Changlei Wang

List of Publications by Year
in descending order

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48 papers	6,365 citations	147801 31 h-index	223800 46 g-index
50 all docs	50 docs citations	50 times ranked	7361 citing authors

#	Article	IF	Citations
1	Leadâ€Free Inverted Planar Formamidinium Tin Triiodide Perovskite Solar Cells Achieving Power Conversion Efficiencies up to 6.22%. Advanced Materials, 2016, 28, 9333-9340.	21.0	636
2	Low-bandgap mixed tinâ€“lead iodide perovskite absorbers with long carrier lifetimes for all-perovskite tandem solar cells. Nature Energy, 2017, 2, .	39.5	634
3	Employing Lead Thiocyanate Additive to Reduce the Hysteresis and Boost the Fill Factor of Planar Perovskite Solar Cells. Advanced Materials, 2016, 28, 5214-5221.	21.0	487
4	Efficient two-terminal all-perovskite tandem solar cells enabled by high-quality low-bandgap absorber layers. Nature Energy, 2018, 3, 1093-1100.	39.5	422
5	Interface engineering in planar perovskite solar cells: energy level alignment, perovskite morphology control and high performance achievement. Journal of Materials Chemistry A, 2017, 5, 1658-1666.	10.3	364
6	Fabrication of Efficient Low-Bandgap Perovskite Solar Cells by Combining Formamidinium Tin Iodide with Methylammonium Lead Iodide. Journal of the American Chemical Society, 2016, 138, 12360-12363.	13.7	362
7	Reducing Saturationâ€Current Density to Realize Highâ€Efficiency Lowâ€Bandgap Mixed Tinâ€“Lead Halide Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1803135.	19.5	255
8	Four-Terminal All-Perovskite Tandem Solar Cells Achieving Power Conversion Efficiencies Exceeding 23%. ACS Energy Letters, 2018, 3, 305-306.	17.4	219
9	Low-temperature plasma-enhanced atomic layer deposition of tin oxide electron selective layers for highly efficient planar perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 12080-12087.	10.3	210
10	Cooperative tin oxide fullerene electron selective layers for high-performance planar perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 14276-14283.	10.3	204
11	A layered Na_{1âˆ’x}Ni_yFe_{1âˆ’y}O₂double oxide oxygen evolution reaction electrocatalyst for highly efficient water-splitting. Energy and Environmental Science, 2017, 10, 121-128.	30.8	201
12	Understanding and Eliminating Hysteresis for Highly Efficient Planar Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1700414.	19.5	190
13	Synergistic Effects of Lead Thiocyanate Additive and Solvent Annealing on the Performance of Wide-Bandgap Perovskite Solar Cells. ACS Energy Letters, 2017, 2, 1177-1182.	17.4	190
14	Improving the Performance of Formamidinium and Cesium Lead Triiodide Perovskite Solar Cells using Lead Thiocyanate Additives. ChemSusChem, 2016, 9, 3288-3297.	6.8	178
15	Compositional and morphological engineering of mixed cation perovskite films for highly efficient planar and flexible solar cells with reduced hysteresis. Nano Energy, 2017, 35, 223-232.	16.0	162
16	Water Vapor Treatment of Low-Temperature Deposited SnO₂ Electron Selective Layers for Efficient Flexible Perovskite Solar Cells. ACS Energy Letters, 2017, 2, 2118-2124.	17.4	161
17	Highly Sensitive Lowâ€Bandgap Perovskite Photodetectors with Response from Ultraviolet to the Nearâ€Infrared Region. Advanced Functional Materials, 2017, 27, 1703953.	14.9	148
18	Metalâ€“Organic Framework-Derived CoWP@C Composite Nanowire Electrocatalyst for Efficient Water Splitting. ACS Energy Letters, 2018, 3, 1434-1442.	17.4	141

