Zonghao Liu

List of Publications by Year in Descending Order

58 papers	4,457 citations	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	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	17.1	7
57	Strategies for highly efficient and stable cesium lead iodide perovskite photovoltaics: mechanisms and processes. *Journal of Materials Chemistry C*, **2022**, 10, 4999-5023	7.1	3
56	A Review on Encapsulation Technology from Organic Light Emitting Diodes to Organic and Perovskite Solar Cells. *Advanced Functional Materials*, **2021**, 31, 2100151	15.6	47
55	Slot-die coating large-area formamidinium-cesium perovskite film for efficient and stable parallel solar module. *Science Advances*, **2021**, 7,	14.3	66
54	Evaporated potassium chloride for double-sided interfacial passivation in inverted planar perovskite solar cells. *Journal of Energy Chemistry*, **2021**, 54, 493-500	12	12
53	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	21.8	33
52	The Impact of Atmosphere on Energetics of Lead Halide Perovskites. *Advanced Energy Materials*, **2020**, 10, 2000908	21.8	8
51	Inverse Growth of Large-Grain-Size and Stable Inorganic Perovskite Micronanowire Photodetectors. *ACS Applied Materials & Interfaces*, **2020**, 12, 14185-14194	9.5	21
50	Imaging of the Atomic Structure of All-Inorganic Halide Perovskites. *Journal of Physical Chemistry Letters*, **2020**, 11, 818-823	6.4	21
49	Interface engineering strategies towards Cs2AgBiBr6 single-crystalline photodetectors with good Ohmic contact behaviours. *Journal of Materials Chemistry C*, **2020**, 8, 276-284	7.1	53
48	Additives in metal halide perovskite films and their applications in solar cells. *Journal of Energy Chemistry*, **2020**, 46, 215-228	12	32
47	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	13	17
46	A holistic approach to interface stabilization for efficient perovskite solar modules with over 2,000-hour operational stability. *Nature Energy*, **2020**, 5, 596-604	62.3	140
45	Photon Upconverting Solid Films with Improved Efficiency for Endowing Perovskite Solar Cells with Near-Infrared Sensitivity. *ChemPhotoChem*, **2020**, 4, 5271-5278	3.3	14
44	Barrier Designs in Perovskite Solar Cells for Long-Term Stability. *Advanced Energy Materials*, **2020**, 10, 2001610	21.8	45
43	Highly Efficient Perovskite Solar Cells Enabled by Multiple Ligand Passivation. *Advanced Energy Materials*, **2020**, 10, 1903696	21.8	119
42	Highly Efficient and Stable Perovskite Solar Cells via Modification of Energy Levels at the Perovskite/Carbon Electrode Interface. *Advanced Materials*, **2019**, 31, e1804284	24	116

(2017-2019)

41	Reduction of lead leakage from damaged lead halide perovskite solar modules using self-healing polymer-based encapsulation. *Nature Energy*, **2019**, 4, 585-593	62.3	191
40	A Thermodynamically Favored Crystal Orientation in Mixed Formamidinium/Methylammonium Perovskite for Efficient Solar Cells. *Advanced Materials*, **2019**, 31, e1900390	24	62
39	Phase transition induced recrystallization and low surface potential barrier leading to 10.91%-efficient CsPbBr3 perovskite solar cells. *Nano Energy*, **2019**, 65, 104015	17.1	111
38	Carbon-Based Electrode Engineering Boosts the Efficiency of All Low-Temperature-Processed Perovskite Solar Cells. *ACS Energy Letters*, **2019**, 4, 2032-2039	20.1	42
37	Engineering Green-to-Blue Emitting CsPbBr3 Quantum-Dot Films with Efficient Ligand Passivation. *ACS Energy Letters*, **2019**, 4, 2731-2738	20.1	17
36	Counter Electrode Materials for Organic-Inorganic Perovskite Solar Cells **2019**, 165-225		1
35	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	13	69
34	Negligible-Pb-Waste and Upscalable Perovskite Deposition Technology for High-Operational-Stability Perovskite Solar Modules. *Advanced Energy Materials*, **2019**, 9, 1803047	21.8	48
33	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	15.6	84
32	[6,6]-Phenyl-C-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	16.7	86
31	Molecular Engineering of Zinc-Porphyrin Sensitisers for p-Type Dye-Sensitised Solar Cells. *ChemPlusChem*, **2018**, 83, 711-720	2.8	8
30	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. *Advanced Energy Materials*, **2018**, 8, 1800504	21.8	221
29	Gas-solid reaction based over one-micrometer thick stable perovskite films for efficient solar cells and modules. *Nature Communications*, **2018**, 9, 3880	17.4	82
28	Molecular Engineering of Zinc-Porphyrin Sensitisers for p-Type Dye-Sensitised Solar Cells. *ChemPlusChem*, **2018**, 83, 547	2.8	
27	Rationally Induced Interfacial Dipole in Planar Heterojunction Perovskite Solar Cells for Reduced J-V Hysteresis. *Advanced Energy Materials*, **2018**, 8, 1800568	21.8	19
26	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	13	159
25	Chemical Reduction of Intrinsic Defects in Thicker Heterojunction Planar Perovskite Solar Cells. *Advanced Materials*, **2017**, 29, 1606774	24	267
24	To probe the performance of perovskite memory devices: defects property and hysteresis. *Journal of Materials Chemistry C*, **2017**, 5, 5810-5817	7.1	46

