G. Jeffrey Snyder

List of Publications by Year
in descending order

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595 papers	74,018 citations	613 124 h-index	677 254 g-index
639 all docs	639 docs citations	639 times ranked	22269 citing authors

#	Article	IF	Citations
1	Complex thermoelectric materials. Nature Materials, 2008, 7, 105-114.	13.3	9,012
2	Enhancement of Thermoelectric Efficiency in PbTe by Distortion of the Electronic Density of States. Science, 2008, 321, 554-557.	6.0	3,442
3	Convergence of electronic bands for high performance bulk thermoelectrics. Nature, 2011, 473, 66-69.	13.7	3,306
4	Copper ion liquid-like thermoelectrics. Nature Materials, 2012, 11, 422-425.	13.3	1,700
5	Ultrahigh power factor and thermoelectric performance in hole-doped single-crystal SnSe. Science, 2016, 351, 141-144.	6.0	1,594
6	Dense dislocation arrays embedded in grain boundaries for high-performance bulk thermoelectrics. Science, 2015, 348, 109-114.	6.0	1,552
7	Band Engineering of Thermoelectric Materials. Advanced Materials, 2012, 24, 6125-6135.	11.1	1,307
8	Characterization of Lorenz number with Seebeck coefficient measurement. APL Materials, 2015, 3, .	2.2	1,236
9	Compromise and Synergy in Highâ€Efficiency Thermoelectric Materials. Advanced Materials, 2017, 29, 1605884.	11.1	1,098
10	Yb14MnSb11:â€‰ New High Efficiency Thermoelectric Material for Power Generation. Chemistry of Materials, 2006, 18, 1873-1877.	3.2	793
11	Disordered zinc in Zn4Sb3 with phonon-glass and electron-crystal thermoelectric properties. Nature Materials, 2004, 3, 458-463.	13.3	787
12	Phonon engineering through crystal chemistry. Journal of Materials Chemistry, 2011, 21, 15843.	6.7	719
13	Thinking Like a Chemist: Intuition in Thermoelectric Materials. Angewandte Chemie - International Edition, 2016, 55, 6826-6841.	7.2	639
14	Intrinsic electrical transport and magnetic properties ofLa0.67Ca0.33MnO3andLa0.67Sr0.33MnO3MOCVD thin films and bulk material. Physical Review B, 1996, 53, 14434-14444.	1.1	634
15	High thermoelectric figure of merit in heavy hole dominated PbTe. Energy and Environmental Science, 2011, 4, 2085.	15.6	631
16	High Thermoelectric Performance in Nonâ€Toxic Earthâ€Abundant Copper Sulfide. Advanced Materials, 2014, 26, 3974-3978.	11.1	631
17	Flexible n-type thermoelectric materials by organic intercalation of layered transition metalÂdichalcogenide TiS2. Nature Materials, 2015, 14, 622-627.	13.3	612
18	Convergence of multi-valley bands as the electronic origin of high thermoelectric performance in CoSb3 skutterudites. Nature Materials, 2015, 14, 1223-1228.	13.3	587

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19	Zintl Chemistry for Designing High Efficiency Thermoelectric Materials. Chemistry of Materials, 2010, 22, 624-634.	3.2	560
20	Low effective mass leading to high thermoelectric performance. Energy and Environmental Science, 2012, 5, 7963.	15.6	511
21	Thermoelectric Efficiency and Compatibility. Physical Review Letters, 2003, 91, 148301.	2.9	488
22	Zintl phases for thermoelectric devices. Dalton Transactions, 2007, , 2099.	1.6	488
23	Thermoelectric properties of p-type polycrystalline SnSe doped with Ag. Journal of Materials Chemistry A, 2014, 2, 11171-11176.	5.2	488
24	High Thermoelectric Performance in PbTe Due to Large Nanoscale Ag2Te Precipitates and La Doping. Advanced Functional Materials, 2011, 21, 241-249.	7.8	484
25	Heavily Doped pâ€Type PbSe with High Thermoelectric Performance: An Alternative for PbTe. Advanced Materials, 2011, 23, 1366-1370.	11.1	461
