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	Reversible aqueous zinc/manganese oxide energy storage from conversion reactions. Nature Energy, 2016, 1, .	19.8	2,186
2	Pathways for practical high-energy long-cycling lithium metal batteries. Nature Energy, 2019, 4, 180-186.	19.8	2,101
3	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
4	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
5	Active Materials for Aqueous Zinc Ion Batteries: Synthesis, Crystal Structure, Morphology, and Electrochemistry. Chemical Reviews, 2020, 120, 7795-7866.	23.0	950
6	Thermoelectric Materials for Space and Automotive Power Generation. MRS Bulletin, 2006, 31, 224-229.	1.7	591
7	Understanding and applying coulombic efficiency in lithium metal batteries. Nature Energy, 2020, 5, 561-568.	19.8	526
8	Expanded hydrated vanadate for high-performance aqueous zinc-ion batteries. Energy and Environmental Science, 2019, 12, 2273-2285.	15.6	512
9	Superparamagnetic enhancement of thermoelectric performance. Nature, 2017, 549, 247-251.	13.7	472
10	On the tuning of electrical and thermal transport in thermoelectrics: an integrated theoryâ€“experiment perspective. Npj Computational Materials, 2016, 2, .	3.5	399
11	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
12	Capacity Fading of Ni-Rich NCA Cathodes: Effect of Microcracking Extent. ACS Energy Letters, 2019, 4, 2995-3001.	8.8	297
13	Rational Design of Advanced Thermoelectric Materials. Advanced Energy Materials, 2013, 3, 549-565.	10.2	264
14	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
15	Magnetoelectric interaction and transport behaviours in magnetic nanocomposite thermoelectric materials. Nature Nanotechnology, 2017, 12, 55-60.	15.6	216
16	Reaction Mechanisms for Long-Life Rechargeable Zn/MnO₂ Batteries. Chemistry of Materials, 2019, 31, 2036-2047.	3.2	195
17	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
18	Resonant level-induced high thermoelectric response in indium-doped GeTe. NPG Asia Materials, 2017, 9, e343-e343.	3.8	170

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19	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
20	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
21	Field-Effect Tuned Adsorption Dynamics of VSe₂ Nanosheets for Enhanced Hydrogen Evolution Reaction. Nano Letters, 2017, 17, 4109-4115.	4.5	134
22	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
23	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
24	Solidâ€€State Explosive Reaction for Nanoporous Bulk Thermoelectric Materials. Advanced Materials, 2017, 29, 1701148.	11.1	110
25	Chargeâ€€Compensated Compound Defects in Gaâ€€containing Thermoelectric Skutterudites. Advanced Functional Materials, 2013, 23, 3194-3203.	7.8	108
26	Multi-localization transport behaviour in bulk thermoelectric materials. Nature Communications, 2015, 6, 6197.	5.8	108
27	Conductivity-limiting bipolar thermal conductivity in semiconductors. Scientific Reports, 2015, 5, 10136.	1.6	107
28	Separating electronic and ionic conductivity in mix-conducting layered lithium transition-metal oxides. Journal of Power Sources, 2018, 393, 75-82.	4.0	104
29	High-performance n-type YbxCo4Sb12: from partially filled skutterudites towards composite thermoelectrics. NPG Asia Materials, 2016, 8, e285-e285.	3.8	102
30	Blocking Ion Migration Stabilizes the High Thermoelectric Performance in Cu₂Se Composites. Advanced Materials, 2020, 32, e2003730.	11.1	99
31	Electronegative guests in CoSb₃. Energy and Environmental Science, 2016, 9, 2090-2098.	15.6	93
32	Catalyzing zinc-ion intercalation in hydrated vanadates for aqueous zinc-ion batteries. Journal of Materials Chemistry A, 2020, 8, 7713-7723.	5.2	84
33	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
34	The â€œelectron crystalâ€•behavior in copper chalcogenides Cu₂X (X = Se, S). Journal of Materials Chemistry A, 2017, 5, 5098-5105.	5.2	81
35	Complex electronic structure and compositing effect in high performance thermoelectric BiCuSeO. Nature Communications, 2019, 10, 2814.	5.8	81
36	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

