Guang Yang

List of Publications by Year
in descending order

47 papers	6,780 citations	81743 39 h-index	223531 46 g-index
47 all docs	47 docs citations	47 times ranked	6582 citing authors

#	Article	IF	Citations
1	Low-Temperature Solution-Processed Tin Oxide as an Alternative Electron Transporting Layer for Efficient Perovskite Solar Cells. Journal of the American Chemical Society, 2015, 137, 6730-6733.	6.6	1,045
2	Recent progress in electron transport layers for efficient perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 3970-3990.	5.2	472
3	Review on the Application of SnO₂ in Perovskite Solar Cells. Advanced Functional Materials, 2018, 28, 1802757.	7.8	448
4	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.	5.2	364
5	Efficient hole-blocking layer-free planar halide perovskite thin-film solar cells. Nature Communications, 2015, 6, 6700.	5.8	358
6	Effective Carrierâ€Concentration Tuning of SnO₂ Quantum Dot Electronâ€Selective Layers for Highâ€Performance Planar Perovskite Solar Cells. Advanced Materials, 2018, 30, e1706023.	11.1	333
7	Blade-Coated Perovskites on Textured Silicon for 26%-Efficient Monolithic Perovskite/Silicon Tandem Solar Cells. Joule, 2020, 4, 850-864.	11.7	281
8	Stable and low-photovoltage-loss perovskite solar cells by multifunctional passivation. Nature Photonics, 2021, 15, 681-689.	15.6	255
9	Stable and Efficient Organoâ€Metal Halide Hybrid Perovskite Solar Cells via Ï€â€Conjugated Lewis Base Polymer Induced Trap Passivation and Charge Extraction. Advanced Materials, 2018, 30, e1706126.	11.1	241
10	Reducing Hysteresis and Enhancing Performance of Perovskite Solar Cells Using Lowâ€Temperature Processed Yâ€Doped SnO₂ Nanosheets as Electron Selective Layers. Small, 2017, 13, 1601769.	5.2	183
11	MgO Nanoparticle Modified Anode for Highly Efficient SnO₂â€Based Planar Perovskite Solar Cells. Advanced Science, 2017, 4, 1700031.	5.6	175
12	Evolution of defects during the degradation of metal halide perovskite solar cells under reverse bias and illumination. Nature Energy, 2022, 7, 65-73.	19.8	158
13	Performance enhancement of high temperature SnO₂-based planar perovskite solar cells: electrical characterization and understanding of the mechanism. Journal of Materials Chemistry A, 2016, 4, 8374-8383.	5.2	156
14	Enhanced Stability of Perovskite Solar Cells with Lowâ€Temperature Hydrothermally Grown SnO₂ Electron Transport Layers. Advanced Functional Materials, 2016, 26, 6069-6075.	7.8	154
15	Achieving a high open-circuit voltage in inverted wide-bandgap perovskite solar cells with a graded perovskite homojunction. Nano Energy, 2019, 61, 141-147.	8.2	152
16	Fully Highâ€Temperatureâ€Processed SnO₂ as Blocking Layer and Scaffold for Efficient, Stable, and Hysteresisâ€Free Mesoporous Perovskite Solar Cells. Advanced Functional Materials, 2018, 28, 1706276.	7.8	143
17	Perovskite Solar Cells Based on Low-Temperature Processed Indium Oxide Electron Selective Layers. ACS Applied Materials & Interfaces, 2016, 8, 8460-8466.	4.0	128
18	Manipulating the Mixedâ€Perovskite Crystallization Pathway Unveiled by In Situ GIWAXS. Advanced Materials, 2019, 31, e1901284.	11.1	127

