Zhiliang Ku

List of Publications by Citations

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	A hole-conductor-free, fully printable mesoscopic perovskite solar cell with high stability. *Science*, **2014**, 345, 295-8	33.3	2374
80	Full printable processed mesoscopic CH3NH3PbI3/TiO2 heterojunction solar cells with carbon counter electrode. *Scientific Reports*, **2013**, 3, 3132	4.9	574
79	Universal passivation strategy to slot-die printed SnO for hysteresis-free efficient flexible perovskite solar module. *Nature Communications*, **2018**, 9, 4609	17.4	392
78	A novel quadruple-cation absorber for universal hysteresis elimination for high efficiency and stable perovskite solar cells. *Energy and Environmental Science*, **2017**, 10, 2509-2515	35.4	346
77	Recent Advances in Improving the Stability of Perovskite Solar Cells. *Advanced Energy Materials*, **2016**, 6, 1501420	21.8	251
76	Discerning the Surface and Bulk Recombination Kinetics of Organic–Inorganic Halide Perovskite Single Crystals. *Advanced Energy Materials*, **2016**, 6, 1600551	21.8	214
75	Hole-Conductor-Free Mesoscopic TiO2/CH3NH3PbI3 Heterojunction Solar Cells Based on Anatase Nanosheets and Carbon Counter Electrodes. *Journal of Physical Chemistry Letters*, **2014**, 5, 2160-4	6.4	211
74	Synergic Interface Optimization with Green Solvent Engineering in Mixed Perovskite Solar Cells. *Advanced Energy Materials*, **2017**, 7, 1700576	21.8	178
73	Giant photostriction in organic-inorganic lead halide perovskites. *Nature Communications*, **2016**, 7, 11193	17.4	119
72	Perovskite solar cell powered electrochromic batteries for smart windows. *Materials Horizons*, **2016**, 3, 588-595	14.4	118
71	Aqueous Rechargeable Alkaline CoxNi2-xS2/TiO2 Battery. *ACS Nano*, **2016**, 10, 1007-16	16.7	108
70	Multifunctional Polymer-Regulated SnO Nanocrystals Enhance Interface Contact for Efficient and Stable Planar Perovskite Solar Cells. *Advanced Materials*, **2020**, 32, e2003990	24	99
69	Structural and Chemical Changes to CH NH PbI Induced by Electron and Gallium Ion Beams. *Advanced Materials*, **2018**, 30, e1800629	24	87
68	Integrated Photo-Supercapacitor Based on PEDOT Modified Printable Perovskite Solar Cell. *Advanced Materials Technologies*, **2016**, 1, 1600074	6.8	82
67	Effect of the Microstructure of the Functional Layers on the Efficiency of Perovskite Solar Cells. *Advanced Materials*, **2017**, 29, 1601715	24	80
66	Highly ordered mesoporous carbon for mesoscopic CH3NH3PbI3/TiO2 heterojunction solar cell. *Journal of Materials Chemistry A*, **2014**, 2, 8607	13	80
65	A mesoscopic platinized graphite/carbon black counter electrode for a highly efficient monolithic dye-sensitized solar cell. *Electrochimica Acta*, **2012**, 69, 334-339	6.7	77

64	Low-Temperature Presynthesized Crystalline Tin Oxide for Efficient Flexible Perovskite Solar Cells and Modules. *ACS Applied Materials & Interfaces*, **2018**, 10, 14922-14929	9.5	67
63	Highly efficient poly(3-hexylthiophene) based monolithic dye-sensitized solar cells with carbon counter electrode. *Energy and Environmental Science*, **2011**, 4, 2025	35.4	64
62	Transparent NiS counter electrodes for thiolate/disulfide mediated dye-sensitized solar cells. *Journal of Materials Chemistry A*, **2013**, 1, 237-240	13	62
61	Improvement in Solid-State Dye Sensitized Solar Cells by p-Type Doping with Lewis Acid SnCl4. *Journal of Physical Chemistry C*, **2013**, 117, 22492-22496	3.8	57
