Chen-Guang Fu

List of Publications by Year
in descending order

90	8,664	53794 45	49909 87
papers	citations	h-index	g-index

91	91	91	5305
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Compromise and Synergy in Highâ€Efficiency Thermoelectric Materials. Advanced Materials, 2017, 29, 1605884.	21.0	1,098
2	Realizing high figure of merit in heavy-band p-type half-Heusler thermoelectric materials. Nature Communications, 2015, 6, 8144.	12.8	893
3	Band engineering of high performance p-type FeNbSb based half-Heusler thermoelectric materials for figure of merit zT > 1. Energy and Environmental Science, 2015, 8, 216-220.	30.8	469
4	High Efficiency Halfâ€Heusler Thermoelectric Materials for Energy Harvesting. Advanced Energy Materials, 2015, 5, 1500588.	19.5	380
5	Tuning Multiscale Microstructures to Enhance Thermoelectric Performance of nâ€Type Bismuthâ€Tellurideâ€Based Solid Solutions. Advanced Energy Materials, 2015, 5, 1500411.	19.5	379
6	Beneficial Contribution of Alloy Disorder to Electron and Phonon Transport in Halfâ€Heusler Thermoelectric Materials. Advanced Functional Materials, 2013, 23, 5123-5130.	14.9	349
7	High Band Degeneracy Contributes to High Thermoelectric Performance in pâ€Type Halfâ€Heusler Compounds. Advanced Energy Materials, 2014, 4, 1400600.	19.5	261
8	The intrinsic disorder related alloy scattering in ZrNiSn half-Heusler thermoelectric materials. Scientific Reports, 2014, 4, 6888.	3.3	213
9	Artificial intelligence: A powerful paradigm for scientific research. Innovation(China), 2021, 2, 100179.	9.1	200
10	Hierarchical Chemical Bonds Contributing to the Intrinsically Low Thermal Conductivity in Î±â€MgAgSb Thermoelectric Materials. Advanced Functional Materials, 2017, 27, 1604145.	14.9	195
11	Anomalous Nernst effect beyond the magnetization scaling relation in the ferromagnetic Heusler compound Co2MnGa. NPG Asia Materials, 2019, 11, .	7.9	190
12	Unique Role of Refractory Ta Alloying in Enhancing the Figure of Merit of NbFeSb Thermoelectric Materials. Advanced Energy Materials, 2018, 8, 1701313.	19.5	181
13	Zeroâ€Field Nernst Effect in a Ferromagnetic Kagomeâ€Lattice Weylâ€Semimetal Co₃Sn₂S₂. Advanced Materials, 2019, 31, e1806622.	21.0	180
14	Enhancing the Figure of Merit of Heavyâ€Band Thermoelectric Materials Through Hierarchical Phonon Scattering. Advanced Science, 2016, 3, 1600035.	11.2	147
15	Carrier grain boundary scattering in thermoelectric materials. Energy and Environmental Science, 2022, 15, 1406-1422.	30.8	145
16	High Performance Mg₂(Si,Sn) Solid Solutions: a Point Defect Chemistry Approach to Enhancing Thermoelectric Properties. Advanced Functional Materials, 2014, 24, 3776-3781.	14.9	141
17	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.	10.3	137
18	High Performance Î±-MgAgSb Thermoelectric Materials for Low Temperature Power Generation. Chemistry of Materials, 2015, 27, 909-913.	6.7	124

