Lei Yang

List of Publications by Year
in descending order

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Version: 2024-02-01

70	5,681	109311	88628
papers	citations	35 h-index	70 g-index

70	70	70	4952
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Low lattice thermal conductivity and enhanced thermoelectric performance of SnTe via chemical electroless plating of Ag. Rare Metals, 2022, 41, 86-95.	7.1	18
2	Thermoelectric performance of p-type (Bi,Sb)2Te3 incorporating amorphous Sb2S3 nanospheres. Chemical Engineering Journal, 2022, 430, 132738.	12.7	21
3	Achieving Highâ€Performance Ge_{0.92}Bi_{0.08}Te Thermoelectrics via LaB₆â€Alloyingâ€Induced Band Engineering and Multiâ€Scale Structure Manipulation. Small, 2022, 18, e2105923.	10.0	5
4	ds-Block Element-Enabled Cooperative Regulation of Electrical and Thermal Transport for Extraordinary N- and P-Type PbSe Thermoelectrics near Room Temperature. Chemistry of Materials, 2022, 34, 1862-1874.	6.7	8
5	Tune the electronic structure of MoS2 homojunction for broadband photodetection. Journal of Materials Science and Technology, 2022, 119, 61-68.	10.7	7
6	Optimal array alignment to deliver high performance in flexible conducting polymerâ€based thermoelectric devices. Journal of Materials Science and Technology, 2022, 124, 252-259.	10.7	9
7	Achieving enhanced thermoelectric performance of Ca1â^'xâ^'yLaxSryMnO3 via synergistic carrier concentration optimization and chemical bond engineering. Chemical Engineering Journal, 2021, 408, 127364.	12.7	23
8	Realizing enhanced thermoelectric properties in Cu2S-alloyed SnSe based composites produced via solution synthesis and sintering. Journal of Materials Science and Technology, 2021, 78, 121-130.	10.7	38
9	Simultaneously optimized thermoelectric performance of n-type Cu2Se alloyed Bi2Te3. Journal of Solid State Chemistry, 2021, 296, 121987.	2.9	10
10	Enhanced thermoelectric performance of Bi0.3Sb1.7Te3 based alloys by dispersing TiC ceramic nanoparticles. Journal of Alloys and Compounds, 2021, 863, 158376.	5.5	16
11	Manipulating the Lightâ€Matter Interaction of PtS/MoS₂ pâ€“n Junctions for High Performance Broadband Photodetection. Advanced Functional Materials, 2021, 31, 2104367.	14.9	47
12	Recent progress in Van der Waals 2D PtSe₂. Nanotechnology, 2021, 32, 412001.	2.6	20
13	Solution-Synthesized SnSe_{1â€“x}S_x: Dual-Functional Materials with Enhanced Electrochemical Storage and Thermoelectric Performance. ACS Applied Materials & Interfaces, 2021, 13, 37201-37211.	8.0	10
14	Realize High Thermoelectric Properties in n-Type Bi₂Te_{2.7}Se_{0.3}/Y₂O₃ Nanocomposites by Constructing Heterointerfaces. ACS Applied Materials & Interfaces, 2021, 13, 38526-38533.	8.0	38
15	Enhancing the figure of merit of n-type PbTe materials through multi-scale graphene induced interfacial engineering. Nano Today, 2021, 39, 101176.	11.9	20
16	Ternary Ag₂Se_{1â€“x}Te_x: A Near-Room-Temperature Thermoelectric Material with a Potentially High Figure of Merit. Inorganic Chemistry, 2021, 60, 14165-14173.	4.0	15
17	Simultaneously enhanced strength and plasticity of Ag2Se-based thermoelectric materials endowed by nano-twinned CuAgSe secondary phase. Acta Materialia, 2021, 220, 117335.	7.9	27
18	Enhanced thermoelectric performance in MXene/SnTe nanocomposites synthesized via a facile one-step solvothermal method. Journal of Solid State Chemistry, 2021, 304, 122605.	2.9	14

