Di Wu

List of Publications by Year
in descending order

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84	5,927	109264 35	74108 75
papers	citations	h-index	g-index

84	84	84	3904
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Broad temperature plateau for thermoelectric figure of merit ZT>2 in phase-separated PbTe0.7S0.3. Nature Communications, 2014, 5, 4515.	5.8	461
2	Origin of the High Performance in GeTe-Based Thermoelectric Materials upon Bi₂Te₃ Doping. Journal of the American Chemical Society, 2014, 136, 11412-11419.	6.6	319
3	High Thermoelectric Performance Realized in a BiCuSeO System by Improving Carrier Mobility through 3D Modulation Doping. Journal of the American Chemical Society, 2014, 136, 13902-13908.	6.6	317
4	Origin of low thermal conductivity in SnSe. Physical Review B, 2016, 94, .	1.1	287
5	Superior comprehensive energy storage properties in Bi0.5Na0.5TiO3-based relaxor ferroelectric ceramics. Chemical Engineering Journal, 2020, 388, 124158.	6.6	279
6	Enhanced Thermoelectric Properties in the Counter-Doped SnTe System with Strained Endotaxial SrTe. Journal of the American Chemical Society, 2016, 138, 2366-2373.	6.6	269
7	Synergistically optimized electrical and thermal transport properties of SnTe via alloying high-solubility MnTe. Energy and Environmental Science, 2015, 8, 3298-3312.	15.6	268
8	Low-cost, abundant binary sulfides as promising thermoelectric materials. Materials Today, 2016, 19, 227-239.	8.3	257
9	Extraordinary Thermoelectric Performance Realized in nâ€Type PbTe through Multiphase Nanostructure Engineering. Advanced Materials, 2017, 29, 1703148.	11.1	209
10	Large enhancement of thermoelectric properties in n-type PbTe via dual-site point defects. Energy and Environmental Science, 2017, 10, 2030-2040.	15.6	194
11	Superior thermoelectric performance in PbTeâ€“PbS pseudo-binary: extremely low thermal conductivity and modulated carrier concentration. Energy and Environmental Science, 2015, 8, 2056-2068.	15.6	185
12	Enhanced energy density and thermal stability in relaxor ferroelectric Bi0.5Na0.5TiO3-Sr0.7Bi0.2TiO3 ceramics. Journal of the European Ceramic Society, 2019, 39, 4778-4784.	2.8	182
13	Simultaneous optimization of electrical and thermal transport properties of Bi0.5Sb1.5Te3 thermoelectric alloy by twin boundary engineering. Nano Energy, 2017, 37, 203-213.	8.2	164
14	Bi_{0.5}Na_{0.5}TiO₃-based relaxor ferroelectric ceramic with large energy density and high efficiency under a moderate electric field. Journal of Materials Chemistry C, 2019, 7, 10514-10520.	2.7	155
15	Regulation of energy density and efficiency in transparent ceramics by grain refinement. Chemical Engineering Journal, 2020, 390, 124566.	6.6	140
16	Half-Heusler phases and nanocomposites as emerging high-ZT thermoelectric materials. Journal of Materials Research, 2011, 26, 2795-2802.	1.2	136
17	Liquid-like thermal conduction in intercalated layered crystalline solids. Nature Materials, 2018, 17, 226-230.	13.3	136
18	A novel multifunctional ceramic with photoluminescence and outstanding energy storage properties. Chemical Engineering Journal, 2021, 408, 127368.	6.6	109

