spark plasma sintering. *Physica B: Condensed Matter*, **2007**, 400, 11-15	2.8	36
159	Layered oxygen-containing thermoelectric materials: Mechanisms, strategies, and beyond. *Materials Today*, **2019**, 29, 68-85	21.8	35
158	Amphoteric Indium Enables Carrier Engineering to Enhance the Power Factor and Thermoelectric Performance in n-Type AgnPb100InnTe100+2n (LIST). *Advanced Energy Materials*, **2019**, 9, 1900414	21.8	34
157	Molecular Construction from AgGaS2 to CuZnPS4: Defect-Induced Second Harmonic Generation Enhancement and Cosubstitution-Driven Band Gap Enlargement. *Chemistry of Materials*, **2020**, 32, 3288-3296	9.6	34
156	Influence of defects on the thermoelectricity in SnSe: A comprehensive theoretical study. *Physical Review B*, **2018**, 97,	3.3	33
155	Layered oxychalcogenide in the Bi□CuOSe system as good thermoelectric materials. *Semiconductor Science and Technology*, **2014**, 29, 064001	1.8	33
154	Enhancing thermoelectric performance of SnTe via nanostructuring particle size. *Journal of Alloys and Compounds*, **2017**, 709, 575-580	5.7	31
153	High-quality textured SnSe thin films for self-powered, rapid-response photothermoelectric application. *Nano Energy*, **2020**, 72, 104742	17.1	30
152	Lead-free tin chalcogenide thermoelectric materials. *Inorganic Chemistry Frontiers*, **2016**, 3, 1449-1463	6.8	30
151	Thermo-photoelectric coupled effect induced electricity in N-type SnSe:Br single crystals for enhanced self-powered photodetectors. *Nano Energy*, **2019**, 66, 104111	17.1	29
150	Realization of n-type and enhanced thermoelectric performance of p-type BiCuSeO by controlled iron incorporation. *Journal of Materials Chemistry A*, **2018**, 6, 13340-13349	13	29
149	Investigation into the extremely low thermal conductivity in Ba heavily doped BiCuSeO. *Nano Energy*, **2016**, 27, 167-174	17.1	29
148	Realizing High Thermoelectric Performance in Polycrystalline SnSe via Silver Doping and Germanium Alloying. *ACS Applied Energy Materials*, **2020**, 3, 2049-2054	6.1	29
147	Significant Optimization of Electron-Phonon Transport of n-Type BiOSe by Mechanical Manipulation of Se Vacancies via Shear Exfoliation. *ACS Applied Materials & Interfaces*, **2019**, 11, 21603-21609	9.5	28
146	Carrier mobility does matter for enhancing thermoelectric performance. *APL Materials*, **2020**, 8, 010901	5.7	27
145	Enhancing thermoelectric performance of n-type PbSe via additional meso-scale phonon scattering. *Inorganic Chemistry Frontiers*, **2017**, 4, 719-726	6.8	26
144	Theoretical prediction and experimental confirmation of unusual ternary ordered semiconductor compounds in Sr-Pb-S system. *Journal of the American Chemical Society*, **2014**, 136, 1628-35	16.4	26
143	Direct synthesis of BiCuChO-type oxychalcogenides by mechanical alloying. *Journal of Solid State Chemistry*, **2013**, 203, 187-191	3.3	26

142	High thermoelectric figure of merit ZT > 1 in SnS polycrystals. *Journal of Materiomics*, **2020**, 6, 77-85	6.7	26
141	The Atomic Circus: Small Electron Beams Spotlight Advanced Materials Down to the Atomic Scale. *Advanced Materials*, **2018**, 30, e1802402	24	26
140	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	13	25
139	BaCu2Se2 based compounds as promising thermoelectric materials. *Dalton Transactions*, **2015**, 44, 2285-93	4.3	25
138	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	5.7	25
137	Synergistically optimizing interdependent thermoelectric parameters of n-type PbSe through introducing a small amount of Zn. *Materials Today Physics*, **2019**, 9, 100102	8	25
136	Evidence of an interlayer charge transfer route in BiCu1SeO. *Journal of Materials Chemistry A*, **2013**, 1, 12154	13	25
135	Enhanced thermoelectric property originating from additional carrier pocket in skutterudite compounds. *Applied Physics Letters*, **2008**, 93, 042109	3.4	25
134	Single-Crystal SnSe Thermoelectric Fibers via Laser-Induced Directional Crystallization: From 1D Fibers to Multidimensional Fabrics. *Advanced Materials*, **2020**, 32, e2002702	24	25
133	High thermoelectric performance realized through manipulating layered phonon-electron decoupling.. *Science*, **2022**, 375, 1385-1389	33.3	24
132	Realizing high thermoelectric performance of polycrystalline SnS through optimizing carrier concentration and modifying band structure. *Journal of Alloys and Compounds*, **2019**, 789, 485-492	5.7	23
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130	Investigations on distinct thermoelectric transport behaviors of Cu in n-type PbS. *Journal of Alloys and Compounds*, **2019**, 781, 820-830	5.7	23
129	Excellent ZT achieved in Cu1.8S thermoelectric alloys through introducing rare-earth trichlorides. *Journal of Materials Chemistry A*, **2018**, 6, 14440-14448	13	23
128	Deposition and characterization of thermal barrier coatings of ZrO24 mol.% Y2O31 mol.% Gd2O31 mol.% Yb2O3. *Surface and Coatings Technology*, **2015**, 268, 205-208	4.4	22
127	Extremely low thermal conductivity from bismuth selenohalides with 1D soft crystal structure. *Science China Materials*, **2020**, 63, 1759-1768	7.1	22
126	Thermoelectric transport properties of rock-salt SnSe: first-principles investigation. *Journal of Materials Chemistry C*, **2018**, 6, 12016-12022	7.1	22
125	Mechanical properties of low-cost, earth-abundant chalcogenide thermoelectric materials, PbSe and PbS, with additions of 04 % CdS or ZnS. *Journal of Materials Science*, **2015**, 50, 1770-1782	4.3	22

