

Xin-Bing Zhao

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193
papers

11,976
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106
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198
ext. papers

13,744
ext. citations

8.2
avg, IF

6.63
L-index

#	Paper	IF	Citations
193	Compromise and Synergy in High-Efficiency Thermoelectric Materials. <i>Advanced Materials</i> , 2017 , 29, 1605884	17.4	742
192	Realizing high figure of merit in heavy-band p-type half-Heusler thermoelectric materials. <i>Nature Communications</i> , 2015 , 6, 8144	17.4	658
191	Self-supported hydrothermal synthesized hollow Co ₃ O ₄ nanowire arrays with high supercapacitor capacitance. <i>Journal of Materials Chemistry</i> , 2011 , 21, 9319		614
190	Point Defect Engineering of High-Performance Bismuth-Telluride-Based Thermoelectric Materials. <i>Advanced Functional Materials</i> , 2014 , 24, 5211-5218	15.6	469
189	Band engineering of high performance p-type FeNbSb based half-Heusler thermoelectric materials for figure of merit $zT > 1$. <i>Energy and Environmental Science</i> , 2015 , 8, 216-220	35.4	368
188	Freestanding Co ₃ O ₄ nanowire array for high performance supercapacitors. <i>RSC Advances</i> , 2012 , 2, 1835	3.7	366
187	Few-Layered SnS ₂ on Few-Layered Reduced Graphene Oxide as Na-Ion Battery Anode with Ultralong Cycle Life and Superior Rate Capability. <i>Advanced Functional Materials</i> , 2015 , 25, 481-489	15.6	354
186	High-performance half-Heusler thermoelectric materials Hf _{1-x} Zr _x NiSn _{1-y} Sb _y prepared by levitation melting and spark plasma sintering. <i>Acta Materialia</i> , 2009 , 57, 2757-2764	8.4	310
185	Beneficial Contribution of Alloy Disorder to Electron and Phonon Transport in Half-Heusler Thermoelectric Materials. <i>Advanced Functional Materials</i> , 2013 , 23, 5123-5130	15.6	290
184	Tuning Multiscale Microstructures to Enhance Thermoelectric Performance of n-Type Bismuth-Telluride-Based Solid Solutions. <i>Advanced Energy Materials</i> , 2015 , 5, 1500411	21.8	287
183	Single-Crystalline LiMn ₂ O ₄ Nanotubes Synthesized Via Template-Engaged Reaction as Cathodes for High-Power Lithium Ion Batteries. <i>Advanced Functional Materials</i> , 2011 , 21, 348-355	15.6	283
182	High Efficiency Half-Heusler Thermoelectric Materials for Energy Harvesting. <i>Advanced Energy Materials</i> , 2015 , 5, 1500588	21.8	279
181	Hierarchically porous NiO film grown by chemical bath deposition via a colloidal crystal template as an electrochemical pseudocapacitor material. <i>Journal of Materials Chemistry</i> , 2011 , 21, 671-679		259
180	Smallest carbon nanotube is 3 a in diameter. <i>Physical Review Letters</i> , 2004 , 92, 125502	7.4	244
179	Shifting up the optimum figure of merit of p-type bismuth telluride-based thermoelectric materials for power generation by suppressing intrinsic conduction. <i>NPG Asia Materials</i> , 2014 , 6, e88-e88	10.3	234
178	New Insights into Intrinsic Point Defects in VVI Thermoelectric Materials. <i>Advanced Science</i> , 2016 , 3, 1600604	19.0	218
177	High Band Degeneracy Contributes to High Thermoelectric Performance in p-Type Half-Heusler Compounds. <i>Advanced Energy Materials</i> , 2014 , 4, 1400600	21.8	198

