Jihui Yang

List of Publications by Year
in descending order

77 papers	15,148 citations	53660 45 h-index	71532 76 g-index
77 all docs	77 docs citations	77 times ranked	12278 citing authors

#	Article	IF	Citations
1	The Quest for Stable Potassiumâ€ion Battery Chemistry. Advanced Materials, 2022, 34, e2106876.	11.1	41
2	All solid thick oxide cathodes based on low temperature sintering for high energy solid batteries. Energy and Environmental Science, 2021, 14, 5044-5056.	15.6	41
3	Defect-mediated Rashba engineering for optimizing electrical transport in thermoelectric BiTeI. Npj Computational Materials, 2020, 6, .	3.5	24
4	Active Materials for Aqueous Zinc Ion Batteries: Synthesis, Crystal Structure, Morphology, and Electrochemistry. Chemical Reviews, 2020, 120, 7795-7866.	23.0	950
5	Blocking Ion Migration Stabilizes the High Thermoelectric Performance in Cu₂Se Composites. Advanced Materials, 2020, 32, e2003730.	11.1	99
6	Electron-phonon coupling and superconductivity in the doped topological crystalline insulator (Pb0.5Sn0.5)1â^'xInxTe. Physical Review B, 2020, 102, .	1.1	5
7	Catalyzing zinc-ion intercalation in hydrated vanadates for aqueous zinc-ion batteries. Journal of Materials Chemistry A, 2020, 8, 7713-7723.	5.2	84
8	Understanding and applying coulombic efficiency in lithium metal batteries. Nature Energy, 2020, 5, 561-568.	19.8	526
9	Apparatus design for measuring of the strain dependence of the Seebeck coefficient of single crystals. Review of Scientific Instruments, 2020, 91, 023902.	0.6	1
10	Rationalizing the interphase stability of Li|doped-Li₇La₃Zr₂O₁₂via automated reaction screening and machine learning. Journal of Materials Chemistry A, 2019, 7, 19961-19969.	5.2	59
11	Capacity Fading of Ni-Rich NCA Cathodes: Effect of Microcracking Extent. ACS Energy Letters, 2019, 4, 2995-3001.	8.8	297
12	Expanded hydrated vanadate for high-performance aqueous zinc-ion batteries. Energy and Environmental Science, 2019, 12, 2273-2285.	15.6	512
13	Complex electronic structure and compositing effect in high performance thermoelectric BiCuSeO. Nature Communications, 2019, 10, 2814.	5.8	81
14	A multi-functional interface derived from thiol-modified mesoporous carbon in lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2019, 7, 13372-13381.	5.2	17
15	Understanding the electrochemical potential and diffusivity of MnO/C nanocomposites at various charge/discharge states. Journal of Materials Chemistry A, 2019, 7, 7831-7842.	5.2	34
16	Reaction Mechanisms for Long-Life Rechargeable Zn/MnO₂ Batteries. Chemistry of Materials, 2019, 31, 2036-2047.	3.2	195
17	Tuning self-healing properties of stiff, ion-conductive polymers. Journal of Materials Chemistry A, 2019, 7, 6773-6783.	5.2	34
18	Pathways for practical high-energy long-cycling lithium metal batteries. Nature Energy, 2019, 4, 180-186.	19.8	2,101

