

Fuzhi Huang

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109
papers

6,886
citations

35
h-index

82
g-index

122
ext. papers

7,956
ext. citations

11.3
avg, IF

5.88
L-index

#	Paper	IF	Citations
109	A fast deposition-crystallization procedure for highly efficient lead iodide perovskite thin-film solar cells. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 9898-903	16.4	1104
108	A Fast Deposition-Crystallization Procedure for Highly Efficient Lead Iodide Perovskite Thin-Film Solar Cells. <i>Angewandte Chemie</i> , 2014 , 126, 10056-10061	3.6	630
107	Gas-assisted preparation of lead iodide perovskite films consisting of a monolayer of single crystalline grains for high efficiency planar solar cells. <i>Nano Energy</i> , 2014 , 10, 10-18	17.1	461
106	Universal passivation strategy to slot-die printed SnO for hysteresis-free efficient flexible perovskite solar module. <i>Nature Communications</i> , 2018 , 9, 4609	17.4	392
105	Benefit of Grain Boundaries in Organic-Inorganic Halide Planar Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2015 , 6, 875-80	6.4	367
104	A novel quadruple-cation absorber for universal hysteresis elimination for high efficiency and stable perovskite solar cells. <i>Energy and Environmental Science</i> , 2017 , 10, 2509-2515	35.4	346
103	Phase Segregation Enhanced Ion Movement in Efficient Inorganic CsPbI ₃ Solar Cells. <i>Advanced Energy Materials</i> , 2017 , 7, 1700946	21.8	253
102	Acoustic-optical phonon up-conversion and hot-phonon bottleneck in lead-halide perovskites. <i>Nature Communications</i> , 2017 , 8, 14120	17.4	245
101	Copper(I) Iodide as Hole-Conductor in Planar Perovskite Solar Cells: Probing the Origin of J _{sc} Hysteresis. <i>Advanced Functional Materials</i> , 2015 , 25, 5650-5661	15.6	224
100	Synergic Interface Optimization with Green Solvent Engineering in Mixed Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2017 , 7, 1700576	21.8	178
99	Insights into Planar CH ₃ NH ₃ PbI ₃ Perovskite Solar Cells Using Impedance Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 4444-4453	3.8	137
98	Defect trapping states and charge carrier recombination in organic-inorganic halide perovskites. <i>Journal of Materials Chemistry C</i> , 2016 , 4, 793-800	7.1	136
97	Lead halide-templated crystallization of methylamine-free perovskite for efficient photovoltaic modules. <i>Science</i> , 2021 , 372, 1327-1332	33.3	113
96	Thin Films of Dendritic Anatase Titania Nanowires Enable Effective Hole-Blocking and Efficient Light-Harvesting for High-Performance Mesoscopic Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2015 , 25, 3264-3272	15.6	88
95	Light Illumination Induced Photoluminescence Enhancement and Quenching in Lead Halide Perovskite. <i>Solar Rrl</i> , 2017 , 1, 1600001	7.1	88
94	Triggering the Passivation Effect of Potassium Doping in Mixed-Cation Mixed-Halide Perovskite by Light Illumination. <i>Advanced Energy Materials</i> , 2019 , 9, 1901016	21.8	84
93	Effect of the Microstructure of the Functional Layers on the Efficiency of Perovskite Solar Cells. <i>Advanced Materials</i> , 2017 , 29, 1601715	24	80