176	Low Electron Scattering Potentials in High Performance Mg ₂ Si _{0.45} Sn _{0.55} Based Thermoelectric Solid Solutions with Band Convergence. <i>Advanced Energy Materials</i> , 2013 , 3, 1238-1244	21.8	186
175	The intrinsic disorder related alloy scattering in ZrNiSn half-Heusler thermoelectric materials. <i>Scientific Reports</i> , 2014 , 4, 6888	4.9	161
174	Hierarchical Chemical Bonds Contributing to the Intrinsically Low Thermal Conductivity in δ MgAgSb Thermoelectric Materials. <i>Advanced Functional Materials</i> , 2017 , 27, 1604145	15.6	154
173	Recrystallization induced in situ nanostructures in bulk bismuth antimony tellurides: a simple top down route and improved thermoelectric properties. <i>Energy and Environmental Science</i> , 2010 , 3, 1519	35.4	153
172	Flexible carbon nanotube papers with improved thermoelectric properties. <i>Energy and Environmental Science</i> , 2012 , 5, 5364-5369	35.4	143
171	Direct Growth of Flower-Like δ MnO ₂ on Three-Dimensional Graphene for High-Performance Rechargeable Li-O ₂ Batteries. <i>Advanced Energy Materials</i> , 2014 , 4, 1301960	21.8	139
170	Unique Role of Refractory Ta Alloying in Enhancing the Figure of Merit of NbFeSb Thermoelectric Materials. <i>Advanced Energy Materials</i> , 2018 , 8, 1701313	21.8	128
169	Nitrogen-doped reduced graphene oxide for high-performance flexible all-solid-state micro-supercapacitors. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 18125-18131	13	128
168	High Performance Mg ₂ (Si,Sn) Solid Solutions: a Point Defect Chemistry Approach to Enhancing Thermoelectric Properties. <i>Advanced Functional Materials</i> , 2014 , 24, 3776-3781	15.6	117
167	Self-assembly of a CoFe ₂ O ₄ /graphene sandwich by a controllable and general route: towards a high-performance anode for Li-ion batteries. <i>Journal of Materials Chemistry</i> , 2012 , 22, 19738		115
166	Enhancing the Figure of Merit of Heavy-Band Thermoelectric Materials Through Hierarchical Phonon Scattering. <i>Advanced Science</i> , 2016 , 3, 1600035	13.6	106
165	Demonstration of a phonon-glass electron-crystal strategy in (Hf,Zr)NiSn half-Heusler thermoelectric materials by alloying. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 22716-22722	13	101
164	High Performance δ MgAgSb Thermoelectric Materials for Low Temperature Power Generation. <i>Chemistry of Materials</i> , 2015 , 27, 909-913	9.6	98
163	Enhancement in thermoelectric performance of bismuth telluride based alloys by multi-scale microstructural effects. <i>Journal of Materials Chemistry</i> , 2012 , 22, 16484		97
162	Attaining high mid-temperature performance in (Bi,Sb) ₂ Te ₃ thermoelectric materials via synergistic optimization. <i>NPG Asia Materials</i> , 2016 , 8, e302-e302	10.3	96
161	Roles of interstitial Mg in improving thermoelectric properties of Sb-doped Mg ₂ Si _{0.4} Sn _{0.6} solid solutions. <i>Journal of Materials Chemistry</i> , 2012 , 22, 6838		95
160	Multiple Converged Conduction Bands in KBiSe: A Promising Thermoelectric Material with Extremely Low Thermal Conductivity. <i>Journal of the American Chemical Society</i> , 2016 , 138, 16364-16371	16.4	95
159	Double-shelled hollow microspheres of LiMn ₂ O ₄ for high-performance lithium ion batteries. <i>Journal of Materials Chemistry</i> , 2011 , 21, 9475		92