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19	Facilitating the Operation of Lithium-Ion Cells with High-Nickel Layered Oxide Cathodes with a Small Dose of Aluminum. Chemistry of Materials, 2018, 30, 3101-3109.	3.2	119
20	The role of the solid electrolyte interphase layer in preventing Li dendrite growth in solid-state batteries. Energy and Environmental Science, 2018, 11, 1803-1810.	15.6	304
21	Fabrication and Thermoelectric Properties of n-Type CoSb_{2.85}Te_{0.15} Using Selective Laser Melting. ACS Applied Materials & Interfaces, 2018, 10, 13669-13674.	4.0	37
22	Thermo-element geometry optimization for high thermoelectric efficiency. Energy, 2018, 147, 672-680.	4.5	26
23	Quantitative nanoscale mapping of three-phase thermal conductivities in filled skutterudites via scanning thermal microscopy. National Science Review, 2018, 5, 59-69.	4.6	26
24	Waterâ€Lubricated Intercalation in V₂O₅·nH₂O for Highâ€Capacity and Highâ€Rate Aqueous Rechargeable Zinc Batteries. Advanced Materials, 2018, 30, 1703725.	11.1	1,084
25	Designing solvate ionogel electrolytes with very high room-temperature conductivity and lithium transference number. Journal of Materials Chemistry A, 2018, 6, 24100-24106.	5.2	12
26	Thermoelectric properties of n-type ZrNiSn prepared by rapid non-equilibrium laser processing. RSC Advances, 2018, 8, 15796-15803.	1.7	21
27	Separating electronic and ionic conductivity in mix-conducting layered lithium transition-metal oxides. Journal of Power Sources, 2018, 393, 75-82.	4.0	104
28	Dynamic process of the resonant phonon scattering in fully filled skutterudites. Physical Review B, 2018, 98, .	1.1	10
29	Finite element analysis of temperature and stress fields during the selective laser melting process of thermoelectric SnTe. Journal of Materials Processing Technology, 2018, 261, 74-85.	3.1	59
30	Electrochemical and interfacial behavior of all solid state batteries using Li10SnP2S12 solid electrolyte. Journal of Power Sources, 2018, 396, 824-830.	4.0	54
31	Resonant level-induced high thermoelectric response in indium-doped GeTe. NPG Asia Materials, 2017, 9, e343-e343.	3.8	170
32	The â€œelectron crystalâ€•behavior in copper chalcogenides Cu₂X (X = Se, S). Journal of Materials Chemistry A, 2017, 5, 5098-5105.	5.2	81
33	Non-equilibrium synthesis and characterization of n-type Bi₂Te_{2.7}Se_{0.3} thermoelectric material prepared by rapid laser melting and solidification. RSC Advances, 2017, 7, 21439-21445.	1.7	40
34	Preparation of nâ€type Bi₂Te₃ thermoelectric materials by nonâ€contact dispenser printing combined with selective laser melting. Physica Status Solidi - Rapid Research Letters, 2017, 11, 1700067.	1.2	34
35	Field-Effect Tuned Adsorption Dynamics of VSe₂ Nanosheets for Enhanced Hydrogen Evolution Reaction. Nano Letters, 2017, 17, 4109-4115.	4.5	134
36	Enhancing thermoelectric performance in hierarchically structured BiCuSeO by increasing bond covalency and weakening carrierâ€“phonon coupling. Energy and Environmental Science, 2017, 10, 1590-1599.	15.6	115

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37	Solidâ€State Explosive Reaction for Nanoporous Bulk Thermoelectric Materials. Advanced Materials, 2017, 29, 1701148.	11.1	110
38	Facile room temperature solventless synthesis of high thermoelectric performance Ag₂Se via a dissociative adsorption reaction. Journal of Materials Chemistry A, 2017, 5, 23243-23251.	5.2	79
39	Superparamagnetic enhancement of thermoelectric performance. Nature, 2017, 549, 247-251.	13.7	472
40	Thermoelectric performance of CuFeS2+2x composites prepared by rapid thermal explosion. NPG Asia Materials, 2017, 9, e390-e390.	3.8	38
41	Magnetoelectric interaction and transport behaviours in magnetic nanocomposite thermoelectric materials. Nature Nanotechnology, 2017, 12, 55-60.	15.6	216
42	High-performance n-type YbxCo4Sb12: from partially filled skutterudites towards composite thermoelectrics. NPG Asia Materials, 2016, 8, e285-e285.	3.8	102
43	On the tuning of electrical and thermal transport in thermoelectrics: an integrated theoryâ€“experiment perspective. Npj Computational Materials, 2016, 2, .	3.5	399
44	Structure family and polymorphous phase transition in the compounds with soft sublattice: Cu2Se as an example. Journal of Chemical Physics, 2016, 144, 194502.	1.2	35
45	Electronegative guests in CoSb₃. Energy and Environmental Science, 2016, 9, 2090-2098.	15.6	93
46	High thermoelectric performance in Te-free (Bi,Sb)₂Se₃via structural transition induced band convergence and chemical bond softening. Energy and Environmental Science, 2016, 9, 3436-3447.	15.6	159
47	Interfacial behaviours between lithium ion conductors and electrode materials in various battery systems. Journal of Materials Chemistry A, 2016, 4, 15266-15280.	5.2	184
48	Reversible aqueous zinc/manganese oxide energy storage from conversion reactions. Nature Energy, 2016, 1, .	19.8	2,186
49	Minimum Thermal Conductivity in Weak Topological Insulators with Bismuthâ€Based Stack Structure. Advanced Functional Materials, 2016, 26, 5360-5367.	7.8	29
50	Enhanced Thermoelectric Performance in Cu-Intercalated BiTeI by Compensation Weakening Induced Mobility Improvement. Scientific Reports, 2015, 5, 14319.	1.6	33
51	Intrinsic low thermal conductivity in weakly ionic rocksalt structures. Physical Review B, 2015, 92, .	1.1	9
52	Band Structure Engineering and Thermoelectric Properties of Charge-Compensated Filled Skutterudites. Scientific Reports, 2015, 5, 14641.	1.6	41
53	Diverse lattice dynamics in ternary Cu-Sb-Se compounds. Scientific Reports, 2015, 5, 13643.	1.6	51
54	On Intensifying Carrier Impurity Scattering to Enhance Thermoelectric Performance in Crâ€Doped Ce_yCo₄Sb₁₂. Advanced Functional Materials, 2015, 25, 6660-6670.	7.8	77

