Zhifeng Ren

List of Publications by Year
in descending order

368 papers	52,917 citations	1172 111 h-index	1423 221 g-index
375 all docs	375 docs citations	375 times ranked	33488 citing authors

#	Article	IF	Citations
1	High-Thermoelectric Performance of Nanostructured Bismuth Antimony Telluride Bulk Alloys. Science, 2008, 320, 634-638.	12.6	4,843
2	Bulk nanostructured thermoelectric materials: current research and future prospects. Energy and Environmental Science, 2009, 2, 466.	30.8	1,698
3	Perspectives on thermoelectrics: from fundamentals to device applications. Energy and Environmental Science, 2012, 5, 5147-5162.	30.8	1,080
4	Enhanced Thermoelectric Figure-of-Merit in Nanostructured p-type Silicon Germanium Bulk Alloys. Nano Letters, 2008, 8, 4670-4674.	9.1	1,014
5	Cu nanowires shelled with NiFe layered double hydroxide nanosheets as bifunctional electrocatalysts for overall water splitting. Energy and Environmental Science, 2017, 10, 1820-1827.	30.8	1,002
6	High-performance flat-panel solar thermoelectric generators with high thermal concentration. Nature Materials, 2011, 10, 532-538.	27.5	987
7	High-performance bifunctional porous non-noble metal phosphide catalyst for overall water splitting. Nature Communications, 2018, 9, 2551.	12.8	812
8	Enhancement of Thermoelectric Figureâ€ofâ€Merit by a Bulk Nanostructuring Approach. Advanced Functional Materials, 2010, 20, 357-376.	14.9	795
9	Efficient solar water-splitting using a nanocrystalline CoO photocatalyst. Nature Nanotechnology, 2014, 9, 69-73.	31.5	764
10	Non-noble metal-nitride based electrocatalysts for high-performance alkaline seawater electrolysis. Nature Communications, 2019, 10, 5106.	12.8	742
11	Interaction between carbon nanotubes and mammalian cells: characterization by flow cytometry and application. Nanotechnology, 2008, 19, 345102.	2.6	671
12	Multiferroic materials and magnetoelectric physics: symmetry, entanglement, excitation, and topology. Advances in Physics, 2015, 64, 519-626.	14.4	661
13	High thermoelectric performance by resonant dopant indium in nanostructured SnTe. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 13261-13266.	7.1	632
14	Recent advances in thermoelectric nanocomposites. Nano Energy, 2012, 1, 42-56.	16.0	624
15	Enhanced thermoelectric figure of merit in nanostructured n-type silicon germanium bulk alloy. Applied Physics Letters, 2008, 93, .	3.3	623
16	ZnO Nanobridges and Nanonails. Nano Letters, 2003, 3, 235-238.	9.1	622
17	Experimental Studies on Anisotropic Thermoelectric Properties and Structures of n-Type Bi₂Te_{2.7}Se_{0.3}. Nano Letters, 2010, 10, 3373-3378.	9.1	608
18	Thermoelectric Property Studies on Cuâ€Doped nâ€type Cu_xBi₂Te_{2.7}Se_{0.3} Nanocomposites. Advanced Energy Materials, 2011, 1, 577-587.	19.5	535

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19	Highly efficient molecular delivery into mammalian cells using carbon nanotube spearing. Nature Methods, 2005, 2, 449-454.	19.0	528
20	Enhanced Thermoelectric Figure-of-Merit in p-Type Nanostructured Bismuth Antimony Tellurium Alloys Made from Elemental Chunks. Nano Letters, 2008, 8, 2580-2584.	9.1	515
21	Flexible Electronics: Stretchable Electrodes and Their Future. Advanced Functional Materials, 2019, 29, 1805924.	14.9	510
22	Ultrafast room-temperature synthesis of porous S-doped Ni/Fe (oxy)hydroxide electrodes for oxygen evolution catalysis in seawater splitting. Energy and Environmental Science, 2020, 13, 3439-3446.	30.8	507
23	Recent progress of half-Heusler for moderate temperature thermoelectric applications. Materials Today, 2013, 16, 387-395.	14.2	474
24	Power Factor Enhancement by Modulation Doping in Bulk Nanocomposites. Nano Letters, 2011, 11, 2225-2230.	9.1	461
