

# Zhiliang Ku

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

81

papers

6,588

citations

28

h-index

81

g-index

92

ext. papers

7,411

ext. citations

9.3

avg, IF

5.78

L-index

#	Paper	IF	Citations
81	All-vacuum deposited perovskite solar cells with glycine modified NiO hole-transport layers.. <i>RSC Advances</i> , <b>2022</b> , 12, 10863-10869	3.7	2
80	Regulating the Ni <sup>3+</sup> /Ni <sup>2+</sup> ratio of NiO <sub>x</sub> by plasma treatment for fully vacuum-deposited perovskite solar cells. <i>Materials Science in Semiconductor Processing</i> , <b>2022</b> , 148, 106839	4.3	1
79	Printing strategies for scaling-up perovskite solar cells. <i>National Science Review</i> , <b>2021</b> , 8, nwab075	10.8	16
78	Ink Engineering for Blade Coating FA-Dominated Perovskites in Ambient Air for Efficient Solar Cells and Modules. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 18724-18732	9.5	8
77	19.59% Efficiency from Rb <sub>0.04</sub> -Cs <sub>0.14</sub> FA <sub>0.86</sub> Pb(Br <sub>1-x</sub> I <sub>x</sub> ) <sub>3</sub> perovskite solar cells made by vapor-solid reaction technique. <i>Science Bulletin</i> , <b>2021</b> , 66, 962-964	10.6	7
76	Bandgap adjustment assisted preparation of >18% Cs FA Pbl Br -based perovskite solar cells using a hybrid spraying process.. <i>RSC Advances</i> , <b>2021</b> , 11, 17595-17602	3.7	2
75	High-Performance Rb <sub>0.14</sub> FA <sub>0.86</sub> Pb(Br <sub>1-x</sub> I <sub>x</sub> ) <sub>3</sub> Perovskite Solar Cells Achieved by Regulating the Halogen Exchange in Vapor-Solid Reaction Process. <i>Solar Rrl</i> , <b>2021</b> , 5, 2100102	7.1	5
74	Scalable, efficient and flexible perovskite solar cells with carbon film based electrode. <i>Solar Energy Materials and Solar Cells</i> , <b>2021</b> , 230, 111226	6.4	13
73	Efficient perovskite solar cells with pressing transferred top metal electrodes. <i>Materials Letters</i> , <b>2021</b> , 301, 130244	3.3	1
72	Aqueous Sn-S Complex Derived Electron Selective Layer for Perovskite Solar Cells. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , <b>2020</b> , 35, 272-279	1	1
71	Formamidinium-Based Perovskite Solar Cells with Enhanced Moisture Stability and Performance via Confined Pressure Annealing. <i>Journal of Physical Chemistry C</i> , <b>2020</b> , 124, 12249-12258	3.8	9
70	Improving the crystal growth of a Cs <sub>0.24</sub> FA <sub>0.76</sub> PbI <sub>3-x</sub> Br <sub>x</sub> perovskite in a vapor-solid reaction process using strontium iodide. <i>Sustainable Energy and Fuels</i> , <b>2020</b> , 4, 2491-2496	5.8	3
69	Interface modification effect on the performance of CsFAPbI <sub>3</sub> Br perovskite solar cells fabricated by evaporation/spray-coating method. <i>Journal of Chemical Physics</i> , <b>2020</b> , 153, 014706	3.9	9
68	A pressure-assisted annealing method for high quality CsPbBr <sub>3</sub> film deposited by sequential thermal evaporation.. <i>RSC Advances</i> , <b>2020</b> , 10, 8905-8909	3.7	9
67	Room-temperature Sputtered NiO <sub>x</sub> for hysteresis-free and stable inverted Cs-FA mixed-cation perovskite solar cells. <i>Materials Science in Semiconductor Processing</i> , <b>2020</b> , 115, 105129	4.3	5
66	Printable materials for printed perovskite solar cells. <i>Flexible and Printed Electronics</i> , <b>2020</b> , 5, 014002	3.1	1
65	Carbon film electrode based square-centimeter scale planar perovskite solar cells exceeding 17% efficiency. <i>Materials Science in Semiconductor Processing</i> , <b>2020</b> , 107, 104809	4.3	23

