Xiaolei Shi

List of Publications by Year in Descending Order

191 papers	9,112 citations	52 h-index	89 g-index
199 ext. papers	12,121 ext. citations	12.2 avg, IF	7.14 L-index

#	Paper	IF	Citations
191	Thermoelectric Coolers: Progress, Challenges, and Opportunities.. *Small Methods*, **2022**, e2101235	12.8	11
190	Achieving ultrahigh power factor in n-type Ag2Se thin films by carrier engineering. *Materials Today Energy*, **2022**, 24, 100933	7	1
189	High thermoelectric and mechanical performance in the n-type polycrystalline SnSe incorporated with multi-walled carbon nanotubes. *Journal of Materials Science and Technology*, **2022**, 114, 55-61	9.1	5
188	Cheap, Large-Scale, and High-Performance Graphite-Based Flexible Thermoelectric Materials and Devices with Supernormal Industry Feasibility.. *ACS Applied Materials & Interfaces*, **2022**,	9.5	1
187	High-performance in n-type PbTe-based thermoelectric materials achieved by synergistically dynamic doping and energy filtering. *Nano Energy*, **2022**, 91, 106706	17.1	14
186	Se-alloying reducing lattice thermal conductivity of Ge0.95Bi0.05Te. *Journal of Materials Science and Technology*, **2022**, 106, 249-256	9.1	7
185	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	14.7	8
184	Flexible hollow TiO2@CMS/carbon-fiber van der Waals heterostructures for simulated-solar light photocatalysis and photoelectrocatalysis. *Journal of Materials Science and Technology*, **2022**, 98, 143-150	9.1	9
183	Thermoelectrics for medical applications: Progress, challenges, and perspectives. *Chemical Engineering Journal*, **2022**, 437, 135268	14.7	8
182	Thermoelectric coolers: Infinite potentials for finite localized microchip cooling. *Journal of Materials Science and Technology*, **2022**, 121, 256-262	9.1	7
181	Optimal array alignment to deliver high performance in flexible conducting polymer-based thermoelectric devices. *Journal of Materials Science and Technology*, **2022**, 124, 252-259	9.1	1
180	The effect of rare earth element doping on thermoelectric properties of GeTe. *Chemical Engineering Journal*, **2022**, 446, 137278	14.7	1
179	Novel Thermal Diffusion Temperature Engineering Leading to High Thermoelectric Performance in Bi Te -Based Flexible Thin-Films.. *Advanced Science*, **2021**, e2103547	13.6	17
178	Impurity Removal Leading to High-Performance CoSb-Based Skutterudites with Synergistic Carrier Concentration Optimization and Thermal Conductivity Reduction. *ACS Applied Materials & Interfaces*, **2021**, 13, 54185-54193	9.5	0
177	High near-room temperature figure of merit of n-type Bi2GeTe4-based thermoelectric materials via a stepwise optimization of carrier concentration. *Chemical Engineering Journal*, **2021**, 133775	14.7	4
176	N-doped silk wadding-derived carbon/SnO @reduced graphene oxide film as an ultra-stable anode for sodium-ion half/full battery. *Chemical Engineering Journal*, **2021**, 433, 133675	14.7	2
175	Achieving High-Performance Ge Bi Te Thermoelectrics via LaB -Alloying-Induced Band Engineering and Multi-Scale Structure Manipulation. *Small*, **2021**, e2105923	11	2

174	Advances in conducting polymer-based thermoelectric materials and devices **2021**,		3
173	Enhanced Thermoelectric Performance of SnTe-Based Materials Interface Engineering. *ACS Applied Materials & Interfaces*, **2021**, 13, 50057-50064	9.5	4