26	Matminer: An open source toolkit for materials data mining. Computational Materials Science, 2018, 152, 60-69.	1.4	446
27	The Thermoelectric Properties of Bismuth Telluride. Advanced Electronic Materials, 2019, 5, 1800904.	2.6	446
28	Lead telluride alloy thermoelectrics. Materials Today, 2011, 14, 526-532.	8.3	444
29	Weighted Mobility. Advanced Materials, 2020, 32, e2001537.	11.1	439
30	Thermoelectric microdevice fabricated by a MEMS-like electrochemical process. Nature Materials, 2003, 2, 528-531.	13.3	428
31	Charge-transport model for conducting polymers. Nature Materials, 2017, 16, 252-257.	13.3	412
32	Low-Symmetry Rhombohedral GeTe Thermoelectrics. Joule, 2018, 2, 976-987.	11.7	402
33	Zintl Phases as Thermoelectric Materials: Tuned Transport Properties of the Compounds CaxYb1-xZn2Sb2. Advanced Functional Materials, 2005, 15, 1860-1864.	7.8	379
34	Stabilizing the Optimal Carrier Concentration for High Thermoelectric Efficiency. Advanced Materials, 2011, 23, 5674-5678.	11.1	378
35	Lattice Dislocations Enhancing Thermoelectric PbTe in Addition to Band Convergence. Advanced Materials, 2017, 29, 1606768.	11.1	365
36	Characterization and analysis of thermoelectric transport in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>n</mml:mi></mml:math>-type<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Ba</mml:mtext></mml:mrow><mml:mn>8</mml:mn></mml:msu Physical Review B, 2009, 80, .	1.1	364

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37	Vacancy-induced dislocations within grains for high-performance PbSe thermoelectrics. Nature Communications, 2017, 8, 13828.	5.8	360
38	Reevaluation of PbTe1â^'xIx as high performance n-type thermoelectric material. Energy and Environmental Science, 2011, 4, 2090.	15.6	359
39	Weak electronâ€“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, 9705-9709.	3.3	359
40	Beneficial Contribution of Alloy Disorder to Electron and Phonon Transport in Halfâ€Heusler Thermoelectric Materials. Advanced Functional Materials, 2013, 23, 5123-5130.	7.8	349
41	Optimum Carrier Concentration in nâ€Type PbTe Thermoelectrics. Advanced Energy Materials, 2014, 4, 1400486.	10.2	348
42	Interfaces in bulk thermoelectric materials. Current Opinion in Colloid and Interface Science, 2009, 14, 226-235.	3.4	340
43	Engineering half-Heusler thermoelectric materials using Zintl chemistry. Nature Reviews Materials, 2016, 1, .	23.3	340
44	Chalcopyrite CuGaTe₂: A Highâ€Efficiency Bulk Thermoelectric Material. Advanced Materials, 2012, 24, 3622-3626.	11.1	311
45	Mechanically Robust BiSbTe Alloys with Superior Thermoelectric Performance: A Case Study of Stable Hierarchical Nanostructured Thermoelectric Materials. Advanced Energy Materials, 2015, 5, 1401391.	10.2	304
46	n-Type Bi₂Te_{3â€“x}Se_x Nanoplates with Enhanced Thermoelectric Efficiency Driven by Wide-Frequency Phonon Scatterings and Synergistic Carrier Scatterings. ACS Nano, 2016, 10, 4719-4727.	7.3	303
47	Figure of merit ZT of a thermoelectric device defined from materials properties. Energy and Environmental Science, 2017, 10, 2280-2283.	15.6	300
48	Distinct Impact of Alkali-Ion Doping on Electrical Transport Properties of Thermoelectric p-Type Polycrystalline SnSe. Journal of the American Chemical Society, 2016, 138, 8875-8882.	6.6	298
49	Ultrahigh thermoelectric performance in Cu₂Se-based hybrid materials with highly dispersed molecular CNTs. Energy and Environmental Science, 2017, 10, 1928-1935.	15.6	298
50	Traversing the Metalâ€Insulator Transition in a Zintl Phase: Rational Enhancement of Thermoelectric Efficiency in Yb₁₄Mn_{1â^'x}Al_xSb₁₁. Advanced Functional Materials, 2008, 18, 2795-2800.	7.8	294