92	Aqueous dye-sensitized solar cell electrolytes based on the cobalt(II)/(III) tris(bipyridine) redox couple. <i>Energy and Environmental Science</i> , 2013 , 6, 121-127	35.4	80
91	Low temperature processing of flexible planar perovskite solar cells with efficiency over 10%. <i>Journal of Power Sources</i> , 2015 , 278, 325-331	8.9	77
90	Low-Cost N,N'-Bicarbazole-Based Dopant-Free Hole-Transporting Materials for Large-Area Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2018 , 8, 1800538	21.8	77
89	Low-Temperature Presynthesized Crystalline Tin Oxide for Efficient Flexible Perovskite Solar Cells and Modules. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 14922-14929	9.5	67
88	Wavelength-tunable waveguides based on polycrystalline organic-inorganic perovskite microwires. <i>Nanoscale</i> , 2016 , 8, 6258-64	7.7	66
87	Reversible Structural Swell-Shrink and Recoverable Optical Properties in Hybrid Inorganic-Organic Perovskite. <i>ACS Nano</i> , 2016 , 10, 7031-8	16.7	59
86	Print flexible solar cells. <i>Nature</i> , 2016 , 539, 488-489	50.4	58
85	Fatigue behavior of planar CH ₃ NH ₃ PbI ₃ perovskite solar cells revealed by light on/off diurnal cycling. <i>Nano Energy</i> , 2016 , 27, 509-514	17.1	57
84	Probing Molecular and Crystalline Orientation in Solution-Processed Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2015 , 25, 5529-5536	15.6	51
83	Stacking n-type layers: Effective route towards stable, efficient and hysteresis-free planar perovskite solar cells. <i>Nano Energy</i> , 2018 , 44, 34-42	17.1	47
82	Large-area perovskite solar cells with Cs _x FA _{1-x} PbI ₃ Br _y thin films deposited by a vapor-solid reaction method. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 21143-21148	13	47
81	Efficient and stable mixed perovskite solar cells using P3HT as a hole transporting layer. <i>Journal of Materials Chemistry C</i> , 2018 , 6, 5733-5737	7.1	43
80	Charge transport in photocathodes based on the sensitization of NiO nanorods. <i>Journal of Materials Chemistry</i> , 2012 , 22, 7005		42
79	Efficient Perovskite Solar Cells Employing Inorganic Interlayers. <i>ChemNanoMat</i> , 2016 , 2, 182-188	3.5	41
78	Improved air stability of perovskite hybrid solar cells via blending poly(dimethylsiloxane)urea copolymers. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 5486-5494	13	39
77	Efficient and Stable Inverted Planar Perovskite Solar Cells Using a Triphenylamine Hole-Transporting Material. <i>ChemSusChem</i> , 2018 , 11, 1467-1473	8.3	38
76	Flexible dye-sensitized solar cells containing multiple dyes in discrete layers. <i>Energy and Environmental Science</i> , 2011 , 4, 2803	35.4	38
75	Slow Response of Carrier Dynamics in Perovskite Interface upon Illumination. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 31452-31461	9.5	35

74	Surface modification via self-assembling large cations for improved performance and modulated hysteresis of perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 6793-6800	13	35
73	Fatigue stability of CH ₃ NH ₃ PbI ₃ based perovskite solar cells in day/night cycling. <i>Nano Energy</i> , 2019 , 58, 687-694	17.1	33
72	High performance perovskite sub-module with sputtered SnO ₂ electron transport layer. <i>Solar Energy</i> , 2019 , 183, 306-314	6.8	30
71	Dynamic Antisolvent Engineering for Spin Coating of 10 × 10 cm ² Perovskite Solar Module Approaching 18%. <i>Solar Rrl</i> , 2020 , 4, 1900263	7.1	30
70	Two-step sequential blade-coating of high quality perovskite layers for efficient solar cells and modules. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 8447-8454	13	29
69	Robust transparent superamphiphobic coatings on non-fabric flat substrates with inorganic adhesive titania bonded silica. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 8352-8359	13	28
68	A facile green solvent engineering for up-scaling perovskite solar cell modules. <i>Solar Energy</i> , 2019 , 183, 386-391	6.8	27
67	An efficient, flexible perovskite solar module exceeding 8% prepared with an ultrafast PbI deposition rate. <i>Scientific Reports</i> , 2018 , 8, 442	4.9	27
66	Construction of nanostructured electrodes on flexible substrates using pre-treated building blocks. <i>Applied Physics Letters</i> , 2012 , 100, 123102	3.4	26
65	A Bi-layer TiO ₂ photoanode for highly durable, flexible dye-sensitized solar cells. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 4679-4686	13	25
64	Moisture assisted CsPbBr ₃ film growth for high-efficiency, all-inorganic solar cells prepared by a multiple sequential vacuum deposition method. <i>Materials Science in Semiconductor Processing</i> , 2019 , 98, 39-43	4.3	24
63	Improved Performance of Planar Perovskite Solar Cells Using an Amino-Terminated Multifunctional Fullerene Derivative as the Passivation Layer. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 27145-27152	9.5	23
62	Carbon film electrode based square-centimeter scale planar perovskite solar cells exceeding 17% efficiency. <i>Materials Science in Semiconductor Processing</i> , 2020 , 107, 104809	4.3	23
61	Efficient and stable perovskite solar cells via surface passivation of an ultrathin hydrophobic organic molecular layer. <i>Chemical Engineering Journal</i> , 2021 , 405, 126712	14.7	23
60	Chlorobenzenesulfonic Potassium Salts as the Efficient Multifunctional Passivator for the Buried Interface in Regular Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2020 , 10, 2200417	21.8	23
59	Organic/inorganic self-doping controlled crystallization and electronic properties of mixed perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 6319-6326	13	22
58	Stabilizing High Efficiency Perovskite Solar Cells with 3D-2D Heterostructures. <i>Joule</i> , 2020 , 4, 975-979	27.8	21
57	Self-augmented ion blocking of sandwiched 2D/1D/2D electrode for solution processed high efficiency semitransparent perovskite solar cell. <i>Nano Energy</i> , 2020 , 71, 104567	17.1	21