25	Enhancement of Thermoelectric Properties by Modulation-Doping in Silicon Germanium Alloy Nanocomposites. Nano Letters, 2012, 12, 2077-2082.	9.1	461
26	High thermoelectric cooling performance of n-type Mg ₃ Bi ₂ -based materials. Science, 2019, 365, 495-498.	12.6	457
27	Current progress and future challenges in thermoelectric power generation: From materials to devices. Acta Materialia, 2015, 87, 357-376.	7.9	447
28	Water splitting by electrolysis at high current densities under 1.6 volts. Energy and Environmental Science, 2018, 11, 2858-2864.	30.8	438
29	Gram-scale bottom-up flash graphene synthesis. Nature, 2020, 577, 647-651.	27.8	438
30	Relationship between thermoelectric figure of merit and energy conversion efficiency. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 8205-8210.	7.1	415
31	Metallic nanostructures for light trapping in energy-harvesting devices. Light: Science and Applications, 2014, 3, e161-e161.	16.6	407
32	A review of cermet-based spectrally selective solar absorbers. Energy and Environmental Science, 2014, 7, 1615.	30.8	386
33	Heterogeneous Bimetallic Phosphide Ni₂Pâ€Fe₂P as an Efficient Bifunctional Catalyst for Water/Seawater Splitting. Advanced Functional Materials, 2021, 31, .	14.9	385
34	Advances in thermoelectrics. Advances in Physics, 2018, 67, 69-147.	14.4	383
35	Enhancement of thermoelectric figure-of-merit by resonant states of aluminium doping in lead selenide. Energy and Environmental Science, 2012, 5, 5246-5251.	30.8	372
36	Electrochemical CO₂ Reduction with Atomic Ironâ€Dispersed on Nitrogenâ€Doped Graphene. Advanced Energy Materials, 2018, 8, 1703487.	19.5	369

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37	Enhanced thermal conductivity and viscosity of copper nanoparticles in ethylene glycol nanofluid. Journal of Applied Physics, 2008, 103, .	2.5	367
38	Highly stretchable and transparent nanomesh electrodes made by grain boundary lithography. Nature Communications, 2014, 5, 3121.	12.8	367
39	Enhanced Thermoelectric Figure of Merit of p-Type Half-Heuslers. Nano Letters, 2011, 11, 556-560.	9.1	362
40	Thermoelectric cooling materials. Nature Materials, 2021, 20, 454-461.	27.5	360
41	Heavy Doping and Band Engineering by Potassium to Improve the Thermoelectric Figure of Merit in p-Type PbTe, PbSe, and PbTe_{1â€“y}Se_y. Journal of the American Chemical Society, 2012, 134, 10031-10038.	13.7	337
42	Preparation and photoabsorption characterization of BiFeO3 nanowires. Applied Physics Letters, 2006, 89, 102506.	3.3	335
43	Tuning the carrier scattering mechanism to effectively improve the thermoelectric properties. Energy and Environmental Science, 2017, 10, 799-807.	30.8	326
44	Efficient hydrogen evolution by ternary molybdenum sulfoselenide particles on self-standing porous nickel diselenide foam. Nature Communications, 2016, 7, 12765.	12.8	312
45	Hierarchical CoP/Ni₅P₄/CoP microsheet arrays as a robust pH-universal electrocatalyst for efficient hydrogen generation. Energy and Environmental Science, 2018, 11, 2246-2252.	30.8	306
46	Dropwise condensation on superhydrophobic surfaces with two-tier roughness. Applied Physics Letters, 2007, 90, 173108.	3.3	302
47	Highly active catalyst derived from a 3D foam of Fe(PO ₃) ₂ /Ni ₂ P for extremely efficient water oxidation. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 5607-5611.	7.1	302
48	Unusual high thermal conductivity in boron arsenide bulk crystals. Science, 2018, 361, 582-585.	12.6	300
49	Studies on Thermoelectric Properties of nâ€type Polycrystalline SnSe_{1â€“x}S_x by Iodine Doping. Advanced Energy Materials, 2015, 5, 1500360.	19.5	287
50	Enhancement in Thermoelectric Figureâ€Ofâ€Merit of an Nâ€Type Halfâ€Heusler Compound by the Nanocomposite Approach. Advanced Energy Materials, 2011, 1, 643-647.	19.5	286