124	Enhancing thermoelectric performance of SnTe via stepwisely optimizing electrical and thermal transport properties. *Journal of Alloys and Compounds*, **2019**, 773, 571-584	5.7	22
123	Hierarchical structures lead to high thermoelectric performance in Cum+nPb100SbmTe100Se2m (CLAST). *Energy and Environmental Science*, **2021**, 14, 451-461	35.4	22
122	Attempting to realize n-type BiCuSeO. *Journal of Solid State Chemistry*, **2018**, 258, 510-516	3.3	22
121	InFeZnO4 as Promising Thermal Barrier Coatings. *Journal of the American Ceramic Society*, **2011**, 94, 1664-1666	3.8	21
120	Highly Textured N-Type SnSe Polycrystals with Enhanced Thermoelectric Performance. *Research*, **2019**, 2019, 9253132	7.8	21
119	Effective dopants in p-type elementary Te thermoelectrics. *RSC Advances*, **2017**, 7, 17682-17688	3.7	20
118	Comprehensive Investigation on the Thermoelectric Properties of p-Type PbTe-PbSe-PbS Alloys. *Advanced Electronic Materials*, **2019**, 5, 1900609	6.4	20
117	Slowing down the heat in thermoelectrics. *Informa□□Materi□*, **2021**, 3, 755-789	23.1	20
116	An overview of advanced thermoelectric materials. *Journal of Materiomics*, **2016**, 2, 101-103	6.7	20
115	Homologous layered InFeO3(ZnO) m : new promising abradable seal coating materials. *Rare Metals*, **2018**, 37, 79-94	5.5	20
114	The phase stability and thermophysical properties of InFeO3(ZnO)m (m=2, 3, 4, 5). *Journal of the European Ceramic Society*, **2014**, 34, 63-68	6	19
113	Low temperature transport properties of the BiCuSeO system. *Physica Status Solidi (A) Applications and Materials Science*, **2012**, 209, 2273-2276	1.6	19
112	Improvements of thermoelectric properties for p-type Cu1.8S bulk materials via optimizing the mechanical alloying process. *Inorganic Chemistry Frontiers*, **2017**, 4, 1192-1199	6.8	18
111	Improving the thermoelectric performance of p-type PbSe via synergistically enhancing the Seebeck coefficient and reducing electronic thermal conductivity. *Journal of Materials Chemistry A*, **2020**, 8, 4931-4937	13	18
110	High performance of n-type (PbS)1-x-y(PbSe)x(PbTe)y thermoelectric materials. *Journal of Alloys and Compounds*, **2018**, 744, 769-777	5.7	18
109	Enhancing Thermoelectric Performance of p-Type PbSe through Suppressing Electronic Thermal Transports. *ACS Applied Energy Materials*, **2019**, 2, 8236-8243	6.1	18
108	Effects of Sb Substitution by Sn on the Thermoelectric Properties of ZrCoSb. *Journal of Electronic Materials*, **2017**, 46, 3076-3082	1.9	17
107	Thermoelectric transport properties of n-type tin sulfide. *Scripta Materialia*, **2019**, 170, 99-105	5.6	17

106	Synergistically improving thermoelectric and mechanical properties of Ge0.94Bi0.06Te through dispersing nano-SiC. *Scripta Materialia*, **2020**, 183, 22-27	5.6	17
105	Investigations on electrical and thermal transport properties of Cu2SnSe3 with unusual coexisting nanophases. *Materials Today Physics*, **2018**, 7, 77-88	8	17
104	Seeing atomic-scale structural origins and foreseeing new pathways to improved thermoelectric materials. *Materials Horizons*, **2019**, 6, 1548-1570	14.4	16
103	Effects of temperature and pressure on the optical and vibrational properties of thermoelectric SnSe. *Physical Chemistry Chemical Physics*, **2019**, 21, 8663-8678	3.6	16
102	Oxygen adsorption and its influence on the thermoelectric performance of polycrystalline SnSe. *Journal of Materials Chemistry C*, **2019**, 7, 10507-10513	7.1	16
101	LiPbSb3S6: a semiconducting sulfosalt with very low thermal conductivity. *Inorganic Chemistry*, **2014**, 53, 673-5	5.1	16
100	Influence of long time post annealing on thermal stability and thermophysical properties of plasma sprayed La2Zr2O7 coatings. *Journal of Alloys and Compounds*, **2017**, 695, 2549-2555	5.7	15
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96	Contrasting Cu Roles Lead to High Ranged Thermoelectric Performance of PbS. *Advanced Functional Materials*, **2021**, 31, 2102185	15.6	14
95	Electronic phase diagram of NdFe1□RhxAsO. *Physical Review B*, **2010**, 81,	3.3	13
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