51	The Criteria for Beneficial Disorder in Thermoelectric Solid Solutions. Advanced Functional Materials, 2013, 23, 1586-1596.	7.8	293
52	Anomalous Spin Scattering Effects in the Badly Metallic Itinerant FerromagnetSrRuO3. Physical Review Letters, 1996, 77, 2774-2777.	2.9	278
53	Measuring thermoelectric transport properties of materials. Energy and Environmental Science, 2015, 8, 423-435.	15.6	275
54	Phase Boundary Mapping to Obtain n-type Mg3Sb2-Based Thermoelectrics. Joule, 2018, 2, 141-154.	11.7	274

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55	High Band Degeneracy Contributes to High Thermoelectric Performance in pâ€Type Halfâ€Heusler Compounds. Advanced Energy Materials, 2014, 4, 1400600.	10.2	261
56	A high temperature apparatus for measurement of the Seebeck coefficient. Review of Scientific Instruments, 2011, 82, 063905.	0.6	255
57	Thermodynamics of Thermoelectric Phenomena and Applications. Entropy, 2011, 13, 1481-1517.	1.1	254
58	Grain boundary dominated charge transport in Mg₃Sb₂-based compounds. Energy and Environmental Science, 2018, 11, 429-434.	15.6	253
59	Skutterudite with graphene-modified grain-boundary complexion enhances zT enabling high-efficiency thermoelectric device. Energy and Environmental Science, 2017, 10, 183-191.	15.6	252
60	High Thermoelectric Figure of Merit in PbTe Alloys Demonstrated in PbTeâ€“CdTe. Advanced Energy Materials, 2012, 2, 670-675.	10.2	240
61	Application of the compatibility factor to the design of segmented and cascaded thermoelectric generators. Applied Physics Letters, 2004, 84, 2436-2438.	1.5	230
62	Optimization of thermoelectric efficiency in SnTe: the case for the light band. Physical Chemistry Chemical Physics, 2014, 16, 20741-20748.	1.3	230
63	Concentrated solar thermoelectric generators. Energy and Environmental Science, 2012, 5, 9055.	15.6	227
64	Thermoelectric performance of lanthanum telluride produced via mechanical alloying. Physical Review B, 2008, 78, .	1.1	224
65	Selfâ€Tuning the Carrier Concentration of PbTe/Ag₂Te Composites with Excess Ag for High Thermoelectric Performance. Advanced Energy Materials, 2011, 1, 291-296.	10.2	224
66	Measurement of the electrical resistivity and Hall coefficient at high temperatures. Review of Scientific Instruments, 2012, 83, 123902.	0.6	223
67	A practical field guide to thermoelectrics: Fundamentals, synthesis, and characterization. Applied Physics Reviews, 2018, 5, 021303.	5.5	223
68	Minimum thermal conductivity in the context of diffuson-mediated thermal transport. Energy and Environmental Science, 2018, 11, 609-616.	15.6	221
69	Low Electron Scattering Potentials in High Performance Mg₂Si_{0.45}Sn_{0.55} Based Thermoelectric Solid Solutions with Band Convergence. Advanced Energy Materials, 2013, 3, 1238-1244.	10.2	220
70	Thermopower enhancement in Pb1â^'xMnxTe alloys and its effect on thermoelectric efficiency. NPG Asia Materials, 2012, 4, e28-e28.	3.8	214
71	Tuning bands of PbSe for better thermoelectric efficiency. Energy and Environmental Science, 2014, 7, 804-811.	15.6	214
72	The intrinsic disorder related alloy scattering in ZrNiSn half-Heusler thermoelectric materials. Scientific Reports, 2014, 4, 6888.	1.6	213

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73	Stretchable fabric generates electric power from woven thermoelectric fibers. Nature Communications, 2020, 11, 572.	5.8	212
74	Compliant and stretchable thermoelectric coils for energy harvesting in miniature flexible devices. Science Advances, 2018, 4, eaau5849.	4.7	208
