Xiaolei Shi

List of Publications by Year
in descending order

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196 papers	15,453 citations	13827 67 h-index	20900 115 g-index
199 all docs	199 docs citations	199 times ranked	9049 citing authors

#	Article	IF	Citations
1	Advanced Thermoelectric Design: From Materials and Structures to Devices. Chemical Reviews, 2020, 120, 7399-7515.	23.0	1,248
2	Nanostructured thermoelectric materials: Current research and future challenge. Progress in Natural Science: Materials International, 2012, 22, 535-549.	1.8	630
3	High Performance Thermoelectric Materials: Progress and Their Applications. Advanced Energy Materials, 2018, 8, 1701797.	10.2	548
4	High-performance SnSe thermoelectric materials: Progress and future challenge. Progress in Materials Science, 2018, 97, 283-346.	16.0	419
5	Flexible Thermoelectric Materials and Generators: Challenges and Innovations. Advanced Materials, 2019, 31, e1807916.	11.1	419
6	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
7	Ecoâ€Friendly SnTe Thermoelectric Materials: Progress and Future Challenges. Advanced Functional Materials, 2017, 27, 1703278.	7.8	312
8	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
9	Indium Selenides: Structural Characteristics, Synthesis and Their Thermoelectric Performances. Small, 2014, 10, 2747-2765.	5.2	278
10	Tunable Ambipolar Polarization-Sensitive Photodetectors Based on High-Anisotropy ReSe₂ Nanosheets. ACS Nano, 2016, 10, 8067-8077.	7.3	276
11	High-performance thermoelectric Cu2Se nanoplates through nanostructure engineering. Nano Energy, 2015, 16, 367-374.	8.2	218
12	Flexible thermoelectric materials and devices: From materials to applications. Materials Today, 2021, 46, 62-108.	8.3	206
13	Enhanced Thermoelectric Performance of Nanostructured Bi₂Te₃ through Significant Phonon Scattering. ACS Applied Materials & Interfaces, 2015, 7, 23694-23699.	4.0	200
14	Strong Phononâ€“Phonon Interactions Securing Extraordinary Thermoelectric Ge_{1â€“x}Sb_xTe with Zn-Alloying-Induced Band Alignment. Journal of the American Chemical Society, 2019, 141, 1742-1748.	6.6	199
15	Thermoelectric GeTe with Diverse Degrees of Freedom Having Secured Superhigh Performance. Advanced Materials, 2019, 31, e1807071.	11.1	197
16	Promising and Ecoâ€Friendly Cu₂Xâ€Based Thermoelectric Materials: Progress and Applications. Advanced Materials, 2020, 32, e1905703.	11.1	165
17	Arrays of Planar Vacancies in Superior Thermoelectric Ge_{1â^'}_x_{â^'}_yCd_xBi_yTe with Band Convergence. Advanced Energy Materials, 2018, 8, 1801837.	10.2	161
18	Flexible Carbon-Fiber/Semimetal Bi Nanosheet Arrays as Separable and Recyclable Plasmonic Photocatalysts and Photoelectrocatalysts. ACS Applied Materials & Interfaces, 2020, 12, 24845-24854.	4.0	161

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19	Highâ€Performance GeTeâ€Based Thermoelectrics: from Materials to Devices. Advanced Energy Materials, 2020, 10, 2000367.	10.2	160
20	Conducting polymer-based flexible thermoelectric materials and devices: From mechanisms to applications. Progress in Materials Science, 2021, 121, 100840.	16.0	160
21	Highâ€Performance Thermoelectric SnSe: Aqueous Synthesis, Innovations, and Challenges. Advanced Science, 2020, 7, 1902923.	5.6	156
22	High-Performance PEDOT:PSS Flexible Thermoelectric Materials and Their Devices by Triple Post-Treatments. Chemistry of Materials, 2019, 31, 5238-5244.	3.2	153
23	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
24	Thermoelectric Generators: Alternative Power Supply for Wearable Electrocardiographic Systems. Advanced Science, 2020, 7, 2001362.	5.6	146
25	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
26	Fiber-based thermoelectrics for solid, portable, and wearable electronics. Energy and Environmental Science, 2021, 14, 729-764.	15.6	143
27	Texture-dependent thermoelectric properties of nano-structured Bi2Te3. Chemical Engineering Journal, 2020, 388, 124295.	6.6	142
28	Polycrystalline SnSe with Extraordinary Thermoelectric Property via Nanoporous Design. ACS Nano, 2018, 12, 11417-11425.	7.3	141
29	Rashba Effect Maximizes Thermoelectric Performance of GeTe Derivatives. Joule, 2020, 4, 2030-2043.	11.7	138
30	Establishing the Golden Range of Seebeck Coefficient for Maximizing Thermoelectric Performance. Journal of the American Chemical Society, 2020, 142, 2672-2681.	6.6	137
31	SrTiO3-based thermoelectrics: Progress and challenges. Nano Energy, 2020, 78, 105195.	8.2	127
32	Landau level splitting in Cd3As2 under high magnetic fields. Nature Communications, 2015, 6, 7779.	5.8	126
33	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
34	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
35	Cu2Se thermoelectrics: property, methodology, and device. Nano Today, 2020, 35, 100938.	6.2	119
36	Ecoâ€Friendly Higher Manganese Silicide Thermoelectric Materials: Progress and Future Challenges. Advanced Energy Materials, 2018, 8, 1800056.	10.2	116

