Zhifeng Ren

List of Publications by Citations

361 papers	39,780 citations	99 h-index	193 g-index
375 ext. papers	46,375 ext. citations	11.5 avg, IF	7.66 L-index

#	Paper	IF	Citations
361	High-thermoelectric performance of nanostructured bismuth antimony telluride bulk alloys. *Science*, **2008**, 320, 634-8	33.3	4220
360	Bulk nanostructured thermoelectric materials: current research and future prospects. *Energy and Environmental Science*, **2009**, 2, 466	35.4	1448
359	Perspectives on thermoelectrics: from fundamentals to device applications. *Energy and Environmental Science*, **2012**, 5, 5147-5162	35.4	925
358	Enhanced thermoelectric figure-of-merit in nanostructured p-type silicon germanium bulk alloys. *Nano Letters*, **2008**, 8, 4670-4	11.5	861
357	High-performance flat-panel solar thermoelectric generators with high thermal concentration. *Nature Materials*, **2011**, 10, 532-8	27	790
356	Cu nanowires shelled with NiFe layered double hydroxide nanosheets as bifunctional electrocatalysts for overall water splitting. *Energy and Environmental Science*, **2017**, 10, 1820-1827	35.4	733
355	Enhancement of Thermoelectric Figure-of-Merit by a Bulk Nanostructuring Approach. *Advanced Functional Materials*, **2010**, 20, 357-376	15.6	706
354	Efficient solar water-splitting using a nanocrystalline CoO photocatalyst. *Nature Nanotechnology*, **2014**, 9, 69-73	28.7	641
353	Interaction between carbon nanotubes and mammalian cells: characterization by flow cytometry and application. *Nanotechnology*, **2008**, 19, 1-10	3.4	584
352	ZnO Nanobridges and Nanonails. *Nano Letters*, **2003**, 3, 235-238	11.5	582
351	High-performance bifunctional porous non-noble metal phosphide catalyst for overall water splitting. *Nature Communications*, **2018**, 9, 2551	17.4	566
350	Enhanced thermoelectric figure of merit in nanostructured n-type silicon germanium bulk alloy. *Applied Physics Letters*, **2008**, 93, 193121	3.4	560
349	Recent advances in thermoelectric nanocomposites. *Nano Energy*, **2012**, 1, 42-56	17.1	536
348	Experimental studies on anisotropic thermoelectric properties and structures of n-type Bi2Te2.7Se0.3. *Nano Letters*, **2010**, 10, 3373-8	11.5	524
347	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, 13261-6	11.5	503
346	Multiferroic materials and magnetoelectric physics: symmetry, entanglement, excitation, and topology. *Advances in Physics*, **2015**, 64, 519-626	18.4	486
345	Highly efficient molecular delivery into mammalian cells using carbon nanotube spearing. *Nature Methods*, **2005**, 2, 449-54	21.6	482

344	Enhanced thermoelectric figure-of-merit in p-type nanostructured bismuth antimony tellurium alloys made from elemental chunks. *Nano Letters*, **2008**, 8, 2580-4	11.5	476
343	Thermoelectric Property Studies on Cu-Doped n-type CuxBi2Te2.7Se0.3 Nanocomposites. *Advanced Energy Materials*, **2011**, 1, 577-587	21.8	447
342	Enhancement of thermoelectric properties by modulation-doping in silicon germanium alloy nanocomposites. *Nano Letters*, **2012**, 12, 2077-82	11.5	395
341	Power factor enhancement by modulation doping in bulk nanocomposites. *Nano Letters*, **2011**, 11, 2225-30	11.5	386
340	Recent progress of half-Heusler for moderate temperature thermoelectric applications. *Materials Today*, **2013**, 16, 387-395	21.8	375
339	Current progress and future challenges in thermoelectric power generation: From materials to devices. *Acta Materialia*, **2015**, 87, 357-376	8.4	339
338	Metallic nanostructures for light trapping in energy-harvesting devices. *Light: Science and Applications*, **2014**, 3, e161-e161	16.7	327
