Zachary M Gibbs

List of Publications by Year
in descending order

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32 papers	5,832 citations	186265 28 h-index	395702 33 g-index
36 all docs	36 docs citations	36 times ranked	4764 citing authors

#	Article	IF	Citations
1	Effective mass and Fermi surface complexity factor from ab initio band structure calculations. Npj Computational Materials, 2017, 3, .	8.7	145
2	High thermoelectric performance in (Bi0.25Sb0.75)2Te3 due to band convergence and improved by carrier concentration control. Materials Today, 2017, 20, 452-459.	14.2	151
3	Thermoelectric performance of co-doped SnTe with resonant levels. Applied Physics Letters, 2016, 109, .	3.3	36
4	Understanding thermoelectric properties from high-throughput calculations: trends, insights, and comparisons with experiment. Journal of Materials Chemistry C, 2016, 4, 4414-4426.	5.5	193
5	Engineering half-Heusler thermoelectric materials using Zintl chemistry. Nature Reviews Materials, 2016, 1, .	48.7	340
6	Thinking Like a Chemist: Intuition in Thermoelectric Materials. Angewandte Chemie - International Edition, 2016, 55, 6826-6841.	13.8	639
7	Denken wie ein Chemiker: Thermoelektrika intuitiv. Angewandte Chemie, 2016, 128, 6938-6954.	2.0	33
8	YCuTe₂: a member of a new class of thermoelectric materials with CuTe₄-based layered structure. Journal of Materials Chemistry A, 2016, 4, 2461-2472.	10.3	52
9	Origin of resistivity anomaly in p-type leads chalcogenide multiphase compounds. AIP Advances, 2015, 5, 053601.	1.3	9
10	Heterogeneous Distribution of Sodium for High Thermoelectric Performance of pâ€type Multiphase Leadâ€Chalcogenides. Advanced Energy Materials, 2015, 5, 1501047.	19.5	63
11	Characterization of Lorenz number with Seebeck coefficient measurement. APL Materials, 2015, 3, .	5.1	1,236
12	Thermoelectric Enhancement in BaGa₂Sb₂ by Zn Doping. Chemistry of Materials, 2015, 27, 1622-1630.	6.7	53
13	Band gap estimation from temperature dependent Seebeck measurementâ€"Deviations from the 2e|S|maxTmax relation. Applied Physics Letters, 2015, 106, .	3.3	181
14	Enhanced thermoelectric properties of Sr5In2Sb6via Zn-doping. Journal of Materials Chemistry A, 2015, 3, 10289-10295.	10.3	21
15	Convergence of multi-valley bands as the electronic origin of high thermoelectric performance in CoSb3 skutterudites. Nature Materials, 2015, 14, 1223-1228.	27.5	587
16	High temperature thermoelectric properties of Zn-doped Eu₅In₂Sb₆. Journal of Materials Chemistry C, 2015, 3, 10518-10524.	5.5	27
17	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.	5.5	99
18	Resolving the true band gap of ZrNiSn half-Heusler thermoelectric materials. Materials Horizons, 2015, 2, 68-75.	12.2	99

#	Article	IF	Citations
19	A new crystal: layer-structured rhombohedral In3Se4. CrystEngComm, 2014, 16, 393-398.	2.6	31
20	Optimum Carrier Concentration in nâ€Type PbTe Thermoelectrics. Advanced Energy Materials, 2014, 4, 1400486.	19.5	348
21	Band convergence in the non-cubic chalcopyrite compounds Cu₂MGeSe₄. Journal of Materials Chemistry C, 2014, 2, 10189-10194.	5.5	57
22	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.	10.3	112
23	Optimization of thermoelectric efficiency in SnTe: the case for the light band. Physical Chemistry Chemical Physics, 2014, 16, 20741-20748.	2.8	230
24	Thermoelectric performance of tellurium-reduced quaternary p-type leadâ€“chalcogenide composites. Acta Materialia, 2014, 80, 365-372.	7.9	28
25	Chemical composition tuning in quaternary p-type Pb-chalcogenides â€“ a promising strategy for enhanced thermoelectric performance. Physical Chemistry Chemical Physics, 2014, 16, 1835-1840.	2.8	48
26	Tuning bands of PbSe for better thermoelectric efficiency. Energy and Environmental Science, 2014, 7, 804-811.	30.8	214
27	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	188
28	Temperature dependent band gap in PbX (Xâ€‰=â€‰S, Se, Te). Applied Physics Letters, 2013, 103, .	3.3	140
29	Influence of the Triel Elements (M = Al, Ga, In) on the Transport Properties of Ca₅M₂Sb₆ Zintl Compounds. Chemistry of Materials, 2012, 24, 2091-2098.	6.7	90
30	Synthesis, Structural Characterization, and Physical Properties of the Type-I Clathrates A8Zn18As28 (A) Tj ETQq0 0 0 rgBT /Overlock 10	6.7	38
31	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, 7147-7154.	13.7	129
32	Thermopower enhancement in Pb1âˆ’xMnxTe alloys and its effect on thermoelectric efficiency. NPG Asia Materials, 2012, 4, e28-e28.	7.9	214