Wei-Di Liu

List of Publications by Year in Descending Order

72 papers	2,258 citations	27 h-index	46 g-index
76 ext. papers	3,211 ext. citations	12.7 avg, IF	5.84 L-index

#	Paper	IF	Citations
72	Scalable waste-plastic-derived carbon nanosheets with high contents of inbuilt nitrogen/sulfur sites for high performance potassium-ion hybrid capacitors. *Nano Energy*, **2022**, 95, 107015	17.1	2
71	High thermoelectric and mechanical performance in the n-type polycrystalline SnSe incorporated with multi-walled carbon nanotubes. *Journal of Materials Science and Technology*, **2022**, 114, 55-61	9.1	5
70	Cheap, Large-Scale, and High-Performance Graphite-Based Flexible Thermoelectric Materials and Devices with Supernormal Industry Feasibility.. *ACS Applied Materials & Interfaces*, **2022**,	9.5	1
69	Dual-function engineering to construct ultra-stable anodes for potassium-ion hybrid capacitors: N, O-doped porous carbon spheres. *Nano Energy*, **2022**, 93, 106903	17.1	2
68	Se-alloying reducing lattice thermal conductivity of Ge0.95Bi0.05Te. *Journal of Materials Science and Technology*, **2022**, 106, 249-256	9.1	7
67	Simultaneously achieving high ZT and mechanical hardness in highly alloyed GeTe with symmetric nanodomains. *Chemical Engineering Journal*, **2022**, 441, 136131	14.7	9
66	Thermoelectric coolers: Infinite potentials for finite localized microchip cooling. *Journal of Materials Science and Technology*, **2022**, 121, 256-262	9.1	7
65	Ultrafast Porous Carbon Activation Promises High-Energy Density Supercapacitors.. *Small*, **2022**, e2200954	14	8
64	Achieving high thermoelectric properties in PEDOT:PSS/SWCNTs composite films by a combination of dimethyl sulfoxide doping and NaBH4 dedoping. *Carbon*, **2022**, 196, 718-726	10.4	1
63	The effect of rare earth element doping on thermoelectric properties of GeTe. *Chemical Engineering Journal*, **2022**, 446, 137278	14.7	1
62	Novel Thermal Diffusion Temperature Engineering Leading to High Thermoelectric Performance in Bi Te -Based Flexible Thin-Films.. *Advanced Science*, **2021**, e2103547	13.6	17
61	Impurity Removal Leading to High-Performance CoSb-Based Skutterudites with Synergistic Carrier Concentration Optimization and Thermal Conductivity Reduction. *ACS Applied Materials & Interfaces*, **2021**, 13, 54185-54193	9.5	0
60	High near-room temperature figure of merit of n-type Bi2GeTe4-based thermoelectric materials via a stepwise optimization of carrier concentration. *Chemical Engineering Journal*, **2021**, 133775	14.7	4
59	High Carrier Mobility and High Figure of Merit in the CuBiSe2 Alloyed GeTe. *Advanced Energy Materials*, **2021**, 11, 2102913	21.8	16
58	Two-dimensional flexible thermoelectric devices: Using modeling to deliver optimal capability. *Applied Physics Reviews*, **2021**, 8, 041404	17.3	9
57	Rare-Earth Nd Inducing Record-High Thermoelectric Performance of (GeTe)85(AgSbTe2)15. *Energy Material Advances*, **2021**, 2021, 1-8	1	4
56	Versatile Vanadium Doping Induces High Thermoelectric Performance in GeTe via Band Alignment and Structural Modulation. *Advanced Energy Materials*, **2021**, 11, 2100544	21.8	18