337	Enhanced thermoelectric figure of merit of p-type half-Heuslers. *Nano Letters*, **2011**, 11, 556-60	11.5	326
336	Non-noble metal-nitride based electrocatalysts for high-performance alkaline seawater electrolysis. *Nature Communications*, **2019**, 10, 5106	17.4	318
335	Enhanced thermal conductivity and viscosity of copper nanoparticles in ethylene glycol nanofluid. *Journal of Applied Physics*, **2008**, 103, 074301	2.5	311
334	Highly stretchable and transparent nanomesh electrodes made by grain boundary lithography. *Nature Communications*, **2014**, 5, 3121	17.4	310
333	Preparation and photoabsorption characterization of BiFeO3 nanowires. *Applied Physics Letters*, **2006**, 89, 102506	3.4	305
332	Flexible Electronics: Stretchable Electrodes and Their Future. *Advanced Functional Materials*, **2019**, 29, 1805924	15.6	305
331	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, 8205-10	11.5	300
330	A review of cermet-based spectrally selective solar absorbers. *Energy and Environmental Science*, **2014**, 7, 1615	35.4	300
329	Enhancement of thermoelectric figure-of-merit by resonant states of aluminium doping in lead selenide. *Energy and Environmental Science*, **2012**, 5, 5246-5251	35.4	299
328	Heavy doping and band engineering by potassium to improve the thermoelectric figure of merit in p-type PbTe, PbSe, and PbTe(1-y)Se(y). *Journal of the American Chemical Society*, **2012**, 134, 10031-8	16.4	297
327	Electrochemical CO2 Reduction with Atomic Iron-Dispersed on Nitrogen-Doped Graphene. *Advanced Energy Materials*, **2018**, 8, 1703487	21.8	277

326	Dropwise condensation on superhydrophobic surfaces with two-tier roughness. *Applied Physics Letters*, **2007**, 90, 173108	3.4	275
325	Water splitting by electrolysis at high current densities under 1.6 volts. *Energy and Environmental Science*, **2018**, 11, 2858-2864	35.4	273
324	Enhancement in Thermoelectric Figure-Of-Merit of an N-Type Half-Heusler Compound by the Nanocomposite Approach. *Advanced Energy Materials*, **2011**, 1, 643-647	21.8	256
323	Efficient hydrogen evolution by ternary molybdenum sulfoselenide particles on self-standing porous nickel diselenide foam. *Nature Communications*, **2016**, 7, 12765	17.4	248
322	Studies on Thermoelectric Properties of n-type Polycrystalline SnSe1-xSx by Iodine Doping. *Advanced Energy Materials*, **2015**, 5, 1500360	21.8	242
321	High thermoelectric cooling performance of n-type MgBi-based materials. *Science*, **2019**, 365, 495-498	33.3	240
320	Effect of length and spacing of vertically aligned carbon nanotubes on field emission properties. *Applied Physics Letters*, **2003**, 82, 3520-3522	3.4	230
319	Increased phonon scattering by nanograins and point defects in nanostructured silicon with a low concentration of germanium. *Physical Review Letters*, **2009**, 102, 196803	7.4	228
318	Tuning the carrier scattering mechanism to effectively improve the thermoelectric properties. *Energy and Environmental Science*, **2017**, 10, 799-807	35.4	227
317	One-step synthesis of self-supported porous NiSe2/Ni hybrid foam: An efficient 3D electrode for hydrogen evolution reaction. *Nano Energy*, **2016**, 20, 29-36	17.1	227
316	Highly active catalyst derived from a 3D foam of Fe(PO)/NiP for extremely efficient water oxidation. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 5607-5611	11.5	225
315	Advances in thermoelectrics. *Advances in Physics*, **2018**, 67, 69-147	18.4	225
314	Thermoelectric properties of copper selenide with ordered selenium layer and disordered copper layer. *Nano Energy*, **2012**, 1, 472-478	17.1	217