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19	Synergistic modulation of mobility and thermal conductivity in (Bi,Sb)₂Te₃ towards high thermoelectric performance. Energy and Environmental Science, 2019, 12, 624-630.	30.8	120
20	Attaining high mid-temperature performance in (Bi,Sb)2Te3 thermoelectric materials via synergistic optimization. NPG Asia Materials, 2016, 8, e302-e302.	7.9	119
21	Enhanced thermoelectric performance of PbTe bulk materials with figure of merit zT >2 by multi-functional alloying. Journal of Materiomics, 2016, 2, 141-149.	5.7	118
22	Surface states in bulk single crystal of topological semimetal Co ₃ Sn ₂ S ₂ toward water oxidation. Science Advances, 2019, 5, eaaw9867.	10.3	118
23	Metallic nâ€Type Mg₃Sb₂ Single Crystals Demonstrate the Absence of Ionized Impurity Scattering and Enhanced Thermoelectric Performance. Advanced Materials, 2020, 32, e1908218.	21.0	116
24	Carbonâ€Tailored Semimetal MoP as an Efficient Hydrogen Evolution Electrocatalyst in Both Alkaline and Acid Media. Advanced Energy Materials, 2018, 8, 1801258.	19.5	111
25	Lanthanide Contraction as a Design Factor for Highâ€Performance Halfâ€Heusler Thermoelectric Materials. Advanced Materials, 2018, 30, e1800881.	21.0	101
26	Mg₃(Bi,Sb)₂ single crystals towards high thermoelectric performance. Energy and Environmental Science, 2020, 13, 1717-1724.	30.8	91
27	Interrelation between atomic switching disorder and thermoelectric properties of ZrNiSn half-Heusler compounds. CrystEngComm, 2012, 14, 4467.	2.6	87
28	Establishing the carrier scattering phase diagram for ZrNiSn-based half-Heusler thermoelectric materials. Nature Communications, 2020, 11, 3142.	12.8	87
29	Topological thermoelectrics. APL Materials, 2020, 8, .	5.1	84
30	Enhanced phonon scattering by mass and strain field fluctuations in Nb substituted FeVSb half-Heusler thermoelectric materials. Journal of Applied Physics, 2012, 112, .	2.5	82
31	Enhancing Thermoelectric Performance of TiNiSn Half-Heusler Compounds via Modulation Doping. Chemistry of Materials, 2017, 29, 7042-7048.	6.7	81
32	Departure from the Wiedemannâ€“Franz law in WP2 driven by mismatch in T-square resistivity prefactors. Npj Quantum Materials, 2018, 3, .	5.2	72
33	Synergistically creating sulfur vacancies in semimetal-supported amorphous MoS2 for efficient hydrogen evolution. Applied Catalysis B: Environmental, 2019, 254, 1-6.	20.2	69
34	Demonstration of valley anisotropy utilized to enhance the thermoelectric power factor. Nature Communications, 2021, 12, 5408.	12.8	66
35	High-Performance Mg ₃ Sb _{2- x} Bi _x Thermoelectrics: Progress and Perspective. Research, 2020, 2020, 1934848.	5.7	63
36	Thermoelectric properties of FeVSb half-Heusler compounds by levitation melting and spark plasma sintering. Intermetallics, 2013, 32, 39-43.	3.9	60