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19	A facile molecularly engineered copper (II) phthalocyanine as hole transport material for planar perovskite solar cells with enhanced performance and stability. Nano Energy, 2017, 31, 322-330.	8.2	117
20	Defect engineering in wide-bandgap perovskites for efficient perovskiteâ€“silicon tandem solar cells. Nature Photonics, 2022, 16, 588-594.	15.6	112
21	Achieving High Open-Circuit Voltage on Planar Perovskite Solar Cells via Chlorine-Doped Tin Oxide Electron Transport Layers. ACS Applied Materials & Interfaces, 2019, 11, 23152-23159.	4.0	89
22	Efficient planar Sb₂S₃ solar cells using a low-temperature solution-processed tin oxide electron conductor. Physical Chemistry Chemical Physics, 2016, 18, 16436-16443.	1.3	86
23	A Lewis Baseâ€Assisted Passivation Strategy Towards Highly Efficient and Stable Perovskite Solar Cells. Solar Rrl, 2018, 2, 1800055.	3.1	83
24	Highly Efficient and Stable Planar Perovskite Solar Cells With Largeâ€Scale Manufacture of Eâ€Beam Evaporated SnO₂ Toward Commercialization. Solar Rrl, 2017, 1, 1700118.	3.1	75
25	Copperâ€Doped Chromium Oxide Holeâ€Transporting Layer for Perovskite Solar Cells: Interface Engineering and Performance Improvement. Advanced Materials Interfaces, 2016, 3, 1500799.	1.9	72
26	Bulk heterojunction perovskite solar cells based on room temperature deposited hole-blocking layer: Suppressed hysteresis and flexible photovoltaic application. Journal of Power Sources, 2017, 351, 123-129.	4.0	71
27	Lead-adsorbing ionogel-based encapsulation for impact-resistant, stable, and lead-safe perovskite modules. Science Advances, 2021, 7, eabi8249.	4.7	71
28	High-Performance Rigid and Flexible Perovskite Solar Cells with Low-Temperature Solution-Processable Binary Metal Oxide Hole-Transporting Materials. Solar Rrl, 2017, 1, 1700058.	3.1	69
29	Room-temperature synthesis of colloidal SnO2 quantum dot solution and ex-situ deposition on carbon nanotubes as anode materials for lithium ion batteries. Journal of Alloys and Compounds, 2016, 680, 109-115.	2.8	68
30	Single phase, high hole mobility Cu₂O films as an efficient and robust hole transporting layer for organic solar cells. Journal of Materials Chemistry A, 2017, 5, 11055-11062.	5.2	65
31	Enhancing efficiency and stability of perovskite solar cells via a high mobility p-type PbS buffer layer. Nano Energy, 2017, 38, 1-11.	8.2	65
32	Gradient Doping in Snâ€“Pb Perovskites by Barium Ions for Efficient Singleâ€Junction and Tandem Solar Cells. Advanced Materials, 2022, 34, e2110351.	11.1	62
33	Potassium-intercalated rubrene as a dual-functional passivation agent for high efficiency perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 1824-1834.	5.2	59
34	Incorporation of High-Mobility and Room-Temperature-Deposited Cu_{<i>x</i>}S as a Hole Transport Layer for Efficient and Stable Organo-Lead Halide Perovskite Solar Cells. Solar Rrl, 2017, 1, 1700038.	3.1	51
35	Stabilizer-assisted growth of formamdinium-based perovskites for highly efficient and stable planar solar cells with over 22% efficiency. Nano Energy, 2019, 63, 103835.	8.2	51
36	Self-powered narrowband <i>p</i>-NiO/<i>n</i>-ZnO nanowire ultraviolet photodetector with interface modification of Al2O3. Applied Physics Letters, 2017, 110, .	1.5	49

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37	Room-temperature processed tin oxide thin film as effective hole blocking layer for planar perovskite solar cells. Applied Surface Science, 2018, 434, 1336-1343.	3.1	49
38	Octamethyl-substituted Pd(<scp>ii</scp>) phthalocyanine with long carrier lifetime as a dopant-free hole selective material for performance enhancement of perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 24416-24424.	5.2	45
39	Perovskite solar cell based on network nanoporous layer consisted of TiO2 nanowires and its interface optimization. Journal of Power Sources, 2015, 290, 144-152.	4.0	44
40	Tin oxide (SnO2) as effective electron selective layer material in hybrid organicâ€“inorganic metal halide perovskite solar cells. Journal of Energy Chemistry, 2018, 27, 962-970.	7.1	39
41	Metal ions diffusion at heterojunction chromium Oxide/CH 3 NH 3 PbI 3 interface on the stability of perovskite solar cells. Surfaces and Interfaces, 2018, 10, 93-99.	1.5	31
42	Enhanced efficiency and stability of tripleâ€cation perovskite solar cells with CsPbI_{<i>x</i>}Br_{3â€‰â^'â€‰<i>x</i>} QDs â€œsurface patchesâ€. SmartMat, 2022, 3, 513-521.	6.4	22
43	Improved performance in Ag₂S/P3HT hybrid solar cells with a solution processed SnO₂ electron transport layer. RSC Advances, 2016, 6, 77701-77708.	1.7	19
44	Reconfiguration of Interfacial and Bulk Energy Band Structure for Highâ€Performance Organic and Thermalâ€“Stability Enhanced Perovskite Solar Cells. Solar Rrl, 2020, 4, 1900482.	3.1	16
45	Surface treatment via Li-bis-(trifluoromethanesulfonyl) imide to eliminate the hysteresis and enhance the efficiency of inverted perovskite solar cells. Journal of Materials Chemistry C, 2017, 5, 10280-10287.	2.7	15
46	Vacuum-free fabrication of high-performance semitransparent perovskite solar cells via e-glue assisted lamination process. Science China Chemistry, 2019, 62, 875-882.	4.2	7
47	Pathways to High Efficiency Perovskite Monolithic Solar Modules. , 2022, 1, .		5