

Xiaolei Shi

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191
papers

9,112
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199
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12,121
ext. citations

12.2
avg, IF

7.14
L-index

#	Paper	IF	Citations
191	Nanostructured thermoelectric materials: Current research and future challenge. <i>Progress in Natural Science: Materials International</i> , 2012 , 22, 535-549	3.6	485
190	Advanced Thermoelectric Design: From Materials and Structures to Devices. <i>Chemical Reviews</i> , 2020 , 120, 7399-7515	68.1	482
189	High Performance Thermoelectric Materials: Progress and Their Applications. <i>Advanced Energy Materials</i> , 2018 , 8, 1701797	21.8	371
188	High-performance SnSe thermoelectric materials: Progress and future challenge. <i>Progress in Materials Science</i> , 2018 , 97, 283-346	42.2	273
187	Flexible Thermoelectric Materials and Generators: Challenges and Innovations. <i>Advanced Materials</i> , 2019 , 31, e1807916	24	255
186	n-Type Bi ₂ Te ₃ -xSex Nanoplates with Enhanced Thermoelectric Efficiency Driven by Wide-Frequency Phonon Scatterings and Synergistic Carrier Scatterings. <i>ACS Nano</i> , 2016 , 10, 4719-27	16.7	235
185	Realizing zT of 2.3 in Ge Sb In Te via Reducing the Phase-Transition Temperature and Introducing Resonant Energy Doping. <i>Advanced Materials</i> , 2018 , 30, 1705942	24	228
184	Eco-Friendly SnTe Thermoelectric Materials: Progress and Future Challenges. <i>Advanced Functional Materials</i> , 2017 , 27, 1703278	15.6	220
183	Indium selenides: structural characteristics, synthesis and their thermoelectric performances. <i>Small</i> , 2014 , 10, 2747-65	11	201
182	Tunable Ambipolar Polarization-Sensitive Photodetectors Based on High-Anisotropy ReSe ₂ Nanosheets. <i>ACS Nano</i> , 2016 , 10, 8067-77	16.7	200
181	High-performance thermoelectric Cu ₂ Se nanoplates through nanostructure engineering. <i>Nano Energy</i> , 2015 , 16, 367-374	17.1	169
180	Enhanced Thermoelectric Performance of Nanostructured Bi ₂ Te ₃ through Significant Phonon Scattering. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 23694-9	9.5	155
179	Strong Phonon-Phonon Interactions Securing Extraordinary Thermoelectric GeSb Te with Zn-Alloying-Induced Band Alignment. <i>Journal of the American Chemical Society</i> , 2019 , 141, 1742-1748	16.4	145
178	Thermoelectric GeTe with Diverse Degrees of Freedom Having Secured Superhigh Performance. <i>Advanced Materials</i> , 2019 , 31, e1807071	24	134
177	Flexible Carbon-Fiber/Semimetal Bi Nanosheet Arrays as Separable and Recyclable Plasmonic Photocatalysts and Photoelectrocatalysts. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 24845-24854	9.5	123
176	Arrays of Planar Vacancies in Superior Thermoelectric Ge _{1-x} CdxBi _y Te with Band Convergence. <i>Advanced Energy Materials</i> , 2018 , 8, 1801837	21.8	116
175	High-Performance PEDOT:PSS Flexible Thermoelectric Materials and Their Devices by Triple Post-Treatments. <i>Chemistry of Materials</i> , 2019 , 31, 5238-5244	9.6	102