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37	Growth and transport properties of Mg3X2 (XÂ= Sb, Bi) single crystals. Materials Today Physics, 2018, 7, 61-68.	6.0	60
38	Half-Heusler thermoelectric materials. Applied Physics Letters, 2021, 118, .	3.3	60
39	Dirac Nodal Arc Semimetal PtSn₄: An Ideal Platform for Understanding Surface Properties and Catalysis for Hydrogen Evolution. Angewandte Chemie - International Edition, 2019, 58, 13107-13112.	13.8	59
40	Large Nernst power factor over a broad temperature range in polycrystalline Weyl semimetal NbP. Energy and Environmental Science, 2018, 11, 2813-2820.	30.8	57
41	In Situ Induction of Strain in Iron Phosphide (FeP₂) Catalyst for Enhanced Hydroxide Adsorption and Water Oxidation. Advanced Functional Materials, 2020, 30, 1907791.	14.9	55
42	Electron and phonon transport in Co-doped FeV0.6Nb0.4Sb half-Heusler thermoelectric materials. Journal of Applied Physics, 2013, 114, 134905.	2.5	54
43	Lattice thermal conductivity and spectral phonon scattering in FeVSb-based half-Heusler compounds. Europhysics Letters, 2013, 104, 46003.	2.0	54
44	Enhancing thermoelectric performance of FeNbSb half-Heusler compound by Hf-Ti dual-doping. Energy Storage Materials, 2018, 10, 69-74.	18.0	53
45	Key properties of inorganic thermoelectric materialsâ€"tables (version 1). JPhys Energy, 2022, 4, 022002.	5.3	51
46	Revealing the Intrinsic Electronic Structure of 3D Halfâ€Heusler Thermoelectric Materials by Angleâ€Resolved Photoemission Spectroscopy. Advanced Science, 2020, 7, 1902409.	11.2	49
47	Tunablee_gOrbital Occupancy in Heusler Compounds for Oxygen Evolution Reaction**. Angewandte Chemie - International Edition, 2021, 60, 5800-5805.	13.8	45
48	Thermoelectric properties of n-type half-Heusler NbCoSn with heavy-element Pt substitution. Journal of Materials Chemistry A, 2020, 8, 14822-14828.	10.3	44
49	The Role of Electronâ€"Phonon Interaction in Heavily Doped Fineâ€Grained Bulk Silicons as Thermoelectric Materials. Advanced Electronic Materials, 2016, 2, 1600171.	5.1	38
50	Large anomalous Hall effect in the kagome ferromagnet LiMn6Sn6. Physical Review B, 2021, 103, .	3.2	35
51	In Situ Modification of a Delafossite-Type PdCoO₂ Bulk Single Crystal for Reversible Hydrogen Sorption and Fast Hydrogen Evolution. ACS Energy Letters, 2019, 4, 2185-2191.	17.4	34
52	Thermoelectric Properties of Novel Semimetals: A Case Study of YbMnSb₂. Advanced Materials, 2021, 33, e2003168.	21.0	34
53	Increased electrical conductivity in fine-grained (Zr,Hf)NiSn based thermoelectric materials with nanoscale precipitates. Applied Physics Letters, 2012, 100, .	3.3	32
54	Improved Thermoelectric Properties in Lu-doped Yb$_{14}$MnSb$_{11}$ Zintl Compounds. Applied Physics Express, 2012, 5, 031801.	2.4	31

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55	High performance half-Heusler thermoelectric materials with refined grains and nanoscale precipitates. Journal of Materials Research, 2012, 27, 2457-2465.	2.6	29
56	Dirac Nodal Arc Semimetal PtSn₄: An Ideal Platform for Understanding Surface Properties and Catalysis for Hydrogen Evolution. Angewandte Chemie, 2019, 131, 13241-13246.	2.0	28
57	Fast synthesis and improved electrical stability in n-type Ag2Te thermoelectric materials. Journal of Materials Science and Technology, 2021, 91, 241-250.	10.7	28
58	Largely Suppressed Magneto-Thermal Conductivity and Enhanced Magneto-Thermoelectric Properties in PtSn ₄. Research, 2020, 2020, 4643507.	5.7	26
59	Are Solid Solutions Better in FeNbSbâ€Based Thermoelectrics?. Advanced Electronic Materials, 2016, 2, 1600394.	5.1	25
60	Violation of the T ^{â^'1} Relationship in the Lattice Thermal Conductivity of Mg ₃ Sb ₂ with Locally Asymmetric Vibrations. Research, 2020, 2020, 4589786.	5.7	25
61	Anisotropic electrical and thermal magnetotransport in the magnetic semimetal GdPtBi. Physical Review B, 2020, 101, .	3.2	24
62	Dopant-segregation to grain boundaries controls electrical conductivity of n-type NbCo(Pt)Sn half-Heusler alloy mediating thermoelectric performance. Acta Materialia, 2021, 217, 117147.	7.9	24
63	Thermoelectric transport effects beyond single parabolic band and acoustic phonon scattering. Materials Advances, 2022, 3, 734-755.	5.4	21
64	Synthesis and thermoelectric properties of Rashba semiconductor BiTeBr with intensive texture. Rare Metals, 2018, 37, 274-281.	7.1	20
65	Large Anomalous Hall and Nernst Effects in High Curieâ€Temperature Ironâ€Based Heusler Compounds. Advanced Science, 2021, 8, e2100782.	11.2	20
66	Enhancing the room temperature thermoelectric performance of n-type Bismuth-telluride-based polycrystalline materials by low-angle grain boundaries. Materials Today Physics, 2022, 22, 100573.	6.0	19
67	A New Highly Anisotropic Rhâ€Based Heusler Compound for Magnetic Recording. Advanced Materials, 2020, 32, 2004331.	21.0	18
68	Mo-Fe/NbFeSb Thermoelectric Junctions: Anti-Thermal Aging Interface and Low Contact Resistivity. ACS Applied Materials & Interfaces, 2021, 13, 7317-7323.	8.0	17
69	Large topological Hall effect in an easy-cone ferromagnet (Cr0.9B0.1)Te. Applied Physics Letters, 2020, 117, .	3.3	15
70	High-Power-Density Wearable Thermoelectric Generators for Human Body Heat Harvesting. ACS Applied Materials & Interfaces, 2022, 14, 21224-21231.	8.0	15
71	Magnetocatalysis: The Interplay between the Magnetic Field and Electrocatalysis. CCS Chemistry, 2021, 3, 2259-2267.	7.8	13
72	Mode GrÃ¼neisen parameters of an efficient thermoelectric half-Heusler. Journal of Applied Physics, 2018, 124, .	2.5	12