75	Mechanochemical synthesis and thermoelectric properties of high quality magnesium silicide. Journal of Materials Chemistry, 2011, 21, 12259.	6.7	204
76	Ca₃AlSb₃: an inexpensive, non-toxic thermoelectric material for waste heat recovery. Energy and Environmental Science, 2011, 4, 510-518.	15.6	202
77	Cu₂ZnGeSe₄ Nanocrystals: Synthesis and Thermoelectric Properties. Journal of the American Chemical Society, 2012, 134, 4060-4063.	6.6	199
78	Ultrahigh Thermoelectric Performance in Mosaic Crystals. Advanced Materials, 2015, 27, 3639-3644.	11.1	195
79	Understanding thermoelectric properties from high-throughput calculations: trends, insights, and comparisons with experiment. Journal of Materials Chemistry C, 2016, 4, 4414-4426.	2.7	193
80	High Thermoelectric Performance SnTeâ€“In₂Te₃ Solid Solutions Enabled by Resonant Levels and Strong Vacancy Phonon Scattering. Chemistry of Materials, 2015, 27, 7801-7811.	3.2	191
81	Optical band gap and the Burstheinâ€“Moss effect in iodine doped PbTe using diffuse reflectance infrared Fourier transform spectroscopy. New Journal of Physics, 2013, 15, 075020.	1.2	188
82	Electronic structure and transport in thermoelectric compounds AZn2Sb2 (A = Sr, Ca, Yb, Eu). Dalton Transactions, 2010, 39, 1046-1054.	1.6	184
83	Band gap estimation from temperature dependent Seebeck measurementâ€”Deviations from the 2e|S|maxTmax relation. Applied Physics Letters, 2015, 106, .	1.5	181
84	Unique Role of Refractory Ta Alloying in Enhancing the Figure of Merit of NbFeSb Thermoelectric Materials. Advanced Energy Materials, 2018, 8, 1701313.	10.2	181
85	The Zintl Compound Ca₅Al₂Sb₆ for Lowâ€Cost Thermoelectric Power Generation. Advanced Functional Materials, 2010, 20, 4375-4380.	7.8	180
86	Enhanced Thermoelectric Performance through Tuning Bonding Energy in Cu₂Se_{1â€“x}S_x Liquid-like Materials. Chemistry of Materials, 2017, 29, 6367-6377.	3.2	179
87	High Thermoelectric Efficiency of nâ€type PbS. Advanced Energy Materials, 2013, 3, 488-495.	10.2	178
88	Band engineering in Mg₃Sb₂ by alloying with Mg₃Bi₂ for enhanced thermoelectric performance. Materials Horizons, 2018, 5, 59-64.	6.4	177
89	Exceptional thermoelectric performance in Mg₃Sb_{0.6}Bi_{1.4} for low-grade waste heat recovery. Energy and Environmental Science, 2019, 12, 965-971.	15.6	177
90	High thermoelectric and mechanical performance in highly dense Cu_{2â^'x}S bulks prepared by a melt-solidification technique. Journal of Materials Chemistry A, 2015, 3, 9432-9437.	5.2	176

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91	Lattice Softening Significantly Reduces Thermal Conductivity and Leads to High Thermoelectric Efficiency. Advanced Materials, 2019, 31, e1900108.	11.1	171
92	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, 3861-3870.	1.7	169
93	Elemental tellurium as a chiral<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>p</mml:mi></mml:math>-type thermoelectric material. Physical Review B, 2014, 89, .	1.1	165
94	Boosting the thermoelectric performance of PbSe through dynamic doping and hierarchical phonon scattering. Energy and Environmental Science, 2018, 11, 1848-1858.	15.6	163
95	Annealâ€tunable Curie temperature and transport of La0.67Ca0.33MnO3. Journal of Applied Physics, 1996, 80, 5158-5161.	1.1	160
96	High-temperature electrical and thermal transport properties of fully filled skutterudites RFe4Sb12 (Râ€‰=â€‰Ca, Sr, Ba, La, Ce, Pr, Nd, Eu, and Yb). Journal of Applied Physics, 2011, 109, .	1.1	156
97	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.	6.6	155