56	Humidity controlled sol-gel Zr/TiO ₂ with optimized band alignment for efficient planar perovskite solar cells. <i>Solar Energy</i> , 2016 , 139, 290-296	6.8	21
55	Enhanced Crystallinity of Low-Temperature Solution-Processed SnO for Highly Reproducible Planar Perovskite Solar Cells. <i>ChemSusChem</i> , 2018 , 11, 2898-2903	8.3	21
54	Universal defects elimination for high performance thermally evaporated CsPbBr ₃ perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2020 , 206, 110317	6.4	21
53	Solvent Engineering of a Dopant-Free Spiro-OMeTAD Hole-Transport Layer for Centimeter-Scale Perovskite Solar Cells with High Efficiency and Thermal Stability. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 8260-8270	9.5	20
52	Ultrasonic Spray-Coating of Large-Scale TiO ₂ Compact Layer for Efficient Flexible Perovskite Solar Cells. <i>Micromachines</i> , 2017 , 8, 55	3.3	20
51	Structure engineering of hierarchical layered perovskite interface for efficient and stable wide bandgap photovoltaics. <i>Nano Energy</i> , 2020 , 75, 104917	17.1	19
50	Quasi-Solid-State Dye-Sensitized Solar Cells on Plastic Substrates. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 16366-16374	3.8	19
49	Sequentially Reinforced Additive Coating for Transparent and Durable Superhydrophobic Glass. <i>Langmuir</i> , 2018 , 34, 11316-11324	4	19
48	Silver ants-inspired flexible photonic architectures with improved transparency and heat radiation for photovoltaic devices. <i>Solar Energy Materials and Solar Cells</i> , 2019 , 203, 110135	6.4	18
47	Optical Probe Ion and Carrier Dynamics at the CH ₃ NH ₃ PbI ₃ Interface with Electron and Hole Transport Materials. <i>Advanced Materials Interfaces</i> , 2016 , 3, 1600467	4.6	18
46	Suppressed hysteresis and enhanced performance of triple cation perovskite solar cell with chlorine incorporation. <i>Journal of Materials Chemistry C</i> , 2018 , 6, 13157-13161	7.1	17
45	Mesoporous titania beads for flexible dye-sensitized solar cells. <i>Journal of Materials Chemistry C</i> , 2014 , 2, 1284-1289	7.1	16
44	Printing strategies for scaling-up perovskite solar cells. <i>National Science Review</i> , 2021 , 8, nwab075	10.8	16
43	Influence of phase transition on stability of perovskite solar cells under thermal cycling conditions. <i>Solar Energy</i> , 2019 , 188, 312-317	6.8	13
42	How to fabricate efficient perovskite solar mini-modules in lab. <i>Journal of Power Sources</i> , 2020 , 466, 228821	10.8	13
41	Alleviate the - hysteresis of carbon-based perovskite solar cells introducing additional methylammonium chloride into MAPbI precursor.. <i>RSC Advances</i> , 2018 , 8, 35157-35161	3.7	13
40	Enhancing the thermal stability of the carbon-based perovskite solar cells by using a Cs FA PbBr I light absorber.. <i>RSC Advances</i> , 2019 , 9, 11877-11881	3.7	11
39	Room-temperature synthesized SnO electron transport layers for efficient perovskite solar cells.. <i>RSC Advances</i> , 2019 , 9, 9946-9950	3.7	11