64	Universal defects elimination for high performance thermally evaporated CsPbBr <sub>3</sub> perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , <b>2020</b> , 206, 110317	6.4	21
63	Multifunctional Polymer-Regulated SnO Nanocrystals Enhance Interface Contact for Efficient and Stable Planar Perovskite Solar Cells. <i>Advanced Materials</i> , <b>2020</b> , 32, e2003990	24	99
62	Influence of phase transition on stability of perovskite solar cells under thermal cycling conditions. <i>Solar Energy</i> , <b>2019</b> , 188, 312-317	6.8	13
61	Enhancing the thermal stability of the carbon-based perovskite solar cells by using a Cs FA PbBr I light absorber.. <i>RSC Advances</i> , <b>2019</b> , 9, 11877-11881	3.7	11
60	Fabrication of Efficient and Stable Perovskite Solar Cells in High-Humidity Environment through Trace-Doping of Large-Sized Cations. <i>ChemSusChem</i> , <b>2019</b> , 12, 2385-2392	8.3	9
59	Sub-sized monovalent alkaline cations enhanced electrical stability for over 17% hysteresis-free planar perovskite solar mini-module. <i>Electrochimica Acta</i> , <b>2019</b> , 306, 635-642	6.7	9
58	Room-temperature synthesized SnO electron transport layers for efficient perovskite solar cells.. <i>RSC Advances</i> , <b>2019</b> , 9, 9946-9950	3.7	11
57	Moisture assisted CsPbBr <sub>3</sub> film growth for high-efficiency, all-inorganic solar cells prepared by a multiple sequential vacuum deposition method. <i>Materials Science in Semiconductor Processing</i> , <b>2019</b> , 98, 39-43	4.3	24
56	Low-Cost Fullerene Derivative as an Efficient Electron Transport Layer for Planar Perovskite Solar Cells. <i>Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica</i> , <b>2019</b> , 35, 401-407	3.8	14
55	Organic/inorganic self-doping controlled crystallization and electronic properties of mixed perovskite solar cells. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 6319-6326	13	22
54	Improving the intrinsic thermal stability of the MAPbI perovskite by incorporating cesium 5-aminovaleric acetate.. <i>RSC Advances</i> , <b>2018</b> , 8, 14991-14994	3.7	6
53	Efficient and Stable Inverted Planar Perovskite Solar Cells Using a Triphenylamine Hole-Transporting Material. <i>ChemSusChem</i> , <b>2018</b> , 11, 1467-1473	8.3	38
52	Low-Temperature Presynthesized Crystalline Tin Oxide for Efficient Flexible Perovskite Solar Cells and Modules. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 14922-14929	9.5	67
51	An efficient, flexible perovskite solar module exceeding 8% prepared with an ultrafast PbI deposition rate. <i>Scientific Reports</i> , <b>2018</b> , 8, 442	4.9	27
50	Structural and Chemical Changes to CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Induced by Electron and Gallium Ion Beams. <i>Advanced Materials</i> , <b>2018</b> , 30, e1800629	24	87
49	Surface Rutilization of Anatase TiO <sub>2</sub> for Efficient Electron Extraction and Stable P <sub>max</sub> Output of Perovskite Solar Cells. <i>Chem</i> , <b>2018</b> , 4, 911-923	16.2	20
48	Ultrafast Terahertz Probes of Charge Transfer and Recombination Pathway of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskites. <i>Chinese Physics Letters</i> , <b>2018</b> , 35, 028401	1.8	3
47	Influence of Hot Spot Heating on Stability of Large Size Perovskite Solar Module with a Power Conversion Efficiency of ~14%. <i>ACS Applied Energy Materials</i> , <b>2018</b> , 1, 3565-3570	6.1	9