23	The intrinsic properties of FA(1□)MAxPbI3 perovskite single crystals. *Journal of Materials Chemistry A*, **2017**, 5, 8537-8544	13	110
22	Photon management for efficient hybrid perovskite solar cells via synergetic localized grating and enhanced fluorescence effect. *Nano Energy*, **2017**, 40, 540-549	17.1	18
21	Guanidinium: A Route to Enhanced Carrier Lifetime and Open-Circuit Voltage in Hybrid Perovskite Solar Cells. *Nano Letters*, **2016**, 16, 1009-16	11.5	400
20	Solvent effects on adsorption kinetics, dye monolayer, and cell performance of porphyrin-sensitized solar cells. *RSC Advances*, **2016**, 6, 114037-114045	3.7	2
19	Low-Temperature TiOx Compact Layer for Planar Heterojunction Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2016**, 8, 11076-83	9.5	91
18	The Additive Coordination Effect on Hybrids Perovskite Crystallization and High-Performance Solar Cell. *Advanced Materials*, **2016**, 28, 9862-9868	24	235
17	Semitransparent Fully Air Processed Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2015**, 7, 17776-81	9.5	65
16	Hole selective NiO contact for efficient perovskite solar cells with carbon electrode. *Nano Letters*, **2015**, 15, 2402-8	11.5	357
15	Working Mechanism for Flexible Perovskite Solar Cells with Simplified Architecture. *Nano Letters*, **2015**, 15, 6514-20	11.5	82
14	NiO nanosheets as efficient top hole transporters for carbon counter electrode based perovskite solar cells. *Journal of Materials Chemistry A*, **2015**, 3, 24121-24127	13	81
13	Multifunctional Fullerene Derivative for Interface Engineering in Perovskite Solar Cells. *Journal of the American Chemical Society*, **2015**, 137, 15540-7	16.4	433
12	p-Type mesoscopic NiO as an active interfacial layer for carbon counter electrode based perovskite solar cells. *Dalton Transactions*, **2015**, 44, 3967-73	4.3	125
11	Thiophene-Functionalized Porphyrins: Synthesis, Photophysical Properties, and Photovoltaic Performance in Dye-Sensitized Solar Cells. *Journal of Physical Chemistry C*, **2015**, 119, 5265-5273	3.8	33
10	Fine tuning of fluorene-based dye structures for high-efficiency p-type dye-sensitized solar cells. *ACS Applied Materials & Interfaces*, **2014**, 6, 10614-22	9.5	55
9	Fluorene functionalized porphyrins as broadband absorbers for TiO2 nanocrystalline solar cells. *Journal of Materials Chemistry A*, **2014**, 2, 13667	13	17
8	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	3.5	6
7	Near-infrared absorbing porphyrin dyes with perpendicularly extended □conjugation for dye-sensitized solar cells. *RSC Advances*, **2014**, 4, 50897-50905	3.7	4
6	Modulated charge injection in p-type dye-sensitized solar cells using fluorene-based light absorbers. *ACS Applied Materials & Interfaces*, **2014**, 6, 3448-54	9.5	42

5	Modulated growth of high-quality $CsPbI_3$ perovskite film using a molybdenum modified SnO_2 layer for highly efficient solar cells. *Journal of Materials Chemistry A*,	13	4
4	Recent Progress on Metal Halide Perovskite Solar Minimodules. *Solar Rrl*,2100458	7.1	5
3	A General Low-Temperature Strategy to Prepare High-Quality Metal Sulfides Charge-Transporting Layers for All-Inorganic $CsPbI_2Br$ Perovskite Solar Cells. *Solar Rrl*,2200098	7.1	1
2	In-situ characterization for understanding the degradation in perovskite solar cells. *Solar Rrl*,	7.1	3
1	Rear Electrode Materials for Perovskite Solar Cells. *Advanced Functional Materials*,2200651	15.6	5