98	Thermoelectric Transport in Cu₇PSe₆ with High Copper Ionic Mobility. Journal of the American Chemical Society, 2014, 136, 12035-12040.	6.6	154
99	Combination of large nanostructures and complex band structure for high performance thermoelectric lead telluride. Energy and Environmental Science, 2011, 4, 3640.	15.6	153
100	High thermoelectric performance in (Bi0.25Sb0.75)2Te3 due to band convergence and improved by carrier concentration control. Materials Today, 2017, 20, 452-459.	8.3	151
101	High Thermoelectric Performance in SnTeâ€“AgSbTe₂ Alloys from Lattice Softening, Giant Phononâ€“Vacancy Scattering, and Valence Band Convergence. ACS Energy Letters, 2018, 3, 705-712.	8.8	151
102	Thermoelectric properties and microstructure of Mg3Sb2. Journal of Solid State Chemistry, 2006, 179, 2252-2257.	1.4	150
103	Improvement of Lowâ€Temperature zT in a Mg₃Sb₂â€“Mg₃Bi₂ Solid Solution via Mgâ€Vapor Annealing. Advanced Materials, 2019, 31, e1902337.	11.1	150
104	Alloying to increase the band gap for improving thermoelectric properties of Ag2Te. Journal of Materials Chemistry, 2011, 21, 18256.	6.7	149
105	Suppression of atom motion and metal deposition in mixed ionic electronic conductors. Nature Communications, 2018, 9, 2910.	5.8	148
106	Direct Electrodeposition of Highly Dense 50 nm Bi2Te3-ySeyNanowire Arrays. Nano Letters, 2003, 3, 973-977.	4.5	146
107	An ab initio electronic transport database for inorganic materials. Scientific Data, 2017, 4, 170085.	2.4	146
108	Effective mass and Fermi surface complexity factor from ab initio band structure calculations. Npj Computational Materials, 2017, 3, .	3.5	145

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109	Self-Assembled Nanometer Lamellae of Thermoelectric PbTe and Sb2Te3with Epitaxy-like Interfaces. Chemistry of Materials, 2007, 19, 763-767.	3.2	143
110	Complex thermoelectric materials. , 2010, , 101-110.		143
111	Solubility design leading to high figure of merit in low-cost Ce-CoSb3 skutterudites. Nature Communications, 2015, 6, 7584.	5.8	142
112	Temperature dependent band gap in PbX (Xâ€‰=â€‰S, Se, Te). Applied Physics Letters, 2013, 103, .	1.5	140
113	Composition and the thermoelectric performance of Î²-Zn4Sb3. Journal of Materials Chemistry, 2010, 20, 9877.	6.7	139
114	Chemical Stability of (Ag,Cu)2Se: a Historical Overview. Journal of Electronic Materials, 2013, 42, 2014-2019.	1.0	139
115	High temperature thermoelectric efficiency in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi mathvariant="normal">Ba</mml:mi><mml:mn>8</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">Ga</mml:mi><mml:mn>16</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">Ge</mml:mi><mml:mn>30</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2008, 77, .	1.1	138
116	Local structure, transport, and rare-earth magnetismin the ferrimagnetic perovskiteGd0.67Ca0.33MnO3s. Physical Review B, 1997, 55, 6453-6459.	1.1	137
117	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.	5.2	137
118	Discovery of High-Performance Thermoelectric Chalcogenides through Reliable High-Throughput Material Screening. Journal of the American Chemical Society, 2018, 140, 10785-10793.	6.6	134
119	Optimization principles and the figure of merit for triboelectric generators. Science Advances, 2017, 3, eaap8576.	4.7	133
120	Meltâ€Centrifuged (Bi,Sb)₂Te₃: Engineering Microstructure toward High Thermoelectric Efficiency. Advanced Materials, 2018, 30, e1802016.	11.1	133
121	Supercooling of Peltier cooler using a current pulse. Journal of Applied Physics, 2002, 92, 1564-1569.	1.1	132
