Fuzhi Huang

List of Publications by Year in Descending Order

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	All-vacuum deposited perovskite solar cells with glycine modified NiO hole-transport layers.. *RSC Advances*, **2022**, 12, 10863-10869	3.7	2
108	Differentiated Functions of Potassium Interface Passivation and Doping on Charge-Carrier Dynamics in Perovskite Solar Cells.. *Journal of Physical Chemistry Letters*, **2022**, 3188-3196	6.4	3
107	Bromide complimented methylammonium-free wide bandgap perovskite solar modules with high efficiency and stability. *Chemical Engineering Journal*, **2022**, 445, 136626	14.7	2
106	Chlorobenzenesulfonic Potassium Salts as the Efficient Multifunctional Passivator for the Buried Interface in Regular Perovskite Solar Cells (Adv. Energy Mater. 20/2022). *Advanced Energy Materials* , **2022**, 12, 2270082	21.8	
105	Ionic liquid dopant for hole transporting layer towards efficient LiTFSI-free perovskite solar cells. *Chemical Physics Letters*, **2022**, 801, 139713	2.5	1
104	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
103	Printing strategies for scaling-up perovskite solar cells. *National Science Review*, **2021**, 8, nwab075	10.8	16
102	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
101	Lead halide-templated crystallization of methylamine-free perovskite for efficient photovoltaic modules. *Science*, **2021**, 372, 1327-1332	33.3	113
100	Efficient and stable perovskite solar cells via surface passivation of an ultrathin hydrophobic organic molecular layer. *Chemical Engineering Journal*, **2021**, 405, 126712	14.7	23
99	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
98	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
97	Interface Passivation Engineering for Hybrid Perovskite Solar Cells. *Materials Reports Energy*, **2021**, 1, 100060		5
96	Batch chemical bath deposition of large-area SnO2 film with mercaptosuccinic acid decoration for homogenized and efficient perovskite solar cells. *Chemical Engineering Journal*, **2021**, 425, 131444	14.7	6
95	3D nonlinear photolithography of Tin oxide ceramics via femtosecond laser. *Science China Materials* , **2021**, 64, 1477-1484	7.1	5
94	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
93	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

92	Structure engineering of hierarchical layered perovskite interface for efficient and stable wide bandgap photovoltaics. *Nano Energy*, **2020**, 75, 104917	17.1	19
91	Stabilizing High Efficiency Perovskite Solar Cells with 3D-2D Heterostructures. *Joule*, **2020**, 4, 975-979	27.8	21
90	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
89	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
88	A pressure-assisted annealing method for high quality CsPbBr film deposited by sequential thermal evaporation.. *RSC Advances*, **2020**, 10, 8905-8909	3.7	9
87	Solvent Engineering of a Dopant-Free Spiro-OMeTAD Hole-Transport Layer for Centimeter-Scale Perovskite Solar Cells with High Efficiency and Thermal Stability. *ACS Applied Materials & Interfaces*, **2020**, 12, 8260-8270	9.5	20
86	Self-augmented ion blocking of sandwiched 2D/1D/2D electrode for solution processed high efficiency semitransparent perovskite solar cell. *Nano Energy*, **2020**, 71, 104567	17.1	21
85	Two-step sequential blade-coating of high quality perovskite layers for efficient solar cells and modules. *Journal of Materials Chemistry A*, **2020**, 8, 8447-8454	13	29
84	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
83	How to fabricate efficient perovskite solar mini-modules in lab. *Journal of Power Sources*, **2020**, 466, 228231	7	13
82	Printable materials for printed perovskite solar cells. *Flexible and Printed Electronics*, **2020**, 5, 014002	3.1	1
81	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
80	Universal defects elimination for high performance thermally evaporated CsPbBr3 perovskite solar cells. *Solar Energy Materials and Solar Cells*, **2020**, 206, 110317	6.4	21
79	Dynamic Antisolvent Engineering for Spin Coating of 10 × 10 cm2 Perovskite Solar Module Approaching 18%. *Solar Rrl*, **2020**, 4, 1900263	7.1	30
78	Fatigue stability of CH3NH3PbI3 based perovskite solar cells in day/night cycling. *Nano Energy*, **2019**, 58, 687-694	17.1	33
77	Efficient Planar Perovskite Solar Cells via a Sputtered Cathode. *Solar Rrl*, **2019**, 3, 1900209	7.1	8
76	Influence of phase transition on stability of perovskite solar cells under thermal cycling conditions. *Solar Energy*, **2019**, 188, 312-317	6.8	13
75	Efficient Gas Adsorption Using Superamphiphobic Porous Monoliths as the under-Liquid Gas-Conductive Circuits. *ACS Applied Materials & Interfaces*, **2019**, 11, 24795-24801	9.5	3