51	One-step synthesis of self-supported porous NiSe 2 /Ni hybrid foam: An efficient 3D electrode for hydrogen evolution reaction. Nano Energy, 2016, 20, 29-36.	16.0	279
52	Recent progress and future challenges on thermoelectric Zintl materials. Materials Today Physics, 2017, 1, 74-95.	6.0	275
53	Thermoelectric properties of copper selenide with ordered selenium layer and disordered copper layer. Nano Energy, 2012, 1, 472-478.	16.0	271
54	Concentrating solar thermoelectric generators with a peak efficiency of 7.4%. Nature Energy, 2016, 1, .	39.5	269

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55	Manipulation of ionized impurity scattering for achieving high thermoelectric performance in n-type Mg ₃ Sb ₂ -based materials. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 10548-10553.	7.1	267
56	Routes for high-performance thermoelectric materials. Materials Today, 2018, 21, 974-988.	14.2	265
57	High thermoelectric performance of MgAgSb-based materials. Nano Energy, 2014, 7, 97-103.	16.0	264
58	Increased Phonon Scattering by Nanograins and Point Defects in Nanostructured Silicon with a Low Concentration of Germanium. Physical Review Letters, 2009, 102, 196803.	7.8	263
59	Effect of length and spacing of vertically aligned carbon nanotubes on field emission properties. Applied Physics Letters, 2003, 82, 3520-3522.	3.3	256
60	Hierarchical Cu@CoFe layered double hydroxide core-shell nanoarchitectures as bifunctional electrocatalysts for efficient overall water splitting. Nano Energy, 2017, 41, 327-336.	16.0	252
61	Studies on the Bi₂Te₃â€“Bi₂Se₃â€“Bi₂S₃system for mid-temperature thermoelectric energy conversion. Energy and Environmental Science, 2013, 6, 552-560.	30.8	250
62	Atypical Oxygen-Bearing Copper Boosts Ethylene Selectivity toward Electrocatalytic CO₂ Reduction. Journal of the American Chemical Society, 2020, 142, 11417-11427.	13.7	250
63	Stronger phonon scattering by larger differences in atomic mass and size in p-type half-Heuslers Hf1â^xTixCoSb0.8Sn0.2. Energy and Environmental Science, 2012, 5, 7543.	30.8	244
64	Discovery of ZrCoBi based half Heuslers with high thermoelectric conversion efficiency. Nature Communications, 2018, 9, 2497.	12.8	243
65	Discovery of TaFeSb-based half-Heuslers with high thermoelectric performance. Nature Communications, 2019, 10, 270.	12.8	227
66	Ternary Ni2(1-x)Mo2xP nanowire arrays toward efficient and stable hydrogen evolution electrocatalysis under large-current-density. Nano Energy, 2018, 53, 492-500.	16.0	216
67	Achieving high power factor and output power density in p-type half-Heuslers Nb _{1-x} Ti _x FeSb. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 13576-13581.	7.1	213
68	Studies on thermoelectric figure of merit of Na-doped p-type polycrystalline SnSe. Journal of Materials Chemistry A, 2016, 4, 1848-1854.	10.3	210
69	Capillary-Force-Induced Cold Welding in Silver-Nanowire-Based Flexible Transparent Electrodes. Nano Letters, 2017, 17, 1090-1096.	9.1	207
70	Three-Dimensional Nanoporous Iron Nitride Film as an Efficient Electrocatalyst for Water Oxidation. ACS Catalysis, 2017, 7, 2052-2057.	11.2	207
71	Size effect in thermoelectric materials. Npj Quantum Materials, 2016, 1, .	5.2	205
72	Trimetallic NiFeMo for Overall Electrochemical Water Splitting with a Low Cell Voltage. ACS Energy Letters, 2018, 3, 546-554.	17.4	205

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73	Nanofluid of graphene-based amphiphilic Janus nanosheets for tertiary or enhanced oil recovery: High performance at low concentration. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 7711-7716.	7.1	196