158	Enhanced thermoelectric performance of PbTe bulk materials with figure of merit $zT > 2$ by multi-functional alloying. <i>Journal of Materiomics</i> , 2016 , 2, 141-149	6.7	89
157	Enhanced thermoelectric properties of p-type CoSb ₃ /graphene nanocomposite. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 13111	13	89
156	Hot deformation induced bulk nanostructuring of unidirectionally grown p-type (Bi,Sb) ₂ Te ₃ thermoelectric materials. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 11589	13	86
155	Flux synthesis and thermoelectric properties of eco-friendly Sb doped Mg ₂ Si _{0.5} Sn _{0.5} solid solutions for energy harvesting. <i>Journal of Materials Chemistry</i> , 2011 , 21, 5933		86
154	Mg vacancy and dislocation strains as strong phonon scatterers in Mg ₂ Si _{1-x} Sb _x thermoelectric materials. <i>Nano Energy</i> , 2017 , 34, 428-436	17.1	85
153	Biodegradable Magnesium Alloys Developed as Bone Repair Materials: A Review. <i>Scanning</i> , 2018 , 2018, 9216314	1.6	83
152	Enhanced Thermoelectric Performance in 18-Electron Nb _{0.8} CoSb Half-Heusler Compound with Intrinsic Nb Vacancies. <i>Advanced Functional Materials</i> , 2018 , 28, 1705845	15.6	79
151	Complex Band Structures and Lattice Dynamics of Bi ₂ Te ₃ -Based Compounds and Solid Solutions. <i>Advanced Functional Materials</i> , 2019 , 29, 1900677	15.6	74
150	Interrelation between atomic switching disorder and thermoelectric properties of ZrNiSn half-Heusler compounds. <i>CrystEngComm</i> , 2012 , 14, 4467	3.3	74
149	Facile one-pot synthesis of ultrathin NiS nanosheets anchored on graphene and the improved electrochemical Li-storage properties. <i>RSC Advances</i> , 2013 , 3, 3899	3.7	73
148	Valleytronics in thermoelectric materials. <i>Npj Quantum Materials</i> , 2018 , 3,	5	67
147	Lanthanide Contraction as a Design Factor for High-Performance Half-Heusler Thermoelectric Materials. <i>Advanced Materials</i> , 2018 , 30, e1800881	24	66
146	SnTe _{1-x} AgSbTe ₂ Thermoelectric Alloys. <i>Advanced Energy Materials</i> , 2012 , 2, 58-62	21.8	65
145	Tips-Bundled Pt/Co ₃ O ₄ Nanowires with Directed Peripheral Growth of Li ₂ O ₂ as Efficient Binder/Carbon-Free Catalytic Cathode for Lithium-Oxygen Battery. <i>ACS Catalysis</i> , 2015 , 5, 241-245	13.1	63
144	Self-assembly of a ZnFe ₂ O ₄ /graphene hybrid and its application as a high-performance anode material for Li-ion batteries. <i>New Journal of Chemistry</i> , 2012 , 36, 2236	3.6	58
143	Significant Roles of Intrinsic Point Defects in Mg ₂ X (X = Si, Ge, Sn) Thermoelectric Materials. <i>Advanced Electronic Materials</i> , 2016 , 2, 1500284	6.4	58
142	Controllable Synthesis and Shape Evolution of PbTe Three-Dimensional Hierarchical Superstructures via an Alkaline Hydrothermal Method. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 8085-8091	3.8	57
141	Controllable synthesis of high-performance LiMnPO ₄ nanocrystals by a facile one-spot solvothermal process. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 10581-10588	13	55