172	High Carrier Mobility and High Figure of Merit in the CuBiSe2 Alloyed GeTe. *Advanced Energy Materials*, **2021**, 11, 2102913	21.8	16
171	Two-dimensional flexible thermoelectric devices: Using modeling to deliver optimal capability. *Applied Physics Reviews*, **2021**, 8, 041404	17.3	9
170	Versatile Vanadium Doping Induces High Thermoelectric Performance in GeTe via Band Alignment and Structural Modulation. *Advanced Energy Materials*, **2021**, 11, 2100544	21.8	18
169	Hierarchical meso/macro-porous TiO2/graphitic carbon nitride nanofibers with enhanced hydrogen evolution. *Materials and Design*, **2021**, 202, 109542	8.1	10
168	Rational Electronic and Structural Designs Advance BiCuSeO Thermoelectrics. *Advanced Functional Materials*, **2021**, 31, 2101289	15.6	17
167	Simultaneously optimized thermoelectric performance of n-type Cu2Se alloyed Bi2Te3. *Journal of Solid State Chemistry*, **2021**, 296, 121987	3.3	4
166	Carbon allotrope hybrids advance thermoelectric development and applications. *Renewable and Sustainable Energy Reviews*, **2021**, 141, 110800	16.2	46
165	Structural Evolution of High-Performance Mn-Alloyed Thermoelectric Materials: A Case Study of SnTe. *Small*, **2021**, 17, e2100525	11	11
164	Flexible thermoelectric materials and devices: From materials to applications. *Materials Today*, **2021**, 46, 62-108	21.8	49
163	Self-Standing Film Assembled using SnS-Sn/Multiwalled Carbon Nanotubes Encapsulated Carbon Fibers: A Potential Large-Scale Production Material for Ultra-stable Sodium-Ion Battery Anodes. *ACS Applied Materials & Interfaces*, **2021**, 13, 28359-28368	9.5	30
162	Two-dimensional WSe2/SnSe p-n junctions secure ultrahigh thermoelectric performance in n-type Pb/I Co-doped polycrystalline SnSe. *Materials Today Physics*, **2021**, 16, 100306	8	34
161	Achieving enhanced thermoelectric performance of Ca1□yLaxSryMnO3 via synergistic carrier concentration optimization and chemical bond engineering. *Chemical Engineering Journal*, **2021**, 408, 127364	14.7	5
160	High-efficiency thermocells driven by thermo-electrochemical processes. *Trends in Chemistry*, **2021**, 3, 561-574	14.8	19
159	Rational band engineering and structural manipulations inducing high thermoelectric performance in n-type CoSb3 thin films. *Nano Energy*, **2021**, 81, 105683	17.1	42
158	Wearable fiber-based thermoelectrics from materials to applications. *Nano Energy*, **2021**, 81, 105684	17.1	28
157	A flexible quasi-solid-state thermoelectrochemical cell with high stretchability as an energy-autonomous strain sensor. *Materials Horizons*, **2021**, 8, 2750-2760	14.4	20

156	Synthesis of thermoelectric materials **2021**, 73-103		1
155	BiO/BiVO@graphene oxide van der Waals heterostructures with enhanced photocatalytic activity toward oxygen generation. *Journal of Colloid and Interface Science*, **2021**, 593, 196-203	9.3	10
154	Optimizing Electronic Quality Factor toward High-Performance Ge Ta Sb Te Thermoelectrics: The Role of Transition Metal Doping. *Advanced Materials*, **2021**, 33, e2102575	24	24
153	Full-spectrum responsive photocatalytic activity via non-noble metal Bi decorated mulberry-like BiVO4. *Journal of Materials Science and Technology*, **2021**, 83, 102-112	9.1	15
152	Conducting polymer-based flexible thermoelectric materials and devices: From mechanisms to applications. *Progress in Materials Science*, **2021**, 121, 100840	42.2	47