313	Stronger phonon scattering by larger differences in atomic mass and size in p-type half-Heuslers Hf1□TixCoSb0.8Sn0.2. *Energy and Environmental Science*, **2012**, 5, 7543	35.4	205
312	Hierarchical CoP/Ni5P4/CoP microsheet arrays as a robust pH-universal electrocatalyst for efficient hydrogen generation. *Energy and Environmental Science*, **2018**, 11, 2246-2252	35.4	204
311	Gram-scale bottom-up flash graphene synthesis. *Nature*, **2020**, 577, 647-651	50.4	201
310	Studies on the Bi2Te3□Bi2Se3□Bi2S3 system for mid-temperature thermoelectric energy conversion. *Energy and Environmental Science*, **2013**, 6, 552-560	35.4	201
309	High thermoelectric performance of MgAgSb-based materials. *Nano Energy*, **2014**, 7, 97-103	17.1	197

308	Recent progress and future challenges on thermoelectric Zintl materials. *Materials Today Physics*, **2017**, 1, 74-95	8	195
307	Concentrating solar thermoelectric generators with a peak efficiency of 7.4%. *Nature Energy*, **2016**, 1,	62.3	190
306	Routes for high-performance thermoelectric materials. *Materials Today*, **2018**, 21, 974-988	21.8	187
305	Unusual high thermal conductivity in boron arsenide bulk crystals. *Science*, **2018**, 361, 582-585	33.3	185
304	Manipulation of ionized impurity scattering for achieving high thermoelectric performance in n-type MgSb-based materials. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 10548-10553	11.5	183
303	Hierarchical Cu@CoFe layered double hydroxide core-shell nanoarchitectures as bifunctional electrocatalysts for efficient overall water splitting. *Nano Energy*, **2017**, 41, 327-336	17.1	174
302	Studies on thermoelectric figure of merit of Na-doped p-type polycrystalline SnSe. *Journal of Materials Chemistry A*, **2016**, 4, 1848-1854	13	174
301	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	35.4	173
300	Achieving high power factor and output power density in p-type half-Heuslers Nb1-xTixFeSb. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 13576-13581	11.5	164
299	Modeling study of thermoelectric SiGe nanocomposites. *Physical Review B*, **2009**, 80,	3.3	160
298	Effect of Hf Concentration on Thermoelectric Properties of Nanostructured N-Type Half-Heusler Materials HfxZr1−xNiSn0.99Sb0.01. *Advanced Energy Materials*, **2013**, 3, 1210-1214	21.8	158
297	Discovery of TaFeSb-based half-Heuslers with high thermoelectric performance. *Nature Communications*, **2019**, 10, 270	17.4	155
296	Discovery of ZrCoBi based half Heuslers with high thermoelectric conversion efficiency. *Nature Communications*, **2018**, 9, 2497	17.4	154
295	Size effect in thermoelectric materials. *Npj Quantum Materials*, **2016**, 1,	5	154
294	n-type thermoelectric material Mg2Sn0.75Ge0.25 for high power generation. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 3269-74	11.5	152
293	Effects of nanoscale porosity on thermoelectric properties of SiGe. *Journal of Applied Physics*, **2010**, 107, 094308	2.5	152
292	Three-Dimensional Nanoporous Iron Nitride Film as an Efficient Electrocatalyst for Water Oxidation. *ACS Catalysis*, **2017**, 7, 2052-2057	13.1	151
291	Ternary Ni2(1-x)Mo2xP nanowire arrays toward efficient and stable hydrogen evolution electrocatalysis under large-current-density. *Nano Energy*, **2018**, 53, 492-500	17.1	148

290	Growth of aligned carbon nanotubes with controlled site density. *Applied Physics Letters*, **2002**, 80, 4018-4020	3.4	148
289	Grain Boundary Engineering for Achieving High Thermoelectric Performance in n-Type Skutterudites. *Advanced Energy Materials*, **2017**, 7, 1602582	21.8	146
288	Capillary-Force-Induced Cold Welding in Silver-Nanowire-Based Flexible Transparent Electrodes. *Nano Letters*, **2017**, 17, 1090-1096	11.5	145