55	Rational Electronic and Structural Designs Advance BiCuSeO Thermoelectrics. *Advanced Functional Materials*, **2021**, 31, 2101289	15.6	17
54	Simultaneously optimized thermoelectric performance of n-type Cu2Se alloyed Bi2Te3. *Journal of Solid State Chemistry*, **2021**, 296, 121987	3.3	4
53	Carbon allotrope hybrids advance thermoelectric development and applications. *Renewable and Sustainable Energy Reviews*, **2021**, 141, 110800	16.2	46
52	Potassium-based electrochemical energy storage devices: Development status and future prospect. *Energy Storage Materials*, **2021**, 34, 85-106	19.4	21
51	Two-dimensional WSe2/SnSe p-n junctions secure ultrahigh thermoelectric performance in n-type Pb/I Co-doped polycrystalline SnSe. *Materials Today Physics*, **2021**, 16, 100306	8	34
50	Rational band engineering and structural manipulations inducing high thermoelectric performance in n-type CoSb3 thin films. *Nano Energy*, **2021**, 81, 105683	17.1	42
49	Synergistic Texturing and Bi/Sb-Te Antisite Doping Secure High Thermoelectric Performance in Bi0.5Sb1.5Te3-Based Thin Films. *Advanced Energy Materials*, **2021**, 11, 2102578	21.8	10
48	Synergistic band convergence and defect engineering boost thermoelectric performance of SnTe. *Journal of Materials Science and Technology*, **2021**, 86, 204-209	9.1	12
47	Boosting the thermoelectric performance of n-type Bi2S3 by hierarchical structure manipulation and carrier density optimization. *Nano Energy*, **2021**, 87, 106171	17.1	7
46	Double perovskite Pr2CoFeO6 thermoelectric oxide: Roles of Sr-doping and Micro/nanostructuring. *Chemical Engineering Journal*, **2021**, 425, 130668	14.7	9
45	Hierarchical Structures Advance Thermoelectric Properties of Porous n-type Ag2Se. *ACS Applied Materials & Interfaces*, **2020**, 12, 51523-51529	9.5	29
44	Flexible Carbon-Fiber/Semimetal Bi Nanosheet Arrays as Separable and Recyclable Plasmonic Photocatalysts and Photoelectrocatalysts. *ACS Applied Materials & Interfaces*, **2020**, 12, 24845-24854	9.5	123
43	Bi0.5Sb1.5Te3/PEDOT:PSS-based flexible thermoelectric film and device. *Chemical Engineering Journal*, **2020**, 397, 125360	14.7	66
42	A synergy of strain loading and laser radiation in determining the high-performing electrical transports in the single Cu-doped SnSe microbelt. *Materials Today Physics*, **2020**, 13, 100198	8	13
41	A Survey of Artificial Intelligence Techniques Applied in Energy Storage Materials R&D. *Frontiers in Energy Research*, **2020**, 8,	3.8	4
40	Morphology and Texture Engineering Enhancing Thermoelectric Performance of Solvothermal Synthesized Ultralarge SnS Microcrystal. *ACS Applied Energy Materials*, **2020**, 3, 2192-2199	6.1	12
39	Promising and Eco-Friendly Cu X-Based Thermoelectric Materials: Progress and Applications. *Advanced Materials*, **2020**, 32, e1905703	24	92
38	Texture-dependent thermoelectric properties of nano-structured Bi2Te3. *Chemical Engineering Journal*, **2020**, 388, 124295	14.7	72

37	Thermo-Responsive Nanomaterials for Thermoelectric Generation. *Springer Series in Materials Science*, **2020**, 269-293	0.9	
36	Cu2Se thermoelectrics: property, methodology, and device. *Nano Today*, **2020**, 35, 100938	17.9	57
35	Enhanced thermoelectric properties of nanostructured n-type Bi2Te3 by suppressing Te vacancy through non-equilibrium fast reaction. *Chemical Engineering Journal*, **2020**, 391, 123513	14.7	58
34	Outstanding thermoelectric properties of solvothermal-synthesized Sn1□xInxAg2xTe micro-crystals through defect engineering and band tuning. *Journal of Materials Chemistry A*, **2020**, 8, 3978-3987	13	19
33	Synergistic effect approaching record-high figure of merit in the shear exfoliated n-type Bi2O2-2xTe2xSe. *Nano Energy*, **2020**, 69, 104394	17.1	24
32	Optimization of sodium hydroxide for securing high thermoelectric performance in polycrystalline Sn1 □xSe via anisotropy and vacancy synergy. *Informa□□Materi□y*, **2020**, 2, 1201-1215	23.1	31
31	In situ crystal-amorphous compositing inducing ultrahigh thermoelectric performance of p-type Bi0.5Sb1.5Te3 hybrid thin films. *Nano Energy*, **2020**, 78, 105379	17.1	10
30	High-Temperature Shock Enabled Nanomanufacturing for Energy-Related Applications. *Advanced Energy Materials*, **2020**, 10, 2001331	21.8	41
29	Development Status and Prospects of Artificial Intelligence in the Field of Energy Conversion Materials. *Frontiers in Energy Research*, **2020**, 8,	3.8	3
28	Thermoelectric Generators: Alternative Power Supply for Wearable Electrocardiographic Systems. *Advanced Science*, **2020**, 7, 2001362	13.6	84
27	Nanomanufacturing of RGO-CNT Hybrid Film for Flexible Aqueous Al-Ion Batteries. *Small*, **2020**, 16, e2002856	13	17
26	High-Performance GeTe-Based Thermoelectrics: from Materials to Devices. *Advanced Energy Materials*, **2020**, 10, 2000367	21.8	94
25	Realizing high thermoelectric properties of SnTe via synergistic band engineering and structure engineering. *Nano Energy*, **2019**, 65, 104056	17.1	70
24	Super Large SnSe Single Crystals with Excellent Thermoelectric Performance. *ACS Applied Materials & Interfaces*, **2019**, 11, 8051-8059	9.5	27
23	Solvothermal synthesis of high-purity porous Cu1.7Se approaching low lattice thermal conductivity. *Chemical Engineering Journal*, **2019**, 375, 121996	14.7	21
22	Effectively restricting MnSi precipitates for simultaneously enhancing the Seebeck coefficient and electrical conductivity in higher manganese silicide. *Journal of Materials Chemistry C*, **2019**, 7, 7212-7218	7.1	6
21	Carbon-Encapsulated Copper Sulfide Leading to Enhanced Thermoelectric Properties. *ACS Applied Materials & Interfaces*, **2019**, 11, 22457-22463	9.5	22
20	Enhancing Thermoelectric Properties of InTe Nanoprecipitate-Embedded Sn1□InxTe Microcrystals through Anharmonicity and Strain Engineering. *ACS Applied Energy Materials*, **2019**, 2, 2965-2971	6.1	31