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37	Realizing high thermoelectric properties of SnTe via synergistic band engineering and structure engineering. Nano Energy, 2019, 65, 104056.	8.2	116
38	Fundamental and progress of Bi ₂ Te ₃ -based thermoelectric materials. Chinese Physics B, 2018, 27, 048403.	0.7	114
39	Room-temperature chiral charge pumping in Dirac semimetals. Nature Communications, 2017, 8, 13741.	5.8	113
40	n-type Bi-doped PbTe Nanocubes with Enhanced Thermoelectric Performance. Nano Energy, 2017, 31, 105-112.	8.2	113
41	Oligomeric Silica-Wrapped Perovskites Enable Synchronous Defect Passivation and Grain Stabilization for Efficient and Stable Perovskite Photovoltaics. ACS Energy Letters, 2019, 4, 1231-1240.	8.8	111
42	Enhanced thermoelectric properties of nanostructured n-type Bi2Te3 by suppressing Te vacancy through non-equilibrium fast reaction. Chemical Engineering Journal, 2020, 391, 123513.	6.6	108
43	High-performance in n-type PbTe-based thermoelectric materials achieved by synergistically dynamic doping and energy filtering. Nano Energy, 2022, 91, 106706.	8.2	107
44	Bi0.5Sb1.5Te3/PEDOT:PSS-based flexible thermoelectric film and device. Chemical Engineering Journal, 2020, 397, 125360.	6.6	104
45	Computer-aided design of high-efficiency GeTe-based thermoelectric devices. Energy and Environmental Science, 2020, 13, 1856-1864.	15.6	103
46	Novel Thermal Diffusion Temperature Engineering Leading to High Thermoelectric Performance in Bi₂Te₃â€Based Flexible Thinâ€Films. Advanced Science, 2022, 9, e2103547.	5.6	102
47	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
48	Thermoelectrics for medical applications: Progress, challenges, and perspectives. Chemical Engineering Journal, 2022, 437, 135268.	6.6	101
49	Grapheneâ€Oxideâ€Decorated Microporous Polyetheretherketone with Superior Antibacterial Capability and In Vitro Osteogenesis for Orthopedic Implant. Macromolecular Bioscience, 2018, 18, e1800036.	2.1	97
50	Enhancing the thermoelectric performance of SnSe_{1â^'x}Te_x nanoplates through band engineering. Journal of Materials Chemistry A, 2017, 5, 10713-10721.	5.2	94
51	Wearable fiber-based thermoelectrics from materials to applications. Nano Energy, 2021, 81, 105684.	8.2	92
52	Te-Doped Cu₂Se nanoplates with a high average thermoelectric figure of merit. Journal of Materials Chemistry A, 2016, 4, 9213-9219.	5.2	91
53	High Porosity in Nanostructured n-Type Bi₂Te₃ Obtaining Ultralow Lattice Thermal Conductivity. ACS Applied Materials & Interfaces, 2019, 11, 31237-31244.	4.0	91
54	Advances and challenges in 2D MXenes: From structures to energy storage and conversions. Nano Today, 2021, 40, 101273.	6.2	91

