

Zhike Liu

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.

73 papers	5,852 citations	39 h-index	76 g-index
79 ext. papers	7,045 ext. citations	12.9 avg, IF	6.11 L-index

#	Paper	IF	Citations
73	Graded 2D/3D (CF ₃ -PEA) ₂ FA _{0.85} MA _{0.15} Pb ₂ I ₇ /FA _{0.85} MA _{0.15} PbI ₃ heterojunction for stable perovskite solar cell with an efficiency over 23.0%. <i>Journal of Energy Chemistry</i> , 2022 , 65, 480-489	12	11
72	Record-Efficiency Flexible Perovskite Solar Cells Enabled by Multifunctional Organic Ions Interface Passivation.. <i>Advanced Materials</i> , 2022 , e2201681	24	39
71	Unraveling Passivation Mechanism of Imidazolium-Based Ionic Liquids on Inorganic Perovskite to Achieve Near-Record-Efficiency CsPbI ₂ Br Solar Cells. <i>Nano-Micro Letters</i> , 2021 , 14, 7	19.5	11
70	Simultaneous dual-interface and bulk defect passivation for high-efficiency and stable CsPbI ₂ Br perovskite solar cells. <i>Journal of Power Sources</i> , 2021 , 492, 229580	8.9	7
69	Synergistic Effect of RbBr Interface Modification on Highly Efficient and Stable Perovskite Solar Cells. <i>ACS Omega</i> , 2021 , 6, 13766-13773	3.9	2
68	Multifunctional Enhancement for Highly Stable and Efficient Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2021 , 31, 2005776	15.6	111
67	Room-temperature sputtered-SnO ₂ modified anode toward efficient TiO ₂ -based planar perovskite solar cells. <i>Science China Technological Sciences</i> , 2021 , 64, 1995-2002	3.5	1
66	p-Type Carbon Dots for Effective Surface Optimization for Near-Record-Efficiency CsPbI ₂ Br Solar Cells. <i>Small</i> , 2021 , 17, e2102272	11	10
65	A Special Additive Enables All Cations and Anions Passivation for Stable Perovskite Solar Cells with Efficiency over 23. <i>Nano-Micro Letters</i> , 2021 , 13, 169	19.5	29
64	Decorating hole transport material with -CF ₃ groups for highly efficient and stable perovskite solar cells. <i>Journal of Energy Chemistry</i> , 2021 , 62, 523-531	12	7
63	Dual Passivation of Perovskite and SnO for High-Efficiency MAPbI ₃ Perovskite Solar Cells. <i>Advanced Science</i> , 2021 , 8, 2001466	13.6	25
62	Solvent Engineering Using a Volatile Solid for Highly Efficient and Stable Perovskite Solar Cells. <i>Advanced Science</i> , 2020 , 7, 1903250	13.6	29
61	Controlled n-Doping in Air-Stable CsPbI ₂ Br Perovskite Solar Cells with a Record Efficiency of 16.79%. <i>Advanced Functional Materials</i> , 2020 , 30, 1909972	15.6	173
60	Synthesis and properties of triphenylamine functionalized tetrathiafulvalene. <i>Tetrahedron Letters</i> , 2020 , 61, 151949	2	2
59	27%-Efficiency Four-Terminal Perovskite/Silicon Tandem Solar Cells by Sandwiched Gold Nanomesh. <i>Advanced Functional Materials</i> , 2020 , 30, 1908298	15.6	62
58	NaCl-assisted defect passivation in the bulk and surface of TiO ₂ enhancing efficiency and stability of planar perovskite solar cells. <i>Journal of Power Sources</i> , 2020 , 448, 227586	8.9	17
57	Improvement of Colloidal Characteristics in a Precursor Solution by a PbI ₂ -(DMSO) Complex for Efficient Nonstoichiometrically Prepared CsPbI ₂ Br Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 48756-48764	9.5	3

