

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	Back Interface Passivation for Efficient Low-Bandgap Perovskite Solar Cells and Photodetectors. <i>Nanomaterials</i> , 2022, 12, 2065.	4.1	3
2	Low Band Gap Perovskite Concentrator Solar Cells: Physics, Device Simulation, and Experiment. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 29856-29866.	8.0	1
3	Synergistic engineering of bromine and cetyltrimethylammonium chloride molecules enabling efficient and stable flexible perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2020, 8, 19425-19433.	10.3	9
4	Heterojunction Perovskite Solar Cells: Opto-Electro-Thermal Physics, Modeling, and Experiment. <i>ACS Nano</i> , 2020, 14, 5017-5026.	14.6	40
5	Two dimensional graphitic carbon nitride quantum dots modified perovskite solar cells and photodetectors with high performances. <i>Journal of Power Sources</i> , 2020, 451, 227825.	7.8	44
6	Highly efficient and stable air-processed hole-transport-material free carbon based perovskite solar cells with caesium incorporation. <i>Chemical Communications</i> , 2019, 55, 218-221.	4.1	19
7	A Cu ₃ PS ₄ nanoparticle hole selective layer for efficient inverted perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 4604-4610.	10.3	29
8	Improving Performance and Stability of Planar Perovskite Solar Cells through Grain Boundary Passivation with Block Copolymers. <i>Solar Rrl</i> , 2019, 3, 1900078.	5.8	40
9	Low-Bandgap Mixed Tin-Lead Perovskites and Their Applications in All-Perovskite Tandem Solar Cells. <i>Advanced Functional Materials</i> , 2019, 29, 1808801.	14.9	133
10	Atmospherically induced defects in (FASn ₃) _{0.6} (MAPb ₃) ₃ Tj ETQq0 0 0 rgBT /Overlock 10 Tf 175102.	2.8	7
11	Fully Air-Processed Carbon-Based Efficient Hole Conductor Free Planar Heterojunction Perovskite Solar Cells With High Reproducibility and Stability. <i>Solar Rrl</i> , 2019, 3, 1800297.	5.8	20
12	Reducing Saturation Current Density to Realize High Efficiency Low-Bandgap Mixed Tin-Lead Halide Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2019, 9, 1803135.	19.5	255
13	A New Hole Transport Material for Efficient Perovskite Solar Cells With Reduced Device Cost. <i>Solar Rrl</i> , 2018, 2, 1700175.	5.8	31
14	Four-Terminal All-Perovskite Tandem Solar Cells Achieving Power Conversion Efficiencies Exceeding 23%. <i>ACS Energy Letters</i> , 2018, 3, 305-306.	17.4	219
15	Double Coating for the Enhancement of the Performance in a MA _{0.7} FA _{0.3} PbBr ₃ Photodetector. <i>ACS Photonics</i> , 2018, 5, 2100-2105.	6.6	9
16	Efficient two-terminal all-perovskite tandem solar cells enabled by high-quality low-bandgap absorber layers. <i>Nature Energy</i> , 2018, 3, 1093-1100.	39.5	422
17	Optical Hall Effect of PV Device Materials. <i>IEEE Journal of Photovoltaics</i> , 2018, 8, 1793-1799.	2.5	12
18	Metal-Organic Framework-Derived CoWP@C Composite Nanowire Electrocatalyst for Efficient Water Splitting. <i>ACS Energy Letters</i> , 2018, 3, 1434-1442.	17.4	141