174	Achieving $zT > 2$ in p-Type AgSbTe _{2-x} Sex Alloys via Exploring the Extra Light Valence Band and Introducing Dense Stacking Faults. <i>Advanced Energy Materials</i> , 2018 , 8, 1702333	21.8	100
173	High Thermoelectric Performance in p-type Polycrystalline Cd-doped SnSe Achieved by a Combination of Cation Vacancies and Localized Lattice Engineering. <i>Advanced Energy Materials</i> , 2019 , 9, 1803242	21.8	99
172	Landau level splitting in Cd ₃ As ₂ under high magnetic fields. <i>Nature Communications</i> , 2015 , 6, 7779	17.4	98
171	Polycrystalline SnSe with Extraordinary Thermoelectric Property via Nanoporous Design. <i>ACS Nano</i> , 2018 , 12, 11417-11425	16.7	98
170	High-Performance GeTe-Based Thermoelectrics: from Materials to Devices. <i>Advanced Energy Materials</i> , 2020 , 10, 2000367	21.8	94
169	Promising and Eco-Friendly Cu X-Based Thermoelectric Materials: Progress and Applications. <i>Advanced Materials</i> , 2020 , 32, e1905703	24	92
168	Boosting the thermoelectric performance of p-type heavily Cu-doped polycrystalline SnSe inducing intensive crystal imperfections and defect phonon scattering. <i>Chemical Science</i> , 2018 , 9, 7376-7389	9.4	91
167	Eco-Friendly Higher Manganese Silicide Thermoelectric Materials: Progress and Future Challenges. <i>Advanced Energy Materials</i> , 2018 , 8, 1800056	21.8	90
166	Rashba Effect Maximizes Thermoelectric Performance of GeTe Derivatives. <i>Joule</i> , 2020 , 4, 2030-2043	27.8	90
165	Realizing High Thermoelectric Performance in n-Type Highly Distorted Sb-Doped SnSe Microplates via Tuning High Electron Concentration and Inducing Intensive Crystal Defects. <i>Advanced Energy Materials</i> , 2018 , 8, 1800775	21.8	86
164	High-Performance Thermoelectric SnSe: Aqueous Synthesis, Innovations, and Challenges. <i>Advanced Science</i> , 2020 , 7, 1902923	13.6	85
163	n-type Bi-doped PbTe Nanocubes with Enhanced Thermoelectric Performance. <i>Nano Energy</i> , 2017 , 31, 105-112	17.1	84
162	Thermoelectric Generators: Alternative Power Supply for Wearable Electrocardiographic Systems. <i>Advanced Science</i> , 2020 , 7, 2001362	13.6	84
161	Oligomeric Silica-Wrapped Perovskites Enable Synchronous Defect Passivation and Grain Stabilization for Efficient and Stable Perovskite Photovoltaics. <i>ACS Energy Letters</i> , 2019 , 4, 1231-1240	20.1	83
160	Room-temperature chiral charge pumping in Dirac semimetals. <i>Nature Communications</i> , 2017 , 8, 13741	17.4	82
159	Establishing the Golden Range of Seebeck Coefficient for Maximizing Thermoelectric Performance. <i>Journal of the American Chemical Society</i> , 2020 , 142, 2672-2681	16.4	82
158	Achieving high Figure of Merit in p-type polycrystalline Sn _{0.98} Se via self-doping and anisotropy-strengthening. <i>Energy Storage Materials</i> , 2018 , 10, 130-138	19.4	79
157	Computer-aided design of high-efficiency GeTe-based thermoelectric devices. <i>Energy and Environmental Science</i> , 2020 , 13, 1856-1864	35.4	73

