

David A Broido

List of Publications by Year in descending order

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32
papers

2,394
citations

361413

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414414

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33
all docs

33
docs citations

33
times ranked

2729
citing authors

#	ARTICLE	IF	CITATIONS
1	The elphbolt ab initio solver for the coupled electron-phonon Boltzmann transport equations. Npj Computational Materials, 2022, 8, .	8.7	19
2	Peak thermal conductivity measurements of boron arsenide crystals. Physical Review Materials, 2022, 6, .	2.4	2
3	Colossal phonon drag enhanced thermopower in lightly doped diamond. Materials Today Physics, 2022, 27, 100740.	6.0	5
4	How dopants limit the ultrahigh thermal conductivity of boron arsenide: a first principles study. Npj Computational Materials, 2021, 7, .	8.7	21
5	Temperature-dependent renormalization of magnetic interactions by thermal, magnetic, and lattice disorder from first principles. Physical Review B, 2021, 103, .	3.2	3
6	Exposing the hidden influence of selection rules on phononâ€“phonon scattering by pressure and temperature tuning. Nature Communications, 2021, 12, 3473.	12.8	10
7	Effects of Impurities on the Thermal and Electrical Transport Properties of Cubic Boron Arsenide. Chemistry of Materials, 2021, 33, 6974-6982.	6.7	19
8	A differential thin film resistance thermometry method for peak thermal conductivity measurements of high thermal conductivity crystals. Review of Scientific Instruments, 2021, 92, 094901.	1.3	3
9	Ultrahigh thermal conductivity in isotope-enriched cubic boron nitride. Science, 2020, 367, 555-559.	12.6	177
10	Phonon-Phonon Interactions in Strongly Bonded Solids: Selection Rules and Higher-Order Processes. Physical Review X, 2020, 10, .	8.9	43
11	Coupled transport of phonons and carriers in semiconductors: A case study of n -doped GaAs. Physical Review B, 2020, 101, .	3.2	27
12	Thermal Expansion Coefficient and Lattice Anharmonicity of Cubic Boron Arsenide. Physical Review Applied, 2019, 11, .	3.8	23
13	Effect of thermal lattice and magnetic disorder on phonons in bcc Fe: A first-principles study. Physical Review B, 2019, 100, .	3.2	8
14	Non-monotonic pressure dependence of the thermal conductivity of boron arsenide. Nature Communications, 2019, 10, 827.	12.8	42
15	Thermodynamic Evidence of Proximity to a Kitaev Spin Liquid in Ag_3SbO_6 . Physical Review Letters, 2019, 123, 207202.	11.0	10
16	Improved Thermoelectric Performance of Tellurium by Alloying with a Small Concentration of Selenium to Decrease Lattice Thermal Conductivity. ACS Applied Materials & Interfaces, 2019, 11, 511-516.	8.0	8
17	Thermal conductivity of GaN, GaN , and SiC from 150 K to 850 K. Physical Review Materials, 2019, 3, .	2.4	74
18	Crystal Chemistry and Phonon Heat Capacity in Quaternary Honeycomb Delafossites: $\text{Cu}[\text{Li}_{1/3}\text{Sn}_{2/3}\text{O}_2]$ and $\text{Cu}[\text{Na}_{1/3}\text{Sn}_{2/3}\text{O}_2]$. Inorganic Chemistry, 2018, 57, 12709-12717.	4.0	13

#	ARTICLE	IF	CITATIONS
19	Fermi Surface Nesting and Phonon Frequency Gap Drive Anomalous Thermal Transport. Physical Review Letters, 2018, 121, 175901.	7.8	52
20	High Thermal Conductivity in Isotopically Enriched Cubic Boron Phosphide. Advanced Functional Materials, 2018, 28, 1805116.	14.9	73
21	Unusual high thermal conductivity in boron arsenide bulk crystals. Science, 2018, 361, 582-585.	12.6	300
22	Unified first-principles theory of thermal properties of insulators. Physical Review B, 2018, 98, .	3.2	91
23	Discovery of ZrCoBi based half Heuslers with high thermoelectric conversion efficiency. Nature Communications, 2018, 9, 2497.	12.8	243
24	Phonon thermal transport in 2H, 4H and 6H silicon carbide from first principles. Materials Today Physics, 2017, 1, 31-38.	6.0	48
25	Physically founded phonon dispersions of few-layer materials and the case of borophene. Materials Research Letters, 2016, 4, 204-211.	8.7	216
26	The effect of shallow vs. deep level doping on the performance of thermoelectric materials. Applied Physics Letters, 2016, 109, .	3.3	15
27	<i>Ab initio</i> study of the effect of vacancies on the thermal conductivity of boron arsenide. Physical Review B, 2016, 94, .	3.2	65
28	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
29	High thermoelectric performance of n-type PbTe _{1-δ} S due to deep lying states induced by indium doping and spinodal decomposition. Nano Energy, 2016, 22, 572-582.	16.0	59
30	Hydrodynamic phonon transport in suspended graphene. Nature Communications, 2015, 6, 6290.	12.8	254
31	Experimental study of the proposed super-thermal-conductor: BAs. Applied Physics Letters, 2015, 106, .	3.3	68
32	Phonon thermal transport in Bi_2Te_3 from first principles. Physical Review B, 2014, 90, .	3.2	150