46	Enhanced Crystallinity of Low-Temperature Solution-Processed SnO for Highly Reproducible Planar Perovskite Solar Cells. <i>ChemSusChem</i> , <b>2018</b> , 11, 2898-2903	8.3	21
45	Efficient and stable mixed perovskite solar cells using P3HT as a hole transporting layer. <i>Journal of Materials Chemistry C</i> , <b>2018</b> , 6, 5733-5737	7.1	43
44	Stacking n-type layers: Effective route towards stable, efficient and hysteresis-free planar perovskite solar cells. <i>Nano Energy</i> , <b>2018</b> , 44, 34-42	17.1	47
43	Alleviate the - hysteresis of carbon-based perovskite solar cells introducing additional methylammonium chloride into MAPbI precursor.. <i>RSC Advances</i> , <b>2018</b> , 8, 35157-35161	3.7	13
42	Suppressed hysteresis and enhanced performance of triple cation perovskite solar cell with chlorine incorporation. <i>Journal of Materials Chemistry C</i> , <b>2018</b> , 6, 13157-13161	7.1	17
41	Large-area perovskite solar cells with Cs <sub>x</sub> FA <sub>1-x</sub> PbI <sub>3</sub> Br <sub>y</sub> thin films deposited by a vapor-solid reaction method. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 21143-21148	13	47
40	Universal passivation strategy to slot-die printed SnO for hysteresis-free efficient flexible perovskite solar module. <i>Nature Communications</i> , <b>2018</b> , 9, 4609	17.4	392
39	Effect of the Microstructure of the Functional Layers on the Efficiency of Perovskite Solar Cells. <i>Advanced Materials</i> , <b>2017</b> , 29, 1601715	24	80
38	Perovskite Solar Cells: Effect of the Microstructure of the Functional Layers on the Efficiency of Perovskite Solar Cells (Adv. Mater. 20/2017). <i>Advanced Materials</i> , <b>2017</b> , 29,	24	2
37	Robust transparent superamphiphobic coatings on non-fabric flat substrates with inorganic adhesive titania bonded silica. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 8352-8359	13	28
36	A novel quadruple-cation absorber for universal hysteresis elimination for high efficiency and stable perovskite solar cells. <i>Energy and Environmental Science</i> , <b>2017</b> , 10, 2509-2515	35.4	346
35	Enhancing the performance and stability of carbon-based perovskite solar cells by the cold isostatic pressing method. <i>RSC Advances</i> , <b>2017</b> , 7, 48958-48961	3.7	10
34	Synergic Interface Optimization with Green Solvent Engineering in Mixed Perovskite Solar Cells. <i>Advanced Energy Materials</i> , <b>2017</b> , 7, 1700576	21.8	178
33	Perovskite solar cell powered electrochromic batteries for smart windows. <i>Materials Horizons</i> , <b>2016</b> , 3, 588-595	14.4	118
32	Humidity controlled sol-gel Zr/TiO <sub>2</sub> with optimized band alignment for efficient planar perovskite solar cells. <i>Solar Energy</i> , <b>2016</b> , 139, 290-296	6.8	21
31	Giant photostriction in organic-inorganic lead halide perovskites. <i>Nature Communications</i> , <b>2016</b> , 7, 11193	17.4	119
30	Solvent engineering for fast growth of centimetric high-quality CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite single crystals. <i>New Journal of Chemistry</i> , <b>2016</b> , 40, 7261-7264	3.6	17
29	Aqueous Rechargeable Alkaline Co <sub>x</sub> Ni <sub>2-x</sub> S <sub>2</sub> /TiO <sub>2</sub> Battery. <i>ACS Nano</i> , <b>2016</b> , 10, 1007-16	16.7	108