38	Enhancing the performance and stability of carbon-based perovskite solar cells by the cold isostatic pressing method. <i>RSC Advances</i> , 2017 , 7, 48958-48961	3.7	10
37	An over 10% enhancement of dye-sensitized solar cell efficiency by tuning nanoparticle packing. <i>RSC Advances</i> , 2013 , 3, 17003	3.7	10
36	Fabrication of Efficient and Stable Perovskite Solar Cells in High-Humidity Environment through Trace-Doping of Large-Sized Cations. <i>ChemSusChem</i> , 2019 , 12, 2385-2392	8.3	9
35	Sub-sized monovalent alkaline cations enhanced electrical stability for over 17% hysteresis-free planar perovskite solar mini-module. <i>Electrochimica Acta</i> , 2019 , 306, 635-642	6.7	9
34	Formamidinium-Based Perovskite Solar Cells with Enhanced Moisture Stability and Performance via Confined Pressure Annealing. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 12249-12258	3.8	9
33	Interface modification effect on the performance of CsFAPbI ₃ Br perovskite solar cells fabricated by evaporation/spray-coating method. <i>Journal of Chemical Physics</i> , 2020 , 153, 014706	3.9	9
32	A pressure-assisted annealing method for high quality CsPbBr ₃ film deposited by sequential thermal evaporation.. <i>RSC Advances</i> , 2020 , 10, 8905-8909	3.7	9
31	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> , 2018 , 1, 3565-3570	6.1	9
30	Controlling Interfacial Recombination in Aqueous Dye-Sensitized Solar Cells by Octadecyltrichlorosilane Surface Treatment. <i>Angewandte Chemie</i> , 2014 , 126, 7053-7057	3.6	9
29	Crystalline TiO ₂ Nanorod Aggregates: Template-Free Fabrication and Efficient Light Harvesting in Dye-Sensitized Solar Cell Applications. <i>Particle and Particle Systems Characterization</i> , 2013 , 30, 754-758	3.1	9
28	Nitrogen-doped tin oxide electron transport layer for stable perovskite solar cells with efficiency over 23%		9
27	Efficient Planar Perovskite Solar Cells via a Sputtered Cathode. <i>Solar Rrl</i> , 2019 , 3, 1900209	7.1	8
26	Charge Transport in Photoanodes Constructed with Mesoporous TiO ₂ Beads for Dye-Sensitized Solar Cells. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 16635-16642	3.8	8
25	Ink Engineering for Blade Coating FA-Dominated Perovskites in Ambient Air for Efficient Solar Cells and Modules. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 18724-18732	9.5	8
24	Charge Transport and Recombination in Dye-Sensitized Solar Cells on Plastic Substrates. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 15154-15161	3.8	7
23	Improving the intrinsic thermal stability of the MAPbI ₃ perovskite by incorporating cesium 5-aminovaleric acetate.. <i>RSC Advances</i> , 2018 , 8, 14991-14994	3.7	6
22	Batch chemical bath deposition of large-area SnO ₂ film with mercaptosuccinic acid decoration for homogenized and efficient perovskite solar cells. <i>Chemical Engineering Journal</i> , 2021 , 425, 131444	14.7	6
21	Room-temperature Sputtered NiO _x for hysteresis-free and stable inverted Cs-FA mixed-cation perovskite solar cells. <i>Materials Science in Semiconductor Processing</i> , 2020 , 115, 105129	4.3	5