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19	Enhanced Thermoelectric Performance of SnTe-Based Materials via Interface Engineering. ACS Applied Materials & Interfaces, 2021, 13, 50057-50064.	8.0	13
20	Realizing electronic modulation on Mo sites for efficient hydrogen evolution reaction. Journal of Materials Chemistry A, 2020, 8, 18180-18187.	10.3	26
21	Nanostructured monoclinic Cu₂Se as a near-room-temperature thermoelectric material. Nanoscale, 2020, 12, 20536-20542.	5.6	26
22	Hierarchical Structures Advance Thermoelectric Properties of Porous n-type Î²-Ag₂Se. ACS Applied Materials & Interfaces, 2020, 12, 51523-51529.	8.0	51
23	Extraction and separation of tungsten and vanadium from spent V2O5â€“WO3/TiO2 SCR catalysts and recovery of TiO2 and sodium titanate nanorods as adsorbent for heavy metal ions. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 601, 124963.	4.7	19
24	Facile synthesis of hierarchical Ni3Se2 nanodendrite arrays for supercapacitors. Journal of Materials Science and Technology, 2020, 54, 69-76.	10.7	38
25	Promising and Ecoâ€Friendly Cu₂Xâ€Based Thermoelectric Materials: Progress and Applications. Advanced Materials, 2020, 32, e1905703.	21.0	165
26	Texture-dependent thermoelectric properties of nano-structured Bi2Te3. Chemical Engineering Journal, 2020, 388, 124295.	12.7	142
27	Cu2Se thermoelectrics: property, methodology, and device. Nano Today, 2020, 35, 100938.	11.9	119
28	Enhancement in performance of negative electrode of supercapacitor based on nitrogen doped porous carbon spheres. Journal of Alloys and Compounds, 2019, 786, 91-97.	5.5	20
29	Solvothermal synthesis of high-purity porous Cu1.7Se approaching low lattice thermal conductivity. Chemical Engineering Journal, 2019, 375, 121996.	12.7	28
30	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.	5.5	8
31	Flexible Thermoelectric Materials and Generators: Challenges and Innovations. Advanced Materials, 2019, 31, e1807916.	21.0	419
32	Realizing Bi-doped Î±-Cu2Se as a promising near-room-temperature thermoelectric material. Chemical Engineering Journal, 2019, 371, 593-599.	12.7	46
33	Kinetic condition driven phase and vacancy enhancing thermoelectric performance of low-cost and eco-friendly Cu_{2â^'x}S. Journal of Materials Chemistry C, 2019, 7, 5366-5373.	5.5	29
34	A new indium selenide phase: controllable synthesis, phase transformation and photoluminescence properties. Journal of Materials Chemistry C, 2019, 7, 13573-13584.	5.5	7
35	A Novel Hydrogel Surface Grafted With Dual Functional Peptides for Sustaining Longâ€Term Selfâ€Renewal of Human Induced Pluripotent Stem Cells and Manipulating Their Osteoblastic Maturation. Advanced Functional Materials, 2018, 28, 1705546.	14.9	41
36	Realizing zT of 2.3 in Ge_{1â^'}_x_{â^'}_ySb_xIn_yTe via Reducing the Phaseâ€Transition Temperature and Introducing Resonant Energy Doping. Advanced Materials, 2018, 30, 1705942.	21.0	316

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37	Achieving zT > 2 in pâ€Type AgSbTe_{2â^'}_xSe_x Alloys via Exploring the Extra Light Valence Band and Introducing Dense Stacking Faults. Advanced Energy Materials, 2018, 8, 1702333.	19.5	143
38	Enhanced antibacterial property and osteo-differentiation activity on plasma treated porous polyetheretherketone with hierarchical micro/nano-topography. Journal of Biomaterials Science, Polymer Edition, 2018, 29, 520-542.	3.5	38
39	Recovery TiO 2 and sodium titanate nanowires as Cd(II) adsorbent from waste V 2 O 5 -WO 3 /TiO 2 selective catalytic reduction catalysts by Na 2 CO 3 -NaCl-KCl molten salt roasting method. Journal of the Taiwan Institute of Chemical Engineers, 2018, 88, 226-233.	5.3	20
40	High Performance Thermoelectric Materials: Progress and Their Applications. Advanced Energy Materials, 2018, 8, 1701797.	19.5	548
41	Ag doping induced abnormal lattice thermal conductivity in Cu₂Se. Journal of Materials Chemistry C, 2018, 6, 13225-13231.	5.5	61
42	Magnetic Î³-Fe2O3/Fe-doped hydroxyapatite nanostructures as high-efficiency cadmium adsorbents. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 555, 548-557.	4.7	37
43	Study on Modified Water Glass Used in High Temperature Protective Glass Coating for Ti-6Al-4V Titanium Alloy. Coatings, 2018, 8, 158.	2.6	3
44	Achieving high thermoelectric performance of Ni/Cu modified Bi0.5Sb1.5Te3 composites by a facile electroless plating. Materials Today Energy, 2018, 9, 383-390.	4.7	22
45	Grapheneâ€Oxideâ€Decorated Microporous Polyetheretherketone with Superior Antibacterial Capability and In Vitro Osteogenesis for Orthopedic Implant. Macromolecular Bioscience, 2018, 18, e1800036.	4.1	97
46	Enhancing the thermoelectric performance of SnSe_{1â^'x}Te_x nanoplates through band engineering. Journal of Materials Chemistry A, 2017, 5, 10713-10721.	10.3	94
47	n-type Bi-doped PbTe Nanocubes with Enhanced Thermoelectric Performance. Nano Energy, 2017, 31, 105-112.	16.0	113
48	Enhanced Thermoelectric Properties of Ag-Modified Bi_{0.5}Sb_{1.5}Te₃ Composites by a Facile Electroless Plating Method. ACS Applied Materials & Interfaces, 2017, 9, 36478-36482.	8.0	40
49	Ecoâ€Friendly SnTe Thermoelectric Materials: Progress and Future Challenges. Advanced Functional Materials, 2017, 27, 1703278.	14.9	312
50	Te-Doped Cu₂Se nanoplates with a high average thermoelectric figure of merit. Journal of Materials Chemistry A, 2016, 4, 9213-9219.	10.3	91
51	n-Type Bi₂Te_{3â€“x}Se_x Nanoplates with Enhanced Thermoelectric Efficiency Driven by Wide-Frequency Phonon Scatterings and Synergistic Carrier Scatterings. ACS Nano, 2016, 10, 4719-4727.	14.6	303
52	Zeeman splitting and dynamical mass generation in Dirac semimetal ZrTe5. Nature Communications, 2016, 7, 12516.	12.8	149
53	Limit of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>z</mml:mi><mml:mi>T</mml:mi></mml:mrow></mml: in rocksalt structured chalcogenides by band convergence. Physical Review B, 2016, 94, .	3.2	51
54	Impacts of Cu deficiency on the thermoelectric properties of Cu2â^'XSe nanoplates. Acta Materialia, 2016, 113, 140-146.	7.9	87