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19	Direct observation of vast off-stoichiometric defects in single crystalline SnSe. Nano Energy, 2017, 35, 321-330.	8.2	101
20	High Thermoelectric Performance Achieved in GeTeâ€“Bi₂Te₃ Pseudoâ€Binary via Van der Waals Gapâ€Induced Hierarchical Ferroelectric Domain Structure. Advanced Functional Materials, 2019, 29, 1806613.	7.8	101
21	Boosting the Thermoelectric Performance of Pseudoâ€Layered Sb₂Te₃(GeTe)_n via Vacancy Engineering. Advanced Science, 2018, 5, 1801514.	5.6	95
22	Significantly Enhanced Thermoelectric Performance in nâ€type Heterogeneous BiAgSeS Composites. Advanced Functional Materials, 2014, 24, 7763-7771.	7.8	91
23	Advanced electron microscopy for thermoelectric materials. Nano Energy, 2015, 13, 626-650.	8.2	80
24	Ultrahigh storage density achieved with (1-x)KNN-xBZN ceramics. Journal of the European Ceramic Society, 2020, 40, 2936-2944.	2.8	57
25	Understanding Nanostructuring Processes in Thermoelectrics and Their Effects on Lattice Thermal Conductivity. Advanced Materials, 2016, 28, 2737-2743.	11.1	54
26	Enhanced thermoelectric properties of SnSe polycrystals via texture control. Physical Chemistry Chemical Physics, 2016, 18, 31821-31827.	1.3	53
27	Constructing van der Waals gaps in cubic-structured SnTe-based thermoelectric materials. Energy and Environmental Science, 2020, 13, 5135-5142.	15.6	53
28	Introduction of resonant states and enhancement of thermoelectric properties in half-Heusler alloys. Physical Review B, 2011, 83, .	1.1	50
29	Eutectoid nano-precipitates inducing remarkably enhanced thermoelectric performance in (Sn_{1â^'x}Cd_xTe)_{1â^'y}(Cu₂Te)_y. Journal of Materials Chemistry A, 2020, 8, 2798-2808.	5.2	49
30	Revisiting AgCrSe₂as a promising thermoelectric material. Physical Chemistry Chemical Physics, 2016, 18, 23872-23878.	1.3	48
31	Unexpected Large Hole Effective Masses in SnSe Revealed by Angle-Resolved Photoemission Spectroscopy. Physical Review Letters, 2017, 119, 116401.	2.9	47
32	Extremely Low Thermal Conductivity in Thermoelectric Ge_{0.55}Pb_{0.45}Te Solid Solutions via Se Substitution. Chemistry of Materials, 2016, 28, 6367-6373.	3.2	42
33	Investigation into the extremely low thermal conductivity in Ba heavily doped BiCuSeO. Nano Energy, 2016, 27, 167-174.	8.2	40
34	Grain boundary engineering that induces ultrahigh permittivity and decreased dielectric loss in CdCu₃Ti₄O₁₂ ceramics. Journal of the American Ceramic Society, 2020, 103, 1230-1240.	1.9	39
35	High energy storage density realized in Bi0.5Na0.5TiO3-based relaxor ferroelectric ceramics at ultralow sintering temperature. Journal of the European Ceramic Society, 2021, 41, 368-375.	2.8	39
36	A compromise between piezoelectricity and transparency in KNN-based ceramics: The dual functions of Li2O addition. Journal of the European Ceramic Society, 2020, 40, 2331-2337.	2.8	38