20	High-Performance $\text{Rb}_{0.14}\text{FA}_{0.86}\text{Pb}(\text{Br}_{1-x}\text{I}_x)_3$ Perovskite Solar Cells Achieved by Regulating the Halogen Exchange in Vapor-Solid Reaction Process. <i>Solar Rrl</i> , 2021 , 5, 2100102	7.1	5
19	Interface Passivation Engineering for Hybrid Perovskite Solar Cells. <i>Materials Reports Energy</i> , 2021 , 1, 100060		5
18	3D nonlinear photolithography of Tin oxide ceramics via femtosecond laser. <i>Science China Materials</i> , 2021 , 64, 1477-1484	7.1	5
17	Efficient Gas Adsorption Using Superamphiphobic Porous Monoliths as the under-Liquid Gas-Conductive Circuits. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 24795-24801	9.5	3
16	Improving the crystal growth of a $\text{Cs}_{0.24}\text{FA}_{0.76}\text{PbI}_3$ -Brx perovskite in a vapor-solid reaction process using strontium iodide. <i>Sustainable Energy and Fuels</i> , 2020 , 4, 2491-2496	5.8	3
15	Toward Commercialization of Efficient and Stable Perovskite Solar Modules. <i>Solar Rrl</i> , 2100600	7.1	3
14	Differentiated Functions of Potassium Interface Passivation and Doping on Charge-Carrier Dynamics in Perovskite Solar Cells.. <i>Journal of Physical Chemistry Letters</i> , 2022 , 3188-3196	6.4	3
13	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> , 2017 , 29,	24	2
12	The Self-Assembling Growth of Copper Nanowires for Transparent Electrodes. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2019 , 34, 145-149	1	2
11	A novel dopant for spiro-OMeTAD towards efficient and stable perovskite solar cells. <i>Science China Materials</i> , 1	7.1	2
10	Bandgap adjustment assisted preparation of >18% Cs FA Pbi Br -based perovskite solar cells using a hybrid spraying process.. <i>RSC Advances</i> , 2021 , 11, 17595-17602	3.7	2
9	All-vacuum deposited perovskite solar cells with glycine modified NiO hole-transport layers.. <i>RSC Advances</i> , 2022 , 12, 10863-10869	3.7	2
8	Impact of Nickel Oxide/Perovskite Interfacial Contact on the Crystallization and Photovoltaic Performance of Perovskite Solar Cells. <i>Solar Rrl</i> , 2200232	7.1	2
7	Bromide complimented methylammonium-free wide bandgap perovskite solar modules with high efficiency and stability. <i>Chemical Engineering Journal</i> , 2022 , 445, 136626	14.7	2
6	Proanthocyanidin-Induced Horizontal Arrangement in Poly(vinyl alcohol)/Graphene Composites with Enhanced Mechanical Properties. <i>Macromolecular Materials and Engineering</i> , 2019 , 304, 1900033	3.9	1
5	Aqueous Sn-S Complex Derived Electron Selective Layer for Perovskite Solar Cells. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2020 , 35, 272-279	1	1
4	Printable materials for printed perovskite solar cells. <i>Flexible and Printed Electronics</i> , 2020 , 5, 014002	3.1	1
3	Ionic liquid dopant for hole transporting layer towards efficient LiTFSI-free perovskite solar cells. <i>Chemical Physics Letters</i> , 2022 , 801, 139713	2.5	1

2	Regulating the Ni ³⁺ /Ni ²⁺ ratio of NiO _x by plasma treatment for fully vacuum-deposited perovskite solar cells. <i>Materials Science in Semiconductor Processing</i> , 2022 , 148, 106839	4.3	1
1	Chlorobenzenesulfonic Potassium Salts as the Efficient Multifunctional Passivator for the Buried Interface in Regular Perovskite Solar Cells (Adv. Energy Mater. 20/2022). <i>Advanced Energy Materials</i> , 2022 , 12, 2270082	21.8	