287	Vertically Aligned MoS2/Mo2C hybrid Nanosheets Grown on Carbon Paper for Efficient Electrocatalytic Hydrogen Evolution. *ACS Catalysis*, **2017**, 7, 7312-7318	13.1	141
286	Outstanding hydrogen evolution reaction catalyzed by porous nickel diselenide electrocatalysts. *Energy and Environmental Science*, **2017**, 10, 1487-1492	35.4	138
285	NbFeSb-based p-type half-Heuslers for power generation applications. *Energy and Environmental Science*, **2014**, 7, 4070-4076	35.4	137
284	Heterogeneous Bimetallic Phosphide Ni 2 P-Fe 2 P as an Efficient Bifunctional Catalyst for Water/Seawater Splitting. *Advanced Functional Materials*, **2021**, 31, 2006484	15.6	134
283	Growth of large periodic arrays of carbon nanotubes. *Applied Physics Letters*, **2003**, 82, 460-462	3.4	133
282	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	11.5	130
281	Defect Engineering for Realizing High Thermoelectric Performance in n-Type Mg3Sb2-Based Materials. *ACS Energy Letters*, **2017**, 2, 2245-2250	20.1	130
280	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, 7711-6	11.5	129
279	Nanoelectrode Arrays Based on Low Site Density Aligned Carbon Nanotubes. *Nano Letters*, **2003**, 3, 107-109	11.5	127
278	Importance of high power factor in thermoelectric materials for power generation application: A perspective. *Scripta Materialia*, **2016**, 111, 3-9	5.6	122
277	Enhanced Thermal Stability of W-Ni-Al2O3 Cermet-Based Spectrally Selective Solar Absorbers with Tungsten Infrared Reflectors. *Advanced Energy Materials*, **2015**, 5, 1401042	21.8	120
276	Trimetallic NiFeMo for Overall Electrochemical Water Splitting with a Low Cell Voltage. *ACS Energy Letters*, **2018**, 3, 546-554	20.1	120
275	Thermoelectric Property Study of Nanostructured p-Type Half-Heuslers (Hf, Zr, Ti)CoSb0.8Sn0.2. *Advanced Energy Materials*, **2013**, 3, 1195-1200	21.8	119
274	The bridge between the materials and devices of thermoelectric power generators. *Energy and Environmental Science*, **2017**, 10, 69-85	35.4	115
273	High thermoelectric conversion efficiency of MgAgSb-based material with hot-pressed contacts. *Energy and Environmental Science*, **2015**, 8, 1299-1308	35.4	114

272	Deep defect level engineering: a strategy of optimizing the carrier concentration for high thermoelectric performance. *Energy and Environmental Science*, **2018**, 11, 933-940	35.4	110
271	Improved thermoelectric performance of n-type half-Heusler MCo1-xNixSb (M = Hf, Zr). *Materials Today Physics*, **2017**, 1, 24-30	8	110
270	Highly Efficient Hydrogen Evolution from Edge-Oriented WSSe Particles on Three-Dimensional Porous NiSe Foam. *Nano Letters*, **2016**, 16, 7604-7609	11.5	109
269	Higher thermoelectric performance of Zintl phases (Eu0.5Yb0.5)1-xCaxMg2Bi2 by band engineering and strain fluctuation. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, E4125-32	11.5	109
268	Physics and applications of aligned carbon nanotubes. *Advances in Physics*, **2011**, 60, 553-678	18.4	108
267	Surface phase separation in nanosized charge-ordered manganites. *Applied Physics Letters*, **2007**, 90, 082508	3.4	108
266	Amorphous NiFe layered double hydroxide nanosheets decorated on 3D nickel phosphide nanoarrays: a hierarchical core□shell electrocatalyst for efficient oxygen evolution. *Journal of Materials Chemistry A*, **2018**, 6, 13619-13623	13	105
265	Recent progress in half-Heusler thermoelectric materials. *Materials Research Bulletin*, **2016**, 76, 107-112	5.1	104
264	Straight carbon nanotube Y junctions. *Applied Physics Letters*, **2001**, 79, 1879-1881	3.4	102
263	Atypical Oxygen-Bearing Copper Boosts Ethylene Selectivity toward Electrocatalytic CO Reduction. *Journal of the American Chemical Society*, **2020**, 142, 11417-11427	16.4	99
