

# Zonghao Liu

## List of Publications by Citations

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58  
papers

4,457  
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33  
h-index

63  
g-index

63  
ext. papers

5,296  
ext. citations

15.2  
avg, IF

5.74  
L-index

#	Paper	IF	Citations
58	Multifunctional Fullerene Derivative for Interface Engineering in Perovskite Solar Cells. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 15540-7	16.4	433
57	Guanidinium: A Route to Enhanced Carrier Lifetime and Open-Circuit Voltage in Hybrid Perovskite Solar Cells. <i>Nano Letters</i> , <b>2016</b> , 16, 1009-16	11.5	400
56	Hole selective NiO contact for efficient perovskite solar cells with carbon electrode. <i>Nano Letters</i> , <b>2015</b> , 15, 2402-8	11.5	357
55	Chemical Reduction of Intrinsic Defects in Thicker Heterojunction Planar Perovskite Solar Cells. <i>Advanced Materials</i> , <b>2017</b> , 29, 1606774	24	267
54	The Additive Coordination Effect on Hybrids Perovskite Crystallization and High-Performance Solar Cell. <i>Advanced Materials</i> , <b>2016</b> , 28, 9862-9868	24	235
53	Enhancing Optical, Electronic, Crystalline, and Morphological Properties of Cesium Lead Halide by Mn Substitution for High-Stability All-Inorganic Perovskite Solar Cells with Carbon Electrodes. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1800504	21.8	221
52	Reduction of lead leakage from damaged lead halide perovskite solar modules using self-healing polymer-based encapsulation. <i>Nature Energy</i> , <b>2019</b> , 4, 585-593	62.3	191
51	Nickel oxide nanoparticles for efficient hole transport in p-i-n and n-i-p perovskite solar cells. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 6597-6605	13	159
50	A holistic approach to interface stabilization for efficient perovskite solar modules with over 2,000-hour operational stability. <i>Nature Energy</i> , <b>2020</b> , 5, 596-604	62.3	140
49	p-Type mesoscopic NiO as an active interfacial layer for carbon counter electrode based perovskite solar cells. <i>Dalton Transactions</i> , <b>2015</b> , 44, 3967-73	4.3	125
48	Highly Efficient Perovskite Solar Cells Enabled by Multiple Ligand Passivation. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 1903696	21.8	119
47	Highly Efficient and Stable Perovskite Solar Cells via Modification of Energy Levels at the Perovskite/Carbon Electrode Interface. <i>Advanced Materials</i> , <b>2019</b> , 31, e1804284	24	116
46	Phase transition induced recrystallization and low surface potential barrier leading to 10.91%-efficient CsPbBr <sub>3</sub> perovskite solar cells. <i>Nano Energy</i> , <b>2019</b> , 65, 104015	17.1	111
45	The intrinsic properties of FA(1-x)MAxPbI <sub>3</sub> perovskite single crystals. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 8537-8544	13	110
44	Low-Temperature TiO <sub>x</sub> Compact Layer for Planar Heterojunction Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 11076-83	9.5	91
43	[6,6]-Phenyl-C-Butyric Acid Methyl Ester/Cerium Oxide Bilayer Structure as Efficient and Stable Electron Transport Layer for Inverted Perovskite Solar Cells. <i>ACS Nano</i> , <b>2018</b> , 12, 2403-2414	16.7	86
42	Scalable Fabrication of Stable High Efficiency Perovskite Solar Cells and Modules Utilizing Room Temperature Sputtered SnO <sub>2</sub> Electron Transport Layer. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1806779	15.6	84

41	Working Mechanism for Flexible Perovskite Solar Cells with Simplified Architecture. <i>Nano Letters</i> , <b>2015</b> , 15, 6514-20	11.5	82
40	Gas-solid reaction based over one-micrometer thick stable perovskite films for efficient solar cells and modules. <i>Nature Communications</i> , <b>2018</b> , 9, 3880	17.4	82
39	NiO nanosheets as efficient top hole transporters for carbon counter electrode based perovskite solar cells. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 24121-24127	13	81
38	Hybrid chemical vapor deposition enables scalable and stable Cs-FA mixed cation perovskite solar modules with a designated area of 91.8 cm <sup>2</sup> approaching 10% efficiency. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 6920-6929	13	69
37	Slot-die coating large-area formamidinium-cesium perovskite film for efficient and stable parallel solar module. <i>Science Advances</i> , <b>2021</b> , 7,	14.3	66
36	Semitransparent Fully Air Processed Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 17776-81	9.5	65
35	A Thermodynamically Favored Crystal Orientation in Mixed Formamidinium/Methylammonium Perovskite for Efficient Solar Cells. <i>Advanced Materials</i> , <b>2019</b> , 31, e1900390	24	62
34	Fine tuning of fluorene-based dye structures for high-efficiency p-type dye-sensitized solar cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 10614-22	9.5	55
33	Interface engineering strategies towards Cs <sub>2</sub> AgBiBr <sub>6</sub> single-crystalline photodetectors with good Ohmic contact behaviours. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 276-284	7.1	53
32	Negligible-Pb-Waste and Upscalable Perovskite Deposition Technology for High-Operational-Stability Perovskite Solar Modules. <i>Advanced Energy Materials</i> , <b>2019</b> , 9, 1803047	21.8	48
31	A Review on Encapsulation Technology from Organic Light Emitting Diodes to Organic and Perovskite Solar Cells. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2100151	15.6	47
30	To probe the performance of perovskite memory devices: defects property and hysteresis. <i>Journal of Materials Chemistry C</i> , <b>2017</b> , 5, 5810-5817	7.1	46
29	Barrier Designs in Perovskite Solar Cells for Long-Term Stability. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 2001610	21.8	45
28	Carbon-Based Electrode Engineering Boosts the Efficiency of All Low-Temperature-Processed Perovskite Solar Cells. <i>ACS Energy Letters</i> , <b>2019</b> , 4, 2032-2039	20.1	42
27	Modulated charge injection in p-type dye-sensitized solar cells using fluorene-based light absorbers. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 3448-54	9.5	42
26	Thiophene-Functionalized Porphyrins: Synthesis, Photophysical Properties, and Photovoltaic Performance in Dye-Sensitized Solar Cells. <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 5265-5273	3.8	33
25	Scalable Fabrication of >90 cm <sup>2</sup> Perovskite Solar Modules with >1000 h Operational Stability Based on the Intermediate Phase Strategy. <i>Advanced Energy Materials</i> , <b>2021</b> , 11, 2003712	21.8	33
24	Additives in metal halide perovskite films and their applications in solar cells. <i>Journal of Energy Chemistry</i> , <b>2020</b> , 46, 215-228	12	32