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55	Bi x Sb 2â^'x Te 3 nanoplates with enhanced thermoelectric performance due to sufficiently decoupled electronic transport properties and strong wide-frequency phonon scatterings. Nano Energy, 2016, 20, 144-155.	16.0	107
56	Enhancing thermoelectric performance of Bi₂Te₃-based nanostructures through rational structure design. Nanoscale, 2016, 8, 8681-8686.	5.6	70
57	Co-doped Sb₂Te₃paramagnetic nanoplates. Journal of Materials Chemistry C, 2016, 4, 521-525.	5.5	13
58	Rational Design of Bi₂Te₃ Polycrystalline Whiskers for Thermoelectric Applications. ACS Applied Materials & Interfaces, 2015, 7, 989-995.	8.0	54
59	In₃Se₄ and S-doped In₃Se₄ nano/micro-structures as new anode materials for Li-ion batteries. Journal of Materials Chemistry A, 2015, 3, 7560-7567.	10.3	15
60	High-performance thermoelectric Cu2Se nanoplates through nanostructure engineering. Nano Energy, 2015, 16, 367-374.	16.0	218
61	Enhanced Thermoelectric Performance of Ultrathin Bi₂Se₃ Nanosheets through Thickness Control. Advanced Electronic Materials, 2015, 1, 1500025.	5.1	57
62	Enhanced Thermoelectric Performance of Nanostructured Bi₂Te₃ through Significant Phonon Scattering. ACS Applied Materials & Interfaces, 2015, 7, 23694-23699.	8.0	200
63	Paramagnetic Cu-doped Bi2Te3 nanoplates. Applied Physics Letters, 2014, 104, 053105.	3.3	20
64	A new crystal: layer-structured rhombohedral In3Se4. CrystEngComm, 2014, 16, 393-398.	2.6	31
65	In-doped Bi2Se3 hierarchical nanostructures as anode materials for Li-ion batteries. Journal of Materials Chemistry A, 2014, 2, 7109.	10.3	80
66	Phase Control and Formation Mechanism of New-Phase Layer-Structured Rhombohedral In₃Se₄ Hierarchical Nanostructures. Crystal Growth and Design, 2013, 13, 5092-5099.	3.0	16
67	T-Shaped Bi₂Te₃â€“Te Heteronanojunctions: Epitaxial Growth, Structural Modeling, and Thermoelectric Properties. Journal of Physical Chemistry C, 2013, 117, 12458-12464.	3.1	59
68	Au impact on GaAs epitaxial growth on GaAs (111)B substrates in molecular beam epitaxy. Applied Physics Letters, 2013, 102, .	3.3	22
69	Thermal stability and oxidation of layer-structured rhombohedral In3Se4 nanostructures. Applied Physics Letters, 2013, 103, .	3.3	21
70	Nanostructured thermoelectric materials: Current research and future challenge. Progress in Natural Science: Materials International, 2012, 22, 535-549.	4.4	630