Lei Yang

List of Publications by Year
in descending order

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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	Nanostructured thermoelectric materials: Current research and future challenge. Progress in Natural Science: Materials International, 2012, 22, 535-549.	4.4	630
2	High Performance Thermoelectric Materials: Progress and Their Applications. Advanced Energy Materials, 2018, 8, 1701797.	19.5	548
3	Flexible Thermoelectric Materials and Generators: Challenges and Innovations. Advanced Materials, 2019, 31, e1807916.	21.0	419
4	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
5	Ecoâ€Friendly SnTe Thermoelectric Materials: Progress and Future Challenges. Advanced Functional Materials, 2017, 27, 1703278.	14.9	312
6	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
7	High-performance thermoelectric Cu2Se nanoplates through nanostructure engineering. Nano Energy, 2015, 16, 367-374.	16.0	218
8	Enhanced Thermoelectric Performance of Nanostructured Bi₂Te₃ through Significant Phonon Scattering. ACS Applied Materials & Interfaces, 2015, 7, 23694-23699.	8.0	200
9	Promising and Ecoâ€Friendly Cu₂Xâ€Based Thermoelectric Materials: Progress and Applications. Advanced Materials, 2020, 32, e1905703.	21.0	165
10	Zeeman splitting and dynamical mass generation in Dirac semimetal ZrTe5. Nature Communications, 2016, 7, 12516.	12.8	149
11	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
12	Texture-dependent thermoelectric properties of nano-structured Bi2Te3. Chemical Engineering Journal, 2020, 388, 124295.	12.7	142
13	Cu2Se thermoelectrics: property, methodology, and device. Nano Today, 2020, 35, 100938.	11.9	119
14	n-type Bi-doped PbTe Nanocubes with Enhanced Thermoelectric Performance. Nano Energy, 2017, 31, 105-112.	16.0	113
15	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
16	Grapheneâ€Oxideâ€Decorated Microporous Polyetheretherketone with Superior Antibacterial Capability and In Vitro Osteogenesis for Orthopedic Implant. Macromolecular Bioscience, 2018, 18, e1800036.	4.1	97
17	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
18	Te-Doped Cu₂Se nanoplates with a high average thermoelectric figure of merit. Journal of Materials Chemistry A, 2016, 4, 9213-9219.	10.3	91

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19	Impacts of Cu deficiency on the thermoelectric properties of Cu2â^'XSe nanoplates. Acta Materialia, 2016, 113, 140-146.	7.9	87
20	In-doped Bi2Se3 hierarchical nanostructures as anode materials for Li-ion batteries. Journal of Materials Chemistry A, 2014, 2, 7109.	10.3	80
21	Enhancing thermoelectric performance of Bi₂Te₃-based nanostructures through rational structure design. Nanoscale, 2016, 8, 8681-8686.	5.6	70
22	Ag doping induced abnormal lattice thermal conductivity in Cu₂Se. Journal of Materials Chemistry C, 2018, 6, 13225-13231.	5.5	61
23	T-Shaped Bi₂Te₃â€“Te Heteronanojunctions: Epitaxial Growth, Structural Modeling, and Thermoelectric Properties. Journal of Physical Chemistry C, 2013, 117, 12458-12464.	3.1	59
24	Enhanced Thermoelectric Performance of Ultrathin Bi₂Se₃ Nanosheets through Thickness Control. Advanced Electronic Materials, 2015, 1, 1500025.	5.1	57
25	Rational Design of Bi₂Te₃ Polycrystalline Whiskers for Thermoelectric Applications. ACS Applied Materials & Interfaces, 2015, 7, 989-995.	8.0	54
26	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:ma in rocksalt structured chalcogenides by band convergence. Physical Review B, 2016, 94, .	3.2	51
27	Hierarchical Structures Advance Thermoelectric Properties of Porous n-type Î²-Ag₂Se. ACS Applied Materials & Interfaces, 2020, 12, 51523-51529.	8.0	51
28	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
29	Realizing Bi-doped Î±-Cu2Se as a promising near-room-temperature thermoelectric material. Chemical Engineering Journal, 2019, 371, 593-599.	12.7	46
30	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
31	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
32	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
33	Facile synthesis of hierarchical Ni3Se2 nanodendrite arrays for supercapacitors. Journal of Materials Science and Technology, 2020, 54, 69-76.	10.7	38
34	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
35	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
36	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

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37	A new crystal: layer-structured rhombohedral In3Se4. CrystEngComm, 2014, 16, 393-398.	2.6	31
38	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
39	Solvothermal synthesis of high-purity porous Cu1.7Se approaching low lattice thermal conductivity. Chemical Engineering Journal, 2019, 375, 121996.	12.7	28
40	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
41	Realizing electronic modulation on Mo sites for efficient hydrogen evolution reaction. Journal of Materials Chemistry A, 2020, 8, 18180-18187.	10.3	26
42	Nanostructured monoclinic Cu₂Se as a near-room-temperature thermoelectric material. Nanoscale, 2020, 12, 20536-20542.	5.6	26
43	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
44	Au impact on GaAs epitaxial growth on GaAs (111)B substrates in molecular beam epitaxy. Applied Physics Letters, 2013, 102, .	3.3	22
45	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
46	Thermal stability and oxidation of layer-structured rhombohedral In3Se4 nanostructures. Applied Physics Letters, 2013, 103, .	3.3	21
47	Thermoelectric performance of p-type (Bi,Sb)2Te3 incorporating amorphous Sb2S3 nanospheres. Chemical Engineering Journal, 2022, 430, 132738.	12.7	21
48	Paramagnetic Cu-doped Bi2Te3 nanoplates. Applied Physics Letters, 2014, 104, 053105.	3.3	20
49	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
50	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
51	Recent progress in Van der Waals 2D PtSe₂. Nanotechnology, 2021, 32, 412001.	2.6	20
52	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
53	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
54	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

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55	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
56	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
57	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
58	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
59	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
60	Co-doped Sb₂Te₃paramagnetic nanoplates. Journal of Materials Chemistry C, 2016, 4, 521-525.	5.5	13
61	Enhanced Thermoelectric Performance of SnTe-Based Materials via Interface Engineering. ACS Applied Materials & Interfaces, 2021, 13, 50057-50064.	8.0	13
62	Simultaneously optimized thermoelectric performance of n-type Cu2Se alloyed Bi2Te3. Journal of Solid State Chemistry, 2021, 296, 121987.	2.9	10
63	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
64	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
65	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
66	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
67	A new indium selenide phase: controllable synthesis, phase transformation and photoluminescence properties. Journal of Materials Chemistry C, 2019, 7, 13573-13584.	5.5	7
68	Tune the electronic structure of MoS2 homojunction for broadband photodetection. Journal of Materials Science and Technology, 2022, 119, 61-68.	10.7	7
69	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
70	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