Songting Cai

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/8236002/publications.pdf

Version: 2024-02-01

29 papers	1,310 citations	331538 21 h-index	501076 28 g-index
29 all docs	29 docs citations	29 times ranked	975 citing authors

#	Article	IF	Citations
1	Soft phonon modes from off-center Ge atoms lead to ultralow thermal conductivity and superior thermoelectric performance in n-type PbSeâ€“GeSe. Energy and Environmental Science, 2018, 11, 3220-3230.	15.6	115
2	High Thermoelectric Performance in the New Cubic Semiconductor AgSnSbSe₃ by High-Entropy Engineering. Journal of the American Chemical Society, 2020, 142, 15187-15198.	6.6	108
3	Extraordinary role of Zn in enhancing thermoelectric performance of Ga-doped n-type PbTe. Energy and Environmental Science, 2022, 15, 368-375.	15.6	107
4	High-Performance Thermoelectrics from Cellular Nanostructured Sb2Si2Te6. Joule, 2020, 4, 159-175.	11.7	103
5	High Thermoelectric Performance in Polycrystalline SnSe Via Dualâ€Doping with Ag/Na and Nanostructuring With Ag₈SnSe₆. Advanced Energy Materials, 2019, 9, 1803072.	10.2	98
6	All-Scale Hierarchically Structured p-Type PbSe Alloys with High Thermoelectric Performance Enabled by Improved Band Degeneracy. Journal of the American Chemical Society, 2019, 141, 4480-4486.	6.6	87
7	High Figure of Merit in Gallium-Doped Nanostructured n-Type PbTe-xGeTe with Midgap States. Journal of the American Chemical Society, 2019, 141, 16169-16177.	6.6	76
8	Enhancement of Thermoelectric Performance for n-Type PbS through Synergy of Gap State and Fermi Level Pinning. Journal of the American Chemical Society, 2019, 141, 6403-6412.	6.6	67
9	Discordant nature of Cd in PbSe: off-centering and coreâ€“shell nanoscale CdSe precipitates lead to high thermoelectric performance. Energy and Environmental Science, 2020, 13, 200-211.	15.6	57
10	Enhanced Thermoelectric and Mechanical Properties in Yb_{0.3}Co₄Sb₁₂ with In Situ Formed CoSi Nanoprecipitates. Advanced Energy Materials, 2019, 9, 1902435.	10.2	53
11	Restructured single parabolic band model for quick analysis in thermoelectricity. Npj Computational Materials, 2021, 7, .	3.5	53
12	Ultralow thermal conductivity in diamondoid lattices: high thermoelectric performance in chalcopyrite Cu_{0.8+y}Ag_{0.2}In_{1â^'y}Te₂. Energy and Environmental Science, 2020, 13, 3693-3705.	15.6	52
13	Ultralow Thermal Conductivity in Diamondoid Structures and High Thermoelectric Performance in (Cu_{1â€“x}Ag_x)(In_{1â€“y}Ga_y)Te₂. Journal of the American Chemical Society, 2021, 143, 5978-5989.	6.6	49
14	Thermoelectric Performance of the 2D Bi₂Si₂Te₆ Semiconductor. Journal of the American Chemical Society, 2022, 144, 1445-1454.	6.6	37
15	Enhancement of thermoelectric properties by Na doping in Te-free p-type AgSbSe₂. Dalton Transactions, 2015, 44, 1046-1051.	1.6	35
16	Raspberry-like mesoporous Co-doped TiO₂ nanospheres for a high-performance formaldehyde gas sensor. Journal of Materials Chemistry A, 2021, 9, 6529-6537.	5.2	33
17	High Thermoelectric Performance in Chalcopyrite Cu_{1â€“x}Ag_xGaTe₂â€“ZnTe: Nontrivial Band Structure and Dynamic Doping Effect. Journal of the American Chemical Society, 2022, 144, 9113-9125.	6.6	29
18	Strong Valence Band Convergence to Enhance Thermoelectric Performance in PbSe with Two Chemically Independent Controls. Angewandte Chemie - International Edition, 2021, 60, 268-273.	7.2	28

#	Article	IF	Citations
19	Ultralow Thermal Conductivity and High-Temperature Thermoelectric Performance in n-Type K_{2.5}Bi_{8.5}Se₁₄. Chemistry of Materials, 2019, 31, 5943-5952.	3.2	25
20	Valence Disproportionation of GeS in the PbS Matrix Forms Pb₅Ge₅S₁₂ Inclusions with Conduction Band Alignment Leading to High n-Type Thermoelectric Performance. Journal of the American Chemical Society, 2022, 144, 7402-7413.	6.6	24
21	Ultralow Thermal Conductivity and Thermoelectric Properties of Rb2Bi8Se13. Chemistry of Materials, 2020, 32, 3561-3569.	3.2	23
22	Critical role of tellurium self-compensation in enhancing the thermoelectric performance of p-Type Bi0.4Sb1.6Te3 alloy. Chemical Engineering Journal, 2021, 425, 130670.	6.6	19
23	Low Thermal Conductivity in Heteroanionic Materials with Layers of Homoleptic Polyhedra. Journal of the American Chemical Society, 2022, 144, 2569-2579.	6.6	13
24	Enhancing Thermoelectric Performance of Yb_{0.3}Co₄Sb₁₂ by Synergistically Optimized Carrier Concentration and Ionized Impurity Scattering. ACS Applied Materials & Interfaces, 2021, 13, 39533-39540.	4.0	8
25	Strong Valence Band Convergence to Enhance Thermoelectric Performance in PbSe with Two Chemically Independent Controls. Angewandte Chemie, 2021, 133, 272-277.	1.6	7
26	Quasi-Two-Dimensional Heterostructures (KM_{1Ââ€“Âx}Te)(LaTe₃) (M = Mn and Zn) with Charge Density Waves. Chemistry of Materials, 2021, 33, 2155-2164.	3.2	2
27	All-scale Architecturing of Microstructure in Chalcogenide Thermoelectric Materials. Microscopy and Microanalysis, 2019, 25, 2236-2237.	0.2	1
28	Novel Core-shell Nanoscale Precipitates in High Performance PbSe-CdSe Thermoelectric Materials. Microscopy and Microanalysis, 2020, 26, 34-36.	0.2	1
29	Role of Advanced Electron Microscopy in Unraveling Complex Microstructure in Nanostructured Thermoelectric Materials. Microscopy and Microanalysis, 2020, 26, 266-268.	0.2	0