74	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
73	Triggering the Passivation Effect of Potassium Doping in Mixed-Cation Mixed-Halide Perovskite by Light Illumination. *Advanced Energy Materials*, **2019**, 9, 1901016	21.8	84
72	High performance perovskite sub-module with sputtered SnO2 electron transport layer. *Solar Energy*, **2019**, 183, 306-314	6.8	30
71	A facile green solvent engineering for up-scaling perovskite solar cell modules. *Solar Energy*, **2019**, 183, 386-391	6.8	27
70	Proanthocyanidin-Induced Horizontal Arrangement in Poly(vinyl alcohol)/Graphene Composites with Enhanced Mechanical Properties. *Macromolecular Materials and Engineering*, **2019**, 304, 1900033	3.9	1
69	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
68	The Self-Assembling Growth of Copper Nanowires for Transparent Electrodes. *Journal Wuhan University of Technology, Materials Science Edition*, **2019**, 34, 145-149	1	2
67	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
66	Room-temperature synthesized SnO electron transport layers for efficient perovskite solar cells.. *RSC Advances*, **2019**, 9, 9946-9950	3.7	11
65	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
64	Improved Performance of Planar Perovskite Solar Cells Using an Amino-Terminated Multifunctional Fullerene Derivative as the Passivation Layer. *ACS Applied Materials & Interfaces*, **2019**, 11, 27145-27152	9.5	23
63	Silver ants-inspired flexible photonic architectures with improved transparency and heat radiation for photovoltaic devices. *Solar Energy Materials and Solar Cells*, **2019**, 203, 110135	6.4	18
62	Surface modification via self-assembling large cations for improved performance and modulated hysteresis of perovskite solar cells. *Journal of Materials Chemistry A*, **2019**, 7, 6793-6800	13	35
61	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
60	Improving the intrinsic thermal stability of the MAPbI perovskite by incorporating cesium 5-aminovaleric acetate.. *RSC Advances*, **2018**, 8, 14991-14994	3.7	6
59	Efficient and Stable Inverted Planar Perovskite Solar Cells Using a Triphenylamine Hole-Transporting Material. *ChemSusChem*, **2018**, 11, 1467-1473	8.3	38
58	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
57	An efficient, flexible perovskite solar module exceeding 8% prepared with an ultrafast PbI deposition rate. *Scientific Reports*, **2018**, 8, 442	4.9	27