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19	Photovoltaic Properties of Two-Dimensional (CH₃NH₃)₂Pb(SCN)₂I₂ Perovskite: A Combined Experimental and Density Functional Theory Study. Journal of Physical Chemistry Letters, 2016, 7, 1213-1218.	4.6	135
20	Lowâ€Bandgap Mixed Tinâ€Lead Perovskites and Their Applications in Allâ€Perovskite Tandem Solar Cells. Advanced Functional Materials, 2019, 29, 1808801.	14.9	133
21	Thermally evaporated methylammonium tin triiodide thin films for lead-free perovskite solar cell fabrication. RSC Advances, 2016, 6, 90248-90254.	3.6	114
22	One-step facile synthesis of a simple carbazole-cored hole transport material for high-performance perovskite solar cells. Nano Energy, 2017, 40, 163-169.	16.0	89
23	Stable Organicâ€“Inorganic Perovskite Solar Cells without Holeâ€Conductor Layer Achieved via Cell Structure Design and Contact Engineering. Advanced Functional Materials, 2016, 26, 4866-4873.	14.9	84
24	Probing the origins of photodegradation in organicâ€“inorganic metal halide perovskites with time-resolved mass spectrometry. Sustainable Energy and Fuels, 2018, 2, 2460-2467.	4.9	84
25	One-pot stirring-free synthesis of silver nanowires with tunable lengths and diameters via a Fe³⁺& Cl^{âˆ’}co-mediated polyol method and their application as transparent conductive films. Nanoscale, 2016, 8, 18121-18133.	5.6	66
26	Two dimensional graphitic carbon nitride quantum dots modified perovskite solar cells and photodetectors with high performances. Journal of Power Sources, 2020, 451, 227825.	7.8	44
27	Hydrothermal synthesis of TiO₂ nanoparticles doped with trace amounts of strontium, and their application as working electrodes for dye sensitized solar cells: tunable electrical properties & enhanced photo-conversion performance. RSC Advances, 2017, 7, 2358-2364.	3.6	40
28	Cost-effective hole transporting material for stable and efficient perovskite solar cells with fill factors up to 82%. Journal of Materials Chemistry A, 2017, 5, 23319-23327.	10.3	40
29	Improving Performance and Stability of Planar Perovskite Solar Cells through Grain Boundary Passivation with Block Copolymers. Solar Rrl, 2019, 3, 1900078.	5.8	40
30	Heterojunction Perovskite Solar Cells: Opto-Electro-Thermal Physics, Modeling, and Experiment. ACS Nano, 2020, 14, 5017-5026.	14.6	40
31	Multifunctional alumina/titania hybrid blocking layer modified nanocrystalline titania films as efficient photoanodes in dye sensitized solar cells. Journal of Power Sources, 2015, 282, 596-601.	7.8	38
32	A New Hole Transport Material for Efficient Perovskite Solar Cells With Reduced Device Cost. Solar Rrl, 2018, 2, 1700175.	5.8	31
33	A Cu₃PS₄ nanoparticle hole selective layer for efficient inverted perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 4604-4610.	10.3	29
34	Synergistic effects of thiocyanate additive and cesium cations on improving the performance and initial illumination stability of efficient perovskite solar cells. Sustainable Energy and Fuels, 2018, 2, 2435-2441.	4.9	27
35	A composite nanostructured electron-transport layer for stable hole-conductor free perovskite solar cells: design and characterization. Nanoscale, 2016, 8, 5847-5851.	5.6	25
36	Fully Airâ€Processed Carbonâ€Based Efficient Hole Conductor Free Planar Heterojunction Perovskite Solar Cells With High Reproducibility and Stability. Solar Rrl, 2019, 3, 1800297.	5.8	20

#	ARTICLE	IF	CITATIONS
37	Highly efficient and stable air-processed hole-transport-material free carbon based perovskite solar cells with caesium incorporation. Chemical Communications, 2019, 55, 218-221.	4.1	19
38	Tracking the maximum power point of hysteretic perovskite solar cells using a predictive algorithm. Journal of Materials Chemistry C, 2017, 5, 10152-10157.	5.5	18
39	Efficient dye-sensitized solar cells employing highly environmentally-friendly ubiquinone 10 based I2-free electrolyte inspired by photosynthesis. Journal of Materials Chemistry A, 2014, 2, 9007-9010.	10.3	14
40	Efficient Electron Transport Scaffold Made up of Submicron TiO₂ Spheres for High-Performance Hole-Transport Material Free Perovskite Solar Cells. ACS Applied Energy Materials, 0, , .	5.1	13
41	Optical Hall Effect of PV Device Materials. IEEE Journal of Photovoltaics, 2018, 8, 1793-1799.	2.5	12
42	Double Coating for the Enhancement of the Performance in a MA_{0.7}FA_{0.3}PbBr₃ Photodetector. ACS Photonics, 2018, 5, 2100-2105.	6.6	9
43	Synergistic engineering of bromine and cetyltrimethylammonium chloride molecules enabling efficient and stable flexible perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 19425-19433.	10.3	9
44	Managing Lead Leakage in Efficient Perovskite Solar Cells with Phosphate Interlayers. Advanced Materials Interfaces, 0, , 2200570.	3.7	9
45	A novel glowing electrolyte based on perylene accompany with spectrum compensation function for efficient dye sensitized solar cells. Journal of Power Sources, 2015, 280, 430-434.	7.8	8
46	Atmospherically induced defects in (FASnI₃)_{0.6}(MAPbI<sub>3â^’3<i>x</i>) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 175102.	2.8	7
47	Back Interface Passivation for Efficient Low-Bandgap Perovskite Solar Cells and Photodetectors. Nanomaterials, 2022, 12, 2065.	4.1	3
48	Low Band Gap Perovskite Concentrator Solar Cells: Physics, Device Simulation, and Experiment. ACS Applied Materials & Interfaces, 2022, 14, 29856-29866.	8.0	1