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55	Effect of annealing temperature on the corrosion behavior of duplex stainless steel studied by in situ techniques. Corrosion Science, 2011, 53, 3733-3741.	3.0	87
56	Impacts of Cu deficiency on the thermoelectric properties of Cu2â^'XSe nanoplates. Acta Materialia, 2016, 113, 140-146.	3.8	87
57	Carbon allotrope hybrids advance thermoelectric development and applications. Renewable and Sustainable Energy Reviews, 2021, 141, 110800.	8.2	87
58	XPS, UVâ€“vis spectroscopy and AFM studies on removal mechanisms of Si-face SiC wafer chemical mechanical polishing (CMP). Applied Surface Science, 2014, 316, 643-648.	3.1	86
59	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.	3.0	86
60	Nanoscale pores plus precipitates rendering high-performance thermoelectric SnTe1-xSex with refined band structures. Nano Energy, 2019, 60, 1-7.	8.2	86
61	Rational band engineering and structural manipulations inducing high thermoelectric performance in n-type CoSb3 thin films. Nano Energy, 2021, 81, 105683.	8.2	82
62	Thermoelectric Coolers: Progress, Challenges, and Opportunities. Small Methods, 2022, 6, e2101235.	4.6	77
63	Multifunctional Wearable Thermoelectrics for Personal Thermal Management. Advanced Functional Materials, 2022, 32, .	7.8	75
64	Characterization of colloidal silica abrasives with different sizes and their chemicalâ€“mechanical polishing performance on 4H-SiC (0001). Applied Surface Science, 2014, 307, 414-427.	3.1	73
65	Rational structural design and manipulation advance SnSe thermoelectrics. Materials Horizons, 2020, 7, 3065-3096.	6.4	73
66	A flexible quasi-solid-state thermoelectrochemical cell with high stretchability as an energy-autonomous strain sensor. Materials Horizons, 2021, 8, 2750-2760.	6.4	73
67	Chemical mechanical planarization (CMP) of on-axis Si-face SiC wafer using catalyst nanoparticles in slurry. Surface and Coatings Technology, 2014, 251, 48-55.	2.2	72
68	Crystal symmetry induced structure and bonding manipulation boosting thermoelectric performance of GeTe. Nano Energy, 2020, 73, 104740.	8.2	71
69	Enhancing thermoelectric performance of Bi₂Te₃-based nanostructures through rational structure design. Nanoscale, 2016, 8, 8681-8686.	2.8	70
70	Two-dimensional nanocoating-enabled orthopedic implants for bimodal therapeutic applications. Nanoscale, 2020, 12, 11936-11946.	2.8	69
71	Graphene Oxide and Adiponectin-Functionalized Sulfonated Poly(etheretherketone) with Effective Osteogenicity and Remotely Repeatable Photodisinfection. Chemistry of Materials, 2020, 32, 2180-2193.	3.2	66
72	Full-spectrum responsive photocatalytic activity via non-noble metal Bi decorated mulberry-like BiVO4. Journal of Materials Science and Technology, 2021, 83, 102-112.	5.6	66

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73	Ag doping induced abnormal lattice thermal conductivity in Cu₂Se. Journal of Materials Chemistry C, 2018, 6, 13225-13231.	2.7	61
74	A study of chemical products formed on sapphire (0001) during chemicalâ€“mechanical polishing. Surface and Coatings Technology, 2015, 270, 206-220.	2.2	60
75	T-Shaped Bi₂Te₃â€“Te Heteronanojunctions: Epitaxial Growth, Structural Modeling, and Thermoelectric Properties. Journal of Physical Chemistry C, 2013, 117, 12458-12464.	1.5	59
76	Anisotropy Controlâ€“Induced Unique Anisotropic Thermoelectric Performance in the nâ€Type Bi₂Te_{2.7}Se_{0.3} Thin Films. Small Methods, 2019, 3, 1900582.	4.6	58
77	Magnetotransport Properties of Cd₃As₂ Nanostructures. ACS Nano, 2015, 9, 8843-8850.	7.3	57
78	High-efficiency thermocells driven by thermo-electrochemical processes. Trends in Chemistry, 2021, 3, 561-574.	4.4	57
79	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
80	Chemical mechanical polishing (CMP) of on-axis Si-face 6H-SiC wafer for obtaining atomically flat defect-free surface. Journal of Materials Science: Materials in Electronics, 2013, 24, 5040-5047.	1.1	56
81	Self-Standing Film Assembled using SnSâ€“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.	4.0	55
82	Rational Design of Bi₂Te₃ Polycrystalline Whiskers for Thermoelectric Applications. ACS Applied Materials & Interfaces, 2015, 7, 989-995.	4.0	54
83	Thermoelectric coolers: Infinite potentials for finite localized microchip cooling. Journal of Materials Science and Technology, 2022, 121, 256-262.	5.6	54
84	High Carrier Mobility and High Figure of Merit in the CuBiSe₂ Alloyed GeTe. Advanced Energy Materials, 2021, 11, 2102913.	10.2	52
85	Fe-Nx/C assisted chemicalâ€“mechanical polishing for improving the removal rate of sapphire. Applied Surface Science, 2015, 343, 115-120.	3.1	51
86	Limit of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>z</mml:mi><mml:mi>T</mml:mi></mml:mrow></mml:ma in rocksalt structured chalcogenides by band convergence. Physical Review B, 2016, 94, .	3.7	51
87	Thermoelectric Performance of Se/Cd Codoped SnTe via Microwave Solvothermal Method. ACS Applied Materials & Interfaces, 2017, 9, 22612-22619.	4.0	51
88	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
89	Bioinspired and osteopromotive polydopamine nanoparticle-incorporated fibrous membranes for robust bone regeneration. NPG Asia Materials, 2019, 11, .	3.8	51
90	Hierarchical Structures Advance Thermoelectric Properties of Porous n-type Î²-Ag₂Se. ACS Applied Materials & Interfaces, 2020, 12, 51523-51529.	4.0	51