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37	On Intensifying Carrier Impurity Scattering to Enhance Thermoelectric Performance in Crâ€Doped Ce_yCo₄Sb₁₂. Advanced Functional Materials, 2015, 25, 6660-6670.	7.8	77
38	Two-dimensional thermoelectrics with Rashba spin-split bands in bulk BiTeI. Physical Review B, 2014, 90, .	1.1	74
39	Electrical Transport Properties of Filled CoSb3 Skutterudites: A Theoretical Study. Journal of Electronic Materials, 2009, 38, 1397-1401.	1.0	69
40	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
41	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
42	Compound defects and thermoelectric properties in ternary CuAgSe-based materials. Journal of Materials Chemistry A, 2015, 3, 13662-13670.	5.2	58
43	Electrochemical and interfacial behavior of all solid state batteries using Li10SnP2S12 solid electrolyte. Journal of Power Sources, 2018, 396, 824-830.	4.0	54
44	Diverse lattice dynamics in ternary Cu-Sb-Se compounds. Scientific Reports, 2015, 5, 13643.	1.6	51
45	Thermoelectric properties of Ni-doped CeFe4Sb12 skutterudites. Journal of Applied Physics, 2012, 111, .	1.1	49
46	Band Structure Engineering and Thermoelectric Properties of Charge-Compensated Filled Skutterudites. Scientific Reports, 2015, 5, 14641.	1.6	41
47	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
48	The Quest for Stable Potassiumâ€Ion Battery Chemistry. Advanced Materials, 2022, 34, e2106876.	11.1	41
49	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
50	Thermoelectric performance of CuFeS2+2x composites prepared by rapid thermal explosion. NPG Asia Materials, 2017, 9, e390-e390.	3.8	38
51	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
52	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
53	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
54	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

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55	Tuning self-healing properties of stiff, ion-conductive polymers. Journal of Materials Chemistry A, 2019, 7, 6773-6783.	5.2	34
56	Probing Electrochemical Cycling Stability of Li-ion Cathode Materials at Atomic-scale. Microscopy and Microanalysis, 2014, 20, 452-453.	0.2	33
57	Enhanced Thermoelectric Performance in Cu-Intercalated BiTeI by Compensation Weakening Induced Mobility Improvement. Scientific Reports, 2015, 5, 14319.	1.6	33
58	Minimum Thermal Conductivity in Weak Topological Insulators with Bismuthâ€Based Stack Structure. Advanced Functional Materials, 2016, 26, 5360-5367.	7.8	29
59	Power factor enhancement in light valence band p-type skutterudites. Applied Physics Letters, 2012, 101, .	1.5	26
60	Thermo-element geometry optimization for high thermoelectric efficiency. Energy, 2018, 147, 672-680.	4.5	26
61	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
62	Enhancement of thermoelectric performance in slightly charge-compensated CeyCo4Sb12 skutterudites. Applied Physics Letters, 2013, 103, .	1.5	25
63	Defect-mediated Rashba engineering for optimizing electrical transport in thermoelectric BiTeI. Npj Computational Materials, 2020, 6, .	3.5	24
64	Thermoelectric properties of n-type ZrNiSn prepared by rapid non-equilibrium laser processing. RSC Advances, 2018, 8, 15796-15803.	1.7	21
65	Theoretical Study on Structural Stability of Fully Filled p-Type Skutterudites RETM4Sb12 (REÂ=ÂRare) Tj ETQq1 1 0.784314 rgBT /Ove	1.0	20
66	Systematic Evaluation of Carbon Hosts for High-Energy Rechargeable Lithium-Metal Batteries. ACS Energy Letters, 0, , 1550-1559.	8.8	20
67	Thermopower enhancement in quantum wells with the Rashba effect. Applied Physics Letters, 2014, 105, .	1.5	18
68	Polytypism in superhard transition-metal triborides. Scientific Reports, 2014, 4, 5063.	1.6	17
69	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
70	Thermoelectric performance of p-type skutterudites YbxFe4â^'yPtySb12 (0.8â€‰â‰€xâ€‰â‰€1, yâ€‰=â€‰1 and 0.5). Journal of Applied Physics, 2013, 113, .	1.1	13
71	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
72	Dynamic process of the resonant phonon scattering in fully filled skutterudites. Physical Review B, 2018, 98, .	1.1	10

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73	Intrinsic low thermal conductivity in weakly ionic rocksalt structures. Physical Review B, 2015, 92, .	1.1	9
74	Electron and Phonon Transport in n- and p-type Skutterudites. Materials Research Society Symposia Proceedings, 2013, 1490, 9-18.	0.1	5
75	Electron-phonon coupling and superconductivity in the doped topological crystalline insulator (Pb0.5Sn0.5)1â^'xInxTe. Physical Review B, 2020, 102, .	1.1	5
76	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
77	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