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73	Tunable e g Orbital Occupancy in Heusler Compounds for Oxygen Evolution Reaction**. Angewandte Chemie, 2021, 133, 5864-5869.	2.0	12
74	Reliable measurements of the Seebeck coefficient on a commercial system. Journal of Materials Research, 2015, 30, 2670-2677.	2.6	11
75	Visualizing the Mg atoms in Mg3Sb2 thermoelectrics using advanced iDPC-STEM technique. Materials Today Physics, 2021, 21, 100524.	6.0	11
76	Spin Nernst effect in a p-band semimetal InBi. New Journal of Physics, 2020, 22, 093003.	2.9	10
77	Hot deformation induced defects and performance enhancement in FeSb2 thermoelectric materials. Journal of Applied Physics, 2013, 114, .	2.5	9
78	Improved thermoelectric properties of TiNiSn through enhancing strain field fluctuation. Journal Physics D: Applied Physics, 2017, 50, 425502.	2.8	7
79	Origin of efficient thermoelectric performance in half-Heusler FeNb0.8Ti0.2Sb. Journal of Applied Physics, 2018, 123, .	2.5	7
80	Synthesis and Transport Properties of In4(Se1â^'x Te x)3. Journal of Electronic Materials, 2011, 40, 1202-1205.	2.2	6
81	Pressure tuning of thermoelectric performance in FeNbSb. Journal of Alloys and Compounds, 2019, 805, 1224-1230.	5.5	6
82	Influence of Electronâ€“Phonon Interaction on the Lattice Thermal Conductivity in Singleâ€Crystal Si. Annalen Der Physik, 2020, 532, 1900435.	2.4	6
83	Optimization of catalytic active sites in non-collinear antiferromagnetic Mn3Pt bulk single-crystal. Materials Today Physics, 2019, 10, 100137.	6.0	5
84	Grain boundary in NbCo(Pt)Sn half-Heusler compounds: Segregation and solute drag on grain boundary migration. Acta Materialia, 2022, 226, 117604.	7.9	5
85	Low interfacial resistivity in CoSi2/ZrCoSb thermoelectric junctions. Materials Today Energy, 2022, 25, 100960.	4.7	5
86	Realizing n-type gete through suppressing the formation of cation vacancies and bi-doping*. Chinese Physics Letters, 2021, 38, 127201.	3.3	5
87	Electronic structure and low-temperature thermoelectric transport of TiCoSb single crystals. Nanoscale, 0, , .	5.6	5
88	THERMOELECTRIC PROPERTIES OF p-TYPE SKUTTERUDITES (Pr_{0.25}Nd_{0.75})_xFe₃Co_{1-x}Sb BY LEVITATION MELTING AND SPARK PLASMA SINTERING. Functional Materials Letters, 2013, 06, 1340006.	1.2	2
89	Thermoelectric Materials: Thermoelectric Properties of Novel Semimetals: A Case Study of YbMnSb₂ (Adv. Mater. 7/2021). Advanced Materials, 2021, 33, 2170051.	21.0	1
90	Ag rearrangement induced metal-insulator phase transition in thermoelectric MgAgSb. Materials Today Physics, 2022, 25, 100702.	6.0	0