151	Ternary AgSeTe: A Near-Room-Temperature Thermoelectric Material with a Potentially High Figure of Merit. *Inorganic Chemistry*, **2021**, 60, 14165-14173	5.1	4
150	Synergistic Texturing and Bi/Sb-Te Antisite Doping Secure High Thermoelectric Performance in Bi0.5Sb1.5Te3-Based Thin Films. *Advanced Energy Materials*, **2021**, 11, 2102578	21.8	10
149	Self-standing and high-performance B4C/Sn/acetylene black@reduced graphene oxide films as sodium-ion half/full battery anodes. *Applied Materials Today*, **2021**, 24, 101137	6.6	3
148	Synergistic band convergence and defect engineering boost thermoelectric performance of SnTe. *Journal of Materials Science and Technology*, **2021**, 86, 204-209	9.1	12
147	Boosting the thermoelectric performance of n-type Bi2S3 by hierarchical structure manipulation and carrier density optimization. *Nano Energy*, **2021**, 87, 106171	17.1	7
146	Simultaneously enhanced strength and plasticity of Ag2Se-based thermoelectric materials endowed by nano-twinned CuAgSe secondary phase. *Acta Materialia*, **2021**, 117335	8.4	5
145	Thermoelectric Coolers as Thermal Management Systems for Medical Applications: Design, Optimization, and Advancement. *Nano Energy*, **2021**, 106572	17.1	8
144	Thermoelectric performance of p-type (Bi,Sb)2Te3 incorporating amorphous Sb2S3 nanospheres. *Chemical Engineering Journal*, **2021**, 430, 132738	14.7	5
143	Advances and challenges in 2D MXenes: From structures to energy storage and conversions. *Nano Today*, **2021**, 40, 101273	17.9	19
142	In-situ growth of high-performance (Ag, Sn) co-doped CoSb3 thermoelectric thin films. *Journal of Materials Science and Technology*, **2021**, 92, 178-185	9.1	3
141	Enhanced thermoelectric performance in MXene/SnTe nanocomposites synthesized via a facile one-step solvothermal method. *Journal of Solid State Chemistry*, **2021**, 304, 122605	3.3	2
140	Double perovskite Pr2CoFeO6 thermoelectric oxide: Roles of Sr-doping and Micro/nanostructuring. *Chemical Engineering Journal*, **2021**, 425, 130668	14.7	9
139	Fiber-based thermoelectrics for solid, portable, and wearable electronics. *Energy and Environmental Science*, **2021**, 14, 729-764	35.4	65

138	Hierarchical Structures Advance Thermoelectric Properties of Porous n-type AgSe. *ACS Applied Materials & Interfaces*, **2020**, 12, 51523-51529	9.5	29
137	Computer-aided design of high-efficiency GeTe-based thermoelectric devices. *Energy and Environmental Science*, **2020**, 13, 1856-1864	35.4	73
136	Atomic Investigation on the Facet-Dependent Melting of Ceramic Nanostructures via In Situ Electron Irradiation. *Advanced Materials Interfaces*, **2020**, 7, 2000288	4.6	0
135	Flexible Carbon-Fiber/Semimetal Bi Nanosheet Arrays as Separable and Recyclable Plasmonic Photocatalysts and Photoelectrocatalysts. *ACS Applied Materials & Interfaces*, **2020**, 12, 24845-24854	9.5	123
134	Two-dimensional nanocoating-enabled orthopedic implants for bimodal therapeutic applications. *Nanoscale*, **2020**, 12, 11936-11946	7.7	26
133	Bi0.5Sb1.5Te3/PEDOT:PSS-based flexible thermoelectric film and device. *Chemical Engineering Journal*, **2020**, 397, 125360	14.7	66
132	Crowding-out effect strategy using AgCl for realizing a super low lattice thermal conductivity of SnTe. *Sustainable Materials and Technologies*, **2020**, 25, e00183	5.3	2
