G. Jeffrey Snyder

List of Publications by Citations

577 papers	57,032 citations	109 h-index	226 g-index
639 ext. papers	65,606 ext. citations	11.3 avg, IF	8.22 L-index

#	Paper	IF	Citations
577	Complex thermoelectric materials. *Nature Materials*, **2008**, 7, 105-14	27	7422
576	Enhancement of thermoelectric efficiency in PbTe by distortion of the electronic density of states. *Science*, **2008**, 321, 554-7	33.3	2900
575	Convergence of electronic bands for high performance bulk thermoelectrics. *Nature*, **2011**, 473, 66-9	50.4	2611
574	Copper ion liquid-like thermoelectrics. *Nature Materials*, **2012**, 11, 422-5	27	1339
573	Ultrahigh power factor and thermoelectric performance in hole-doped single-crystal SnSe. *Science*, **2016**, 351, 141-4	33.3	1237
572	Thermoelectrics. Dense dislocation arrays embedded in grain boundaries for high-performance bulk thermoelectrics. *Science*, **2015**, 348, 109-14	33.3	1163
571	Band engineering of thermoelectric materials. *Advanced Materials*, **2012**, 24, 6125-35	24	998
570	Characterization of Lorenz number with Seebeck coefficient measurement. *APL Materials*, **2015**, 3, 041506	5.7	827
569	Compromise and Synergy in High-Efficiency Thermoelectric Materials. *Advanced Materials*, **2017**, 29, 1605884	24	742
568	Disordered zinc in Zn4Sb3 with phonon-glass and electron-crystal thermoelectric properties. *Nature Materials*, **2004**, 3, 458-63	27	690
567	Yb14MnSb11: New High Efficiency Thermoelectric Material for Power Generation. *Chemistry of Materials*, **2006**, 18, 1873-1877	9.6	650
566	Intrinsic electrical transport and magnetic properties of La0.67Ca0.33MnO3 and La0.67Sr0.33MnO3 MOCVD thin films and bulk material. *Physical Review B*, **1996**, 53, 14434-14444	3.3	590
565	Phonon engineering through crystal chemistry. *Journal of Materials Chemistry*, **2011**, 21, 15843		567
564	High thermoelectric figure of merit in heavy hole dominated PbTe. *Energy and Environmental Science*, **2011**, 4, 2085	35.4	528
563	High thermoelectric performance in non-toxic earth-abundant copper sulfide. *Advanced Materials*, **2014**, 26, 3974-8	24	501
562	Flexible n-type thermoelectric materials by organic intercalation of layered transition metal dichalcogenide TiS2. *Nature Materials*, **2015**, 14, 622-7	27	494
561	Zintl Chemistry for Designing High Efficiency Thermoelectric Materials *Chemistry of Materials*, **2010**, 22, 624-634	9.6	482

560	Thinking Like a Chemist: Intuition in Thermoelectric Materials. *Angewandte Chemie - International Edition*, **2016**, 55, 6826-41	16.4	478
559	Convergence of multi-valley bands as the electronic origin of high thermoelectric performance in CoSb3 skutterudites. *Nature Materials*, **2015**, 14, 1223-8	27	426
558	High Thermoelectric Performance in PbTe Due to Large Nanoscale Ag2Te Precipitates and La Doping. *Advanced Functional Materials*, **2011**, 21, 241-249	15.6	424
557	Thermoelectric properties of p-type polycrystalline SnSe doped with Ag. *Journal of Materials Chemistry A*, **2014**, 2, 11171-11176	13	419
556	Low effective mass leading to high thermoelectric performance. *Energy and Environmental Science*, **2012**, 5, 7963	35.4	413
555	Zintl phases for thermoelectric devices. *Dalton Transactions*, **2007**, 2099-107	4.3	413
554	Thermoelectric efficiency and compatibility. *Physical Review Letters*, **2003**, 91, 148301	7.4	409
553	Heavily doped p-type PbSe with high thermoelectric performance: an alternative for PbTe. *Advanced Materials*, **2011**, 23, 1366-70	24	392
552	Thermoelectric microdevice fabricated by a MEMS-like electrochemical process. *Nature Materials*, **2003**, 2, 528-31	27	371
551	Lead telluride alloy thermoelectrics. *Materials Today*, **2011**, 14, 526-532	21.8	358