156	Texture-dependent thermoelectric properties of nano-structured Bi ₂ Te ₃ . <i>Chemical Engineering Journal</i> , 2020 , 388, 124295	14.7	72
155	Realizing high thermoelectric properties of SnTe via synergistic band engineering and structure engineering. <i>Nano Energy</i> , 2019 , 65, 104056	17.1	70
154	Enhancing the thermoelectric performance of SnSe _{1-x} Te _x nanoplates through band engineering. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 10713-10721	13	68
153	Fundamental and progress of Bi ₂ Te ₃ -based thermoelectric materials. <i>Chinese Physics B</i> , 2018 , 27, 048403	10.3	68
152	Te-Doped Cu ₂ Se nanoplates with a high average thermoelectric figure of merit. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 9213-9219	13	67
151	Nanoscale pores plus precipitates rendering high-performance thermoelectric SnTe _{1-x} Se _x with refined band structures. <i>Nano Energy</i> , 2019 , 60, 1-7	17.1	66
150	Bi _{0.5} Sb _{1.5} Te ₃ /PEDOT:PSS-based flexible thermoelectric film and device. <i>Chemical Engineering Journal</i> , 2020 , 397, 125360	14.7	66
149	Effect of annealing temperature on the corrosion behavior of duplex stainless steel studied by in situ techniques. <i>Corrosion Science</i> , 2011 , 53, 3733-3741	6.8	66
148	Fiber-based thermoelectrics for solid, portable, and wearable electronics. <i>Energy and Environmental Science</i> , 2021 , 14, 729-764	35.4	65
147	Effects of ultra-smooth surface atomic step morphology on chemical mechanical polishing (CMP) performances of sapphire and SiC wafers. <i>Tribology International</i> , 2015 , 87, 145-150	4.9	62
146	Impacts of Cu deficiency on the thermoelectric properties of Cu _{2-x} Se nanoplates. <i>Acta Materialia</i> , 2016 , 113, 140-146	8.4	58
145	Enhanced thermoelectric properties of nanostructured n-type Bi ₂ Te ₃ by suppressing Te vacancy through non-equilibrium fast reaction. <i>Chemical Engineering Journal</i> , 2020 , 391, 123513	14.7	58
144	XPS, UV-vis spectroscopy and AFM studies on removal mechanisms of Si-face SiC wafer chemical mechanical polishing (CMP). <i>Applied Surface Science</i> , 2014 , 316, 643-648	6.7	57
143	Cu ₂ Se thermoelectrics: property, methodology, and device. <i>Nano Today</i> , 2020 , 35, 100938	17.9	57
142	Enhancing thermoelectric performance of Bi ₂ Te ₃ -based nanostructures through rational structure design. <i>Nanoscale</i> , 2016 , 8, 8681-6	7.7	55
141	Graphene-Oxide-Decorated Microporous Polyetheretherketone with Superior Antibacterial Capability and In Vitro Osteogenesis for Orthopedic Implant. <i>Macromolecular Bioscience</i> , 2018 , 18, e1800036	5.5	55
140	SrTiO ₃ -based thermoelectrics: Progress and challenges. <i>Nano Energy</i> , 2020 , 78, 105195	17.1	52
139	T-Shaped Bi ₂ Te ₃ /Te Heteronanojunctions: Epitaxial Growth, Structural Modeling, and Thermoelectric Properties. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 12458-12464	3.8	51

138	High Porosity in Nanostructured -Type BiTe Obtaining Ultralow Lattice Thermal Conductivity. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 31237-31244	9.5	50
137	Characterization of colloidal silica abrasives with different sizes and their chemical/mechanical polishing performance on 4H-SiC (0001). <i>Applied Surface Science</i> , 2014 , 307, 414-427	6.7	50
136	Flexible thermoelectric materials and devices: From materials to applications. <i>Materials Today</i> , 2021 , 46, 62-108	21.8	49
135	Chemical mechanical planarization (CMP) of on-axis Si-face SiC wafer using catalyst nanoparticles in slurry. <i>Surface and Coatings Technology</i> , 2014 , 251, 48-55	4.4	48
134	Magnetotransport Properties of Cd ₃ As ₂ Nanostructures. <i>ACS Nano</i> , 2015 , 9, 8843-50	16.7	47
133	Rational design of Bi ₂ Te ₃ polycrystalline whiskers for thermoelectric applications. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 989-95	9.5	47
132	Conducting polymer-based flexible thermoelectric materials and devices: From mechanisms to applications. <i>Progress in Materials Science</i> , 2021 , 121, 100840	42.2	47
131	Carbon allotrope hybrids advance thermoelectric development and applications. <i>Renewable and Sustainable Energy Reviews</i> , 2021 , 141, 110800	16.2	46
130	Limit of zT enhancement in rocksalt structured chalcogenides by band convergence. <i>Physical Review B</i> , 2016 , 94,	3.3	44
129	A study of chemical products formed on sapphire (0001) during chemical/mechanical polishing. <i>Surface and Coatings Technology</i> , 2015 , 270, 206-220	4.4	43
128	Fe-Nx/C assisted chemical/mechanical polishing for improving the removal rate of sapphire. <i>Applied Surface Science</i> , 2015 , 343, 115-120	6.7	42
127	Crystal symmetry induced structure and bonding manipulation boosting thermoelectric performance of GeTe. <i>Nano Energy</i> , 2020 , 73, 104740	17.1	42
126	Rational band engineering and structural manipulations inducing high thermoelectric performance in n-type CoSb ₃ thin films. <i>Nano Energy</i> , 2021 , 81, 105683	17.1	42
125	Chemical mechanical polishing (CMP) of on-axis Si-face 6H-SiC wafer for obtaining atomically flat defect-free surface. <i>Journal of Materials Science: Materials in Electronics</i> , 2013 , 24, 5040-5047	2.1	40
124	Ag doping induced abnormal lattice thermal conductivity in Cu ₂ Se. <i>Journal of Materials Chemistry C</i> , 2018 , 6, 13225-13231	7.1	40
123	Nano-scale dislocations induced by self-vacancy engineering yielding extraordinary n-type thermoelectric Pb _{0.96} -yInySe. <i>Nano Energy</i> , 2018 , 50, 785-793	17.1	39
122	Anisotropy Control Induced Unique Anisotropic Thermoelectric Performance in the n-Type Bi ₂ Te _{2.7} Se _{0.3} Thin Films. <i>Small Methods</i> , 2019 , 3, 1900582	12.8	38
121	Rational structural design and manipulation advance SnSe thermoelectrics. <i>Materials Horizons</i> , 2020 , 7, 3065-3096	14.4	37

