## Wei-Di Liu

## List of Publications by Citations

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76 3,211 12.7 5.84 ext. papers ext. citations avg, IF L-index

#	Paper	IF	Citations
72	Flexible Carbon-Fiber/Semimetal Bi Nanosheet Arrays as Separable and Recyclable Plasmonic Photocatalysts and Photoelectrocatalysts. <i>ACS Applied Materials &amp; Amp; Interfaces</i> , <b>2020</b> , 12, 24845-248	3 <b>54</b> ·5	123
71	Arrays of Planar Vacancies in Superior Thermoelectric Ge1 LQCdxBiyTe with Band Convergence. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1801837	21.8	116
70	High Thermoelectric Performance in p-type Polycrystalline Cd-doped SnSe Achieved by a Combination of Cation Vacancies and Localized Lattice Engineering. <i>Advanced Energy Materials</i> , <b>2019</b> , 9, 1803242	21.8	99
69	Polycrystalline SnSe with Extraordinary Thermoelectric Property via Nanoporous Design. <i>ACS Nano</i> , <b>2018</b> , 12, 11417-11425	16.7	98
68	High-Performance GeTe-Based Thermoelectrics: from Materials to Devices. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 2000367	21.8	94
67	Promising and Eco-Friendly Cu X-Based Thermoelectric Materials: Progress and Applications. <i>Advanced Materials</i> , <b>2020</b> , 32, e1905703	24	92
66	Boosting the thermoelectric performance of p-type heavily Cu-doped polycrystalline SnSe inducing intensive crystal imperfections and defect phonon scattering. <i>Chemical Science</i> , <b>2018</b> , 9, 7376-7389	9.4	91
65	Eco-Friendly Higher Manganese Silicide Thermoelectric Materials: Progress and Future Challenges. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1800056	21.8	90
64	Realizing High Thermoelectric Performance in n-Type Highly Distorted Sb-Doped SnSe Microplates via Tuning High Electron Concentration and Inducing Intensive Crystal Defects. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1800775	21.8	86
63	Thermoelectric Generators: Alternative Power Supply for Wearable Electrocardiographic Systems. <i>Advanced Science</i> , <b>2020</b> , 7, 2001362	13.6	84
62	Achieving high Figure of Merit in p-type polycrystalline Sn0.98Se via self-doping and anisotropy-strengthening. <i>Energy Storage Materials</i> , <b>2018</b> , 10, 130-138	19.4	79
61	Texture-dependent thermoelectric properties of nano-structured Bi2Te3. <i>Chemical Engineering Journal</i> , <b>2020</b> , 388, 124295	14.7	72
60	Realizing high thermoelectric properties of SnTe via synergistic band engineering and structure engineering. <i>Nano Energy</i> , <b>2019</b> , 65, 104056	17.1	70
59	Bi0.5Sb1.5Te3/PEDOT:PSS-based flexible thermoelectric film and device. <i>Chemical Engineering Journal</i> , <b>2020</b> , 397, 125360	14.7	66
58	Enhanced thermoelectric properties of nanostructured n-type Bi2Te3 by suppressing Te vacancy through non-equilibrium fast reaction. <i>Chemical Engineering Journal</i> , <b>2020</b> , 391, 123513	14.7	58
57	Cu2Se thermoelectrics: property, methodology, and device. <i>Nano Today</i> , <b>2020</b> , 35, 100938	17.9	57
56	High Porosity in Nanostructured -Type BiTe Obtaining Ultralow Lattice Thermal Conductivity. <i>ACS Applied Materials &amp; Discrete Applied &amp; Discrete Applied Materials &amp; Discrete Applied &amp; Discret</i>	9.5	50

