Zonghao Liu

List of Publications by Year
in descending order

62 papers	6,321 citations	87723 38 h-index	128067 60 g-index
63 all docs	63 docs citations	63 times ranked	6871 citing authors

#	Article	IF	Citations
1	Multifunctional Fullerene Derivative for Interface Engineering in Perovskite Solar Cells. Journal of the American Chemical Society, 2015, 137, 15540-15547.	6.6	490
2	Guanidinium: A Route to Enhanced Carrier Lifetime and Open-Circuit Voltage in Hybrid Perovskite Solar Cells. Nano Letters, 2016, 16, 1009-1016.	4.5	479
3	Hole Selective NiO Contact for Efficient Perovskite Solar Cells with Carbon Electrode. Nano Letters, 2015, 15, 2402-2408.	4.5	412
4	Reduction of lead leakage from damaged lead halide perovskite solar modules using self-healing polymer-based encapsulation. Nature Energy, 2019, 4, 585-593.	19.8	327
5	Chemical Reduction of Intrinsic Defects in Thicker Heterojunction Planar Perovskite Solar Cells. Advanced Materials, 2017, 29, 1606774.	11.1	318
6	A holistic approach to interface stabilization for efficient perovskite solar modules with over 2,000-hour operational stability. Nature Energy, 2020, 5, 596-604.	19.8	274
7	Enhancing Optical, Electronic, Crystalline, and Morphological Properties of Cesium Lead Halide by Mn Substitution forÂHighâ€Stability Allâ€Inorganic Perovskite Solar Cells withÂCarbon Electrodes. Advanced Energy Materials, 2018, 8, 1800504.	10.2	272
8	The Additive Coordination Effect on Hybrids Perovskite Crystallization and Highâ€Performance Solar Cell. Advanced Materials, 2016, 28, 9862-9868.	11.1	270
9	Highly Efficient Perovskite Solar Cells Enabled by Multiple Ligand Passivation. Advanced Energy Materials, 2020, 10, 1903696.	10.2	205
10	Nickel oxide nanoparticles for efficient hole transport in p-i-n and n-i-p perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 6597-6605.	5.2	188
11	Phase transition induced recrystallization and low surface potential barrier leading to 10.91%-efficient CsPbBr3 perovskite solar cells. Nano Energy, 2019, 65, 104015.	8.2	170
12	Slot-die coating large-area formamidinium-cesium perovskite film for efficient and stable parallel solar module. Science Advances, 2021, 7, .	4.7	165
13	Highly Efficient and Stable Perovskite Solar Cells via Modification of Energy Levels at the Perovskite/Carbon Electrode Interface. Advanced Materials, 2019, 31, e1804284.	11.1	161
14	The intrinsic properties of FA_(1âˆ’x)MA_xPbI₃ perovskite single crystals. Journal of Materials Chemistry A, 2017, 5, 8537-8544.	5.2	152
15	p-Type mesoscopic NiO as an active interfacial layer for carbon counter electrode based perovskite solar cells. Dalton Transactions, 2015, 44, 3967-3973.	1.6	138
16	Scalable Fabrication of Stable High Efficiency Perovskite Solar Cells and Modules Utilizing Room Temperature Sputtered SnO₂ Electron Transport Layer. Advanced Functional Materials, 2019, 29, 1806779.	7.8	118
17	[6,6]-Phenyl-C₆₁-Butyric Acid Methyl Ester/Cerium Oxide Bilayer Structure as Efficient and Stable Electron Transport Layer for Inverted Perovskite Solar Cells. ACS Nano, 2018, 12, 2403-2414.	7.3	114
18	A Review on Encapsulation Technology from Organic Light Emitting Diodes to Organic and Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2100151.	7.8	114