120	Graphene Oxide and Adiponectin-Functionalized Sulfonated Poly(etheretherketone) with Effective Osteogenicity and Remotely Repeatable Photodisinfection. <i>Chemistry of Materials</i> , 2020 , 32, 2180-2193	9.6	36
119	Characterization of sapphire chemical mechanical polishing performances using silica with different sizes and their removal mechanisms. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2017 , 513, 153-159	5.1	36
118	Bioinspired and osteopromotive polydopamine nanoparticle-incorporated fibrous membranes for robust bone regeneration. <i>NPG Asia Materials</i> , 2019 , 11,	10.3	35
117	Extended study of the atomic step-terrace structure on hexagonal SiC (0001) by chemical-mechanical planarization. <i>Applied Surface Science</i> , 2013 , 284, 195-206	6.7	35
116	Realizing Bi-doped BiCu_2Se as a promising near-room-temperature thermoelectric material. <i>Chemical Engineering Journal</i> , 2019 , 371, 593-599	14.7	34
115	Scalable Growth of High Mobility Dirac Semimetal Cd_3As_2 Microbelts. <i>Nano Letters</i> , 2015 , 15, 5830-4	11.5	34
114	Two-dimensional WSe_2/SnSe p-n junctions secure ultrahigh thermoelectric performance in n-type Pb/I Co-doped polycrystalline SnSe . <i>Materials Today Physics</i> , 2021 , 16, 100306	8	34
113	Enhancing Thermoelectric Properties of InTe Nanoprecipitate-Embedded $\text{Sn}_{1-x}\text{In}_x\text{Te}$ Microcrystals through Anharmonicity and Strain Engineering. <i>ACS Applied Energy Materials</i> , 2019 , 2, 2965-2971	6.1	31
112	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. <i>Advanced Functional Materials</i> , 2018 , 28, 1705546	15.6	31
111	Thermoelectric Performance of Se/Cd Codoped SnTe via Microwave Solvothermal Method. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 22612-22619	9.5	31
110	Optimization of sodium hydroxide for securing high thermoelectric performance in polycrystalline $\text{Sn}_{1-x}\text{Sb}_x\text{Se}$ via anisotropy and vacancy synergy. <i>Information Materials</i> , 2020 , 2, 1201-1215	23.1	31
109	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. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 28359-28368	9.5	30
108	Enhanced Thermoelectric Properties of $\text{Ag-Modified BiSbTe}$ Composites by a Facile Electroless Plating Method. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 36478-36482	9.5	29
107	Hierarchical Structures Advance Thermoelectric Properties of Porous n-type BiAgSe . <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 51523-51529	9.5	29
106	Self-assembled 3D flower-like hierarchical $\text{Ti-doped Cu}_3\text{SbSe}_4$ microspheres with ultralow thermal conductivity and high zT . <i>Nano Energy</i> , 2018 , 49, 221-229	17.1	29
105	High Curie temperature $\text{Bi}_{1.85}\text{Mn}_{0.15}\text{Te}_3$ nanoplates. <i>Journal of the American Chemical Society</i> , 2012 , 134, 18920-3	16.4	29
104	Wearable fiber-based thermoelectrics from materials to applications. <i>Nano Energy</i> , 2021 , 81, 105684	17.1	28
103	Super Large SnSe Single Crystals with Excellent Thermoelectric Performance. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 8051-8059	9.5	27