262	Thermoelectric cooling materials. *Nature Materials*, **2021**, 20, 454-461	27	97
261	Lithium Doping to Enhance Thermoelectric Performance of MgAgSb with Weak Electron□Phonon Coupling. *Advanced Energy Materials*, **2016**, 6, 1502269	21.8	96
260	High thermoelectric performance of □MgAgSb for power generation. *Energy and Environmental Science*, **2018**, 11, 23-44	35.4	94
259	A TiO/FeMnP Core/Shell Nanorod Array Photoanode for Efficient Photoelectrochemical Oxygen Evolution. *ACS Nano*, **2017**, 11, 4051-4059	16.7	93
258	Solubility study of Yb in n-type skutterudites YbxCo4Sb12 and their enhanced thermoelectric properties. *Physical Review B*, **2009**, 80,	3.3	92
257	Thermoelectric properties of Na-doped Zintl compound: Mg3□Na Sb2. *Acta Materialia*, **2015**, 93, 187-193	8.4	91
256	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	13	90
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254	Bifunctional metal phosphide FeMnP films from single source metal organic chemical vapor deposition for efficient overall water splitting. *Nano Energy*, **2017**, 39, 444-453	17.1	89
253	Bio-inspired networks for optoelectronic applications. *Nature Communications*, **2014**, 5, 5674	17.4	89
252	Study of the thermoelectric properties of lead selenide doped with boron, gallium, indium, or thallium. *Journal of the American Chemical Society*, **2012**, 134, 17731-8	16.4	89
251	Hierarchical oxide nanostructures. *Journal of Materials Chemistry*, **2004**, 14, 770		89
250	Enhancement of thermoelectric figure-of-merit at low temperatures by titanium substitution for hafnium in n-type half-Heuslers Hf0.75□TixZr0.25NiSn0.99Sb0.01. *Nano Energy*, **2013**, 2, 82-87	17.1	86
249	Thermoelectric properties of materials near the band crossing line in Mg2Sn□Mg2Ge□Mg2Si system. *Acta Materialia*, **2016**, 103, 633-642	8.4	85
248	Significant Role of Mg Stoichiometry in Designing High Thermoelectric Performance for Mg(Sb,Bi)-Based n-Type Zintls. *Journal of the American Chemical Society*, **2018**, 140, 1910-1915	16.4	82
247	Nano-microstructural control of phonon engineering for thermoelectric energy harvesting. *MRS Bulletin*, **2018**, 43, 181-186	3.2	80
246	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, 101910	3.4	80
245	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	35.4	78
244	Large thermoelectric power factor from crystal symmetry-protected non-bonding orbital in half-Heuslers. *Nature Communications*, **2018**, 9, 1721	17.4	77
243	Efficient nanocoax-based solar cells. *Physica Status Solidi - Rapid Research Letters*, **2010**, 4, 181-183	2.5	77
242	Enhancement of Thermoelectric Performance of n-Type PbSe by Cr Doping with Optimized Carrier Concentration. *Advanced Energy Materials*, **2015**, 5, 1401977	21.8	76
241	Fast phase formation of double-filled p-type skutterudites by ball-milling and hot-pressing. *Physical Chemistry Chemical Physics*, **2013**, 15, 6809-16	3.6	74
240	Realization of higher thermoelectric performance by dynamic doping of copper in n-type PbTe. *Energy and Environmental Science*, **2019**, 12, 3089-3098	35.4	73
239	Skutterudite Unicouple Characterization for Energy Harvesting Applications. *Advanced Energy Materials*, **2013**, 3, 245-251	21.8	73
238	Visible-light driven CO2 reduction coupled with water oxidation on Cl-doped Cu2O nanorods. *Nano Energy*, **2019**, 60, 576-582	17.1	71
237	Fatigue-free, superstretchable, transparent, and biocompatible metal electrodes. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 12332-7	11.5	71