## (2018-2021)

55	Carbon allotrope hybrids advance thermoelectric development and applications. <i>Renewable and Sustainable Energy Reviews</i> , <b>2021</b> , 141, 110800	16.2	46	
54	Rational band engineering and structural manipulations inducing high thermoelectric performance in n-type CoSb3 thin films. <i>Nano Energy</i> , <b>2021</b> , 81, 105683	17.1	42	
53	High-Temperature Shock Enabled Nanomanufacturing for Energy-Related Applications. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 2001331	21.8	41	
52	Ag doping induced abnormal lattice thermal conductivity in Cu2Se. <i>Journal of Materials Chemistry C</i> , <b>2018</b> , 6, 13225-13231	7.1	40	
51	Anisotropy Controllhduced Unique Anisotropic Thermoelectric Performance in the n-Type Bi2Te2.7Se0.3 Thin Films. <i>Small Methods</i> , <b>2019</b> , 3, 1900582	12.8	38	
50	Two-dimensional WSe2/SnSe p-n junctions secure ultrahigh thermoelectric performance in n-type Pb/I Co-doped polycrystalline SnSe. <i>Materials Today Physics</i> , <b>2021</b> , 16, 100306	8	34	
49	Enhancing Thermoelectric Properties of InTe Nanoprecipitate-Embedded Sn1IdnxTe Microcrystals through Anharmonicity and Strain Engineering. <i>ACS Applied Energy Materials</i> , <b>2019</b> , 2, 2965-2971	6.1	31	
48	Optimization of sodium hydroxide for securing high thermoelectric performance in polycrystalline Sn1 IkSe via anisotropy and vacancy synergy. <i>Informal</i> Materilly, <b>2020</b> , 2, 1201-1215	23.1	31	
47	Hierarchical Structures Advance Thermoelectric Properties of Porous n-type EAgSe. <i>ACS Applied Materials &amp; ACS Applied &amp; ACS Applied Materials &amp; ACS Applied &amp; ACS A</i>	9.5	29	
46	Super Large SnSe Single Crystals with Excellent Thermoelectric Performance. <i>ACS Applied Materials &amp; Amp; Interfaces</i> , <b>2019</b> , 11, 8051-8059	9.5	27	
45	High Thermoelectric Performance in Sintered Octahedron-Shaped Sn(CdIn) Te Microcrystals. <i>ACS Applied Materials &amp; Discourse Material</i>	9.5	27	
44	Synergistic effect approaching record-high figure of merit in the shear exfoliated n-type Bi2O2-2xTe2xSe. <i>Nano Energy</i> , <b>2020</b> , 69, 104394	17.1	24	
43	Carbon-Encapsulated Copper Sulfide Leading to Enhanced Thermoelectric Properties. <i>ACS Applied Materials &amp; ACS Applied &amp; ACS Applied Materials &amp; ACS Applied &amp; A</i>	9.5	22	
42	- Observation of the Continuous Phase Transition in Determining the High Thermoelectric Performance of Polycrystalline SnSe. <i>Journal of Physical Chemistry Letters</i> , <b>2019</b> , 10, 6512-6517	6.4	22	
41	Solvothermal synthesis of high-purity porous Cu1.7Se approaching low lattice thermal conductivity. <i>Chemical Engineering Journal</i> , <b>2019</b> , 375, 121996	14.7	21	
40	Potassium-based electrochemical energy storage devices: Development status and future prospect. <i>Energy Storage Materials</i> , <b>2021</b> , 34, 85-106	19.4	21	
39	Kinetic condition driven phase and vacancy enhancing thermoelectric performance of low-cost and eco-friendly Cu2⊠S. <i>Journal of Materials Chemistry C</i> , <b>2019</b> , 7, 5366-5373	7.1	20	
38	Enhancing thermoelectric performance of (Cu1-xAgx)2Se via CuAgSe secondary phase and porous design. <i>Sustainable Materials and Technologies</i> , <b>2018</b> , 17, e00076	5.3	20	

37	Outstanding thermoelectric properties of solvothermal-synthesized Sn1BxInxAg2xTe micro-crystals through defect engineering and band tuning. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 3978-3987	13	19
36	Versatile Vanadium Doping Induces High Thermoelectric Performance in GeTe via Band Alignment and Structural Modulation. <i>Advanced Energy Materials</i> , <b>2021</b> , 11, 2100544	21.8	18
35	Novel Thermal Diffusion Temperature Engineering Leading to High Thermoelectric Performance in Bi Te -Based Flexible Thin-Films <i>Advanced Science</i> , <b>2021</b> , e2103547	13.6	17
34	Nanomanufacturing of RGO-CNT Hybrid Film for Flexible Aqueous Al-Ion Batteries. <i>Small</i> , <b>2020</b> , 16, e200	0 <u>2</u> 856	17
33	Rational Electronic and Structural Designs Advance BiCuSeO Thermoelectrics. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2101289	15.6	17
32	High Carrier Mobility and High Figure of Merit in the CuBiSe2 Alloyed GeTe. <i>Advanced Energy Materials</i> , <b>2021</b> , 11, 2102913	21.8	16
31	Multifunctional Wearable Thermoelectrics for Personal Thermal Management. <i>Advanced Functional Materials</i> ,2200548	15.6	15
30	Effect of Microwave Treatment Upon Processing Oolitic High Phosphorus Iron Ore for Phosphorus Removal. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2014</b> , 45, 1683-1694	2.5	14
29	A synergy of strain loading and laser radiation in determining the high-performing electrical transports in the single Cu-doped SnSe microbelt. <i>Materials Today Physics</i> , <b>2020</b> , 13, 100198	8	13
28	Morphology and Texture Engineering Enhancing Thermoelectric Performance of Solvothermal Synthesized Ultralarge SnS Microcrystal. <i>ACS Applied Energy Materials</i> , <b>2020</b> , 3, 2192-2199	6.1	12
27	Synergistic band convergence and defect engineering boost thermoelectric performance of SnTe. Journal of Materials Science and Technology, <b>2021</b> , 86, 204-209	9.1	12
26	In situ crystal-amorphous compositing inducing ultrahigh thermoelectric performance of p-type Bi0.5Sb1.5Te3 hybrid thin films. <i>Nano Energy</i> , <b>2020</b> , 78, 105379	17.1	10
25	Synergistic Texturing and Bi/Sb-Te Antisite Doping Secure High Thermoelectric Performance in Bi0.5Sb1.5Te3-Based Thin Films. <i>Advanced Energy Materials</i> , <b>2021</b> , 11, 2102578	21.8	10
24	Two-dimensional flexible thermoelectric devices: Using modeling to deliver optimal capability. <i>Applied Physics Reviews</i> , <b>2021</b> , 8, 041404	17.3	9
23	Double perovskite Pr2CoFeO6 thermoelectric oxide: Roles of Sr-doping and Micro/nanostructuring. <i>Chemical Engineering Journal</i> , <b>2021</b> , 425, 130668	14.7	9
22	Simultaneously achieving high ZT and mechanical hardness in highly alloyed GeTe with symmetric nanodomains. <i>Chemical Engineering Journal</i> , <b>2022</b> , 441, 136131	14.7	9
21	Ultrafast Porous Carbon Activation Promises High-Energy Density Supercapacitors Small, 2022, e22009	954	8
20	Se-alloying reducing lattice thermal conductivity of Ge0.95Bi0.05Te. <i>Journal of Materials Science and Technology</i> , <b>2022</b> , 106, 249-256	9.1	7