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19	Hybrid chemical vapor deposition enables scalable and stable Cs-FA mixed cation perovskite solar modules with a designated area of 91.8 cm² approaching 10% efficiency. Journal of Materials Chemistry A, 2019, 7, 6920-6929.	5.2	112
20	Gas-solid reaction based over one-micrometer thick stable perovskite films for efficient solar cells and modules. Nature Communications, 2018, 9, 3880.	5.8	109
21	A Thermodynamically Favored Crystal Orientation in Mixed Formamidinium/Methylammonium Perovskite for Efficient Solar Cells. Advanced Materials, 2019, 31, e1900390.	11.1	101
22	Low-Temperature TiO_{<i>x</i>} Compact Layer for Planar Heterojunction Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 11076-11083.	4.0	100
23	Working Mechanism for Flexible Perovskite Solar Cells with Simplified Architecture. Nano Letters, 2015, 15, 6514-6520.	4.5	91
24	NiO nanosheets as efficient top hole transporters for carbon counter electrode based perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 24121-24127.	5.2	91
25	Barrier Designs in Perovskite Solar Cells for Longâ€Term Stability. Advanced Energy Materials, 2020, 10, 2001610.	10.2	84
26	Carbon-Based Electrode Engineering Boosts the Efficiency of All Low-Temperature-Processed Perovskite Solar Cells. ACS Energy Letters, 2019, 4, 2032-2039.	8.8	79
27	Interface engineering strategies towards Cs₂AgBiBr₆single-crystalline photodetectors with good Ohmic contact behaviours. Journal of Materials Chemistry C, 2020, 8, 276-284.	2.7	78
28	Scalable Fabrication of >90 cm² Perovskite Solar Modules with >1000 h Operational Stability Based on the Intermediate Phase Strategy. Advanced Energy Materials, 2021, 11, 2003712.	10.2	76
29	Semitransparent Fully Air Processed Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 17776-17781.	4.0	75
30	Negligibleâ€Pbâ€Waste and Upscalable Perovskite Deposition Technology for Highâ€Operationalâ€Stability Perovskite Solar Modules. Advanced Energy Materials, 2019, 9, 1803047.	10.2	68
31	Fine Tuning of Fluorene-Based Dye Structures for High-Efficiency <i>p</i>-Type Dye-Sensitized Solar Cells. ACS Applied Materials & Interfaces, 2014, 6, 10614-10622.	4.0	64
32	Additives in metal halide perovskite films and their applications in solar cells. Journal of Energy Chemistry, 2020, 46, 215-228.	7.1	64
33	To probe the performance of perovskite memory devices: defects property and hysteresis. Journal of Materials Chemistry C, 2017, 5, 5810-5817.	2.7	63
34	Boost the efficiency of nickel oxide-based formamidinium-cesium perovskite solar cells to 21% by using coumarin 343 dye as defect passivator. Nano Energy, 2022, 94, 106935.	8.2	49
35	Rear Electrode Materials for Perovskite Solar Cells. Advanced Functional Materials, 2022, 32, .	7.8	49
36	Modulated Charge Injection in p-Type Dye-Sensitized Solar Cells Using Fluorene-Based Light Absorbers. ACS Applied Materials & Interfaces, 2014, 6, 3448-3454.	4.0	48