102	Computation-guided design of high-performance flexible thermoelectric modules for sunlight-to-electricity conversion. <i>Energy and Environmental Science</i> , 2020 , 13, 3480-3488	35.4	27
101	High Thermoelectric Performance in Sintered Octahedron-Shaped Sn(CdIn) Te Microcrystals. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 38944-38952	9.5	27
100	Two-dimensional nanocoating-enabled orthopedic implants for bimodal therapeutic applications. <i>Nanoscale</i> , 2020 , 12, 11936-11946	7.7	26
99	Correlation between Multiple Growth Stages and Photocatalysis of SrTiO ₃ Nanocrystals. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 3530-3537	3.8	26
98	Point defect engineering and machinability in n-type Mg ₃ Sb ₂ -based materials. <i>Materials Today Physics</i> , 2020 , 15, 100269	8	25
97	Atomically smooth gallium nitride surface prepared by chemical-mechanical polishing with S ₂ O ₈ ²⁻ /Fe ²⁺ based slurry. <i>Tribology International</i> , 2017 , 110, 441-450	4.9	24
96	AFM and XPS studies on material removal mechanism of sapphire wafer during chemical mechanical polishing (CMP). <i>Journal of Materials Science: Materials in Electronics</i> , 2015 , 26, 9921-9928	2.1	24
95	Synergistic effect approaching record-high figure of merit in the shear exfoliated n-type Bi ₂ O ₂ -2xTe ₂ xSe. <i>Nano Energy</i> , 2020 , 69, 104394	17.1	24
94	Optimizing Electronic Quality Factor toward High-Performance Ge Ta Sb Te Thermoelectrics: The Role of Transition Metal Doping. <i>Advanced Materials</i> , 2021 , 33, e2102575	24	24
93	Anisotropic Electrical Properties from Vapor-Solid-Solid Grown Bi ₂ Se ₃ Nanoribbons and Nanowires. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 20620-20626	3.8	23
92	Highly (00l)-oriented BiTe/Te heterostructure thin films with enhanced power factor. <i>Nanoscale</i> , 2018 , 10, 20189-20195	7.7	23
91	Carbon-Encapsulated Copper Sulfide Leading to Enhanced Thermoelectric Properties. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 22457-22463	9.5	22
90	Investigation on the surface characterization of Ga-faced GaN after chemical-mechanical polishing. <i>Applied Surface Science</i> , 2015 , 338, 85-91	6.7	22
89	- Observation of the Continuous Phase Transition in Determining the High Thermoelectric Performance of Polycrystalline SnSe. <i>Journal of Physical Chemistry Letters</i> , 2019 , 10, 6512-6517	6.4	22
88	Solvothermal synthesis of high-purity porous Cu _{1.7} Se approaching low lattice thermal conductivity. <i>Chemical Engineering Journal</i> , 2019 , 375, 121996	14.7	21
87	Kinetic condition driven phase and vacancy enhancing thermoelectric performance of low-cost and eco-friendly Cu ₂ S. <i>Journal of Materials Chemistry C</i> , 2019 , 7, 5366-5373	7.1	20
86	Enhancing thermoelectric performance of (Cu _{1-x} Ag _x) ₂ Se via CuAgSe secondary phase and porous design. <i>Sustainable Materials and Technologies</i> , 2018 , 17, e00076	5.3	20
85	A flexible quasi-solid-state thermoelectrochemical cell with high stretchability as an energy-autonomous strain sensor. <i>Materials Horizons</i> , 2021 , 8, 2750-2760	14.4	20