74	Effect of Hf Concentration on Thermoelectric Properties of Nanostructured Nâ€Type Halfâ€Heusler Materials Hf_xZr_{1â€“x}NiSn_{0.99}Sb_{0.01}. Advanced Energy Materials, 2013, 3, 1210-1214.	19.5	195
75	Grain Boundary Engineering for Achieving High Thermoelectric Performance in nâ€Type Skutterudites. Advanced Energy Materials, 2017, 7, 1602582.	19.5	194
76	n-type thermoelectric material Mg ₂ Sn _{0.75} Ge _{0.25} for high power generation. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 3269-3274.	7.1	191
77	Deep defect level engineering: a strategy of optimizing the carrier concentration for high thermoelectric performance. Energy and Environmental Science, 2018, 11, 933-940.	30.8	188
78	Hydrogen Generation from Seawater Electrolysis over a Sandwich-like NiCoN|Ni_xP|NiCoN Microsheet Array Catalyst. ACS Energy Letters, 2020, 5, 2681-2689.	17.4	188
79	Phase-transition temperature suppression to achieve cubic GeTe and high thermoelectric performance by Bi and Mn codoping. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5332-5337.	7.1	183
80	Effects of nanoscale porosity on thermoelectric properties of SiGe. Journal of Applied Physics, 2010, 107, .	2.5	181
81	Vertically Aligned MoS₂/Mo₂C hybrid Nanosheets Grown on Carbon Paper for Efficient Electrocatalytic Hydrogen Evolution. ACS Catalysis, 2017, 7, 7312-7318.	11.2	181
82	Defect Engineering for Realizing High Thermoelectric Performance in n-Type Mg₃Sb₂-Based Materials. ACS Energy Letters, 2017, 2, 2245-2250.	17.4	181
83	Modeling study of thermoelectric SiGe nanocomposites. Physical Review B, 2009, 80, .	3.2	178
84	Ultrahigh thermal conductivity in isotope-enriched cubic boron nitride. Science, 2020, 367, 555-559.	12.6	177
85	Outstanding hydrogen evolution reaction catalyzed by porous nickel diselenide electrocatalysts. Energy and Environmental Science, 2017, 10, 1487-1492.	30.8	176
86	NbFeSb-based p-type half-Heuslers for power generation applications. Energy and Environmental Science, 2014, 7, 4070-4076.	30.8	174
87	Importance of high power factor in thermoelectric materials for power generation application: A perspective. Scripta Materialia, 2016, 111, 3-9.	5.2	169
88	Amorphous NiFe layered double hydroxide nanosheets decorated on 3D nickel phosphide nanoarrays: a hierarchical coreâ€“shell electrocatalyst for efficient oxygen evolution. Journal of Materials Chemistry A, 2018, 6, 13619-13623.	10.3	169
89	Efficient Alkaline Water/Seawater Hydrogen Evolution by a Nanorodâ€Nanoparticleâ€Structured Niâ€MoN Catalyst with Fast Waterâ€Dissociation Kinetics. Advanced Materials, 2022, 34, e2201774.	21.0	165
90	Growth of aligned carbon nanotubes with controlled site density. Applied Physics Letters, 2002, 80, 4018-4020.	3.3	163

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91	Recent progress in half-Heusler thermoelectric materials. Materials Research Bulletin, 2016, 76, 107-112.	5.2	157
92	High thermoelectric conversion efficiency of MgAgSb-based material with hot-pressed contacts. Energy and Environmental Science, 2015, 8, 1299-1308.	30.8	154
93	Improved thermoelectric performance of n-type half-Heusler MCo1-xNixSb (MÂ=ÂHf, Zr). Materials Today Physics, 2017, 1, 24-30.	6.0	148
94	Growth of large periodic arrays of carbon nanotubes. Applied Physics Letters, 2003, 82, 460-462.	3.3	145
95	Thermoelectric Property Study of Nanostructured pâ€Type Halfâ€Heuslers (Hf, Zr,) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 582	19.5	145
96	Higher thermoelectric performance of Zintl phases (Eu _{0.5} Yb _{0.5}) _{1â^'x} Ca _x Mg ₂ Bi ₂ by band engineering and strain fluctuation. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E4125-32.	7.1	145
97	Enhanced Thermal Stability of Wâ€Niâ€Al₂O₃ Cermetâ€Based Spectrally Selective Solar Absorbers with Tungsten Infrared Reflectors. Advanced Energy Materials, 2015, 5, 1401042.	19.5	144