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37	Robust hole transport material with interface anchors enhances the efficiency and stability of inverted formamidiniumâ€“cesium perovskite solar cells with a certified efficiency of 22.3%. Energy and Environmental Science, 2022, 15, 2567-2580.	15.6	46
38	Engineering Green-to-Blue Emitting CsPbBr₃ Quantum-Dot Films with Efficient Ligand Passivation. ACS Energy Letters, 2019, 4, 2731-2738.	8.8	43
39	Effective Passivation with Sizeâ€Matched Alkyldiammonium Iodide for Highâ€Performance Inverted Perovskite Solar Cells. Advanced Functional Materials, 2022, 32, .	7.8	41
40	Thiophene-Functionalized Porphyrins: Synthesis, Photophysical Properties, and Photovoltaic Performance in Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2015, 119, 5265-5273.	1.5	35
41	Rapid hybrid chemical vapor deposition for efficient and hysteresis-free perovskite solar modules with an operation lifetime exceeding 800 hours. Journal of Materials Chemistry A, 2020, 8, 23404-23412.	5.2	34
42	Rationally Induced Interfacial Dipole in Planar Heterojunction Perovskite Solar Cells for Reduced <i>J</i>â€“<i>V</i> Hysteresis. Advanced Energy Materials, 2018, 8, 1800568.	10.2	32
43	Inverse Growth of Large-Grain-Size and Stable Inorganic Perovskite Micronanowire Photodetectors. ACS Applied Materials & Interfaces, 2020, 12, 14185-14194.	4.0	30
44	Evaporated potassium chloride for double-sided interfacial passivation in inverted planar perovskite solar cells. Journal of Energy Chemistry, 2021, 54, 493-500.	7.1	28
45	Photon Upconverting Solid Films with Improved Efficiency for Endowing Perovskite Solar Cells with Nearâ€Infrared Sensitivity. ChemPhotoChem, 2020, 4, 5271-5278.	1.5	26
46	Imaging of the Atomic Structure of All-Inorganic Halide Perovskites. Journal of Physical Chemistry Letters, 2020, 11, 818-823.	2.1	26
47	Modulated growth of high-quality CsPbI₃perovskite film using a molybdenum modified SnO₂layer for highly efficient solar cells. Journal of Materials Chemistry A, 2021, 9, 25567-25575.	5.2	25
48	Photon management for efficient hybrid perovskite solar cells via synergetic localized grating and enhanced fluorescence effect. Nano Energy, 2017, 40, 540-549.	8.2	22
49	Recent Progress on Metal Halide Perovskite Solar Minimodules. Solar Rrl, 2022, 6, 2100458.	3.1	21
50	Fluorene functionalized porphyrins as broadband absorbers for TiO₂nanocrystalline solar cells. Journal of Materials Chemistry A, 2014, 2, 13667.	5.2	20
51	Strategies for highly efficient and stable cesium lead iodide perovskite photovoltaics: mechanisms and processes. Journal of Materials Chemistry C, 2022, 10, 4999-5023.	2.7	19
52	Inâ€‰Situ Characterization for Understanding the Degradation in Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	19
53	Methylammonium and Bromideâ€Free Tinâ€Based Low Bandgap Perovskite Solar Cells. Advanced Energy Materials, 2022, 12, .	10.2	18
54	Strain release of formamidinium-cesium perovskite with imprint-assisted organic ammonium halide compensation for efficient and stable solar cells. Nano Energy, 2022, 101, 107594.	8.2	17

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55	Molecular Engineering of Zincâ€Porphyrin Sensitisers for pâ€Type Dyeâ€Sensitised Solar Cells. ChemPlusChem, 2018, 83, 711-720.	1.3	16
56	The Impact of Atmosphere on Energetics of Lead Halide Perovskites. Advanced Energy Materials, 2020, 10, 2000908.	10.2	12
57	Bis(9,9-dihexyl-9H-fluorene-7-yl)amine (BDFA) as a new donor for porphyrin-sensitized solar cells. Organic Electronics, 2014, 15, 2448-2460.	1.4	7
58	Near-infrared absorbing porphyrin dyes with perpendicularly extended Ï€-conjugation for dye-sensitized solar cells. RSC Advances, 2014, 4, 50897-50905.	1.7	7
59	A General Lowâ€Temperature Strategy to Prepare Highâ€Quality Metal Sulfides Chargeâ€Transporting Layers for Allâ€Inorganic CsPbI₂Br Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	5
60	Solvent effects on adsorption kinetics, dye monolayer, and cell performance of porphyrin-sensitized solar cells. RSC Advances, 2016, 6, 114037-114045.	1.7	2
61	Counter Electrode Materials for Organic-Inorganic Perovskite Solar Cells. , 2019, , 165-225.		2
62	Molecular Engineering of Zinc-Porphyrin Sensitisers for p-Type Dye-Sensitised Solar Cells. ChemPlusChem, 2018, 83, 547-547.	1.3	0