60	A mesoporous nickel counter electrode for printable and reusable perovskite solar cells. *Nanoscale*, **2015**, 7, 13363-8	7.7	51
59	Stacking n-type layers: Effective route towards stable, efficient and hysteresis-free planar perovskite solar cells. *Nano Energy*, **2018**, 44, 34-42	17.1	47
58	Large-area perovskite solar cells with CsxFA1−xPbI3−yBry thin films deposited by a vapor–solid reaction method. *Journal of Materials Chemistry A*, **2018**, 6, 21143-21148	13	47
57	Efficient and stable mixed perovskite solar cells using P3HT as a hole transporting layer. *Journal of Materials Chemistry C*, **2018**, 6, 5733-5737	7.1	43
56	Efficient and Stable Inverted Planar Perovskite Solar Cells Using a Triphenylamine Hole-Transporting Material. *ChemSusChem*, **2018**, 11, 1467-1473	8.3	38
55	An efficient thiolate/disulfide redox couple based dye-sensitized solar cell with a graphene modified mesoscopic carbon counter electrode. *Carbon*, **2013**, 53, 11-18	10.4	38
54	Design of an organic redox mediator and optimization of an organic counter electrode for efficient transparent bifacial dye-sensitized solar cells. *Physical Chemistry Chemical Physics*, **2012**, 14, 14383-90	3.6	30
53	Robust transparent superamphiphobic coatings on non-fabric flat substrates with inorganic adhesive titania bonded silica. *Journal of Materials Chemistry A*, **2017**, 5, 8352-8359	13	28
52	An efficient, flexible perovskite solar module exceeding 8% prepared with an ultrafast PbI deposition rate. *Scientific Reports*, **2018**, 8, 442	4.9	27
51	Moisture assisted CsPbBr3 film growth for high-efficiency, all-inorganic solar cells prepared by a multiple sequential vacuum deposition method. *Materials Science in Semiconductor Processing*, **2019**, 98, 39-43	4.3	24
50	Efficient monolithic solid-state dye-sensitized solar cell with a low-cost mesoscopic carbon based screen printable counter electrode. *Organic Electronics*, **2013**, 14, 628-634	3.5	23
49	Mesoporous nitrogen-doped TiO2 sphere applied for quasi-solid-state dye-sensitized solar cell. *Nanoscale Research Letters*, **2011**, 6, 606	5	23
48	Carbon film electrode based square-centimeter scale planar perovskite solar cells exceeding 17% efficiency. *Materials Science in Semiconductor Processing*, **2020**, 107, 104809	4.3	23
47	Organic/inorganic self-doping controlled crystallization and electronic properties of mixed perovskite solar cells. *Journal of Materials Chemistry A*, **2018**, 6, 6319-6326	13	22

46	Monolithic quasi-solid-state dye-sensitized solar cells based on iodine-free polymer gel electrolyte. *Journal of Power Sources*, **2013**, 235, 243-250	8.9	22
45	Monolithic all-solid-state dye-sensitized solar module based on mesoscopic carbon counter electrodes. *Solar Energy Materials and Solar Cells*, **2012**, 105, 148-152	6.4	22
44	Humidity controlled sol-gel Zr/TiO2 with optimized band alignment for efficient planar perovskite solar cells. *Solar Energy*, **2016**, 139, 290-296	6.8	21
43	Enhanced Crystallinity of Low-Temperature Solution-Processed SnO for Highly Reproducible Planar Perovskite Solar Cells. *ChemSusChem*, **2018**, 11, 2898-2903	8.3	21
42	Universal defects elimination for high performance thermally evaporated CsPbBr3 perovskite solar cells. *Solar Energy Materials and Solar Cells*, **2020**, 206, 110317	6.4	21
41	Surface Rutilization of Anatase TiO2 for Efficient Electron Extraction and Stable Pmax Output of Perovskite Solar Cells. *CheM*, **2018**, 4, 911-923	16.2	20