98	The bridge between the materials and devices of thermoelectric power generators. Energy and Environmental Science, 2017, 10, 69-85.	30.8	143
99	Nanoelectrode Arrays Based on Low Site Density Aligned Carbon Nanotubes. Nano Letters, 2003, 3, 107-109.	9.1	141
100	Rational design of core-shell-structured CoP @FeOOH for efficient seawater electrolysis. Applied Catalysis B: Environmental, 2021, 294, 120256.	20.2	141
101	Understanding of the contact of nanostructured thermoelectric n-type Bi2Te2.7Se0.3 legs for power generation applications. Journal of Materials Chemistry A, 2013, 1, 13093.	10.3	133
102	Boron-modified cobalt iron layered double hydroxides for high efficiency seawater oxidation. Nano Energy, 2021, 83, 105838.	16.0	132
103	Thermoelectric properties of Na-doped Zintl compound: Mg3â^'Na Sb2. Acta Materialia, 2015, 93, 187-193.	7.9	131
104	Physics and applications of aligned carbon nanotubes. Advances in Physics, 2011, 60, 553-678.	14.4	128
105	High thermoelectric performance of Î±-MgAgSb for power generation. Energy and Environmental Science, 2018, 11, 23-44.	30.8	127
106	Realization of higher thermoelectric performance by dynamic doping of copper in n-type PbTe. Energy and Environmental Science, 2019, 12, 3089-3098.	30.8	127
107	Significant Role of Mg Stoichiometry in Designing High Thermoelectric Performance for Mg₃(Sb,Bi)₂-Based n-Type Zintls. Journal of the American Chemical Society, 2018, 140, 1910-1915.	13.7	125
108	Bio-inspired networks for optoelectronic applications. Nature Communications, 2014, 5, 5674.	12.8	124

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109	Lithium Doping to Enhance Thermoelectric Performance of MgAgSb with Weak Electronâ€“Phonon Coupling. Advanced Energy Materials, 2016, 6, 1502269.	19.5	122
110	Highly Efficient Hydrogen Evolution from Edge-Oriented WS_{2(1â€“x)}Se_{2x} Particles on Three-Dimensional Porous NiSe₂ Foam. Nano Letters, 2016, 16, 7604-7609.	9.1	121
111	Towards tellurium-free thermoelectric modules for power generation from low-grade heat. Nature Communications, 2021, 12, 1121.	12.8	118
112	Bifunctional metal phosphide FeMnP films from single source metal organic chemical vapor deposition for efficient overall water splitting. Nano Energy, 2017, 39, 444-453.	16.0	117
113	Surface phase separation in nanosized charge-ordered manganites. Applied Physics Letters, 2007, 90, 082508.	3.3	115
114	Visible-light driven CO2 reduction coupled with water oxidation on Cl-doped Cu2O nanorods. Nano Energy, 2019, 60, 576-582.	16.0	115
115	A universal synthesis strategy to make metal nitride electrocatalysts for hydrogen evolution reaction. Journal of Materials Chemistry A, 2019, 7, 19728-19732.	10.3	114
116	Straight carbon nanotube Y junctions. Applied Physics Letters, 2001, 79, 1879-1881.	3.3	113
117	Nano-microstructural control of phonon engineering for thermoelectric energy harvesting. MRS Bulletin, 2018, 43, 181-186.	3.5	111
118	Large thermoelectric power factor from crystal symmetry-protected non-bonding orbital in half-Heuslers. Nature Communications, 2018, 9, 1721.	12.8	111
119	A TiO₂/FeMnP Core/Shell Nanorod Array Photoanode for Efficient Photoelectrochemical Oxygen Evolution. ACS Nano, 2017, 11, 4051-4059.	14.6	106
120	Study of the Thermoelectric Properties of Lead Selenide Doped with Boron, Gallium, Indium, or Thallium. Journal of the American Chemical Society, 2012, 134, 17731-17738.	13.7	105
121	Rational design of oxygen evolution reaction catalysts for seawater electrolysis. Trends in Chemistry, 2021, 3, 485-498.	8.5	105