550	Reevaluation of PbTe1−xIx as high performance n-type thermoelectric material. *Energy and Environmental Science*, **2011**, 4, 2090	35.4	324
549	Stabilizing the optimal carrier concentration for high thermoelectric efficiency. *Advanced Materials*, **2011**, 23, 5674-8	24	323
548	Zintl Phases as Thermoelectric Materials: Tuned Transport Properties of the Compounds CaxYb1−xZn2Sb2. *Advanced Functional Materials*, **2005**, 15, 1860-1864	15.6	323
547	Interfaces in bulk thermoelectric materials. *Current Opinion in Colloid and Interface Science*, **2009**, 14, 226-235	7.6	320
546	Charge-transport model for conducting polymers. *Nature Materials*, **2017**, 16, 252-257	27	316
545	Characterization and analysis of thermoelectric transport in n-type Ba8Ga16−xGe30+x. *Physical Review B*, **2009**, 80,	3.3	315
544	Weak electron-phonon coupling contributing to high thermoelectric performance in n-type PbSe. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 9705-9	11.5	303
543	Beneficial Contribution of Alloy Disorder to Electron and Phonon Transport in Half-Heusler Thermoelectric Materials. *Advanced Functional Materials*, **2013**, 23, 5123-5130	15.6	290

542	Vacancy-induced dislocations within grains for high-performance PbSe thermoelectrics. *Nature Communications*, **2017**, 8, 13828	17.4	287
541	Optimum Carrier Concentration in n-Type PbTe Thermoelectrics. *Advanced Energy Materials*, **2014**, 4, 1400486	21.8	284
540	Low-Symmetry Rhombohedral GeTe Thermoelectrics. *Joule*, **2018**, 2, 976-987	27.8	275
539	Lattice Dislocations Enhancing Thermoelectric PbTe in Addition to Band Convergence. *Advanced Materials*, **2017**, 29, 1606768	24	272
538	Traversing the Metal-Insulator Transition in a Zintl Phase: Rational Enhancement of Thermoelectric Efficiency in Yb14Mn1−xAlxSb11. *Advanced Functional Materials*, **2008**, 18, 2795-2800	15.6	262
537	The Criteria for Beneficial Disorder in Thermoelectric Solid Solutions. *Advanced Functional Materials*, **2013**, 23, 1586-1596	15.6	252
536	Anomalous Spin Scattering Effects in the Badly Metallic Itinerant Ferromagnet SrRuO3. *Physical Review Letters*, **1996**, 77, 2774-2777	7.4	251
535	Engineering half-Heusler thermoelectric materials using Zintl chemistry. *Nature Reviews Materials*, **2016**, 1,	73.3	248
534	Chalcopyrite CuGaTe(2): a high-efficiency bulk thermoelectric material. *Advanced Materials*, **2012**, 24, 3622-6	24	245
533	Distinct Impact of Alkali-Ion Doping on Electrical Transport Properties of Thermoelectric p-Type Polycrystalline SnSe. *Journal of the American Chemical Society*, **2016**, 138, 8875-82	16.4	243
532	n-Type Bi2Te3-xSex Nanoplates with Enhanced Thermoelectric Efficiency Driven by Wide-Frequency Phonon Scatterings and Synergistic Carrier Scatterings. *ACS Nano*, **2016**, 10, 4719-27	16.7	235
531	Mechanically Robust BiSbTe Alloys with Superior Thermoelectric Performance: A Case Study of Stable Hierarchical Nanostructured Thermoelectric Materials. *Advanced Energy Materials*, **2015**, 5, 1401391	21.8	232
530	Matminer: An open source toolkit for materials data mining. *Computational Materials Science*, **2018**, 152, 60-69	3.2	221
529	A high temperature apparatus for measurement of the Seebeck coefficient. *Review of Scientific Instruments*, **2011**, 82, 063905	1.7	220
528	The Thermoelectric Properties of Bismuth Telluride. *Advanced Electronic Materials*, **2019**, 5, 1800904	6.4	219
527	Ultrahigh thermoelectric performance in Cu2Se-based hybrid materials with highly dispersed molecular CNTs. *Energy and Environmental Science*, **2017**, 10, 1928-1935	35.4	215
526	Measuring thermoelectric transport properties of materials. *Energy and Environmental Science*, **2015**, 8, 423-435	35.4	210
525	High Thermoelectric Figure of Merit in PbTe Alloys Demonstrated in PbTe-CdTe. *Advanced Energy Materials*, **2012**, 2, 670-675	21.8	208