40	Efficient Dye-Sensitized Solar Cells with Potential-Tunable Organic Sulfide Mediators and Graphene-Modified Carbon Counter Electrodes. *Advanced Functional Materials*, **2013**, 23, 3344-3352	15.6	18
39	Solvent engineering for fast growth of centimetric high-quality CH3NH3PbI3 perovskite single crystals. *New Journal of Chemistry*, **2016**, 40, 7261-7264	3.6	17
38	Efficient monolithic quasi-solid-state dye-sensitized solar cells based on poly(ionic liquids) and carbon counter electrodes. *RSC Advances*, **2014**, 4, 9271	3.7	17
37	Suppressed hysteresis and enhanced performance of triple cation perovskite solar cell with chlorine incorporation. *Journal of Materials Chemistry C*, **2018**, 6, 13157-13161	7.1	17
36	A class of carbon supported transition metal□nitrogen complex catalysts for dye-sensitized solar cells. *Journal of Materials Chemistry A*, **2013**, 1, 1475-1480	13	16
35	Printing strategies for scaling-up perovskite solar cells. *National Science Review*, **2021**, 8, nwab075	10.8	16
34	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. *Electrochimica Acta*, **2013**, 99, 238-241	6.7	15
33	Improved efficiency of CdS quantum dot sensitized solar cell with an organic redox couple and a polymer counter electrode. *Electrochimica Acta*, **2014**, 137, 700-704	6.7	14
32	Low-Cost Fullerene Derivative as an Efficient Electron Transport Layer for Planar Perovskite Solar Cells. *Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica*, **2019**, 35, 401-407	3.8	14
31	Influence of phase transition on stability of perovskite solar cells under thermal cycling conditions. *Solar Energy*, **2019**, 188, 312-317	6.8	13
30	Alleviate the - hysteresis of carbon-based perovskite solar cells introducing additional methylammonium chloride into MAPbI precursor.. *RSC Advances*, **2018**, 8, 35157-35161	3.7	13
29	Scalable, efficient and flexible perovskite solar cells with carbon film based electrode. *Solar Energy Materials and Solar Cells*, **2021**, 230, 111226	6.4	13

28	Unsymmetrical squaraine sensitizers containing auxiliary arylamine donor for NIR-harvesting on dye-sensitized solar cell. *Dyes and Pigments*, **2014**, 106, 128-135	4.6	12
27	Enhancing the thermal stability of the carbon-based perovskite solar cells by using a Cs FA PbBr I light absorber.. *RSC Advances*, **2019**, 9, 11877-11881	3.7	11
26	Room-temperature synthesized SnO electron transport layers for efficient perovskite solar cells.. *RSC Advances*, **2019**, 9, 9946-9950	3.7	11
25	Transparent bifacial dye-sensitized solar cells based on an electrochemically polymerized organic counter electrode and an iodine-free polymer gel electrolyte. *Journal of Materials Science*, **2015**, 50, 3803-3811	4.3	11
24	Enhancing the performance and stability of carbon-based perovskite solar cells by the cold isostatic pressing method. *RSC Advances*, **2017**, 7, 48958-48961	3.7	10
23	Fabrication of Efficient and Stable Perovskite Solar Cells in High-Humidity Environment through Trace-Doping of Large-Sized Cations. *ChemSusChem*, **2019**, 12, 2385-2392	8.3	9
22	Sub-sized monovalent alkaline cations enhanced electrical stability for over 17% hysteresis-free planar perovskite solar mini-module. *Electrochimica Acta*, **2019**, 306, 635-642	6.7	9
21	Formamidinium-Based Perovskite Solar Cells with Enhanced Moisture Stability and Performance via Confined Pressure Annealing. *Journal of Physical Chemistry C*, **2020**, 124, 12249-12258	3.8	9