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91	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.	2.9	51
92	Thermoelectric coolers as thermal management systems for medical applications: Design, optimization, and advancement. Nano Energy, 2021, 90, 106572.	8.2	50
93	Rational Electronic and Structural Designs Advance BiCuSeO Thermoelectrics. Advanced Functional Materials, 2021, 31, 2101289.	7.8	48
94	Extended study of the atomic step-terrace structure on hexagonal SiC (0001) by chemical-mechanical planarization. Applied Surface Science, 2013, 284, 195-206.	3.1	46
95	Realizing Bi-doped Î±-Cu2Se as a promising near-room-temperature thermoelectric material. Chemical Engineering Journal, 2019, 371, 593-599.	6.6	46
96	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
97	Point defect engineering and machinability in n-type Mg3Sb2-based materials. Materials Today Physics, 2020, 15, 100269.	2.9	46
98	Self-assembled 3D flower-like hierarchical Ti-doped Cu3SbSe4 microspheres with ultralow thermal conductivity and high zT. Nano Energy, 2018, 49, 221-229.	8.2	45
99	Carbon-Encapsulated Copper Sulfide Leading to Enhanced Thermoelectric Properties. ACS Applied Materials & Interfaces, 2019, 11, 22457-22463.	4.0	45
100	Synergistic effect approaching record-high figure of merit in the shear exfoliated n-type Bi2O2-2xTe2xSe. Nano Energy, 2020, 69, 104394.	8.2	45
101	Atomically smooth gallium nitride surface prepared by chemical-mechanical polishing with S2O82â^'-Fe2+ based slurry. Tribology International, 2017, 110, 441-450.	3.0	43
102	Super Large Sn_{1â€“x}Se Single Crystals with Excellent Thermoelectric Performance. ACS Applied Materials & Interfaces, 2019, 11, 8051-8059.	4.0	43
103	Enhancing Thermoelectric Properties of InTe Nanoprecipitate-Embedded Sn_{1â€“x}In_xTe Microcrystals through Anharmonicity and Strain Engineering. ACS Applied Energy Materials, 2019, 2, 2965-2971.	2.5	43
104	Versatile Vanadium Doping Induces High Thermoelectric Performance in GeTe via Band Alignment and Structural Modulation. Advanced Energy Materials, 2021, 11, 2100544.	10.2	43
105	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.	2.3	42
106	Bacteria-Triggered pH-Responsive Osteopotentiating Coating on 3D-Printed Polyetheretherketone Scaffolds for Infective Bone Defect Repair. Industrial & Engineering Chemistry Research, 2020, 59, 12123-12135.	1.8	42
107	Scalable Growth of High Mobility Dirac Semimetal Cd₃As₂ Microbelts. Nano Letters, 2015, 15, 5830-5834.	4.5	41
108	A Novel Hydrogel Surface Grafted With Dual Functional Peptides for Sustaining Longâ€Term Selfâ€Renewal of Human Induced Pluripotent Stem Cells and Manipulating Their Osteoblastic Maturation. Advanced Functional Materials, 2018, 28, 1705546.	7.8	41