## (2021-2019)

19	Vapour-solid growth of MoxW1-xTe2 nanobelts by a facile chemical vapour deposition method. Journal of Alloys and Compounds, <b>2019</b> , 777, 926-930	5.7	7
18	Boosting the thermoelectric performance of n-type Bi2S3 by hierarchical structure manipulation and carrier density optimization. <i>Nano Energy</i> , <b>2021</b> , 87, 106171	17.1	7
17	Thermoelectric coolers: Infinite potentials for finite localized microchip cooling. <i>Journal of Materials Science and Technology</i> , <b>2022</b> , 121, 256-262	9.1	7
16	Effectively restricting MnSi precipitates for simultaneously enhancing the Seebeck coefficient and electrical conductivity in higher manganese silicide. <i>Journal of Materials Chemistry C</i> , <b>2019</b> , 7, 7212-7218	3 <sup>7.1</sup>	6
15	High thermoelectric and mechanical performance in the n-type polycrystalline SnSe incorporated with multi-walled carbon nanotubes. <i>Journal of Materials Science and Technology</i> , <b>2022</b> , 114, 55-61	9.1	5
14	A Survey of Artificial Intelligence Techniques Applied in Energy Storage Materials R&D. <i>Frontiers in Energy Research</i> , <b>2020</b> , 8,	3.8	4
13	High near-room temperature figure of merit of n-type Bi2GeTe4-based thermoelectric materials via a stepwise optimization of carrier concentration. <i>Chemical Engineering Journal</i> , <b>2021</b> , 133775	14.7	4
12	Rare-Earth Nd Inducing Record-High Thermoelectric Performance of (GeTe)85(AgSbTe2)15. <i>Energy Material Advances</i> , <b>2021</b> , 2021, 1-8	1	4
11	Simultaneously optimized thermoelectric performance of n-type Cu2Se alloyed Bi2Te3. <i>Journal of Solid State Chemistry</i> , <b>2021</b> , 296, 121987	3.3	4
10	Development Status and Prospects of Artificial Intelligence in the Field of Energy Conversion Materials. <i>Frontiers in Energy Research</i> , <b>2020</b> , 8,	3.8	3
9	Scalable waste-plastic-derived carbon nanosheets with high contents of inbuilt nitrogen/sulfur sites for high performance potassium-ion hybrid capacitors. <i>Nano Energy</i> , <b>2022</b> , 95, 107015	17.1	2
8	Dual-function engineering to construct ultra-stable anodes for potassium-ion hybrid capacitors: N, O-doped porous carbon spheres. <i>Nano Energy</i> , <b>2022</b> , 93, 106903	17.1	2
7	A Solvothermal Synthetic Environmental Design for High-Performance SnSe-Based Thermoelectric Materials. <i>Advanced Energy Materials</i> ,2200670	21.8	2
6	Synergistic Effect of Band and Nanostructure Engineering on the Boosted Thermoelectric Performance of n-Type Mg 3+ [Sb, Bi) 2 Zintls. <i>Advanced Energy Materials</i> ,2201086	21.8	2
5	Cheap, Large-Scale, and High-Performance Graphite-Based Flexible Thermoelectric Materials and Devices with Supernormal Industry Feasibility <i>ACS Applied Materials &amp; Devices Materials &amp;</i>	9.5	1
4	Achieving high thermoelectric properties in PEDOT:PSS/SWCNTs composite films by a combination of dimethyl sulfoxide doping and NaBH4 dedoping. <i>Carbon</i> , <b>2022</b> , 196, 718-726	10.4	1
3	The effect of rare earth element doping on thermoelectric properties of GeTe. <i>Chemical Engineering Journal</i> , <b>2022</b> , 446, 137278	14.7	1
2	Impurity Removal Leading to High-Performance CoSb-Based Skutterudites with Synergistic Carrier Concentration Optimization and Thermal Conductivity Reduction. <i>ACS Applied Materials &amp; Amp; Interfaces</i> , <b>2021</b> , 13, 54185-54193	9.5	O

Thermo-Responsive Nanomaterials for Thermoelectric Generation. *Springer Series in Materials Science*, **2020**, 269-293

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