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37	Realizing Improved Thermoelectric Performance in Bil₃-Doped Sb₂Te₃(GeTe)₁₇ via Introducing Dual Vacancy Defects. Chemistry of Materials, 2020, 32, 1693-1701.	3.2	36
38	Ag+/W6+ co-doped TiO2 ceramic with colossal permittivity and low loss. Journal of Alloys and Compounds, 2021, 856, 157350.	2.8	33
39	Good dielectric performance and broadband dielectric polarization in Ag, Nb coâ€doped TiO₂. Journal of the American Ceramic Society, 2021, 104, 2702-2710.	1.9	33
40	Coherent Sb/CuTe Core/Shell Nanostructure with Large Strain Contrast Boosting the Thermoelectric Performance of nâ€Type PbTe. Advanced Functional Materials, 2021, 31, 2007340.	7.8	30
41	Influence of Bi nonstoichiometry on the energy storage properties of 0.93KNNâ€“0.07Bi_xMN relaxor ferroelectrics. Journal of Advanced Dielectrics, 2018, 08, 1830006.	1.5	28
42	Simultaneous realization of broad temperature stability range and outstanding dielectric performance in (Ag+, Ta5+) coâ€“doped TiO2 ceramics. Journal of Alloys and Compounds, 2019, 783, 423-427.	2.8	28
43	Excellent optical transparency of potassium-sodium niobate-based lead-free relaxor ceramics induced by fine grains. Journal of the European Ceramic Society, 2019, 39, 3684-3692.	2.8	27
44	Dislocation Evolution and Migration at Grain Boundaries in Thermoelectric SnTe. ACS Applied Energy Materials, 2019, 2, 2392-2397.	2.5	27
45	Simultaneous realization of high transparency and piezoelectricity in low symmetry <scp>KNN</scp>â€based ceramics. Journal of the American Ceramic Society, 2019, 102, 3498-3509.	1.9	27
46	Temperature stability and low dielectric loss of lithium-doped CdCu3Ti4O12 ceramics for X9R capacitor applications. Ceramics International, 2019, 45, 22991-22997.	2.3	26
47	Realizing high figure of merit plateau in Ge Bi Te via enhanced Bi solution and Ge precipitation. Journal of Alloys and Compounds, 2019, 805, 831-839.	2.8	25
48	Step-Up Thermoelectric Performance Realized in Bi₂Te₃ Alloyed GeTe via Carrier Concentration and Microstructure Modulations. ACS Applied Energy Materials, 2019, 2, 1616-1622.	2.5	25
49	Relaxor nature and superior energy storage performance of Sr2Ag0.2Na0.8Nb5O15-based tungsten bronze ceramics through B-site substitution. Chemical Engineering Journal, 2022, 433, 133812.	6.6	25
50	High-efficiency synthesis of high-performance K0.5Na0.5NbO3 ceramics. Powder Technology, 2019, 346, 248-255.	2.1	23
51	Colossal dielectric response in CdAl Cu3-Ti4O12 perovskite ceramics. Materials Chemistry and Physics, 2021, 258, 123940.	2.0	23
52	Enhanced energy storage properties and superior thermal stability in SNN-based tungsten bronze ceramics through substitution strategy. Journal of the European Ceramic Society, 2022, 42, 2781-2788.	2.8	21
53	Strained Endotaxial PbS Nanoprecipitates Boosting Ultrahigh Thermoelectric Quality Factor in nâ€Type PbTe Asâ€Cast Ingots. Small, 2021, 17, e2104496.	5.2	20
54	Evaluation of birefringence contribution to transparency in (1-x)KNN-xSr(Al0.5Ta0.5)O3 ceramics: A phase structure tailoring. Journal of Alloys and Compounds, 2019, 798, 669-677.	2.8	19

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55	Relaxor behaviors and electric response in transparent 0.95(K0.5Na0.5NbO3)-0.05Ca(Zr ZnyNbz)1.025O3 ceramics with low-symmetric structure. Ceramics International, 2019, 45, 3961-3968.	2.3	19
56	Superconductivity in Transition Metal Doped MoB4. Journal of Superconductivity and Novel Magnetism, 2010, 23, 417-422.	0.8	18
57	High energy and power density achieved in Bi0.5Na0.5TiO3-based relaxor ferroelectric ceramics with excellent thermal stability. Journal of Alloys and Compounds, 2021, 875, 160005.	2.8	18
58	Enhanced Thermoelectric Performance Achieved in SnTe via the Synergy of Valence Band Regulation and Fermi Level Modulation. ACS Applied Materials & Interfaces, 2021, 13, 50037-50045.	4.0	18
59	Direct atomic-scale observation of the Ag⁺ diffusion structure in the quasi-2D â€œliquid-likeâ€•state of superionic thermoelectric AgCrSe₂. Journal of Materials Chemistry C, 2019, 7, 9263-9269.	2.7	16
60	Excellent thermoelectric performance achieved over broad temperature plateau in indium-doped SnTe-AgSbTe2 alloys. Applied Physics Letters, 2018, 112, .	1.5	15
61	Enhanced thermoelectric performance realized in AgBiS2 composited AgBiSe2 through indium doping and mechanical alloying. Applied Physics Letters, 2018, 112, .	1.5	15
62	Excellent near-infrared transparency realized in low-symmetry orthorhombic (K,Na)NbO3-based submicron ceramics. Scripta Materialia, 2018, 154, 64-67.	2.6	15
63	Synergy of Valence Band Modulation and Grain Boundary Engineering Leading to Improved Thermoelectric Performance in SnTe. ACS Applied Energy Materials, 2021, 4, 14608-14617.	2.5	15
64	Thermal conductivity of core-shell nanocomposites for enhancing thermoelectric performance. Applied Physics Letters, 2013, 102, .	1.5	13
65	Effects of preparation method on the microstructure and electrical properties of tungsten bronze structure Sr2NaNb5O15 ceramics. Ceramics International, 2019, 45, 558-565.	2.3	12
66	Enhanced thermoelectric performance in GeTe-Sb2Te3 pseudo-binary via lattice symmetry regulation and microstructure stabilization. Materials Today Physics, 2021, 21, 100507.	2.9	12
67	Electrical conduction behavior in nonstoichiometric BaBi Nb5O15Â±Î´ tungsten bronze ceramics. Ceramics International, 2021, 47, 22382-22389.	2.3	11
68	Effective scattering cross-section in lattice thermal conductivity calculation with differential effective medium method. AIP Advances, 2013, 3, .	0.6	10
69	Understanding the ultrahigh dielectric permittivity response in titanium dioxide ceramics. Ceramics International, 2020, 46, 2545-2551.	2.3	10
70	High energy storage and colossal permittivity CdCu3Ti4O12 oxide ceramics. Ceramics International, 2022, 48, 4255-4260.	2.3	10
71	Atomicâ€Scale Observation of Offâ€Centering Rattlers in Filled Skutterudites. Advanced Energy Materials, 2022, 12, .	10.2	8
72	Improved grain boundary resistance inducing decreased dielectric loss and colossal permittivity in Y2/3Cu3Ti4O12 ceramics. Materials Chemistry and Physics, 2022, 283, 125874.	2.0	8