56	Low-Cost N,N?-Bicarbazole-Based Dopant-Free Hole-Transporting Materials for Large-Area Perovskite Solar Cells. *Advanced Energy Materials*, **2018**, 8, 1800538	21.8	77
55	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
54	Enhanced Crystallinity of Low-Temperature Solution-Processed SnO for Highly Reproducible Planar Perovskite Solar Cells. *ChemSusChem*, **2018**, 11, 2898-2903	8.3	21
53	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
52	Slow Response of Carrier Dynamics in Perovskite Interface upon Illumination. *ACS Applied Materials & Interfaces*, **2018**, 10, 31452-31461	9.5	35
51	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
50	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
49	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
48	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
47	Universal passivation strategy to slot-die printed SnO for hysteresis-free efficient flexible perovskite solar module. *Nature Communications*, **2018**, 9, 4609	17.4	392
46	Sequentially Reinforced Additive Coating for Transparent and Durable Superhydrophobic Glass. *Langmuir*, **2018**, 34, 11316-11324	4	19
45	Acoustic-optical phonon up-conversion and hot-phonon bottleneck in lead-halide perovskites. *Nature Communications*, **2017**, 8, 14120	17.4	245
44	Effect of the Microstructure of the Functional Layers on the Efficiency of Perovskite Solar Cells. *Advanced Materials*, **2017**, 29, 1601715	24	80
43	Improved air stability of perovskite hybrid solar cells via blending poly(dimethylsiloxane)–urea copolymers. *Journal of Materials Chemistry A*, **2017**, 5, 5486-5494	13	39
42	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
41	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
40	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
39	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

38	Synergic Interface Optimization with Green Solvent Engineering in Mixed Perovskite Solar Cells. *Advanced Energy Materials*, **2017**, 7, 1700576	21.8	178
37	Phase Segregation Enhanced Ion Movement in Efficient Inorganic CsPbIBr2 Solar Cells. *Advanced Energy Materials*, **2017**, 7, 1700946	21.8	253
36	Light Illumination Induced Photoluminescence Enhancement and Quenching in Lead Halide Perovskite. *Solar Rrl*, **2017**, 1, 1600001	7.1	88
35	Ultrasonic Spray-Coating of Large-Scale TiO2 Compact Layer for Efficient Flexible Perovskite Solar Cells. *Micromachines*, **2017**, 8, 55	3.3	20
34	Wavelength-tunable waveguides based on polycrystalline organic-inorganic perovskite microwires. *Nanoscale*, **2016**, 8, 6258-64	7.7	66
33	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
32	Defect trapping states and charge carrier recombination in organic□inorganic halide perovskites. *Journal of Materials Chemistry C*, **2016**, 4, 793-800	7.1	136
31	Print flexible solar cells. *Nature*, **2016**, 539, 488-489	50.4	58
30	Reversible Structural Swell-Shrink and Recoverable Optical Properties in Hybrid Inorganic-Organic Perovskite. *ACS Nano*, **2016**, 10, 7031-8	16.7	59
29	Optical Probe Ion and Carrier Dynamics at the CH3NH3PbI3 Interface with Electron and Hole Transport Materials. *Advanced Materials Interfaces*, **2016**, 3, 1600467	4.6	18
28	Fatigue behavior of planar CH3NH3PbI3 perovskite solar cells revealed by light on/off diurnal cycling. *Nano Energy*, **2016**, 27, 509-514	17.1	57
27	Efficient Perovskite Solar Cells Employing Inorganic Interlayers. *ChemNanoMat*, **2016**, 2, 182-188	3.5	41
26	Benefit of Grain Boundaries in Organic-Inorganic Halide Planar Perovskite Solar Cells. *Journal of Physical Chemistry Letters*, **2015**, 6, 875-80	6.4	367
25	Thin Films of Dendritic Anatase Titania Nanowires Enable Effective Hole-Blocking and Efficient Light-Harvesting for High-Performance Mesoscopic Perovskite Solar Cells. *Advanced Functional Materials*, **2015**, 25, 3264-3272	15.6	88
24	Low temperature processing of flexible planar perovskite solar cells with efficiency over 10%. *Journal of Power Sources*, **2015**, 278, 325-331	8.9	77
23	Copper(I) Iodide as Hole-Conductor in Planar Perovskite Solar Cells: Probing the Origin of J□V Hysteresis. *Advanced Functional Materials*, **2015**, 25, 5650-5661	15.6	224
22	Probing Molecular and Crystalline Orientation in Solution-Processed Perovskite Solar Cells. *Advanced Functional Materials*, **2015**, 25, 5529-5536	15.6	51
21	Insights into Planar CH3NH3PbI3 Perovskite Solar Cells Using Impedance Spectroscopy. *Journal of Physical Chemistry C*, **2015**, 119, 4444-4453	3.8	137