140	Enhancing Thermoelectric Performance of n-Type Hot Deformed Bismuth-Telluride-Based Solid Solutions by Nonstoichiometry-Mediated Intrinsic Point Defects. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 28577-28585	9.5	55
139	Ioffe-Regel limit and lattice thermal conductivity reduction of high performance (AgSbTe) ₂ (GeTe) ₈₅ thermoelectric materials. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 3251-3256	13	52
138	Enhancing room temperature thermoelectric performance of n-type polycrystalline bismuth-telluride-based alloys via Ag doping and hot deformation. <i>Materials Today Physics</i> , 2017 , 2, 62-68	8	51
137	Grain Boundary Scattering of Charge Transport in n-Type (Hf,Zr)CoSb Half-Heusler Thermoelectric Materials. <i>Advanced Energy Materials</i> , 2019 , 9, 1803447	21.8	51
136	Short-range order in defective half-Heusler thermoelectric crystals. <i>Energy and Environmental Science</i> , 2019 , 12, 1568-1574	35.4	51
135	High performance n-type bismuth telluride based alloys for mid-temperature power generation. <i>Journal of Materials Chemistry C</i> , 2015 , 3, 10597-10603	7.1	48
134	Reduced Grain Size and Improved Thermoelectric Properties of Melt Spun (Hf,Zr)NiSn Half-Heusler Alloys. <i>Journal of Electronic Materials</i> , 2010 , 39, 2008-2012	1.9	48
133	Mushroom-like Au/NiCo ₂ O ₄ nanohybrids as high-performance binder-free catalytic cathodes for lithium-oxygen batteries. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 5714-5721	13	47
132	Transport mechanisms and property optimization of p-type (Zr, Hf)CoSb half-Heusler thermoelectric materials. <i>Materials Today Physics</i> , 2018 , 7, 69-76	8	43
131	Electron and phonon transport in Co-doped Fe _{0.6} Nb _{0.4} Sb half-Heusler thermoelectric materials. <i>Journal of Applied Physics</i> , 2013 , 114, 134905	2.5	42
130	Half-Heusler Thermoelectric Module with High Conversion Efficiency and High Power Density. <i>Advanced Energy Materials</i> , 2020 , 10, 2000888	21.8	40
129	Au-Decorated Cracked Carbon Tube Arrays as Binder-Free Catalytic Cathode Enabling Guided Li ₂ O ₂ Inner Growth for High-Performance Li-O ₂ Batteries. <i>Advanced Functional Materials</i> , 2016 , 26, 7725-7732	15.6	40
128	Liquid-Phase Hot Deformation to Enhance Thermoelectric Performance of n-type Bismuth-Telluride-Based Solid Solutions. <i>Advanced Science</i> , 2019 , 6, 1901702	13.6	39
127	One-pot synthesis of ultrafine ZnFe ₂ O ₄ nanocrystals anchored on graphene for high-performance Li and Li-ion batteries. <i>RSC Advances</i> , 2014 , 4, 7703	3.7	39
126	Graphene-like MnO ₂ decorated with ultrafine CeO ₂ as a highly efficient catalyst for long-life lithium-oxygen batteries. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 6747-6755	13	38
125	Anisotropic thermoelectric properties of layered compound SnSe ₂ . <i>Science Bulletin</i> , 2017 , 62, 1663-1668	10.6	38
124	Growth and transport properties of Mg ₃ X ₂ (X = Sb, Bi) single crystals. <i>Materials Today Physics</i> , 2018 , 7, 61-68	8	38
123	Understanding Moisture and Carbon Dioxide Involved Interfacial Reactions on Electrochemical Performance of Lithium-Air Batteries Catalyzed by Gold/Manganese-Dioxide. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 23876-84	9.5	37

122	Miscibility gap and thermoelectric properties of ecofriendly Mg ₂ Si _{1-x} Sn _x (0.1 x ≤ 0.8) solid solutions by flux method. <i>Journal of Materials Research</i> , 2011 , 26, 3038-3043	2.5	36
121	Increased electrical conductivity in fine-grained (Zr,Hf)NiSn based thermoelectric materials with nanoscale precipitates. <i>Applied Physics Letters</i> , 2012 , 100, 254104	3.4	31
120	Revealing the Intrinsic Electronic Structure of 3D Half-Heusler Thermoelectric Materials by Angle-Resolved Photoemission Spectroscopy. <i>Advanced Science</i> , 2020 , 7, 1902409	13.6	31
119	Thermoelectric performance of p-type zone-melted Se-doped Bi _{0.5} Sb _{1.5} Te ₃ alloys. <i>Rare Metals</i> , 2018 , 37, 308-315	5.5	30
118	Self-Assembly of Bi ₂ Te ₃ -Nanoplate/Graphene-Nanosheet Hybrid by One-Pot Route and Its Improved Li-Storage Properties. <i>Materials</i> , 2012 , 5, 1275-1284	3.5	30
117	High-Performance MgSb Bi Thermoelectrics: Progress and Perspective. <i>Research</i> , 2020 , 2020, 1934848	7.8	30
116	Enhanced thermoelectric performance in the n-type NbFeSb half-Heusler compound with heavy element Ir doping. <i>Materials Today Physics</i> , 2019 , 8, 62-70	8	29
115	Approaching the minimum lattice thermal conductivity of p-type SnTe thermoelectric materials by Sb and Mg alloying. <i>Science Bulletin</i> , 2019 , 64, 1024-1030	10.6	29
114	Enhancing thermoelectric performance of FeNbSb half-Heusler compound by Hf-Ti dual-doping. <i>Energy Storage Materials</i> , 2018 , 10, 69-74	19.4	29
113	Potassium manganese hexacyanoferrate/graphene as a high-performance cathode for potassium-ion batteries. <i>New Journal of Chemistry</i> , 2019 , 43, 11618-11625	3.6	29
112	Facile synthesis of ultrafine CoSn ₂ nanocrystals anchored on graphene by one-pot route and the improved electrochemical Li-storage properties. <i>New Journal of Chemistry</i> , 2013 , 37, 474-480	3.6	29
111	Facile solvothermal synthesis of ultrathin LiFe _x Mn _{1-x} PO ₄ nanoplates as advanced cathodes with long cycle life and superior rate capability. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 19368-19375	13	28
110	The Role of Electron-Phonon Interaction in Heavily Doped Fine-Grained Bulk Silicons as Thermoelectric Materials. <i>Advanced Electronic Materials</i> , 2016 , 2, 1600171	6.4	28
109	High performance half-Heusler thermoelectric materials with refined grains and nanoscale precipitates. <i>Journal of Materials Research</i> , 2012 , 27, 2457-2465	2.5	28
108	Evolution of nanodomains during the electric-field-induced relaxor to normal ferroelectric phase transition in a Sc-doped Pb(Mg _{1-x} Nb _{2x})O ₃ ceramic. <i>Journal of Applied Physics</i> , 2007 , 102, 084101	2.5	28
107	Enhanced thermoelectric performance of n-type bismuth-telluride-based alloys via In alloying and hot deformation for mid-temperature power generation. <i>Journal of Materiomics</i> , 2018 , 4, 208-214	6.7	28
106	Scalable preparation of silicon@graphite/carbon microspheres as high-performance lithium-ion battery anode materials. <i>RSC Advances</i> , 2016 , 6, 69882-69888	3.7	26
105	Evolution of the Intrinsic Point Defects in Bismuth Telluride-Based Thermoelectric Materials. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 41424-41431	9.5	26