524	Thermoelectric performance of lanthanum telluride produced via mechanical alloying. *Physical Review B*, **2008**, 78,	3.3	201
523	Thermodynamics of Thermoelectric Phenomena and Applications. *Entropy*, **2011**, 13, 1481-1517	2.8	200
522	High Band Degeneracy Contributes to High Thermoelectric Performance in p-Type Half-Heusler Compounds. *Advanced Energy Materials*, **2014**, 4, 1400600	21.8	198
521	Thermopower enhancement in Pb1−MnxTe alloys and its effect on thermoelectric efficiency. *NPG Asia Materials*, **2012**, 4, e28-e28	10.3	195
520	Self-Tuning the Carrier Concentration of PbTe/Ag2Te Composites with Excess Ag for High Thermoelectric Performance. *Advanced Energy Materials*, **2011**, 1, 291-296	21.8	192
519	Application of the compatibility factor to the design of segmented and cascaded thermoelectric generators. *Applied Physics Letters*, **2004**, 84, 2436-2438	3.4	192
518	Skutterudite with graphene-modified grain-boundary complexion enhances zT enabling high-efficiency thermoelectric device. *Energy and Environmental Science*, **2017**, 10, 183-191	35.4	191
517	Tuning bands of PbSe for better thermoelectric efficiency. *Energy and Environmental Science*, **2014**, 7, 804-811	35.4	188
516	Concentrated solar thermoelectric generators. *Energy and Environmental Science*, **2012**, 5, 9055	35.4	187
515	Optimization of thermoelectric efficiency in SnTe: the case for the light band. *Physical Chemistry Chemical Physics*, **2014**, 16, 20741-8	3.6	186
514	Measurement of the electrical resistivity and Hall coefficient at high temperatures. *Review of Scientific Instruments*, **2012**, 83, 123902	1.7	186
513	Low Electron Scattering Potentials in High Performance Mg2Si0.45Sn0.55 Based Thermoelectric Solid Solutions with Band Convergence. *Advanced Energy Materials*, **2013**, 3, 1238-1244	21.8	186
512	Phase Boundary Mapping to Obtain n-type Mg3Sb2-Based Thermoelectrics. *Joule*, **2018**, 2, 141-154	27.8	186
511	Cu2ZnGeSe4 nanocrystals: synthesis and thermoelectric properties. *Journal of the American Chemical Society*, **2012**, 134, 4060-3	16.4	182
510	Figure of merit ZT of a thermoelectric device defined from materials properties. *Energy and Environmental Science*, **2017**, 10, 2280-2283	35.4	180
509	Mechanochemical synthesis and thermoelectric properties of high quality magnesium silicide. *Journal of Materials Chemistry*, **2011**, 21, 12259		179
508	Ca3AlSb3: an inexpensive, non-toxic thermoelectric material for waste heat recovery. *Energy and Environmental Science*, **2011**, 4, 510-518	35.4	178
507	Electronic structure and transport in thermoelectric compounds AZn2Sb2 (A = Sr, Ca, Yb, Eu). *Dalton Transactions*, **2010**, 39, 1046-54	4.3	166

506	Ultrahigh Thermoelectric Performance in Mosaic Crystals. *Advanced Materials*, **2015**, 27, 3639-44	24	163
505	The intrinsic disorder related alloy scattering in ZrNiSn half-Heusler thermoelectric materials. *Scientific Reports*, **2014**, 4, 6888	4.9	161
504	Grain boundary dominated charge transport in Mg3Sb2-based compounds. *Energy and Environmental Science*, **2018**, 11, 429-434	35.4	157
503	Weighted Mobility. *Advanced Materials*, **2020**, 32, e2001537	24	156
502	The Zintl Compound Ca5Al2Sb6 for Low-Cost Thermoelectric Power Generation. *Advanced Functional Materials*, **2010**, 20, 4375-4380	15.6	156
501	A practical field guide to thermoelectrics: Fundamentals, synthesis, and characterization. *Applied Physics Reviews*, **2018**, 5, 021303	17.3	156
500	High Thermoelectric Performance SnTe□h2Te3 Solid Solutions Enabled by Resonant Levels and Strong Vacancy Phonon Scattering. *Chemistry of Materials*, **2015**, 27, 7801-7811	9.6	155