131	Bacteria-Triggered pH-Responsive Osteopotentiating Coating on 3D-Printed Polyetheretherketone Scaffolds for Infective Bone Defect Repair. *Industrial & Engineering Chemistry Research*, **2020**, 59, 12123-12135	3.9	15
130	Synergistic modulation of power factor and thermal conductivity in Cu3SbSe4 towards high thermoelectric performance. *Nano Energy*, **2020**, 71, 104658	17.1	18
129	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	8	13
128	Tuning wall thickness of TiO microtubes for an enhanced photocatalytic activity with thickness-dependent charge separation efficiency. *Journal of Colloid and Interface Science*, **2020**, 579, 463-469	9.3	12
127	Advanced Thermoelectric Design: From Materials and Structures to Devices. *Chemical Reviews*, **2020**, 120, 7399-7515	68.1	482
126	Graphene Oxide and Adiponectin-Functionalized Sulfonated Poly(etheretherketone) with Effective Osteogenicity and Remotely Repeatable Photodisinfection. *Chemistry of Materials*, **2020**, 32, 2180-2193	9.6	36
125	Morphology and Texture Engineering Enhancing Thermoelectric Performance of Solvothermal Synthesized Ultralarge SnS Microcrystal. *ACS Applied Energy Materials*, **2020**, 3, 2192-2199	6.1	12
124	High-Performance Thermoelectric SnSe: Aqueous Synthesis, Innovations, and Challenges. *Advanced Science*, **2020**, 7, 1902923	13.6	85
123	Promising and Eco-Friendly Cu X-Based Thermoelectric Materials: Progress and Applications. *Advanced Materials*, **2020**, 32, e1905703	24	92
122	Establishing the Golden Range of Seebeck Coefficient for Maximizing Thermoelectric Performance. *Journal of the American Chemical Society*, **2020**, 142, 2672-2681	16.4	82
121	Correlation between the photocatalysis and growth mechanism of SnO2 nanocrystals. *Journal Physics D: Applied Physics*, **2020**, 53, 154005	3	4

120	Texture-dependent thermoelectric properties of nano-structured Bi2Te3. *Chemical Engineering Journal*, **2020**, 388, 124295	14.7	72
119	Thermo-Responsive Nanomaterials for Thermoelectric Generation. *Springer Series in Materials Science*, **2020**, 269-293	0.9	
118	Cu2Se thermoelectrics: property, methodology, and device. *Nano Today*, **2020**, 35, 100938	17.9	57
117	Computation-guided design of high-performance flexible thermoelectric modules for sunlight-to-electricity conversion. *Energy and Environmental Science*, **2020**, 13, 3480-3488	35.4	27
116	Enhanced thermoelectric properties of nanostructured n-type Bi2Te3 by suppressing Te vacancy through non-equilibrium fast reaction. *Chemical Engineering Journal*, **2020**, 391, 123513	14.7	58
115	Achieving ultralow surface roughness and high material removal rate in fused silica via a novel acid SiO2 slurry and its chemical-mechanical polishing mechanism. *Applied Surface Science*, **2020**, 500, 144041	6.7	11
114	Outstanding thermoelectric properties of solvothermal-synthesized Sn1□xInxAg2xTe micro-crystals through defect engineering and band tuning. *Journal of Materials Chemistry A*, **2020**, 8, 3978-3987	13	19
113	Exploring thermoelectric performance of Ca3Co4O9+□ceramics via chemical electroless plating with Cu. *Journal of Alloys and Compounds*, **2020**, 821, 153522	5.7	5
112	Synergistic effect approaching record-high figure of merit in the shear exfoliated n-type Bi2O2-2xTe2xSe. *Nano Energy*, **2020**, 69, 104394	17.1	24
111	Optimization of sodium hydroxide for securing high thermoelectric performance in polycrystalline Sn1 □xSe via anisotropy and vacancy synergy. *Informa□□Materi□*, **2020**, 2, 1201-1215	23.1	31