236	Recent progress towards high performance of tin chalcogenide thermoelectric materials. *Journal of Materials Chemistry A*, **2018**, 6, 2432-2448	13	71
235	Hydrogen Generation from Seawater Electrolysis over a Sandwich-like NiCoN|NixP|NiCoN Microsheet Array Catalyst. *ACS Energy Letters*, **2020**, 5, 2681-2689	20.1	71
234	Thermoelectric properties of Bi-based Zintl compounds Ca1−xYbxMg2Bi2. *Journal of Materials Chemistry A*, **2016**, 4, 4312-4320	13	69
233	New insight into the material parameter B to understand the enhanced thermoelectric performance of Mg2Sn1−x−yGexSby. *Energy and Environmental Science*, **2016**, 9, 530-539	35.4	68
232	Anomalous electrical conductivity of n-type Te-doped Mg3.2Sb1.5Bi0.5. *Materials Today Physics*, **2017**, 3, 1-6	8	67
231	A universal synthesis strategy to make metal nitride electrocatalysts for hydrogen evolution reaction. *Journal of Materials Chemistry A*, **2019**, 7, 19728-19732	13	67
230	Correlation of field emission and surface microstructure of vertically aligned carbon nanotubes. *Applied Physics Letters*, **2004**, 84, 413-415	3.4	67
229	Full-scale computation for all the thermoelectric property parameters of half-Heusler compounds. *Scientific Reports*, **2016**, 6, 22778	4.9	67
228	Highly active and durable self-standing WS2/graphene hybrid catalysts for the hydrogen evolution reaction. *Journal of Materials Chemistry A*, **2016**, 4, 9472-9476	13	66
227	Highly Efficient Hydrogen Evolution from a Mesoporous Hybrid of Nickel Phosphide Nanoparticles Anchored on Cobalt Phosphosulfide/Phosphide Nanosheet Arrays. *Small*, **2019**, 15, e1804272	11	65
226	Study on thermoelectric performance by Na doping in nanostructured Mg1-xNaxAg0.97Sb0.99. *Nano Energy*, **2015**, 11, 640-646	17.1	64
225	In Situ Synthesis of Efficient Water Oxidation Catalysts in Laser-Induced Graphene. *ACS Energy Letters*, **2018**, 3, 677-683	20.1	64
224	Oxidized Laser-Induced Graphene for Efficient Oxygen Electrocatalysis. *Advanced Materials*, **2018**, 30, e1707319	24	63
223	Atomic Disorders Induced by Silver and Magnesium Ion Migrations Favor High Thermoelectric Performance in □MgAgSb-Based Materials. *Advanced Functional Materials*, **2015**, 25, 6478-6488	15.6	61
222	High thermoelectric performance of superionic argyrodite compound Ag8SnSe6. *Journal of Materials Chemistry C*, **2016**, 4, 5806-5813	7.1	60
221	Using the 18-Electron Rule To Understand the Nominal 19-Electron Half-Heusler NbCoSb with Nb Vacancies. *Chemistry of Materials*, **2017**, 29, 1210-1217	9.6	59
220	Zintl-phase EuZnSb: 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	11.5	59
219	Secondary Oil Recovery Using Graphene-Based Amphiphilic Janus Nanosheet Fluid at an Ultralow Concentration. *Industrial & Engineering Chemistry Research*, **2017**, 56, 11125-11132	3.9	59

218	Growth and characterization of aligned carbon nanotubes from patterned nickel nanodots and uniform thin films. *Journal of Materials Research*, **2001**, 16, 3246-3253	2.5	58
217	Effect of selenium deficiency on the thermoelectric properties of n-type In4Se3□ compounds. *Physical Review B*, **2011**, 83,	3.3	57
216	Tellurium doped n-type Zintl Zr3Ni3Sb4 thermoelectric materials: Balance between carrier-scattering mechanism and bipolar effect. *Materials Today Physics*, **2017**, 2, 54-61	8	56
215	A new n-type half-Heusler thermoelectric material NbCoSb. *Materials Research Bulletin*, **2015**, 70, 773-778	5.1	56
214	High thermoelectric power factor in CuNi alloy originate from potential barrier scattering of twin boundaries. *Nano Energy*, **2015**, 17, 279-289	17.1	56
213	Modeling of concentrating solar thermoelectric generators. *Journal of Applied Physics*, **2011**, 110, 074502	2.5	56