56	Beach-Chair-Shaped Energy Band Alignment for High-Performance ECsPbI_3 Solar Cells. <i>Cell Reports Physical Science</i> , 2020 , 1, 100180	6.1	18
55	Polymeric room-temperature molten salt as a multifunctional additive toward highly efficient and stable inverted planar perovskite solar cells. <i>Energy and Environmental Science</i> , 2020 , 13, 5068-5079	35.4	61
54	Synthesis of fused conjugated polymers containing imidazo[2,1-b]thiazole units by multicomponent one-pot polymerization. <i>Polymer Chemistry</i> , 2020 , 11, 5200-5206	4.9	5
53	An efficient phenylaminecarbazole-based three-dimensional hole-transporting materials for high-stability perovskite solar cells. <i>Dyes and Pigments</i> , 2020 , 182, 108663	4.6	2
52	2D $\text{Cs}_2\text{PbI}_2\text{Cl}_2$ Nanosheets for Holistic Passivation of Inorganic CsPbI_2Br Perovskite Solar Cells for Improved Efficiency and Stability. <i>Advanced Energy Materials</i> , 2020 , 10, 2002882	21.8	58
51	Metal-Free Halide Perovskite Single Crystals with Very Long Charge Lifetimes for Efficient X-ray Imaging. <i>Advanced Materials</i> , 2020 , 32, e2003353	24	33
50	Precursor Engineering for Ambient-Compatible Antisolvent-Free Fabrication of High-Efficiency CsPbI_2Br Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2020 , 10, 2000691	21.8	68
49	A Novel Anion Doping for Stable CsPbI_2Br Perovskite Solar Cells with an Efficiency of 15.56% and an Open Circuit Voltage of 1.30 V. <i>Advanced Energy Materials</i> , 2019 , 9, 1902279	21.8	105
48	Scalable Ambient Fabrication of High-Performance CsPbI_2Br Solar Cells. <i>Joule</i> , 2019 , 3, 2485-2502	27.8	94
47	Interfacial Engineering at the 2D/3D Heterojunction for High-Performance Perovskite Solar Cells. <i>Nano Letters</i> , 2019 , 19, 7181-7190	11.5	110
46	NbF_5 : A Novel p -Phase Stabilizer for FA-Based Perovskite Solar Cells with High Efficiency. <i>Advanced Functional Materials</i> , 2019 , 29, 1807850	15.6	97
45	Novel Surface Passivation for Stable $\text{FA}_{0.85}\text{MA}_{0.15}\text{PbI}_3$ Perovskite Solar Cells with 21.6% Efficiency. <i>Solar Rrl</i> , 2019 , 3, 1900072	7.1	49
44	Oxidation, reduction, and inert gases plasma-modified defects in TiO_2 as electron transport layer for planar perovskite solar cells. <i>Journal of CO2 Utilization</i> , 2019 , 32, 46-52	7.6	8
43	Introduction of Fluorine Into spiro[fluorene-9,9'-xanthene]-Based Hole Transport Material to Obtain Sensitive-Dopant-Free, High Efficient and Stable Perovskite Solar Cells. <i>Solar Rrl</i> , 2019 , 3, 1800352 ¹	7.1	30
42	Water-Soluble Triazolium Ionic-Liquid-Induced Surface Self-Assembly to Enhance the Stability and Efficiency of Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2019 , 29, 1900417	15.6	102
41	Highly efficient and stable planar CsPbI_2Br perovskite solar cell with a new sensitive-dopant-free hole transport layer obtained via an effective surface passivation. <i>Solar Energy Materials and Solar Cells</i> , 2019 , 201, 110052	6.4	30
40	Additive Engineering to Grow Micron-Sized Grains for Stable High Efficiency Perovskite Solar Cells. <i>Advanced Science</i> , 2019 , 6, 1901241	13.6	60
39	A High Mobility Conjugated Polymer Enables Air and Thermally Stable CsPbI_2Br Perovskite Solar Cells with an Efficiency Exceeding 15%. <i>Advanced Materials Technologies</i> , 2019 , 4, 1900311	6.8	39

38	Simultaneous Cesium and Acetate Coalloying Improves Efficiency and Stability of FA0.85MA0.15PbI3 Perovskite Solar Cell with an Efficiency of 21.95%. <i>Solar Rrl</i> , 2019 , 3, 1900220	7.1	50
37	Europium and Acetate Co-doping Strategy for Developing Stable and Efficient CsPbI Br Perovskite Solar Cells. <i>Small</i> , 2019 , 15, e1904387	11	61
36	Dynamical Transformation of Two-Dimensional Perovskites with Alternating Cations in the Interlayer Space for High-Performance Photovoltaics. <i>Journal of the American Chemical Society</i> , 2019 , 141, 2684-2694	16.4	135
35	Controlled defects and enhanced electronic extraction in fluorine-incorporated zinc oxide for high-performance planar perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2018 , 182, 263-271	6.4	32
34	Low-temperature and facile solution-processed two-dimensional TiS2 as an effective electron transport layer for UV-stable planar perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 9132-9138	13.56	56
33	Bifunctional Hydroxylamine Hydrochloride Incorporated Perovskite Films for Efficient and Stable Planar Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2018 , 1, 900-909	6.1	55
32	Synthesis and Properties of Dithiafulvenyl Functionalized Spiro[fluorene-9,9Sxanthene] Molecules. <i>Organic Letters</i> , 2018 , 20, 780-783	6.2	24
31	Stoichiometry control of sputtered zinc oxide films by adjusting Ar/O2 gas ratios as electron transport layers for efficient planar perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2018 , 178, 200-207	6.4	16
30	Precursor Engineering for All-Inorganic CsPbI2Br Perovskite Solar Cells with 14.78% Efficiency. <i>Advanced Functional Materials</i> , 2018 , 28, 1803269	15.6	206
29	Photonics and Optoelectronics of Low-Dimensional Materials. <i>Advances in Condensed Matter Physics</i> , 2018 , 2018, 1-2	1	
28	Low Temperature Fabrication for High Performance Flexible CsPbI Br Perovskite Solar Cells. <i>Advanced Science</i> , 2018 , 5, 1801117	13.6	71
27	Detection of Bisphenol A Using DNA-Functionalized Graphene Field Effect Transistors Integrated in Microfluidic Systems. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 23522-23528	9.5	22
26	Air and thermally stable perovskite solar cells with CVD-graphene as the blocking layer. <i>Nanoscale</i> , 2017 , 9, 8274-8280	7.7	49
25	Room-Temperature Processed NbO as the Electron-Transporting Layer for Efficient Planar Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 23181-23188	9.5	100
24	Magnetic Field-Assisted Perovskite Film Preparation for Enhanced Performance of Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 21756-21762	9.5	20
23	Enhancing Efficiency and Stability of Perovskite Solar Cells through Nb-Doping of TiO at Low Temperature. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 10752-10758	9.5	150
22	CO Plasma-Treated TiO Film as an Effective Electron Transport Layer for High-Performance Planar Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 33989-33996	9.5	30
21	Ultrasensitive broadband phototransistors based on perovskite/organic-semiconductor vertical heterojunctions. <i>Light: Science and Applications</i> , 2017 , 6, e17023	16.7	203