110	Rashba Effect Maximizes Thermoelectric Performance of GeTe Derivatives. *Joule*, **2020**, 4, 2030-2043	27.8	90
109	Point defect engineering and machinability in n-type Mg3Sb2-based materials. *Materials Today Physics*, **2020**, 15, 100269	8	25
108	In situ crystal-amorphous compositing inducing ultrahigh thermoelectric performance of p-type Bi0.5Sb1.5Te3 hybrid thin films. *Nano Energy*, **2020**, 78, 105379	17.1	10
107	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	9.5	8
106	Hierarchical SnS2/carbon nanotube@reduced graphene oxide composite as an anode for ultra-stable sodium-ion batteries. *Chemical Engineering Journal Advances*, **2020**, 4, 100053	3.6	13
105	SrTiO3-based thermoelectrics: Progress and challenges. *Nano Energy*, **2020**, 78, 105195	17.1	52
104	Rational structural design and manipulation advance SnSe thermoelectrics. *Materials Horizons*, **2020**, 7, 3065-3096	14.4	37
103	Thermoelectric Generators: Alternative Power Supply for Wearable Electrocardiographic Systems. *Advanced Science*, **2020**, 7, 2001362	13.6	84

102	Nanostructured monoclinic CuSe as a near-room-temperature thermoelectric material. *Nanoscale*, **2020**, 12, 20536-20542	7.7	17
101	High-Performance GeTe-Based Thermoelectrics: from Materials to Devices. *Advanced Energy Materials*, **2020**, 10, 2000367	21.8	94
100	Crystal symmetry induced structure and bonding manipulation boosting thermoelectric performance of GeTe. *Nano Energy*, **2020**, 73, 104740	17.1	42
99	Realizing high thermoelectric properties of SnTe via synergistic band engineering and structure engineering. *Nano Energy*, **2019**, 65, 104056	17.1	70
98	Super Large SnSe Single Crystals with Excellent Thermoelectric Performance. *ACS Applied Materials & Interfaces*, **2019**, 11, 8051-8059	9.5	27
97	Solvothermal synthesis of high-purity porous Cu1.7Se approaching low lattice thermal conductivity. *Chemical Engineering Journal*, **2019**, 375, 121996	14.7	21
96	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	7.1	6
95	Flexible Thermoelectric Materials and Generators: Challenges and Innovations. *Advanced Materials*, **2019**, 31, e1807916	24	255
94	Carbon-Encapsulated Copper Sulfide Leading to Enhanced Thermoelectric Properties. *ACS Applied Materials & Interfaces*, **2019**, 11, 22457-22463	9.5	22
93	Oligomeric Silica-Wrapped Perovskites Enable Synchronous Defect Passivation and Grain Stabilization for Efficient and Stable Perovskite Photovoltaics. *ACS Energy Letters*, **2019**, 4, 1231-1240	20.1	83
92	Realizing Bi-doped □Cu2Se as a promising near-room-temperature thermoelectric material. *Chemical Engineering Journal*, **2019**, 371, 593-599	14.7	34
91	Enhancing Thermoelectric Properties of InTe Nanoprecipitate-Embedded Sn1□InxTe Microcrystals through Anharmonicity and Strain Engineering. *ACS Applied Energy Materials*, **2019**, 2, 2965-2971	6.1	31
90	Nanoscale pores plus precipitates rendering high-performance thermoelectric SnTe1-xSex with refined band structures. *Nano Energy*, **2019**, 60, 1-7	17.1	66
89	Separable and recyclable meso-carbon@TiO2/carbon fiber composites for visible-light photocatalysis and photoelectrocatalysis. *Sustainable Materials and Technologies*, **2019**, 21, e00105	5.3	13
88	Kinetic condition driven phase and vacancy enhancing thermoelectric performance of low-cost and eco-friendly Cu2□S. *Journal of Materials Chemistry C*, **2019**, 7, 5366-5373	7.1	20