122	Solubility study of Yb in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>n</mml:mi></mml:math>-type skutterudites<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Yb</mml:mtext></mml:mrow><mml:mi>x</mml:mi></mml:msub> Physical Review B, 2009, 80, .	3.2	104
123	Thermoelectric properties of materials near the band crossing line in Mg2Snâ€“Mg2Geâ€“Mg2Si system. Acta Materialia, 2016, 103, 633-642.	7.9	104
124	Zintl-phase Eu ₂ ZnSb ₂ : A promising thermoelectric material with ultralow thermal conductivity. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 2831-2836.	7.1	103
125	A high-performance spectrally-selective solar absorber based on a yttria-stabilized zirconia cermet with high-temperature stability. Energy and Environmental Science, 2015, 8, 3040-3048.	30.8	102
126	Recent progress towards high performance of tin chalcogenide thermoelectric materials. Journal of Materials Chemistry A, 2018, 6, 2432-2448.	10.3	101

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127	Diffusion of nickel and tin in p-type (Bi,Sb)2Te3 and n-type Bi2(Te,Se)3 thermoelectric materials. Applied Physics Letters, 2008, 92, .	3.3	97
128	Hierarchical oxide nanostructures. Journal of Materials Chemistry, 2004, 14, 770.	6.7	95
129	Enhancement of thermoelectric figure-of-merit at low temperatures by titanium substitution for hafnium in n-type half-Heuslers Hf0.75â^'Ti Zr0.25NiSn0.99Sb0.01. Nano Energy, 2013, 2, 82-87.	16.0	95
130	Oxidized Laserâ€Induced Graphene for Efficient Oxygen Electrocatalysis. Advanced Materials, 2018, 30, e1707319.	21.0	94
131	Using the 18-Electron Rule To Understand the Nominal 19-Electron Half-Heusler NbCoSb with Nb Vacancies. Chemistry of Materials, 2017, 29, 1210-1217.	6.7	93
132	Enhancement of Thermoelectric Performance of nâ€Type PbSe by Cr Doping with Optimized Carrier Concentration. Advanced Energy Materials, 2015, 5, 1401977.	19.5	92
133	Thermoelectric properties of Bi-based Zintl compounds Ca_{1â^'x}Yb_xMg₂Bi₂. Journal of Materials Chemistry A, 2016, 4, 4312-4320.	10.3	92
134	Sustainable Synthesis of Bright Green Fluorescent Nitrogenâ€Doped Carbon Quantum Dots from Alkali Lignin. ChemSusChem, 2019, 12, 4202-4210.	6.8	92
135	Laserâ€Induced Silicon Oxide for Anodeâ€Free Lithium Metal Batteries. Advanced Materials, 2020, 32, e2002850.	21.0	92
136	In Situ Synthesis of Efficient Water Oxidation Catalysts in Laser-Induced Graphene. ACS Energy Letters, 2018, 3, 677-683.	17.4	91
137	A new n-type half-Heusler thermoelectric material NbCoSb. Materials Research Bulletin, 2015, 70, 773-778.	5.2	89
138	Fatigue-free, superstretchable, transparent, and biocompatible metal electrodes. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 12332-12337.	7.1	89
139	Robust Hydrogen-Evolving Electrocatalyst from Heterogeneous Molybdenum Disulfide-Based Catalyst. ACS Catalysis, 2020, 10, 1511-1519.	11.2	88
140	Efficient nanocoaxâ€based solar cells. Physica Status Solidi - Rapid Research Letters, 2010, 4, 181-183.	2.4	87
141	Secondary Oil Recovery Using Graphene-Based Amphiphilic Janus Nanosheet Fluid at an Ultralow Concentration. Industrial & Engineering Chemistry Research, 2017, 56, 11125-11132.	3.7	87
142	Enhancement of thermoelectric performance across the topological phase transition in dense lead selenide. Nature Materials, 2019, 18, 1321-1326.	27.5	87
143	Highly Efficient Hydrogen Evolution from a Mesoporous Hybrid of Nickel Phosphide Nanoparticles Anchored on Cobalt Phosphosulfide/Phosphide Nanosheet Arrays. Small, 2019, 15, e1804272.	10.0	87
144	Fast phase formation of double-filled p-type skutterudites by ball-milling and hot-pressing. Physical Chemistry Chemical Physics, 2013, 15, 6809.	2.8	85

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145	Skutterudite Unicouple Characterization for Energy Harvesting Applications. Advanced Energy Materials, 2013, 3, 245-251.	19.5	83