122	Improved Thermoelectric Performance in Yb₁₄Mn_{1â”’x}Zn_xSb₁₁ by the Reduction of Spin-Disorder Scattering. Chemistry of Materials, 2008, 20, 3412-3419.	3.2	132
123	Realizing high-performance thermoelectric power generation through grain boundary engineering of skutterudite-based nanocomposites. Nano Energy, 2017, 41, 501-510.	8.2	130
124	Band Sharpening and Band Alignment Enable High Quality Factor to Enhance Thermoelectric Performance in n-Type PbS. Journal of the American Chemical Society, 2020, 142, 4051-4060.	6.6	130
125	Influence of band structure on the large thermoelectric performance of lanthanum telluride. Physical Review B, 2009, 79, .	1.1	129
126	Influence of a Nano Phase Segregation on the Thermoelectric Properties of the p-Type Doped Stannite Compound Cu_{2+x}Zn_{1â€“x}GeSe₄. Journal of the American Chemical Society, 2012, 134, 7147-7154.	6.6	129

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127	Achieving zT > 1 in Inexpensive Zintl Phase Ca₉Zn₄₊_xSb₉ by Phase Boundary Mapping. Advanced Functional Materials, 2017, 27, 1606361.	7.8	129
128	Thermoelectric properties of Sr3GaSb3 â€“ a chain-forming Zintl compound. Energy and Environmental Science, 2012, 5, 9121.	15.6	127
129	Realization of higher thermoelectric performance by dynamic doping of copper in n-type PbTe. Energy and Environmental Science, 2019, 12, 3089-3098.	15.6	127
130	Rapid Microwave Preparation of Thermoelectric TiNiSn and TiCoSb Half-Heusler Compounds. Chemistry of Materials, 2012, 24, 2558-2565.	3.2	126
131	Enhancement of average thermoelectric figure of merit by increasing the grain-size of Mg3.2Sb1.5Bi0.49Te0.01. Applied Physics Letters, 2018, 112, .	1.5	126
132	High-Efficiency and Stable Thermoelectric Module Based on Liquid-Like Materials. Joule, 2019, 3, 1538-1548.	11.7	126
133	Enhanced Thermoelectric Performance in 18â€Electron Nb_{0.8}CoSb Halfâ€Heusler Compound with Intrinsic Nb Vacancies. Advanced Functional Materials, 2018, 28, 1705845.	7.8	124
134	Synergistic modulation of mobility and thermal conductivity in (Bi,Sb)₂Te₃ towards high thermoelectric performance. Energy and Environmental Science, 2019, 12, 624-630.	15.6	120
135	Transient cooling of thermoelectric coolers and its applications for microdevices. Energy Conversion and Management, 2005, 46, 1407-1421.	4.4	119
136	Enhanced Thermoelectric Properties in Bulk Nanowire Heterostructure-Based Nanocomposites through Minority Carrier Blocking. Nano Letters, 2015, 15, 1349-1355.	4.5	118
137	Small Thermoelectric Generators. Electrochemical Society Interface, 2008, 17, 54-56.	0.3	117
138	Phase diagram of Inâ€“Coâ€“Sb system and thermoelectric properties of In-containing skutterudites. Energy and Environmental Science, 2014, 7, 812-819.	15.6	116
139	Metallic nâ€Type Mg₃Sb₂ Single Crystals Demonstrate the Absence of Ionized Impurity Scattering and Enhanced Thermoelectric Performance. Advanced Materials, 2020, 32, e1908218.	11.1	116
140	Rapid consolidation of powdered materials by induction hot pressing. Review of Scientific Instruments, 2011, 82, 025104.	0.6	115
141	Highly Porous Thermoelectric Nanocomposites with Low Thermal Conductivity and High Figure of Merit from Largeâ€Scale Solutionâ€Synthesized Bi₂Te_{2.5}Se_{0.5} Hollow Nanostructures. Angewandte Chemie - International Edition, 2017, 56, 3546-3551.	7.2	114
142	Defectâ€Controlled Electronic Properties in AZn₂Sb₂ Zintl Phases. Angewandte Chemie - International Edition, 2014, 53, 3422-3426.	7.2	112
143	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.	5.2	112