20	High-Performance, Self-Powered Photodetectors Based on Perovskite and Graphene. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 42779-42787	9.5	69
19	Ultrathin and flexible perovskite solar cells with graphene transparent electrodes. <i>Nano Energy</i> , 2016 , 28, 151-157	17.1	158
18	Efficient and stable perovskite solar cells prepared in ambient air irrespective of the humidity. <i>Nature Communications</i> , 2016 , 7, 11105	17.4	389
17	Efficient Semitransparent Perovskite Solar Cells with Graphene Electrodes. <i>Advanced Materials</i> , 2015 , 27, 3632-8	24	387
16	Neutral-Color Semitransparent Organic Solar Cells with All-Graphene Electrodes. <i>ACS Nano</i> , 2015 , 9, 12026-34	16.7	114
15	Functionalized graphene and other two-dimensional materials for photovoltaic devices: device design and processing. <i>Chemical Society Reviews</i> , 2015 , 44, 5638-79	58.5	238
14	High-Performance Dopamine Sensors Based on Whole-Graphene Solution-Gated Transistors. <i>Advanced Functional Materials</i> , 2014 , 24, 978-985	15.6	112
13	High-Performance Hole-Extraction Layer of Sol-gel-Processed NiO Nanocrystals for Inverted Planar Perovskite Solar Cells. <i>Angewandte Chemie</i> , 2014 , 126, 12779-12783	3.6	158
12	Package-free flexible organic solar cells with graphene top electrodes. <i>Advanced Materials</i> , 2013 , 25, 4296-301	24	229
11	Infrared photodetectors based on CVD-grown graphene and PbS quantum dots with ultrahigh responsivity. <i>Advanced Materials</i> , 2012 , 24, 5878-83	24	579
10	The application of highly doped single-layer graphene as the top electrodes of semitransparent organic solar cells. <i>ACS Nano</i> , 2012 , 6, 810-8	16.7	270
9	Dithiafulvenyl unit as a new donor for high-efficiency dye-sensitized solar cells: synthesis and demonstration of a family of metal-free organic sensitizers. <i>Organic Letters</i> , 2012 , 14, 2214-7	6.2	116
8	The Application of Bismuth-Based Oxides in Organic-Inorganic Hybrid Photovoltaic Devices. <i>Journal of the American Ceramic Society</i> , 2012 , 95, 1944-1948	3.8	23
7	Photovoltaic effect of BiFeO ₃ /poly(3-hexylthiophene) heterojunction. <i>Physica Status Solidi - Rapid Research Letters</i> , 2011 , 5, 367-369	2.5	17
6	Enhanced photovoltaic performance of polymer solar cells by adding fullerene end-capped polyethylene glycol. <i>Journal of Materials Chemistry</i> , 2011 , 21, 6848		64
5	High efficient ultraviolet photocatalytic activity of BiFeO ₃ nanoparticles synthesized by a chemical coprecipitation process. <i>Journal of Materials Science: Materials in Electronics</i> , 2010 , 21, 380-384	2.1	78
4	Urea Derivative-Promoted CsPbI ₂ Br Perovskite Solar Cells with High Open-Circuit Voltage. <i>Solar Rrl</i> , 2010 , 1057		2
3	Symmetrical Acceptor-Donor-Acceptor Molecule as a Versatile Defect Passivation Agent toward Efficient FA 0.85 MA 0.15 Pbl ₃ Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2011 , 21, 2032	15.6	11

2	A Key 2D Intermediate Phase for Stable High-Efficiency CsPbI ₂ Br Perovskite Solar Cells. <i>Advanced Energy Materials</i> ,2103019	21.8	12
1	Fluorine Functionalized MXene QDs for Near-Record-Efficiency CsPbI ₃ Solar Cell with High Open-Circuit Voltage. <i>Advanced Functional Materials</i> ,2203704	15.6	9