146	Investigation of the bipolar effect in the thermoelectric material CaMg₂Bi₂ using a first-principles study. Physical Chemistry Chemical Physics, 2016, 18, 16566-16574.	2.8	83
147	New insight into the material parameter B to understand the enhanced thermoelectric performance of Mg₂Sn_{1â^'xâ^'y}Ge_xSb_y. Energy and Environmental Science, 2016, 9, 530-539.	30.8	83
148	Anomalous electrical conductivity of n-type Te-doped Mg3.2Sb1.5Bi0.5. Materials Today Physics, 2017, 3, 1-6.	6.0	82
149	In Situ Growth of Ru Nanoparticles on (Fe,Ni)(OH)₂ to Boost Hydrogen Evolution Activity at High Current Density in Alkaline Media. Small Methods, 2020, 4, 1900796.	8.6	82
150	High thermoelectric power factor in Cuâ€“Ni alloy originate from potential barrier scattering of twin boundaries. Nano Energy, 2015, 17, 279-289.	16.0	81
151	Design of Highâ€Performance Disordered Halfâ€Heusler Thermoelectric Materials Using 18â€Electron Rule. Advanced Functional Materials, 2019, 29, 1905044.	14.9	81
152	Full-scale computation for all the thermoelectric property parameters of half-Heusler compounds. Scientific Reports, 2016, 6, 22778.	3.3	79
153	Realizing high conversion efficiency of Mg3Sb2-based thermoelectric materials. Journal of Power Sources, 2019, 414, 393-400.	7.8	79
154	High thermoelectric performance of superionic argyrodite compound Ag₈SnSe₆. Journal of Materials Chemistry C, 2016, 4, 5806-5813.	5.5	77
155	Phonon scattering by nanoscale twin boundaries. Nano Energy, 2017, 32, 174-179.	16.0	77
156	VS₄ with a chain crystal structure used as an intercalation cathode for aqueous Zn-ion batteries. Journal of Materials Chemistry A, 2020, 8, 10761-10766.	10.3	77
157	High-Performance Ag-Modified Bi_{0.5}Sb_{1.5}Te₃ Films for the Flexible Thermoelectric Generator. ACS Applied Materials & Interfaces, 2020, 12, 7358-7365.	8.0	77
158	Highly active and durable self-standing WS₂/graphene hybrid catalysts for the hydrogen evolution reaction. Journal of Materials Chemistry A, 2016, 4, 9472-9476.	10.3	75
159	Study on thermoelectric performance by Na doping in nanostructured Mg1-Na Ag0.97Sb0.99. Nano Energy, 2015, 11, 640-646.	16.0	74
160	Synthesis and thermoelectric properties of n-type half-Heusler compound VCoSb with valence electron count of 19. Journal of Alloys and Compounds, 2016, 654, 321-326.	5.5	74
161	Modeling of concentrating solar thermoelectric generators. Journal of Applied Physics, 2011, 110, .	2.5	73
162	Facile synthesis of nanoparticle-stacked tungsten-doped nickel iron layered double hydroxide nanosheets for boosting oxygen evolution reaction. Journal of Materials Chemistry A, 2020, 8, 8096-8103.	10.3	73

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163	Enhanced thermoelectric properties of n-type NbCoSn half-Heusler by improving phase purity. APL Materials, 2016, 4, .	5.1	72
164	Orientation Control of Graphene Flakes by Magnetic Field: Broad Device Applications of Macroscopically Aligned Graphene. Advanced Materials, 2017, 29, 1604453.	21.0	72
165	Mechanical properties of nanostructured thermoelectric materials Î±-MgAgSb. Scripta Materialia, 2017, 127, 72-75.	5.2	72
166	Highly efficient hydrogen evolution by self-standing nickel phosphide-based hybrid nanosheet arrays electrocatalyst. Materials Today Physics, 2018, 4, 1-6.	6.0	72
167	Correlation of field emission and surface microstructure of vertically aligned carbon nanotubes. Applied Physics Letters, 2004, 84, 413-415.	3.3	71
168	Atomic Disorders Induced by Silver and Magnesium Ion Migrations Favor High Thermoelectric Performance in Î±â€²MgAgSbâ€²Based Materials. Advanced Functional Materials, 2015, 25, 6478-6488.	14.9	70
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