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73	Significantly Enhanced Thermoelectric Performance Achieved in CuGaTe₂ through Dual-Element Permutations at Cation Sites. ACS Applied Materials & Interfaces, 2022, 14, 30046-30055.	4.0	8
74	Controllable synthesis of (Ba0.85Ca0.15)(Zr0.1Ti0.9)O3 submicron sphere by hydroxide co-precipitation method. Ceramics International, 2020, 46, 28285-28291.	2.3	7
75	Low dielectric loss, colossal permittivity, and high breakdown electric field in Al-doped Y2/3Cu3Ti4O12 ceramics. Ceramics International, 2022, 48, 21906-21912.	2.3	7
76	Low-temperature synthesis of CdCu3Ti4O12 powders with high dielectric permittivities. Ceramics International, 2019, 45, 11899-11904.	2.3	6
77	Ultra-low lattice thermal conductivity and enhanced thermoelectric performance in Ag2â^'xSe1/3S1/3Te1/3 via anion permutation and cation modulation. Journal of Alloys and Compounds, 2021, 885, 161378.	2.8	6
78	A new family of high temperature stability and ultra-fast chargeâ€“discharge KNN-based lead-free ceramics. Journal of Materials Science, 0, , 1.	1.7	6
79	Impact of yttria stabilized zirconia nanoinclusions on the thermal conductivity of n-type Si80Ge20 alloys prepared by spark plasma sintering. Journal of Applied Physics, 2015, 117, .	1.1	5
80	Enhanced thermoelectric properties in chimney ladder structured Mn(BxSi1-x)1.75 due to the dual lattice occupation of boron. Applied Physics Letters, 2019, 115, 123902.	1.5	5
81	Structure, electrical properties and energy storage performance of BNKT-BMN ceramics. Journal of Materials Science: Materials in Electronics, 0, , 1.	1.1	5
82	Evolvement of microstructure and lattice thermal conductivity in Na doped PbTeâ€“PbS pseudoâ^'binary system. Journal of Materiomics, 2016, 2, 150-157.	2.8	4
83	Enhanced thermoelectric performance of n-type (PbSe)n(Sb2Te3) pseudo-binary via Zn filling and Ag2Se compositing. Journal of Alloys and Compounds, 2022, 907, 164416.	2.8	3
84	Boosting the Thermoelectric Performance of Zinc blende-like Cu2SnSe3 through Phase Structure and Band Structure Regulations. Journal of Materials Chemistry A, 0, , .	5.2	2