212	Phonon scattering by nanoscale twin boundaries. *Nano Energy*, **2017**, 32, 174-179	17.1	54
211	Enhancement of thermoelectric performance of phase pure Zintl compounds Ca1−xYb Zn2Sb2, Ca1−xEu Zn2Sb2, and Eu1−xYb Zn2Sb2 by mechanical alloying and hot pressing. *Nano Energy*, **2016**, 25, 136-144	17.1	54
210	Using Block Copolymer Micellar Thin Films as Templates for the Production of Catalysts for Carbon Nanotube Growth. *Chemistry of Materials*, **2004**, 16, 5589-5595	9.6	54
209	Experimental study of the proposed super-thermal-conductor: BAs. *Applied Physics Letters*, **2015**, 106, 074105	3.4	52
208	Highly efficient hydrogen evolution by self-standing nickel phosphide-based hybrid nanosheet arrays electrocatalyst. *Materials Today Physics*, **2018**, 4, 1-6	8	52
207	Robust Hydrogen-Evolving Electrocatalyst from Heterogeneous Molybdenum Disulfide-Based Catalyst. *ACS Catalysis*, **2020**, 10, 1511-1519	13.1	52
206	Orientation Control of Graphene Flakes by Magnetic Field: Broad Device Applications of Macroscopically Aligned Graphene. *Advanced Materials*, **2017**, 29, 1604453	24	50
205	Mechanical properties of nanostructured thermoelectric materials □MgAgSb. *Scripta Materialia*, **2017**, 127, 72-75	5.6	50
204	Robust and selective electrochemical reduction of CO2: the case of integrated 3D TiO2@MoS2 architectures and Ti□ bonding effects. *Journal of Materials Chemistry A*, **2018**, 6, 4706-4713	13	49
203	High thermoelectric performance of n-type PbTe1−□ due to deep lying states induced by indium doping and spinodal decomposition. *Nano Energy*, **2016**, 22, 572-582	17.1	49
202	Studies on mechanical properties of thermoelectric materials by nanoindentation. *Physica Status Solidi (A) Applications and Materials Science*, **2015**, 212, 2191-2195	1.6	49
201	Thermoelectric properties and efficiency measurements under large temperature differences. *Review of Scientific Instruments*, **2009**, 80, 093901	1.7	49

200	Thermoelectric Properties of n-type ZrNiPb-Based Half-Heuslers. *Chemistry of Materials*, **2017**, 29, 867-872	9.6	48
199	Enhancing the Scratch Resistance by Introducing Chemical Bonding in Highly Stretchable and Transparent Electrodes. *Nano Letters*, **2016**, 16, 594-600	11.5	48
198	Theoretical studies on the thermoelectric figure of merit of nanograined bulk silicon. *Applied Physics Letters*, **2010**, 97, 063109	3.4	48
197	Enhanced thermoelectric properties of n-type NbCoSn half-Heusler by improving phase purity. *APL Materials*, **2016**, 4, 104804	5.7	48
196	Realizing high conversion efficiency of Mg3Sb2-based thermoelectric materials. *Journal of Power Sources*, **2019**, 414, 393-400	8.9	47
195	Investigation of the bipolar effect in the thermoelectric material CaMg2Bi2 using a first-principles study. *Physical Chemistry Chemical Physics*, **2016**, 18, 16566-74	3.6	47
194	Optimizing the thermoelectric performance of low-temperature SnSe compounds by electronic structure design. *Journal of Materials Chemistry A*, **2015**, 3, 13365-13370	13	47
193	Enhancement of thermoelectric performance across the topological phase transition in dense lead selenide. *Nature Materials*, **2019**, 18, 1321-1326	27	47
192	Sustainable Synthesis of Bright Green Fluorescent Nitrogen-Doped Carbon Quantum Dots from Alkali Lignin. *ChemSusChem*, **2019**, 12, 4202-4210	8.3	46
191	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	5.7	45
190	Effect of Cu concentration on thermoelectric properties of nanostructured p-type MgAg0.97Cu Sb0.99. *Acta Materialia*, **2015**, 87, 266-272	8.4	45
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