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109	Optimizing Electronic Quality Factor toward Highâ€Performance Ge_{1â^'}_x_{â^'}_yTa_xSb_y₁Te Thermoelectrics: The Role of Transition Metal Doping. Advanced Materials, 2021, 33, e2102575.	1	41
110	Enhanced Thermoelectric Properties of Ag-Modified Bi_{0.5}Sb_{1.5}Te₃ Composites by a Facile Electroless Plating Method. ACS Applied Materials & Interfaces, 2017, 9, 36478-36482.	4.0	40
111	Boosting the thermoelectric performance of n-type Bi2S3 by hierarchical structure manipulation and carrier density optimization. Nano Energy, 2021, 87, 106171.	8.2	39
112	Double perovskite Pr2CoFeO6 thermoelectric oxide: Roles of Sr-doping and Micro/nanostructuring. Chemical Engineering Journal, 2021, 425, 130668.	6.6	39
113	Synergistic modulation of power factor and thermal conductivity in Cu3SbSe4 towards high thermoelectric performance. Nano Energy, 2020, 71, 104658.	8.2	36
114	Investigation on the surface characterization of Ga-faced GaN after chemical-mechanical polishing. Applied Surface Science, 2015, 338, 85-91.	3.1	35
115	Synergistic Texturing and Bi/Sbâ€Te Antisite Doping Secure High Thermoelectric Performance in Bi_{0.5}Sb_{1.5}Te₃â€Based Thin Films. Advanced Energy Materials, 2021, 11, 2102578.	10.2	35
116	Bi2O3/BiVO4@graphene oxide van der Waals heterostructures with enhanced photocatalytic activity toward oxygen generation. Journal of Colloid and Interface Science, 2021, 593, 196-203.	5.0	34
117	AFM and XPS studies on material removal mechanism of sapphire wafer during chemical mechanical polishing (CMP). Journal of Materials Science: Materials in Electronics, 2015, 26, 9921-9928.	1.1	32
118	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.	2.8	32
119	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
120	Highly (00l)-oriented Bi₂Te₃/Te heterostructure thin films with enhanced power factor. Nanoscale, 2018, 10, 20189-20195.	2.8	31
121	Sustainable utilization of municipal solid waste incineration fly ash for ceramic bricks with eco-friendly biosafety. Materials Today Sustainability, 2018, 1-2, 32-38.	1.9	31
122	High Thermoelectric Performance in Sintered Octahedron-Shaped Sn(CdIn)_xTe_{1+2x} Microcrystals. ACS Applied Materials & Interfaces, 2018, 10, 38944-38952.	4.0	31
123	Hierarchical meso/macro-porous TiO2/graphitic carbon nitride nanofibers with enhanced hydrogen evolution. Materials and Design, 2021, 202, 109542.	3.3	31
124	High Curie Temperature Bi_{1.85}Mn_{0.15}Te₃ Nanoplates. Journal of the American Chemical Society, 2012, 134, 18920-18923.	6.6	30
125	Correlation between Multiple Growth Stages and Photocatalysis of SrTiO₃ Nanocrystals. Journal of Physical Chemistry C, 2015, 119, 3530-3537.	1.5	29
126	Kinetic condition driven phase and vacancy enhancing thermoelectric performance of low-cost and eco-friendly Cu_{2â^'x}S. Journal of Materials Chemistry C, 2019, 7, 5366-5373.	2.7	29