87	High Thermoelectric Performance in p-type Polycrystalline Cd-doped SnSe Achieved by a Combination of Cation Vacancies and Localized Lattice Engineering. *Advanced Energy Materials*, **2019**, 9, 1803242	21.8	99
86	Thermoelectric GeTe with Diverse Degrees of Freedom Having Secured Superhigh Performance. *Advanced Materials*, **2019**, 31, e1807071	24	134
85	High Porosity in Nanostructured -Type BiTe Obtaining Ultralow Lattice Thermal Conductivity. *ACS Applied Materials & Interfaces*, **2019**, 11, 31237-31244	9.5	50

84	Bioinspired and osteopromotive polydopamine nanoparticle-incorporated fibrous membranes for robust bone regeneration. *NPG Asia Materials*, **2019**, 11,	10.3	35
83	High-Performance PEDOT:PSS Flexible Thermoelectric Materials and Their Devices by Triple Post-Treatments. *Chemistry of Materials*, **2019**, 31, 5238-5244	9.6	102
82	- Observation of the Continuous Phase Transition in Determining the High Thermoelectric Performance of Polycrystalline SnSe. *Journal of Physical Chemistry Letters*, **2019**, 10, 6512-6517	6.4	22
81	Facile synthesis and characterization of multifunctional cobalt-based nanocomposites for targeted chemo-photothermal synergistic cancer therapy. *Composites Part B: Engineering*, **2019**, 178, 107521	10	15
80	Anisotropy Controll Induced Unique Anisotropic Thermoelectric Performance in the n-Type Bi2Te2.7Se0.3 Thin Films. *Small Methods*, **2019**, 3, 1900582	12.8	38
79	A new indium selenide phase: controllable synthesis, phase transformation and photoluminescence properties. *Journal of Materials Chemistry C*, **2019**, 7, 13573-13584	7.1	4
78	Strong Phonon-Phonon Interactions Securing Extraordinary Thermoelectric GeSb Te with Zn-Alloying-Induced Band Alignment. *Journal of the American Chemical Society*, **2019**, 141, 1742-1748	16.4	145
77	Vapour-solid growth of MoxW1-xTe2 nanobelts by a facile chemical vapour deposition method. *Journal of Alloys and Compounds*, **2019**, 777, 926-930	5.7	7
76	Attaining reduced lattice thermal conductivity and enhanced electrical conductivity in as-sintered pure n-type Bi2Te3 alloy. *Journal of Materials Science*, **2019**, 54, 4788-4797	4.3	11
75	Self-assembled 3D flower-like hierarchical Ti-doped Cu3SbSe4 microspheres with ultralow thermal conductivity and high zT. *Nano Energy*, **2018**, 49, 221-229	17.1	29
74	Eco-Friendly Higher Manganese Silicide Thermoelectric Materials: Progress and Future Challenges. *Advanced Energy Materials*, **2018**, 8, 1800056	21.8	90
73	A Novel Hydrogel Surface Grafted With Dual Functional Peptides for Sustaining Long-Term Self-Renewal of Human Induced Pluripotent Stem Cells and Manipulating Their Osteoblastic Maturation. *Advanced Functional Materials*, **2018**, 28, 1705546	15.6	31
72	Realizing zT of 2.3 in Ge Sb In Te via Reducing the Phase-Transition Temperature and Introducing Resonant Energy Doping. *Advanced Materials*, **2018**, 30, 1705942	24	228
71	Achieving zT > 2 in p-Type AgSbTe2Sex Alloys via Exploring the Extra Light Valence Band and Introducing Dense Stacking Faults. *Advanced Energy Materials*, **2018**, 8, 1702333	21.8	100
70	Atomic Insights into Phase Evolution in Ternary Transition-Metal Dichalcogenides Nanostructures. *Small*, **2018**, 14, e1800780	11	8
69	High-performance SnSe thermoelectric materials: Progress and future challenge. *Progress in Materials Science*, **2018**, 97, 283-346	42.2	273