104	Band Structures and Transport Properties of High-Performance Half-Heusler Thermoelectric Materials by First Principles. <i>Materials</i> , 2018 , 11,	3.5	25
103	Thermoelectric properties of n-type half-Heusler NbCoSn with heavy-element Pt substitution. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 14822-14828	13	24
102	From graphite oxide to nitrogen and sulfur co-doped few-layered graphene by a green reduction route via Chinese medicinal herbs. <i>RSC Advances</i> , 2014 , 4, 17902	3.7	23
101	AMgBi (A = Ca, Sr, Eu): Magnesium Bismuth Based Zintl Phases as Potential Thermoelectric Materials. <i>Inorganic Chemistry</i> , 2017 , 56, 10576-10583	5.1	23
100	Oleic acid-assisted preparation of LiMnPO ₄ and its improved electrochemical performance by Co doping. <i>Journal of Solid State Electrochemistry</i> , 2012 , 16, 1271-1277	2.6	23
99	Bulk Nanostructured Thermoelectric Materials: Preparation, Structure and Properties. <i>Journal of Electronic Materials</i> , 2010 , 39, 1990-1995	1.9	23
98	Are Solid Solutions Better in FeNbSb-Based Thermoelectrics?. <i>Advanced Electronic Materials</i> , 2016 , 2, 1600394	6.4	22
97	Controlled Growth of LiO by Cocatalysis of Mobile Pd and CoO Nanowire Arrays for High-Performance Li-O Batteries. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 31653-31660	9.5	21
96	Co(OH) ₂ /graphene sheet-on-sheet hybrid as high-performance electrochemical pseudocapacitor electrodes. <i>Journal of Solid State Electrochemistry</i> , 2013 , 17, 1159-1165	2.6	21
95	Tuning Optimum Temperature Range of Bi Te -Based Thermoelectric Materials by Defect Engineering. <i>Chemistry - an Asian Journal</i> , 2020 , 15, 2775-2792	4.5	21
94	Structure, Magnetism, and Thermoelectric Properties of Magnesium-Containing Antimonide Zintl Phases SrMgSb and EuMgSb. <i>Inorganic Chemistry</i> , 2017 , 56, 1646-1654	5.1	19
93	Low Contact Resistivity and Interfacial Behavior of p-Type NbFeSb/Mo Thermoelectric Junction. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 14182-14190	9.5	19
92	Thermoelectric Properties and n- to p-Type Conversion of Co-Doped ZrNiSn-Based Half-Heusler Alloys. <i>Journal of Electronic Materials</i> , 2012 , 41, 1826-1830	1.9	18
91	Controlled synthesis of nanosized Si by magnesiothermic reduction from diatomite as anode material for Li-ion batteries. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2020 , 27, 515-523 ¹	3.1	17
90	Ru-decorated knitted Co ₃ O ₄ nanowires as a robust carbon/binder-free catalytic cathode for lithium-oxygen batteries. <i>New Journal of Chemistry</i> , 2016 , 40, 6812-6818	3.6	17
89	Ni ₃ S ₂ nanosheet-anchored carbon submicron tube arrays as high-performance binder-free anodes for Na-ion batteries. <i>Inorganic Chemistry Frontiers</i> , 2017 , 4, 131-138	6.8	17
88	Tunable Optimum Temperature Range of High-Performance Zone Melted Bismuth-Telluride-Based Solid Solutions. <i>Crystal Growth and Design</i> , 2018 , 18, 4646-4652	3.5	17
87	Demonstration of valley anisotropy utilized to enhance the thermoelectric power factor. <i>Nature Communications</i> , 2021 , 12, 5408	17.4	17