499	Interstitial Zn atoms do the trick in thermoelectric zinc antimonide, Zn4Sb3: a combined maximum entropy method X-ray electron density and ab initio electronic structure study. *Chemistry - A European Journal*, **2004**, 10, 3861-70	4.8	151
498	High Thermoelectric Efficiency of n-type PbS. *Advanced Energy Materials*, **2013**, 3, 488-495	21.8	149
497	Anneal-tunable Curie temperature and transport of La0.67Ca0.33MnO3. *Journal of Applied Physics*, **1996**, 80, 5158-5161	2.5	148
496	Compliant and stretchable thermoelectric coils for energy harvesting in miniature flexible devices. *Science Advances*, **2018**, 4, eaau5849	14.3	147
495	Optical band gap and the Burstein□Moss effect in iodine doped PbTe using diffuse reflectance infrared Fourier transform spectroscopy. *New Journal of Physics*, **2013**, 15, 075020	2.9	143
494	Direct Electrodeposition of Highly Dense 50 nm Bi2Te3-ySey Nanowire Arrays. *Nano Letters*, **2003**, 3, 973-977	11.5	140
493	Understanding thermoelectric properties from high-throughput calculations: trends, insights, and comparisons with experiment. *Journal of Materials Chemistry C*, **2016**, 4, 4414-4426	7.1	139
492	Combination of large nanostructures and complex band structure for high performance thermoelectric lead telluride. *Energy and Environmental Science*, **2011**, 4, 3640	35.4	137
491	High-temperature electrical and thermal transport properties of fully filled skutterudites RFe4Sb12 (R = Ca, Sr, Ba, La, Ce, Pr, Nd, Eu, and Yb). *Journal of Applied Physics*, **2011**, 109, 063713	2.5	137
490	Band gap estimation from temperature dependent Seebeck measurement□Deviations from the 2e|S|maxTmax relation. *Applied Physics Letters*, **2015**, 106, 022112	3.4	135
489	Minimum thermal conductivity in the context of diffuson-mediated thermal transport. *Energy and Environmental Science*, **2018**, 11, 609-616	35.4	129

488	High thermoelectric and mechanical performance in highly dense Cu2S bulks prepared by a melt-solidification technique. *Journal of Materials Chemistry A*, **2015**, 3, 9432-9437	13	129
487	Local structure, transport, and rare-earth magnetismin the ferrimagnetic perovskite Gd0.67 Ca0.33 MnO3s. *Physical Review B*, **1997**, 55, 6453-6459	3.3	129
486	High temperature thermoelectric efficiency in Ba8Ga16Ge30. *Physical Review B*, **2008**, 77,	3.3	129
485	Self-Assembled Nanometer Lamellae of Thermoelectric PbTe and Sb2Te3 with Epitaxy-like Interfaces. *Chemistry of Materials*, **2007**, 19, 763-767	9.6	129
484	Unique Role of Refractory Ta Alloying in Enhancing the Figure of Merit of NbFeSb Thermoelectric Materials. *Advanced Energy Materials*, **2018**, 8, 1701313	21.8	128
483	Elemental tellurium as a chiral p-type thermoelectric material. *Physical Review B*, **2014**, 89,	3.3	126
482	Composition and the thermoelectric performance of Zn4Sb3. *Journal of Materials Chemistry*, **2010**, 20, 9877		125
481	Temperature dependent band gap in PbX (X = S, Se, Te). *Applied Physics Letters*, **2013**, 103, 262109	3.4	124
480	Improved Thermoelectric Performance in Yb14Mn1ZnxSb11 by the Reduction of Spin-Disorder Scattering. *Chemistry of Materials*, **2008**, 20, 3412-3419	9.6	124
479	High thermoelectric performance in (Bi0.25Sb0.75)2Te3 due to band convergence and improved by carrier concentration control. *Materials Today*, **2017**, 20, 452-459	21.8	119
478	Thermoelectric transport in Cu7PSe6 with high copper ionic mobility. *Journal of the American Chemical Society*, **2014**, 136, 12035-40	16.4	118
477	Influence of a nano phase segregation on the thermoelectric properties of the p-type doped stannite compound Cu(2+x)Zn(1-x)GeSe4. *Journal of the American Chemical Society*, **2012**, 134, 7147-54	16.4	118
476	Thermoelectric properties and microstructure of Mg3Sb2. *Journal of Solid State Chemistry*, **2006**, 179, 2252-2257	3.3	118