20	A Bi-layer TiO2 photoanode for highly durable, flexible dye-sensitized solar cells. *Journal of Materials Chemistry A*, **2015**, 3, 4679-4686	13	25
19	Quasi-Solid-State Dye-Sensitized Solar Cells on Plastic Substrates. *Journal of Physical Chemistry C*, **2014**, 118, 16366-16374	3.8	19
18	Charge Transport and Recombination in Dye-Sensitized Solar Cells on Plastic Substrates. *Journal of Physical Chemistry C*, **2014**, 118, 15154-15161	3.8	7
17	Charge Transport in Photoanodes Constructed with Mesoporous TiO2 Beads for Dye-Sensitized Solar Cells. *Journal of Physical Chemistry C*, **2014**, 118, 16635-16642	3.8	8
16	A fast deposition-crystallization procedure for highly efficient lead iodide perovskite thin-film solar cells. *Angewandte Chemie - International Edition*, **2014**, 53, 9898-903	16.4	1104
15	A Fast Deposition-Crystallization Procedure for Highly Efficient Lead Iodide Perovskite Thin-Film Solar Cells. *Angewandte Chemie*, **2014**, 126, 10056-10061	3.6	630
14	Gas-assisted preparation of lead iodide perovskite films consisting of a monolayer of single crystalline grains for high efficiency planar solar cells. *Nano Energy*, **2014**, 10, 10-18	17.1	461
13	Mesoporous titania beads for flexible dye-sensitized solar cells. *Journal of Materials Chemistry C*, **2014**, 2, 1284-1289	7.1	16
12	Controlling Interfacial Recombination in Aqueous Dye-Sensitized Solar Cells by Octadecyltrichlorosilane Surface Treatment. *Angewandte Chemie*, **2014**, 126, 7053-7057	3.6	9
11	An over 10% enhancement of dye-sensitized solar cell efficiency by tuning nanoparticle packing. *RSC Advances*, **2013**, 3, 17003	3.7	10
10	Crystalline TiO2 Nanorod Aggregates: Template-Free Fabrication and Efficient Light Harvesting in Dye-Sensitized Solar Cell Applications. *Particle and Particle Systems Characterization*, **2013**, 30, 754-758	3.1	9
9	Aqueous dye-sensitized solar cell electrolytes based on the cobalt(II)/(III) tris(bipyridine) redox couple. *Energy and Environmental Science*, **2013**, 6, 121-127	35.4	80
8	Charge transport in photocathodes based on the sensitization of NiO nanorods. *Journal of Materials Chemistry*, **2012**, 22, 7005		42
7	Construction of nanostructured electrodes on flexible substrates using pre-treated building blocks. *Applied Physics Letters*, **2012**, 100, 123102	3.4	26
6	Flexible dye-sensitized solar cells containing multiple dyes in discrete layers. *Energy and Environmental Science*, **2011**, 4, 2803	35.4	38
5	A novel dopant for spiro-OMeTAD towards efficient and stable perovskite solar cells. *Science China Materials*,1	7.1	2
4	Toward Commercialization of Efficient and Stable Perovskite Solar Modules. *Solar Rrl*,2100600	7.1	3
3	Chlorobenzenesulfonic Potassium Salts as the Efficient Multifunctional Passivator for the Buried Interface in Regular Perovskite Solar Cells. *Advanced Energy Materials*,2200417	21.8	23

2	Nitrogen-doped tin oxide electron transport layer for stable perovskite solar cells with efficiency over 23%		9
1	Impact of Nickel Oxide/Perovskite Interfacial Contact on the Crystallization and Photovoltaic Performance of Perovskite Solar Cells. *Solar Rrl*,2200232	7.1	2