23	Inverse Growth of Large-Grain-Size and Stable Inorganic Perovskite Micronanowire Photodetectors. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 14185-14194	9.5	21
22	Imaging of the Atomic Structure of All-Inorganic Halide Perovskites. <i>Journal of Physical Chemistry Letters</i> , <b>2020</b> , 11, 818-823	6.4	21
21	Rationally Induced Interfacial Dipole in Planar Heterojunction Perovskite Solar Cells for Reduced $J_{sc}$ Hysteresis. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1800568	21.8	19
20	Photon management for efficient hybrid perovskite solar cells via synergetic localized grating and enhanced fluorescence effect. <i>Nano Energy</i> , <b>2017</b> , 40, 540-549	17.1	18
19	Engineering Green-to-Blue Emitting CsPbBr <sub>3</sub> Quantum-Dot Films with Efficient Ligand Passivation. <i>ACS Energy Letters</i> , <b>2019</b> , 4, 2731-2738	20.1	17
18	Fluorene functionalized porphyrins as broadband absorbers for TiO <sub>2</sub> nanocrystalline solar cells. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 13667	13	17
17	Rapid hybrid chemical vapor deposition for efficient and hysteresis-free perovskite solar modules with an operation lifetime exceeding 800 hours. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 23404-23412	13	17
16	Photon Upconverting Solid Films with Improved Efficiency for Endowing Perovskite Solar Cells with Near-Infrared Sensitivity. <i>ChemPhotoChem</i> , <b>2020</b> , 4, 5271-5278	3.3	14
15	Evaporated potassium chloride for double-sided interfacial passivation in inverted planar perovskite solar cells. <i>Journal of Energy Chemistry</i> , <b>2021</b> , 54, 493-500	12	12
14	The Impact of Atmosphere on Energetics of Lead Halide Perovskites. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 2000908	21.8	8
13	Molecular Engineering of Zinc-Porphyrin Sensitisers for p-Type Dye-Sensitised Solar Cells. <i>ChemPlusChem</i> , <b>2018</b> , 83, 711-720	2.8	8
12	Boost the efficiency of nickel oxide-based formamidinium-cesium perovskite solar cells to 21% by using coumarin 343 dye as defect passivator. <i>Nano Energy</i> , <b>2022</b> , 94, 106935	17.1	7
11	Bis(9,9-dihexyl-9H-fluorene-7-yl)amine (BDFA) as a new donor for porphyrin-sensitized solar cells. <i>Organic Electronics</i> , <b>2014</b> , 15, 2448-2460	3.5	6
10	Recent Progress on Metal Halide Perovskite Solar Minimodules. <i>Solar Rrl</i> , 2100458	7.1	5
9	Rear Electrode Materials for Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2200651	15.6	5
8	Near-infrared absorbing porphyrin dyes with perpendicularly extended $\pi$ conjugation for dye-sensitized solar cells. <i>RSC Advances</i> , <b>2014</b> , 4, 50897-50905	3.7	4
7	Modulated growth of high-quality CsPbI <sub>3</sub> perovskite film using a molybdenum modified SnO <sub>2</sub> layer for highly efficient solar cells. <i>Journal of Materials Chemistry A</i> ,	13	4
6	Strategies for highly efficient and stable cesium lead iodide perovskite photovoltaics: mechanisms and processes. <i>Journal of Materials Chemistry C</i> , <b>2022</b> , 10, 4999-5023	7.1	3

5	In-situ characterization for understanding the degradation in perovskite solar cells. <i>Solar Rrl</i> , 7.1 3
4	Solvent effects on adsorption kinetics, dye monolayer, and cell performance of porphyrin-sensitized solar cells. <i>RSC Advances</i> , <b>2016</b> , 6, 114037-114045 3.7 2
3	Counter Electrode Materials for Organic-Inorganic Perovskite Solar Cells <b>2019</b> , 165-225 1
2	A General Low-Temperature Strategy to Prepare High-Quality Metal Sulfides Charge-Transporting Layers for All-Inorganic CsPbI <sub>2</sub> Br Perovskite Solar Cells. <i>Solar Rrl</i> , 2200098 7.1 1
1	Molecular Engineering of Zinc-Porphyrin Sensitisers for p-Type Dye-Sensitised Solar Cells. <i>ChemPlusChem</i> , <b>2018</b> , 83, 547 2.8