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19	Synergistic effects of thiocyanate additive and cesium cations on improving the performance and initial illumination stability of efficient perovskite solar cells. <i>Sustainable Energy and Fuels</i> , 2018, 2, 2435-2441.	4.9	27
20	Probing the origins of photodegradation in organic–inorganic metal halide perovskites with time-resolved mass spectrometry. <i>Sustainable Energy and Fuels</i> , 2018, 2, 2460-2467.	4.9	84
21	Hydrothermal synthesis of TiO ₂ 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. <i>RSC Advances</i> , 2017, 7, 2358-2364.	3.6	40
22	Low-bandgap mixed tin–lead iodide perovskite absorbers with long carrier lifetimes for all-perovskite tandem solar cells. <i>Nature Energy</i> , 2017, 2, .	39.5	634
23	Understanding and Eliminating Hysteresis for Highly Efficient Planar Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2017, 7, 1700414.	19.5	190
24	Synergistic Effects of Lead Thiocyanate Additive and Solvent Annealing on the Performance of Wide-Bandgap Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2017, 2, 1177-1182.	17.4	190
25	Compositional and morphological engineering of mixed cation perovskite films for highly efficient planar and flexible solar cells with reduced hysteresis. <i>Nano Energy</i> , 2017, 35, 223-232.	16.0	162
26	A layered Na _x Ni _y Fe _y O ₂ double oxide oxygen evolution reaction electrocatalyst for highly efficient water-splitting. <i>Energy and Environmental Science</i> , 2017, 10, 121-128.	30.8	201
27	Interface engineering in planar perovskite solar cells: energy level alignment, perovskite morphology control and high performance achievement. <i>Journal of Materials Chemistry A</i> , 2017, 5, 1658-1666.	10.3	364
28	Cost-effective hole transporting material for stable and efficient perovskite solar cells with fill factors up to 82%. <i>Journal of Materials Chemistry A</i> , 2017, 5, 23319-23327.	10.3	40
29	Water Vapor Treatment of Low-Temperature Deposited SnO ₂ Electron Selective Layers for Efficient Flexible Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2017, 2, 2118-2124.	17.4	161
30	Highly Sensitive Low-Bandgap Perovskite Photodetectors with Response from Ultraviolet to the Near-Infrared Region. <i>Advanced Functional Materials</i> , 2017, 27, 1703953.	14.9	148
31	Tracking the maximum power point of hysteretic perovskite solar cells using a predictive algorithm. <i>Journal of Materials Chemistry C</i> , 2017, 5, 10152-10157.	5.5	18
32	One-step facile synthesis of a simple carbazole-cored hole transport material for high-performance perovskite solar cells. <i>Nano Energy</i> , 2017, 40, 163-169.	16.0	89
33	Low-temperature plasma-enhanced atomic layer deposition of tin oxide electron selective layers for highly efficient planar perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 12080-12087.	10.3	210
34	Stable Organic–Inorganic Perovskite Solar Cells without Hole–Conductor Layer Achieved via Cell Structure Design and Contact Engineering. <i>Advanced Functional Materials</i> , 2016, 26, 4866-4873.	14.9	84
35	One-pot stirring-free synthesis of silver nanowires with tunable lengths and diameters via a Fe ³⁺ & Cl ⁻ co-mediated polyol method and their application as transparent conductive films. <i>Nanoscale</i> , 2016, 8, 18121-18133.	5.6	66
36	Lead-Free Inverted Planar Formamidinium Tin Triiodide Perovskite Solar Cells Achieving Power Conversion Efficiencies up to 6.22%. <i>Advanced Materials</i> , 2016, 28, 9333-9340.	21.0	636

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37	Cooperative tin oxide fullerene electron selective layers for high-performance planar perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 14276-14283.	10.3	204
38	Thermally evaporated methylammonium tin triiodide thin films for lead-free perovskite solar cell fabrication. <i>RSC Advances</i> , 2016, 6, 90248-90254.	3.6	114
39	Fabrication of Efficient Low-Bandgap Perovskite Solar Cells by Combining Formamidinium Tin Iodide with Methylammonium Lead Iodide. <i>Journal of the American Chemical Society</i> , 2016, 138, 12360-12363.	13.7	362
40	Improving the Performance of Formamidinium and Cesium Lead Triiodide Perovskite Solar Cells using Lead Thiocyanate Additives. <i>ChemSusChem</i> , 2016, 9, 3288-3297.	6.8	178
41	Employing Lead Thiocyanate Additive to Reduce the Hysteresis and Boost the Fill Factor of Planar Perovskite Solar Cells. <i>Advanced Materials</i> , 2016, 28, 5214-5221.	21.0	487
42	Photovoltaic Properties of Two-Dimensional $(\text{CH}_3\text{NH}_3)_2\text{Pb}(\text{SCN})_2$ Perovskite: A Combined Experimental and Density Functional Theory Study. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 1213-1218.	4.6	135
43	A composite nanostructured electron-transport layer for stable hole-conductor free perovskite solar cells: design and characterization. <i>Nanoscale</i> , 2016, 8, 5847-5851.	5.6	25
44	A novel glowing electrolyte based on perylene accompany with spectrum compensation function for efficient dye sensitized solar cells. <i>Journal of Power Sources</i> , 2015, 280, 430-434.	7.8	8
45	Multifunctional alumina/titania hybrid blocking layer modified nanocrystalline titania films as efficient photoanodes in dye sensitized solar cells. <i>Journal of Power Sources</i> , 2015, 282, 596-601.	7.8	38
46	Efficient dye-sensitized solar cells employing highly environmentally-friendly ubiquinone 10 based I ₂ -free electrolyte inspired by photosynthesis. <i>Journal of Materials Chemistry A</i> , 2014, 2, 9007-9010.	10.3	14
47	Efficient Electron Transport Scaffold Made up of Submicron TiO_2 Spheres for High-Performance Hole-Transport Material Free Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 0, , .	5.1	13
48	Managing Lead Leakage in Efficient Perovskite Solar Cells with Phosphate Interlayers. <i>Advanced Materials Interfaces</i> , 0, , 2200570.	3.7	9