475	Influence of band structure on the large thermoelectric performance of lanthanum telluride. *Physical Review B*, **2009**, 79,	3.3	117
474	Enhanced Thermoelectric Performance through Tuning Bonding Energy in Cu2Se1Sx Liquid-like Materials. *Chemistry of Materials*, **2017**, 29, 6367-6377	9.6	115
473	Supercooling of Peltier cooler using a current pulse. *Journal of Applied Physics*, **2002**, 92, 1564-1569	2.5	115
472	Boosting the thermoelectric performance of PbSe through dynamic doping and hierarchical phonon scattering. *Energy and Environmental Science*, **2018**, 11, 1848-1858	35.4	112
471	Alloying to increase the band gap for improving thermoelectric properties of Ag2Te. *Journal of Materials Chemistry*, **2011**, 21, 18256		112

470	Chemical Stability of (Ag,Cu)2Se: a Historical Overview. *Journal of Electronic Materials*, **2013**, 42, 2014-2019	1.9	111
469	Thermoelectric properties of Sr3GaSb3 – a chain-forming Zintl compound. *Energy and Environmental Science*, **2012**, 5, 9121	35.4	110
468	Solubility design leading to high figure of merit in low-cost Ce-CoSb3 skutterudites. *Nature Communications*, **2015**, 6, 7584	17.4	109
467	Rapid Microwave Preparation of Thermoelectric TiNiSn and TiCoSb Half-Heusler Compounds. *Chemistry of Materials*, **2012**, 24, 2558-2565	9.6	109
466	Band engineering in Mg3Sb2 by alloying with Mg3Bi2 for enhanced thermoelectric performance. *Materials Horizons*, **2018**, 5, 59-64	14.4	109
465	High thermoelectric efficiency in lanthanum doped Yb14MnSb11. *Applied Physics Letters*, **2008**, 93, 062110	3.4	107
464	Enhanced thermoelectric properties in bulk nanowire heterostructure-based nanocomposites through minority carrier blocking. *Nano Letters*, **2015**, 15, 1349-55	11.5	106
463	Rapid consolidation of powdered materials by induction hot pressing. *Review of Scientific Instruments*, **2011**, 82, 025104	1.7	105
462	Demonstration of a phonon-glass electron-crystal strategy in (Hf,Zr)NiSn half-Heusler thermoelectric materials by alloying. *Journal of Materials Chemistry A*, **2015**, 3, 22716-22722	13	101
461	Achieving zT > 1 in Inexpensive Zintl Phase Ca9Zn4+xSb9 by Phase Boundary Mapping. *Advanced Functional Materials*, **2017**, 27, 1606361	15.6	98
460	Suppression of atom motion and metal deposition in mixed ionic electronic conductors. *Nature Communications*, **2018**, 9, 2910	17.4	97
459	Exceptional thermoelectric performance in Mg3Sb0.6Bi1.4 for low-grade waste heat recovery. *Energy and Environmental Science*, **2019**, 12, 965-971	35.4	97
458	Phase diagram of In–Co–Sb system and thermoelectric properties of In-containing skutterudites. *Energy and Environmental Science*, **2014**, 7, 812-819	35.4	96
457	Glass-like lattice thermal conductivity and high thermoelectric efficiency in Yb9Mn4.2Sb9. *Journal of Materials Chemistry A*, **2014**, 2, 215-220	13	96
456	Surfactant-free synthesis of Bi2Te3-Te micro-nano heterostructure with enhanced thermoelectric figure of merit. *ACS Nano*, **2011**, 5, 3158-65	16.7	96
455	Melt-Centrifuged (Bi,Sb) Te : Engineering Microstructure toward High Thermoelectric Efficiency. *Advanced Materials*, **2018**, 30, e1802016	24	95
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453	Dislocation strain as the mechanism of phonon scattering at grain boundaries. *Materials Horizons*, **2016**, 3, 234-240	14.4	94

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451	Transient cooling of thermoelectric coolers and its applications for microdevices. *Energy Conversion and Management*, **2005**, 46, 1407-1421	10.6	94
450	Effective mass and Fermi surface complexity factor from ab initio band structure calculations. *Npj Computational Materials*, **2017**, 3,	10.9	92