20	Interface modification effect on the performance of CsFAPbIBr perovskite solar cells fabricated by evaporation/spray-coating method. *Journal of Chemical Physics*, **2020**, 153, 014706	3.9	9
19	A pressure-assisted annealing method for high quality CsPbBr film deposited by sequential thermal evaporation.. *RSC Advances*, **2020**, 10, 8905-8909	3.7	9
18	Influence of Hot Spot Heating on Stability of Large Size Perovskite Solar Module with a Power Conversion Efficiency of ~14%. *ACS Applied Energy Materials*, **2018**, 1, 3565-3570	6.1	9
17	Ink Engineering for Blade Coating FA-Dominated Perovskites in Ambient Air for Efficient Solar Cells and Modules. *ACS Applied Materials & Interfaces*, **2021**, 13, 18724-18732	9.5	8
16	Improvement of thiolate/disulfide mediated dye-sensitized solar cells through supramolecular lithium cation assembling of crown ether. *Scientific Reports*, **2013**, 3, 2413	4.9	7
15	19.59% Efficiency from Rb0.04-Cs0.14FA0.86Pb(BryI1−y)3 perovskite solar cells made by vapor−solid reaction technique. *Science Bulletin*, **2021**, 66, 962-964	10.6	7
14	Improving the intrinsic thermal stability of the MAPbI perovskite by incorporating cesium 5-aminovaleric acetate.. *RSC Advances*, **2018**, 8, 14991-14994	3.7	6
13	Room-temperature Sputtered NiOx for hysteresis-free and stable inverted Cs-FA mixed-cation perovskite solar cells. *Materials Science in Semiconductor Processing*, **2020**, 115, 105129	4.3	5
12	High-Performance Rb□Cs0.14FA0.86Pb(BrxI1−x)3 Perovskite Solar Cells Achieved by Regulating the Halogen Exchange in Vapor−Solid Reaction Process. *Solar Rrl*, **2021**, 5, 2100102	7.1	5
11	Improving the crystal growth of a Cs0.24FA0.76PbI3−xBrx perovskite in a vapor−solid reaction process using strontium iodide. *Sustainable Energy and Fuels*, **2020**, 4, 2491-2496	5.8	3

10	Ultrafast Terahertz Probes of Charge Transfer and Recombination Pathway of CH 3 NH 3 PbI 3 Perovskites. *Chinese Physics Letters*, **2018**, 35, 028401	1.8	3
9	Perovskite Solar Cells: Effect of the Microstructure of the Functional Layers on the Efficiency of Perovskite Solar Cells (Adv. Mater. 20/2017). *Advanced Materials*, **2017**, 29,	24	2
8	Monolithic all-solid-state dye-sensitized solar cells **2013**,		2
7	Bandgap adjustment assisted preparation of >18% Cs FA PbI Br -based perovskite solar cells using a hybrid spraying process.. *RSC Advances*, **2021**, 11, 17595-17602	3.7	2
6	All-vacuum deposited perovskite solar cells with glycine modified NiO hole-transport layers.. *RSC Advances*, **2022**, 12, 10863-10869	3.7	2
5	Aqueous Sn-S Complex Derived Electron Selective Layer for Perovskite Solar Cells. *Journal Wuhan University of Technology, Materials Science Edition*, **2020**, 35, 272-279	1	1
4	Printable materials for printed perovskite solar cells. *Flexible and Printed Electronics*, **2020**, 5, 014002	3.1	1
3	Efficient perovskite solar cells with pressing transferred top metal electrodes. *Materials Letters*, **2021**, 301, 130244	3.3	1
2	Regulating the Ni3+/Ni2+ ratio of NiOx by plasma treatment for fully vacuum-deposited perovskite solar cells. *Materials Science in Semiconductor Processing*, **2022**, 148, 106839	4.3	1
1	High efficiency monobasal solid-state dye-sensitized solar cell with mesoporous TiO2 beads as photoanode. *Frontiers of Optoelectronics*, **2013**, 6, 413-417	2.8	0