28	Integrated Photo-Supercapacitor Based on PEDOT Modified Printable Perovskite Solar Cell. <i>Advanced Materials Technologies</i> , <b>2016</b> , 1, 1600074	6.8	82
27	Discerning the Surface and Bulk Recombination Kinetics of Organic-Inorganic Halide Perovskite Single Crystals. <i>Advanced Energy Materials</i> , <b>2016</b> , 6, 1600551	21.8	214
26	Recent Advances in Improving the Stability of Perovskite Solar Cells. <i>Advanced Energy Materials</i> , <b>2016</b> , 6, 1501420	21.8	251
25	A mesoporous nickel counter electrode for printable and reusable perovskite solar cells. <i>Nanoscale</i> , <b>2015</b> , 7, 13363-8	7.7	51
24	Transparent bifacial dye-sensitized solar cells based on an electrochemically polymerized organic counter electrode and an iodine-free polymer gel electrolyte. <i>Journal of Materials Science</i> , <b>2015</b> , 50, 3803-3811 <sup>11</sup>	4.3	3811
23	Highly ordered mesoporous carbon for mesoscopic CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> /TiO <sub>2</sub> heterojunction solar cell. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 8607	13	80
22	Improved efficiency of CdS quantum dot sensitized solar cell with an organic redox couple and a polymer counter electrode. <i>Electrochimica Acta</i> , <b>2014</b> , 137, 700-704	6.7	14
21	Efficient monolithic quasi-solid-state dye-sensitized solar cells based on poly(ionic liquids) and carbon counter electrodes. <i>RSC Advances</i> , <b>2014</b> , 4, 9271	3.7	17
20	A hole-conductor-free, fully printable mesoscopic perovskite solar cell with high stability. <i>Science</i> , <b>2014</b> , 345, 295-8	33.3	2374
19	Unsymmetrical squaraine sensitizers containing auxiliary arylamine donor for NIR-harvesting on dye-sensitized solar cell. <i>Dyes and Pigments</i> , <b>2014</b> , 106, 128-135	4.6	12
18	Hole-Conductor-Free Mesoscopic TiO <sub>2</sub> /CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Heterojunction Solar Cells Based on Anatase Nanosheets and Carbon Counter Electrodes. <i>Journal of Physical Chemistry Letters</i> , <b>2014</b> , 5, 2160-4	6.4	211
17	Effect of photo-doping on performance for solid-state dye-sensitized solar cell based on 2,2',7',7'-tetrakis-(N,N-di-p-methoxyphenyl-amine)-9,9'-spirobifluorene and carbon counter electrode. <i>Electrochimica Acta</i> , <b>2013</b> , 99, 238-241	6.7	15
16	Efficient Dye-Sensitized Solar Cells with Potential-Tunable Organic Sulfide Mediators and Graphene-Modified Carbon Counter Electrodes. <i>Advanced Functional Materials</i> , <b>2013</b> , 23, 3344-3352	15.6	18
15	An efficient thiolate/disulfide redox couple based dye-sensitized solar cell with a graphene modified mesoscopic carbon counter electrode. <i>Carbon</i> , <b>2013</b> , 53, 11-18	10.4	38
14	Improvement in Solid-State Dye Sensitized Solar Cells by p-Type Doping with Lewis Acid SnCl <sub>4</sub> . <i>Journal of Physical Chemistry C</i> , <b>2013</b> , 117, 22492-22496	3.8	57
13	Full printable processed mesoscopic CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> /TiO <sub>2</sub> heterojunction solar cells with carbon counter electrode. <i>Scientific Reports</i> , <b>2013</b> , 3, 3132	4.9	574
12	High efficiency monobasal solid-state dye-sensitized solar cell with mesoporous TiO <sub>2</sub> beads as photoanode. <i>Frontiers of Optoelectronics</i> , <b>2013</b> , 6, 413-417	2.8	0
11	A class of carbon supported transition metal-nitrogen complex catalysts for dye-sensitized solar cells. <i>Journal of Materials Chemistry A</i> , <b>2013</b> , 1, 1475-1480	13	16

10	Transparent NiS counter electrodes for thiolate/disulfide mediated dye-sensitized solar cells. <i>Journal of Materials Chemistry A</i> , <b>2013</b> , 1, 237-240	13	62
9	Improvement of thiolate/disulfide mediated dye-sensitized solar cells through supramolecular lithium cation assembling of crown ether. <i>Scientific Reports</i> , <b>2013</b> , 3, 2413	4.9	7
8	Monolithic quasi-solid-state dye-sensitized solar cells based on iodine-free polymer gel electrolyte. <i>Journal of Power Sources</i> , <b>2013</b> , 235, 243-250	8.9	22
7	Efficient monolithic solid-state dye-sensitized solar cell with a low-cost mesoscopic carbon based screen printable counter electrode. <i>Organic Electronics</i> , <b>2013</b> , 14, 628-634	3.5	23
6	Monolithic all-solid-state dye-sensitized solar cells <b>2013</b> ,		2
5	A mesoscopic platinumized graphite/carbon black counter electrode for a highly efficient monolithic dye-sensitized solar cell. <i>Electrochimica Acta</i> , <b>2012</b> , 69, 334-339	6.7	77
4	Design of an organic redox mediator and optimization of an organic counter electrode for efficient transparent bifacial dye-sensitized solar cells. <i>Physical Chemistry Chemical Physics</i> , <b>2012</b> , 14, 14383-90	3.6	30
3	Monolithic all-solid-state dye-sensitized solar module based on mesoscopic carbon counter electrodes. <i>Solar Energy Materials and Solar Cells</i> , <b>2012</b> , 105, 148-152	6.4	22
2	Highly efficient poly(3-hexylthiophene) based monolithic dye-sensitized solar cells with carbon counter electrode. <i>Energy and Environmental Science</i> , <b>2011</b> , 4, 2025	35.4	64
1	Mesoporous nitrogen-doped TiO <sub>2</sub> sphere applied for quasi-solid-state dye-sensitized solar cell. <i>Nanoscale Research Letters</i> , <b>2011</b> , 6, 606	5	23