84	Thermal stability and oxidation of layer-structured rhombohedral In ₃ Se ₄ nanostructures. <i>Applied Physics Letters</i> , 2013 , 103, 263105	3.4	19
83	Outstanding thermoelectric properties of solvothermal-synthesized Sn _{1-x} In _x Ag ₂ Te micro-crystals through defect engineering and band tuning. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 3978-3987	13	19
82	High-efficiency thermocells driven by thermo-electrochemical processes. <i>Trends in Chemistry</i> , 2021 , 3, 561-574	14.8	19
81	Advances and challenges in 2D MXenes: From structures to energy storage and conversions. <i>Nano Today</i> , 2021 , 40, 101273	17.9	19
80	Synergistic modulation of power factor and thermal conductivity in Cu ₃ SbSe ₄ towards high thermoelectric performance. <i>Nano Energy</i> , 2020 , 71, 104658	17.1	18
79	Versatile Vanadium Doping Induces High Thermoelectric Performance in GeTe via Band Alignment and Structural Modulation. <i>Advanced Energy Materials</i> , 2021 , 11, 2100544	21.8	18
78	Novel Thermal Diffusion Temperature Engineering Leading to High Thermoelectric Performance in Bi Te -Based Flexible Thin-Films.. <i>Advanced Science</i> , 2021 , e2103547	13.6	17
77	Nanostructured monoclinic CuSe as a near-room-temperature thermoelectric material. <i>Nanoscale</i> , 2020 , 12, 20536-20542	7.7	17
76	Rational Electronic and Structural Designs Advance BiCuSeO Thermoelectrics. <i>Advanced Functional Materials</i> , 2021 , 31, 2101289	15.6	17
75	Achieving high thermoelectric performance of Ni/Cu modified Bi _{0.5} Sb _{1.5} Te ₃ composites by a facile electroless plating. <i>Materials Today Energy</i> , 2018 , 9, 383-390	7	16
74	Trifold Tellurium One-Dimensional Nanostructures and Their Formation Mechanism. <i>Crystal Growth and Design</i> , 2013 , 13, 4796-4802	3.5	16
73	High Carrier Mobility and High Figure of Merit in the CuBiSe ₂ Alloyed GeTe. <i>Advanced Energy Materials</i> , 2021 , 11, 2102913	21.8	16
72	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. <i>Nanoscale</i> , 2018 , 10, 19692-19700	7.7	16
71	Bacteria-Triggered pH-Responsive Osteopotentiating Coating on 3D-Printed Polyetheretherketone Scaffolds for Infective Bone Defect Repair. <i>Industrial & Engineering Chemistry Research</i> , 2020 , 59, 12123-12135	3.9	15
70	Facile synthesis and characterization of multifunctional cobalt-based nanocomposites for targeted chemo-photothermal synergistic cancer therapy. <i>Composites Part B: Engineering</i> , 2019 , 178, 107521	10	15
69	Planar Vacancies in Sn _{1-x} Bi _x Te Nanoribbons. <i>ACS Nano</i> , 2016 , 10, 5507-15	16.7	15
68	Full-spectrum responsive photocatalytic activity via non-noble metal Bi decorated mulberry-like BiVO ₄ . <i>Journal of Materials Science and Technology</i> , 2021 , 83, 102-112	9.1	15
67	Multifunctional Wearable Thermoelectrics for Personal Thermal Management. <i>Advanced Functional Materials</i> , 2020 , 30, 200548	15.6	15