19	Kinetic condition driven phase and vacancy enhancing thermoelectric performance of low-cost and eco-friendly Cu2S. *Journal of Materials Chemistry C*, **2019**, 7, 5366-5373	7.1	20
18	High Thermoelectric Performance in p-type Polycrystalline Cd-doped SnSe Achieved by a Combination of Cation Vacancies and Localized Lattice Engineering. *Advanced Energy Materials*, **2019**, 9, 1803242	21.8	99
17	High Porosity in Nanostructured -Type BiTe Obtaining Ultralow Lattice Thermal Conductivity. *ACS Applied Materials & Interfaces*, **2019**, 11, 31237-31244	9.5	50
16	- Observation of the Continuous Phase Transition in Determining the High Thermoelectric Performance of Polycrystalline SnSe. *Journal of Physical Chemistry Letters*, **2019**, 10, 6512-6517	6.4	22
15	Anisotropy Controlnduced Unique Anisotropic Thermoelectric Performance in the n-Type Bi2Te2.7Se0.3 Thin Films. *Small Methods*, **2019**, 3, 1900582	12.8	38
14	Vapour-solid growth of MoxW1-xTe2 nanobelts by a facile chemical vapour deposition method. *Journal of Alloys and Compounds*, **2019**, 777, 926-930	5.7	7
13	Eco-Friendly Higher Manganese Silicide Thermoelectric Materials: Progress and Future Challenges. *Advanced Energy Materials*, **2018**, 8, 1800056	21.8	90
12	Achieving high Figure of Merit in p-type polycrystalline Sn0.98Se via self-doping and anisotropy-strengthening. *Energy Storage Materials*, **2018**, 10, 130-138	19.4	79
11	Boosting the thermoelectric performance of p-type heavily Cu-doped polycrystalline SnSe inducing intensive crystal imperfections and defect phonon scattering. *Chemical Science*, **2018**, 9, 7376-7389	9.4	91
10	Enhancing thermoelectric performance of (Cu1-xAgx)2Se via CuAgSe secondary phase and porous design. *Sustainable Materials and Technologies*, **2018**, 17, e00076	5.3	20
9	Realizing High Thermoelectric Performance in n-Type Highly Distorted Sb-Doped SnSe Microplates via Tuning High Electron Concentration and Inducing Intensive Crystal Defects. *Advanced Energy Materials*, **2018**, 8, 1800775	21.8	86
8	Ag doping induced abnormal lattice thermal conductivity in Cu2Se. *Journal of Materials Chemistry C*, **2018**, 6, 13225-13231	7.1	40
7	High Thermoelectric Performance in Sintered Octahedron-Shaped Sn(CdIn) Te Microcrystals. *ACS Applied Materials & Interfaces*, **2018**, 10, 38944-38952	9.5	27
6	Polycrystalline SnSe with Extraordinary Thermoelectric Property via Nanoporous Design. *ACS Nano*, **2018**, 12, 11417-11425	16.7	98
5	Arrays of Planar Vacancies in Superior Thermoelectric Ge1CdxBiyTe with Band Convergence. *Advanced Energy Materials*, **2018**, 8, 1801837	21.8	116
4	Effect of Microwave Treatment Upon Processing Oolitic High Phosphorus Iron Ore for Phosphorus Removal. *Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science*, **2014**, 45, 1683-1694	2.5	14
3	Multifunctional Wearable Thermoelectrics for Personal Thermal Management. *Advanced Functional Materials*,2200548	15.6	15
2	A Solvothermal Synthetic Environmental Design for High-Performance SnSe-Based Thermoelectric Materials. *Advanced Energy Materials*,2200670	21.8	2

1	Synergistic Effect of Band and Nanostructure Engineering on the Boosted Thermoelectric Performance of n-Type Mg 3+ (Sb, Bi) 2 Zintls. *Advanced Energy Materials*,2201086	21.8	2