86	Enhanced thermoelectric performance of Bi ₂ Se ₃ /TiO ₂ composite. <i>Rare Metals</i> , 2020 , 39, 887-894	5.5	16
85	Electrochemical performance of Li ₄ Ti ₅ O ₁₂ /carbon nanofibers composite prepared by an in situ route for Li-ion batteries. <i>Journal of Solid State Electrochemistry</i> , 2012 , 16, 3915-3921	2.6	16
84	NiCo ₂ O ₄ /MnO ₂ core/shell arrays as a binder-free catalytic cathode for high-performance lithium-oxygen cells. <i>Inorganic Chemistry Frontiers</i> , 2018 , 5, 1707-1713	6.8	16
83	Defect modulation on CaZn _{1-x} Ag _x Sb (0 ≤ x ≤ 1) Journal of Materials Chemistry A, 2018 , 6, 11773-11782	13	16
82	Enhancing the average thermoelectric figure of merit of elemental Te by suppressing grain boundary scattering. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 8455-8461	13	15
81	Elaborating the Crystal Structures of MgAgSb Thermoelectric Compound: Polymorphs and Atomic Disorders. <i>Chemistry of Materials</i> , 2017 , 29, 6378-6388	9.6	15
80	The effect of texture degree on the anisotropic thermoelectric properties of (Bi,Sb) ₂ (Te,Se) ₃ based solid solutions. <i>RSC Advances</i> , 2016 , 6, 98646-98651	3.7	15
79	Stable cycling of a Prussian blue-based Na/Zn hybrid battery in aqueous electrolyte with a wide electrochemical window. <i>New Journal of Chemistry</i> , 2020 , 44, 4639-4646	3.6	14
78	Synthesis and thermoelectric properties of Rashba semiconductor BiTeBr with intensive texture. <i>Rare Metals</i> , 2018 , 37, 274-281	5.5	13
77	Fabrication and thermoelectric properties of Yb-doped ZrNiSn half-Heusler alloys. <i>International Journal of Smart and Nano Materials</i> , 2012 , 3, 64-71	3.6	13
76	Half-Heusler thermoelectric materials. <i>Applied Physics Letters</i> , 2021 , 118, 140503	3.4	13
75	A new defective 19-electron TiPtSb half-Heusler thermoelectric compound with heavy band and low lattice thermal conductivity. <i>Materials Today Physics</i> , 2020 , 13, 100200	8	12
74	Ordered LiMPO ₄ (M = Fe, Mn) nanorods synthesized from NH ₄ MPO ₄ ·H ₂ O microplates by stress involved ion exchange for Li-ion batteries. <i>CrystEngComm</i> , 2014 , 16, 2239	3.3	12
73	Modulating the resistivity of MoS ₂ through low energy phosphorus plasma implantation. <i>Applied Physics Letters</i> , 2017 , 110, 262102	3.4	12
72	Reduced graphene oxide induced confined growth of PbTe crystals and enhanced electrochemical Li-storage properties. <i>RSC Advances</i> , 2013 , 3, 23612	3.7	12
71	MICROSTRUCTURE AND THERMOELECTRIC PROPERTIES OF (Zr,Hf)NiSn-BASED HALF-HEUSLER ALLOYS BY MELT SPINNING AND SPARK PLASMA SINTERING. <i>Functional Materials Letters</i> , 2010 , 03, 227-231	1.2	12
70	Manganese hexacyanoferrate/graphene cathodes for sodium-ion batteries with superior rate capability and ultralong cycle life. <i>Inorganic Chemistry Frontiers</i> , 2018 , 5, 2914-2920	6.8	12
69	Optimum Composition of CaO-SiO ₂ -Al ₂ O ₃ -MgO Slag for Spring Steel Deoxidized by Si and Mn in Production. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2016 , 47, 1435-1444	2.5	11