144	High thermoelectric efficiency in lanthanum doped Yb14MnSb11. Applied Physics Letters, 2008, 93, .	1.5	111

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145	Phase transition enhanced thermoelectric figure-of-merit in copper chalcogenides. APL Materials, 2013, 1, .	2.2	109
146	Glass-like lattice thermal conductivity and high thermoelectric efficiency in Yb₉Mn_{4.2}Sb₉. Journal of Materials Chemistry A, 2014, 2, 215-220.	5.2	109
147	Chargeâ€Compensated Compound Defects in Gaâ€containing Thermoelectric Skutterudites. Advanced Functional Materials, 2013, 23, 3194-3203.	7.8	108
148	Dislocation strain as the mechanism of phonon scattering at grain boundaries. Materials Horizons, 2016, 3, 234-240.	6.4	108
149	Evaluating the potential for high thermoelectric efficiency of silver selenide. Journal of Materials Chemistry C, 2013, 1, 7568.	2.7	105
150	A valence balanced rule for discovery of 18-electron half-Heuslers with defects. Energy and Environmental Science, 2018, 11, 1480-1488.	15.6	105
151	Surfactant-Free Synthesis of Bi₂Te₃â^'Te Microâ^'Nano Heterostructure with Enhanced Thermoelectric Figure of Merit. ACS Nano, 2011, 5, 3158-3165.	7.3	104
152	Thermoelectric transport properties of diamond-like Cu1â^'xFe1+xS2 tetrahedral compounds. Journal of Applied Physics, 2014, 116, .	1.1	104
153	Significant enhancement of figure-of-merit in carbon-reinforced Cu2Se nanocrystalline solids. Nano Energy, 2017, 41, 164-171.	8.2	103
154	Double Half-Heuslers. Joule, 2019, 3, 1226-1238.	11.7	103
155	Na Doping in PbTe: Solubility, Band Convergence, Phase Boundary Mapping, and Thermoelectric Properties. Journal of the American Chemical Society, 2020, 142, 15464-15475.	6.6	101
156	Phonon Scattering through a Local Anisotropic Structural Disorder in the Thermoelectric Solid Solution Cu₂Zn_{1â€“x}Fe_xGeSe₄. Journal of the American Chemical Society, 2013, 135, 726-732.	6.6	100
157	Computational and experimental investigation of TmAgTe₂and XYZ₂compounds, a new group of thermoelectric materials identified by first-principles high-throughput screening. Journal of Materials Chemistry C, 2015, 3, 10554-10565.	2.7	99
158	Resolving the true band gap of ZrNiSn half-Heusler thermoelectric materials. Materials Horizons, 2015, 2, 68-75.	6.4	99
159	Impact of Ni content on the thermoelectric properties of half-Heusler TiNiSn. Energy and Environmental Science, 2018, 11, 311-320.	15.6	97
160	A figure of merit for flexibility. Science, 2019, 366, 690-691.	6.0	97
161	Effect of Isovalent Substitution on the Thermoelectric Properties of the Cu₂ZnGeSe_{4â€“x}S_x Series of Solid Solutions. Journal of the American Chemical Society, 2014, 136, 442-448.	6.6	95
162	Nonstoichiometry in the Zintl Phase Yb_{1â^'Î´}Zn₂Sb₂ as a Route to Thermoelectric Optimization. Chemistry of Materials, 2014, 26, 5710-5717.	3.2	95

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163	Enhancing the thermoelectric performance of SnSe_{1â^'x}Te_x nanoplates through band engineering. Journal of Materials Chemistry A, 2017, 5, 10713-10721.	5.2	94
164	Using the 18-Electron Rule To Understand the Nominal 19-Electron Half-Heusler NbCoSb with Nb Vacancies. Chemistry of Materials, 2017, 29, 1210-1217.	3.2	93
165	Enhanced stability and thermoelectric figure-of-merit in copper selenide by lithium doping. Materials Today Physics, 2017, 1, 7-13.	2.9	93
166	Structure, Heat Capacity, and High-Temperature Thermal Properties of Yb₁₄Mn_{1â^'x}Al_xSb₁₁. Chemistry of Materials, 2009, 21, 1354-1360.	3.2	92
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