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55	Conductivity-limiting bipolar thermal conductivity in semiconductors. Scientific Reports, 2015, 5, 10136.	1.6	107
56	Compound defects and thermoelectric properties in ternary CuAgSe-based materials. Journal of Materials Chemistry A, 2015, 3, 13662-13670.	5.2	58
57	Probing the initiation of voltage decay in Li-rich layered cathode materials at the atomic scale. Journal of Materials Chemistry A, 2015, 3, 5385-5391.	5.2	81
58	Multi-localization transport behaviour in bulk thermoelectric materials. Nature Communications, 2015, 6, 6197.	5.8	108
59	Thermopower enhancement in quantum wells with the Rashba effect. Applied Physics Letters, 2014, 105, .	1.5	18
60	Two-dimensional thermoelectrics with Rashba spin-split bands in bulk BiTeI. Physical Review B, 2014, 90, .	1.1	74
61	Part-crystalline part-liquid state and rattling-like thermal damping in materials with chemical-bond hierarchy. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 15031-15035.	3.3	225
62	Probing Electrochemical Cycling Stability of Li-ion Cathode Materials at Atomic-scale. Microscopy and Microanalysis, 2014, 20, 452-453.	0.2	33
63	Polytypism in superhard transition-metal triborides. Scientific Reports, 2014, 4, 5063.	1.6	17
64	Chargeâ€Compensated Compound Defects in Gaâ€containing Thermoelectric Skutterudites. Advanced Functional Materials, 2013, 23, 3194-3203.	7.8	108
65	Condenson-related thermoelectric properties and formation of coherent nanoinclusions in Te-substituted In4Se3 compounds. Journal of Materials Chemistry A, 2013, 1, 15342.	5.2	4
66	Enhancement of thermoelectric performance in slightly charge-compensated CeyCo4Sb12 skutterudites. Applied Physics Letters, 2013, 103, .	1.5	25
67	Thermoelectric performance of p-type skutterudites YbxFe4â^'yPtySb12 (0.8â€‰â‰¤â€‰xâ€‰â‰¤â€‰1, yâ€‰=â€‰1 and 0.5). Journal of Applied Physics, 2013, 113, .	1.1	13
68	Electron and Phonon Transport in n- and p-type Skutterudites. Materials Research Society Symposia Proceedings, 2013, 1490, 9-18.	0.1	5
69	Rational Design of Advanced Thermoelectric Materials. Advanced Energy Materials, 2013, 3, 549-565.	10.2	264
70	Theoretical Study on Structural Stability of Fully Filled p-Type Skutterudites RETM4Sb12 (REÂ=ÂRare) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	1.0	20
71	Power factor enhancement in light valence band p-type skutterudites. Applied Physics Letters, 2012, 101, .	1.5	26
72	Enhanced thermoelectric properties of Bi2(Te1â^'xSex)3-based compounds as n-type legs for low-temperature power generation. Journal of Materials Chemistry, 2012, 22, 20943.	6.7	147

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73	Thermoelectric properties of Ni-doped CeFe4Sb12 skutterudites. Journal of Applied Physics, 2012, 111, .	1.1	49
74	Multiple-Filled Skutterudites: High Thermoelectric Figure of Merit through Separately Optimizing Electrical and Thermal Transports. Journal of the American Chemical Society, 2011, 133, 7837-7846.	6.6	1,242
75	Electrical Transport Properties of Filled CoSb3 Skutterudites: A Theoretical Study. Journal of Electronic Materials, 2009, 38, 1397-1401.	1.0	69
76	Thermoelectric Materials for Space and Automotive Power Generation. MRS Bulletin, 2006, 31, 224-229.	1.7	591
77	Systematic Evaluation of Carbon Hosts for High-Energy Rechargeable Lithium-Metal Batteries. ACS Energy Letters, 0, , 1550-1559.	8.8	20