449	Lattice Softening Significantly Reduces Thermal Conductivity and Leads to High Thermoelectric Efficiency. *Advanced Materials*, **2019**, 31, e1900108	24	91
448	Defect-controlled electronic properties in AZn$_{x}$Sb$_{z}$ Zintl phases. *Angewandte Chemie - International Edition*, **2014**, 53, 3422-6	16.4	91
447	Phase transition enhanced thermoelectric figure-of-merit in copper chalcogenides. *APL Materials*, **2013**, 1, 052107	5.7	91
446	High Thermoelectric Performance in SnTe$_{x}$AgSbTe2 Alloys from Lattice Softening, Giant Phonon$_{x}$Vacancy Scattering, and Valence Band Convergence. *ACS Energy Letters*, **2018**, 3, 705-712	20.1	90
445	Charge-Compensated Compound Defects in Ga-containing Thermoelectric Skutterudites. *Advanced Functional Materials*, **2013**, 23, 3194-3203	15.6	90
444	An ab initio electronic transport database for inorganic materials. *Scientific Data*, **2017**, 4, 170085	8.2	89
443	Realizing high-performance thermoelectric power generation through grain boundary engineering of skutterudite-based nanocomposites. *Nano Energy*, **2017**, 41, 501-510	17.1	87
442	Thermoelectric properties of Sn-doped p-type Cu3SbSe4: a compound with large effective mass and small band gap. *Journal of Materials Chemistry A*, **2014**, 2, 13527-13533	13	87
441	Highly Porous Thermoelectric Nanocomposites with Low Thermal Conductivity and High Figure of Merit from Large-Scale Solution-Synthesized Bi Te Se Hollow Nanostructures. *Angewandte Chemie - International Edition*, **2017**, 56, 3546-3551	16.4	86
440	Discovery of High-Performance Thermoelectric Chalcogenides through Reliable High-Throughput Material Screening. *Journal of the American Chemical Society*, **2018**, 140, 10785-10793	16.4	86
439	Complex thermoelectric materials **2010**, 101-110		86
438	Enhancement of average thermoelectric figure of merit by increasing the grain-size of Mg3.2Sb1.5Bi0.49Te0.01. *Applied Physics Letters*, **2018**, 112, 033903	3.4	85
437	Structure, Heat Capacity, and High-Temperature Thermal Properties of Yb14Mn1$_{x}$AlxSb11. *Chemistry of Materials*, **2009**, 21, 1354-1360	9.6	84
436	Evaluating the potential for high thermoelectric efficiency of silver selenide. *Journal of Materials Chemistry C*, **2013**, 1, 7568	7.1	83
435	Synergistic modulation of mobility and thermal conductivity in (Bi,Sb)2Te3 towards high thermoelectric performance. *Energy and Environmental Science*, **2019**, 12, 624-630	35.4	82

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433	Nonstoichiometry in the Zintl Phase Yb1−xZn2Sb2 as a Route to Thermoelectric Optimization. *Chemistry of Materials*, **2014**, 26, 5710-5717	9.6	81
432	Effect of isovalent substitution on the thermoelectric properties of the Cu2ZnGeSe(4-x)S(x) series of solid solutions. *Journal of the American Chemical Society*, **2014**, 136, 442-8	16.4	80
431	Enhanced Thermoelectric Performance in 18-Electron Nb0.8CoSb Half-Heusler Compound with Intrinsic Nb Vacancies. *Advanced Functional Materials*, **2018**, 28, 1705845	15.6	79
430	Small Thermoelectric Generators. *Electrochemical Society Interface*, **2008**, 17, 54-56	3.6	79
429	Thermoelectric alloys between PbSe and PbS with effective thermal conductivity reduction and high figure of merit. *Journal of Materials Chemistry A*, **2014**, 2, 3169	13	78
428	Optimization principles and the figure of merit for triboelectric generators. *Science Advances*, **2017**, 3, eaap8576	14.3	78
427	Thermoelectric transport properties of diamond-like Cu1−xFe1+xS2 tetrahedral compounds. *Journal of Applied Physics*, **2014**, 116, 203705	2.5	78
426	Phonon density of states and heat capacity of La3−xTe4. *Physical Review B*, **2009**, 80,	3.3	78
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424	Resolving the true band gap of ZrNiSn half-Heusler thermoelectric materials. *Materials Horizons*, **2015**, 2, 68-75	14.4	76