66	A non-noble material cathode catalyst dual-doped with sulfur and nitrogen as efficient electrocatalysts for oxygen reduction reaction. <i>Electrochimica Acta</i> , 2015 , 177, 57-64	6.7	14
65	High-performance in n-type PbTe-based thermoelectric materials achieved by synergistically dynamic doping and energy filtering. <i>Nano Energy</i> , 2022 , 91, 106706	17.1	14
64	Sustainable utilization of municipal solid waste incineration fly ash for ceramic bricks with eco-friendly biosafety. <i>Materials Today Sustainability</i> , 2018 , 1-2, 32-38	5	14
63	Separable and recyclable meso-carbon@TiO ₂ /carbon fiber composites for visible-light photocatalysis and photoelectrocatalysis. <i>Sustainable Materials and Technologies</i> , 2019 , 21, e00105	5.3	13
62	A synergy of strain loading and laser radiation in determining the high-performing electrical transports in the single Cu-doped SnSe microbelt. <i>Materials Today Physics</i> , 2020 , 13, 100198	8	13
61	Hierarchical SnS ₂ /carbon nanotube@reduced graphene oxide composite as an anode for ultra-stable sodium-ion batteries. <i>Chemical Engineering Journal Advances</i> , 2020 , 4, 100053	3.6	13
60	Tuning wall thickness of TiO microtubes for an enhanced photocatalytic activity with thickness-dependent charge separation efficiency. <i>Journal of Colloid and Interface Science</i> , 2020 , 579, 463-469	9.3	12
59	Morphology and Texture Engineering Enhancing Thermoelectric Performance of Solvothermal Synthesized Ultralarge SnS Microcrystal. <i>ACS Applied Energy Materials</i> , 2020 , 3, 2192-2199	6.1	12
58	Synergistic band convergence and defect engineering boost thermoelectric performance of SnTe. <i>Journal of Materials Science and Technology</i> , 2021 , 86, 204-209	9.1	12
57	Thermoelectric Coolers: Progress, Challenges, and Opportunities.. <i>Small Methods</i> , 2022 , e2101235	12.8	11
56	Achieving ultralow surface roughness and high material removal rate in fused silica via a novel acid SiO ₂ slurry and its chemical-mechanical polishing mechanism. <i>Applied Surface Science</i> , 2020 , 500, 144041	6.7	11
55	Structural Evolution of High-Performance Mn-Alloyed Thermoelectric Materials: A Case Study of SnTe. <i>Small</i> , 2021 , 17, e2100525	11	11
54	Attaining reduced lattice thermal conductivity and enhanced electrical conductivity in as-sintered pure n-type Bi ₂ Te ₃ alloy. <i>Journal of Materials Science</i> , 2019 , 54, 4788-4797	4.3	11
53	Co-doped Sb ₂ Te ₃ paramagnetic nanoplates. <i>Journal of Materials Chemistry C</i> , 2016 , 4, 521-525	7.1	10
52	Composite diamond-DLC coated nanoprobe tips for wear resistance and adhesion reduction. <i>Surface and Coatings Technology</i> , 2012 , 206, 4099-4105	4.4	10
51	Atomically smooth gallium nitride surface prepared by chemical-mechanical polishing with different abrasives. <i>Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology</i> , 2014 , 228, 1144-1150	1.4	10
50	In situ crystal-amorphous compositing inducing ultrahigh thermoelectric performance of p-type Bi _{0.5} Sb _{1.5} Te ₃ hybrid thin films. <i>Nano Energy</i> , 2020 , 78, 105379	17.1	10
49	Hierarchical meso/macro-porous TiO ₂ /graphitic carbon nitride nanofibers with enhanced hydrogen evolution. <i>Materials and Design</i> , 2021 , 202, 109542	8.1	10

48	BiO/BiVO@graphene oxide van der Waals heterostructures with enhanced photocatalytic activity toward oxygen generation. <i>Journal of Colloid and Interface Science</i> , 2021 , 593, 196-203	9.3	10
47	Synergistic Texturing and Bi/Sb-Te Antisite Doping Secure High Thermoelectric Performance in Bi _{0.5} Sb _{1.5} Te ₃ -Based Thin Films. <i>Advanced Energy Materials</i> , 2021 , 11, 2102578	21.8	10
46	Surface-energy engineered Bi-doped SnTe nanoribbons with weak antilocalization effect and linear magnetoresistance. <i>Nanoscale</i> , 2016 , 8, 19383-19389	7.7	9
45	Characterization of coating probe with Ti-DLC for electrical scanning probe microscope. <i>Applied Surface Science</i> , 2011 , 257, 7238-7244	6.7	9
44	Two-dimensional flexible thermoelectric devices: Using modeling to deliver optimal capability. <i>Applied Physics Reviews</i> , 2021 , 8, 041404	17.3	9
43	Double perovskite Pr ₂ CoFeO ₆ thermoelectric oxide: Roles of Sr-doping and Micro/nanostructuring. <i>Chemical Engineering Journal</i> , 2021 , 425, 130668	14.7	9
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