68	Achieving high Figure of Merit in p-type polycrystalline Sn0.98Se via self-doping and anisotropy-strengthening. *Energy Storage Materials*, **2018**, 10, 130-138	19.4	79
67	Boosting the thermoelectric performance of p-type heavily Cu-doped polycrystalline SnSe inducing intensive crystal imperfections and defect phonon scattering. *Chemical Science*, **2018**, 9, 7376-7389	9.4	91

66	Achieving high thermoelectric performance of Ni/Cu modified Bi0.5Sb1.5Te3 composites by a facile electroless plating. *Materials Today Energy*, **2018**, 9, 383-390	7	16
65	Graphene-Oxide-Decorated Microporous Polyetheretherketone with Superior Antibacterial Capability and In Vitro Osteogenesis for Orthopedic Implant. *Macromolecular Bioscience*, **2018**, 18, e1800036	5.5	55
64	Fundamental and progress of Bi 2 Te 3 -based thermoelectric materials. *Chinese Physics B*, **2018**, 27, 048403	1.2	68
63	Investigation of the Chemical Residuals on the Fused Silica during Chemical Mechanical Polishing. *ChemistrySelect*, **2018**, 3, 8930-8935	1.8	5
62	Enhancing thermoelectric performance of (Cu1-xAgx)2Se via CuAgSe secondary phase and porous design. *Sustainable Materials and Technologies*, **2018**, 17, e00076	5.3	20
61	Realizing High Thermoelectric Performance in n-Type Highly Distorted Sb-Doped SnSe Microplates via Tuning High Electron Concentration and Inducing Intensive Crystal Defects. *Advanced Energy Materials*, **2018**, 8, 1800775	21.8	86
60	Nano-scale dislocations induced by self-vacancy engineering yielding extraordinary n-type thermoelectric Pb0.96-yInySe. *Nano Energy*, **2018**, 50, 785-793	17.1	39
59	High Performance Thermoelectric Materials: Progress and Their Applications. *Advanced Energy Materials*, **2018**, 8, 1701797	21.8	371
58	An in situ study of chemical-mechanical polishing behaviours on sapphire (0001) via simulating the chemical product-removal process by AFM-tapping mode in both liquid and air environments. *Nanoscale*, **2018**, 10, 19692-19700	7.7	16
57	Highly (00l)-oriented BiTe/Te heterostructure thin films with enhanced power factor. *Nanoscale*, **2018**, 10, 20189-20195	7.7	23
56	Ag doping induced abnormal lattice thermal conductivity in Cu2Se. *Journal of Materials Chemistry C*, **2018**, 6, 13225-13231	7.1	40
55	Sustainable utilization of municipal solid waste incineration fly ash for ceramic bricks with eco-friendly biosafety. *Materials Today Sustainability*, **2018**, 1-2, 32-38	5	14
54	High Thermoelectric Performance in Sintered Octahedron-Shaped Sn(CdIn) Te Microcrystals. *ACS Applied Materials & Interfaces*, **2018**, 10, 38944-38952	9.5	27
53	Polycrystalline SnSe with Extraordinary Thermoelectric Property via Nanoporous Design. *ACS Nano*, **2018**, 12, 11417-11425	16.7	98
52	Arrays of Planar Vacancies in Superior Thermoelectric Ge1□□CdxBiyTe with Band Convergence. *Advanced Energy Materials*, **2018**, 8, 1801837	21.8	116
51	Room-temperature chiral charge pumping in Dirac semimetals. *Nature Communications*, **2017**, 8, 13741	17.4	82
50	Enhancing the thermoelectric performance of SnSe1□Tex nanoplates through band engineering. *Journal of Materials Chemistry A*, **2017**, 5, 10713-10721	13	68
49	n-type Bi-doped PbTe Nanocubes with Enhanced Thermoelectric Performance. *Nano Energy*, **2017**, 31, 105-112	17.1	84