423	Significant enhancement of figure-of-merit in carbon-reinforced Cu2Se nanocrystalline solids. *Nano Energy*, **2017**, 41, 164-171	17.1	76
422	High-Efficiency and Stable Thermoelectric Module Based on Liquid-Like Materials. *Joule*, **2019**, 3, 1538-1548	27.8	75
421	Enhanced stability and thermoelectric figure-of-merit in copper selenide by lithium doping. *Materials Today Physics*, **2017**, 1, 7-13	8	75
420	Impact of Ni content on the thermoelectric properties of half-Heusler TiNiSn. *Energy and Environmental Science*, **2018**, 11, 311-320	35.4	73
419	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
418	Temperature dependent solubility of Yb in YbyCoSb3 skutterudite and its effect on preparation, optimization and lifetime of thermoelectrics. *Journal of Materiomics*, **2015**, 1, 75-84	6.7	72
417	Computational and experimental investigation of TmAgTe2 and XYZ2 compounds, a new group of thermoelectric materials identified by first-principles high-throughput screening. *Journal of Materials Chemistry C*, **2015**, 3, 10554-10565	7.1	72

416	Towards high efficiency segmented thermoelectric unicouples. *Physica Status Solidi (A) Applications and Materials Science*, **2014**, 211, 9-17	1.6	72
415	Band Sharpening and Band Alignment Enable High Quality Factor to Enhance Thermoelectric Performance in -Type PbS. *Journal of the American Chemical Society*, **2020**, 142, 4051-4060	16.4	71
414	Optimized thermoelectric properties of Mo3Sb7−xTex with significant phonon scattering by electrons. *Energy and Environmental Science*, **2011**, 4, 4086	35.4	70
413	Enhancing the thermoelectric performance of SnSe1−xTex nanoplates through band engineering. *Journal of Materials Chemistry A*, **2017**, 5, 10713-10721	13	68
412	A valence balanced rule for discovery of 18-electron half-Heuslers with defects. *Energy and Environmental Science*, **2018**, 11, 1480-1488	35.4	68
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410	A mesoporous anisotropic n-type Bi□Te□monolith with low thermal conductivity as an efficient thermoelectric material. *Advanced Materials*, **2012**, 24, 5065-70	24	68
409	Effective thermal conductivity in thermoelectric materials. *Journal of Applied Physics*, **2013**, 113, 204904	2.5	66
408	All-Inorganic Halide Perovskites as Potential Thermoelectric Materials: Dynamic Cation off-Centering Induces Ultralow Thermal Conductivity. *Journal of the American Chemical Society*, **2020**, 142, 9553-9563	16.4	64
407	Improvement of Low-Temperature zT in a Mg Sb -Mg Bi Solid Solution via Mg-Vapor Annealing. *Advanced Materials*, **2019**, 31, e1902337	24	64
406	Dopants effect on the band structure of PbTe thermoelectric material. *Applied Physics Letters*, **2012** , 101, 092102	3.4	64
405	Capturing Anharmonicity in a Lattice Thermal Conductivity Model for High-Throughput Predictions. *Chemistry of Materials*, **2017**, 29, 2494-2501	9.6	63
404	The □lectron crystal□behavior in copper chalcogenides Cu2X (X = Se, S). *Journal of Materials Chemistry A*, **2017**, 5, 5098-5105	13	63
403	Metallic n-Type Mg Sb Single Crystals Demonstrate the Absence of Ionized Impurity Scattering and Enhanced Thermoelectric Performance. *Advanced Materials*, **2020**, 32, e1908218	24	62
402	Phase stability and chemical composition dependence of the thermoelectric properties of the type-I clathrate Ba8AlxSi46−x (8≤x≤15). *Journal of Solid State Chemistry*, **2011**, 184, 1293-1303	3.3	62
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400	Waste Heat Recovery from a Marine Waste Incinerator Using a Thermoelectric Generator. *Journal of Electronic Materials*, **2012**, 41, 1024-1029	1.9	61
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