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127	Two-dimensional flexible thermoelectric devices: Using modeling to deliver optimal capability. Applied Physics Reviews, 2021, 8, .	5.5	29
128	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.	5.6	29
129	Solvothermal synthesis of high-purity porous Cu1.7Se approaching low lattice thermal conductivity. Chemical Engineering Journal, 2019, 375, 121996.	6.6	28
130	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.	3.1	28
131	Synergistic band convergence and defect engineering boost thermoelectric performance of SnTe. Journal of Materials Science and Technology, 2021, 86, 204-209.	5.6	27
132	Simultaneously enhanced strength and plasticity of Ag2Se-based thermoelectric materials endowed by nano-twinned CuAgSe secondary phase. Acta Materialia, 2021, 220, 117335.	3.8	27
133	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.	5.6	27
134	Hierarchical SnS2/carbon nanotube@reduced graphene oxide composite as an anode for ultra-stable sodium-ion batteries. Chemical Engineering Journal Advances, 2020, 4, 100053.	2.4	26
135	Nanostructured monoclinic Cu₂Se as a near-room-temperature thermoelectric material. Nanoscale, 2020, 12, 20536-20542.	2.8	26
136	Anisotropic Electrical Properties from Vaporâ€“Solidâ€“Solid Grown Bi₂Se₃ Nanoribbons and Nanowires. Journal of Physical Chemistry C, 2014, 118, 20620-20626.	1.5	25
137	Outstanding thermoelectric properties of solvothermal-synthesized Sn_{1â^'3x}In_xAg_{2x}Te micro-crystals through defect engineering and band tuning. Journal of Materials Chemistry A, 2020, 8, 3978-3987.	5.2	25
138	Tuning wall thickness of TiO2 microtubes for an enhanced photocatalytic activity with thickness-dependent charge separation efficiency. Journal of Colloid and Interface Science, 2020, 579, 463-469.	5.0	25
139	High near-room temperature figure of merit of n-type Bi2GeTe4-based thermoelectric materials via a stepwise optimization of carrier concentration. Chemical Engineering Journal, 2022, 433, 133775.	6.6	24
140	In situ crystal-amorphous compositing inducing ultrahigh thermoelectric performance of p-type Bi0.5Sb1.5Te3 hybrid thin films. Nano Energy, 2020, 78, 105379.	8.2	23
141	Morphology and Texture Engineering Enhancing Thermoelectric Performance of Solvothermal Synthesized Ultralarge SnS Microcrystal. ACS Applied Energy Materials, 2020, 3, 2192-2199.	2.5	23
142	Achieving enhanced thermoelectric performance of Ca1â^'xâ^'yLaxSryMnO3 via synergistic carrier concentration optimization and chemical bond engineering. Chemical Engineering Journal, 2021, 408, 127364.	6.6	23
143	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
144	Achieving high thermoelectric performance of Ni/Cu modified Bi0.5Sb1.5Te3 composites by a facile electroless plating. Materials Today Energy, 2018, 9, 383-390.	2.5	22

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145	Thermal stability and oxidation of layer-structured rhombohedral In3Se4 nanostructures. Applied Physics Letters, 2013, 103, .	1.5	21
146	Planar Vacancies in Sn_{1â€“x}Bi_xTe Nanoribbons. ACS Nano, 2016, 10, 5507-5515.	7.3	21
147	Enhancing thermoelectric performance of (Cu1-xAgx)2Se via CuAgSe secondary phase and porous design. Sustainable Materials and Technologies, 2018, 17, e00076.	1.7	21
148	Structural Evolution of Highâ€Performance Mnâ€Alloyed Thermoelectric Materials: A Case Study of SnTe. Small, 2021, 17, e2100525.	5.2	21
149	Thermoelectric performance of p-type (Bi,Sb)2Te3 incorporating amorphous Sb2S3 nanospheres. Chemical Engineering Journal, 2022, 430, 132738.	6.6	21
150	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
151	Facile synthesis and characterization of multifunctional cobalt-based nanocomposites for targeted chemo-photothermal synergistic cancer therapy. Composites Part B: Engineering, 2019, 178, 107521.	5.9	19
152	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, 2022, 433, 133675.	6.6	19
153	Atomically smooth gallium nitride surface prepared by chemical-mechanical polishing with different abrasives. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2014, 228, 1144-1150.	1.0	18
154	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
155	Low lattice thermal conductivity and enhanced thermoelectric performance of SnTe via chemical electroless plating of Ag. Rare Metals, 2022, 41, 86-95.	3.6	18
156	Trifold Tellurium One-Dimensional Nanostructures and Their Formation Mechanism. Crystal Growth and Design, 2013, 13, 4796-4802.	1.4	17
157	Separable and recyclable meso-carbon@TiO2/carbon fiber composites for visible-light photocatalysis and photoelectrocatalysis. Sustainable Materials and Technologies, 2019, 21, e00105.	1.7	17
158	Se-alloying reducing lattice thermal conductivity of Ge0.95Bi0.05Te. Journal of Materials Science and Technology, 2022, 106, 249-256.	5.6	16
159	Cheap, Large-Scale, and High-Performance Graphite-Based Flexible Thermoelectric Materials and Devices with Supernormal Industry Feasibility. ACS Applied Materials & Interfaces, 2022, 14, 8066-8075.	4.0	16
160	The effect of rare earth element doping on thermoelectric properties of GeTe. Chemical Engineering Journal, 2022, 446, 137278.	6.6	16
161	Surface-energy engineered Bi-doped SnTe nanoribbons with weak antilocalization effect and linear magnetoresistance. Nanoscale, 2016, 8, 19383-19389.	2.8	15
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