48	Enhanced Thermoelectric Properties of Ag-Modified BiSbTe Composites by a Facile Electroless Plating Method. *ACS Applied Materials & Interfaces*, **2017**, 9, 36478-36482	9.5	29
47	Eco-Friendly SnTe Thermoelectric Materials: Progress and Future Challenges. *Advanced Functional Materials*, **2017**, 27, 1703278	15.6	220
46	Thermoelectric Performance of Se/Cd Codoped SnTe via Microwave Solvothermal Method. *ACS Applied Materials & Interfaces*, **2017**, 9, 22612-22619	9.5	31
45	Characterization of sapphire chemical mechanical polishing performances using silica with different sizes and their removal mechanisms. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2017**, 513, 153-159	5.1	36
44	Atomically smooth gallium nitride surface prepared by chemical-mechanical polishing with S2O82−Fe2+ based slurry. *Tribology International*, **2017**, 110, 441-450	4.9	24
43	Tunable Ambipolar Polarization-Sensitive Photodetectors Based on High-Anisotropy ReSe2 Nanosheets. *ACS Nano*, **2016**, 10, 8067-77	16.7	200
42	Limit of zT enhancement in rocksalt structured chalcogenides by band convergence. *Physical Review B*, **2016**, 94,	3.3	44
41	Surface-energy engineered Bi-doped SnTe nanoribbons with weak antilocalization effect and linear magnetoresistance. *Nanoscale*, **2016**, 8, 19383-19389	7.7	9
40	Impacts of Cu deficiency on the thermoelectric properties of Cu2−xSe nanoplates. *Acta Materialia*, **2016**, 113, 140-146	8.4	58
39	Enhancing thermoelectric performance of Bi2Te3-based nanostructures through rational structure design. *Nanoscale*, **2016**, 8, 8681-6	7.7	55
38	Co-doped Sb2Te3 paramagnetic nanoplates. *Journal of Materials Chemistry C*, **2016**, 4, 521-525	7.1	10
37	Te-Doped Cu2Se nanoplates with a high average thermoelectric figure of merit. *Journal of Materials Chemistry A*, **2016**, 4, 9213-9219	13	67
36	n-Type Bi2Te3-xSex Nanoplates with Enhanced Thermoelectric Efficiency Driven by Wide-Frequency Phonon Scatterings and Synergistic Carrier Scatterings. *ACS Nano*, **2016**, 10, 4719-27	16.7	235
35	Planar Vacancies in Sn1-xBixTe Nanoribbons. *ACS Nano*, **2016**, 10, 5507-15	16.7	15
34	High-performance thermoelectric Cu2Se nanoplates through nanostructure engineering. *Nano Energy*, **2015**, 16, 367-374	17.1	169
33	A study of chemical products formed on sapphire (0001) during chemical−mechanical polishing. *Surface and Coatings Technology*, **2015**, 270, 206-220	4.4	43
32	Fe-Nx/C assisted chemical−mechanical polishing for improving the removal rate of sapphire. *Applied Surface Science*, **2015**, 343, 115-120	6.7	42
31	Investigation on the surface characterization of Ga-faced GaN after chemical-mechanical polishing. *Applied Surface Science*, **2015**, 338, 85-91	6.7	22

30	Enhanced Thermoelectric Performance of Nanostructured Bi2Te3 through Significant Phonon Scattering. *ACS Applied Materials & Interfaces*, **2015**, 7, 23694-9	9.5	155
29	Landau level splitting in Cd3As2 under high magnetic fields. *Nature Communications*, **2015**, 6, 7779	17.4	98
28	Magnetotransport Properties of Cd3As2 Nanostructures. *ACS Nano*, **2015**, 9, 8843-50	16.7	47
27	Scalable Growth of High Mobility Dirac Semimetal Cd3As2 Microbelts. *Nano Letters*, **2015**, 15, 5830-4	11.5	34
26	Effects of ultra-smooth surface atomic step morphology on chemical mechanical polishing (CMP) performances of sapphire and SiC wafers. *Tribology International*, **2015**, 87, 145-150	4.9	62
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