68	Controllable synthesis of hollow Fe_2O_3 nanostructures, their growth mechanism, and the morphology-reserved conversion to magnetic $\text{Fe}_3\text{O}_4/\text{C}$ nanocomposites. <i>RSC Advances</i> , 2013 , 3, 19097	3.7	11
67	Microstructure and thermoelectric properties of InSb compound with nonsoluble NiSb in situ precipitates. <i>Journal of Materials Research</i> , 2013 , 28, 3394-3400	2.5	11
66	Grain size effect on the phase transformations of higher manganese silicide thermoelectric materials: An in situ energy dispersive x-ray diffraction study. <i>Journal of Materials Research</i> , 2011 , 26, 1900-1906	2.5	11
65	Structure and properties of $(1-x)\text{Pb}(\text{Mg}_{1/2}\text{W}_{1/2})\text{O}_3-x\text{Pb}(\text{Zr}_{0.5}\text{Ti}_{0.5})\text{O}_3$ solid solution ceramics. <i>Journal of Materials Science</i> , 2008 , 43, 5258-5264	4.3	11
64	Scattering Mechanisms and Compositional Optimization of High-Performance Elemental Te as a Thermoelectric Material. <i>Advanced Electronic Materials</i> , 2020 , 6, 2000038	6.4	10
63	Low-cost p-type $\text{Bi}_2\text{Te}_{2.7}\text{Se}_{0.3}$ zone-melted thermoelectric materials for solid-state refrigeration. <i>Journal of Alloys and Compounds</i> , 2020 , 831, 154732	5.7	10
62	Synthesis and liquid-liquid extraction of non-agglomerated $\text{Al}(\text{OH})_3$ particles for deposition of cellulose matrix composite films. <i>Journal of Colloid and Interface Science</i> , 2017 , 508, 49-55	9.3	10
61	Electrochemical performance of $\text{TiO}_2/\text{carbon}$ nanotubes nanocomposite prepared by an in situ route for Li-ion batteries. <i>Journal of Materials Research</i> , 2012 , 27, 417-423	2.5	10
60	In situ transmission electron microscopy study of the nanodomain growth in a Sc-doped lead magnesium niobate ceramic. <i>Applied Physics Letters</i> , 2006 , 89, 022904	3.4	10
59	Multiwalled carbon nanotubes mass-produced by dc arc discharge in He/H_2 gas mixture. <i>Journal of Nanoparticle Research</i> , 2006 , 8, 279-285	2.3	10
58	Carrier Grain Boundary Scattering in Thermoelectric Materials. <i>Energy and Environmental Science</i> ,	35.4	10
57	In situ synthesis of silver/chemically reduced graphene nanocomposite and its use for low temperature conductive paste. <i>Journal of Materials Science: Materials in Electronics</i> , 2017 , 28, 7686-7691	2.1	9
56	First-principles studies of lattice dynamics and thermal properties of $\text{Mg}_2\text{Si}_{1-x}\text{Sn}_x$. <i>Journal of Materials Research</i> , 2015 , 30, 2578-2584	2.5	9
55	Influence of NaOH on the synthesis of Bi_2Te_3 via a low-temperature aqueous chemical method. <i>Journal of Materials Science</i> , 2009 , 44, 3528-3532	4.3	9
54	Facile synthesis of nanostructured LiMnPO_4 as a high-performance cathode material with long cycle life and superior rate capability. <i>RSC Advances</i> , 2015 , 5, 99632-99639	3.7	8
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