

Sai Bai

List of Publications by Year in descending order

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71
papers

11,387
citations

50170

46
h-index

91712

69
g-index

75
all docs

75
docs citations

75
times ranked

11280
citing authors

#	ARTICLE	IF	CITATIONS
1	Planar perovskite solar cells with long-term stability using ionic liquid additives. <i>Nature</i> , 2019, 571, 245-250.	13.7	1,103
2	Rational molecular passivation for high-performance perovskite light-emitting diodes. <i>Nature Photonics</i> , 2019, 13, 418-424.	15.6	970
3	Metal halide perovskites for light-emitting diodes. <i>Nature Materials</i> , 2021, 20, 10-21.	13.3	800
4	Highly Efficient Perovskite Nanocrystal Light-Emitting Diodes Enabled by a Universal Crosslinking Method. <i>Advanced Materials</i> , 2016, 28, 3528-3534.	11.1	782
5	High-efficiency perovskite-polymer bulk heterostructure light-emitting diodes. <i>Nature Photonics</i> , 2018, 12, 783-789.	15.6	715
6	Interfacial Control Toward Efficient and Low-Voltage Perovskite Light-Emitting Diodes. <i>Advanced Materials</i> , 2015, 27, 2311-2316.	11.1	631
7	A piperidinium salt stabilizes efficient metal-halide perovskite solar cells. <i>Science</i> , 2020, 369, 96-102.	6.0	461
8	Efficient planar heterojunction perovskite solar cells employing graphene oxide as hole conductor. <i>Nanoscale</i> , 2014, 6, 10505-10510.	2.8	352
9	High Performance and Stable All-Inorganic Metal Halide Perovskite-Based Photodetectors for Optical Communication Applications. <i>Advanced Materials</i> , 2018, 30, e1803422.	11.1	342
10	Defects engineering for high-performance perovskite solar cells. <i>Npj Flexible Electronics</i> , 2018, 2, .	5.1	334
11	Mixed halide perovskites for spectrally stable and high-efficiency blue light-emitting diodes. <i>Nature Communications</i> , 2021, 12, 361.	5.8	268
12	Highly Luminescent and Stable Perovskite Nanocrystals with Octylphosphonic Acid as a Ligand for Efficient Light-Emitting Diodes. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 3784-3792.	4.0	255
13	Aligned and Graded Type-II Ruddlesden-Popper Perovskite Films for Efficient Solar Cells. <i>Advanced Energy Materials</i> , 2018, 8, 1800185.	10.2	247
14	Tailoring metal halide perovskites through metal substitution: influence on photovoltaic and material properties. <i>Energy and Environmental Science</i> , 2017, 10, 236-246.	15.6	230
15	High-performance planar heterojunction perovskite solar cells: Preserving long charge carrier diffusion lengths and interfacial engineering. <i>Nano Research</i> , 2014, 7, 1749-1758.	5.8	205
16	Role of Microstructure in Oxygen Induced Photodegradation of Methylammonium Lead Triiodide Perovskite Films. <i>Advanced Energy Materials</i> , 2017, 7, 1700977.	10.2	183
17	Colloidal metal halide perovskite nanocrystals: synthesis, characterization, and applications. <i>Journal of Materials Chemistry C</i> , 2016, 4, 3898-3904.	2.7	179
18	Perovskite QLED with an external quantum efficiency of over 21% by modulating electronic transport. <i>Science Bulletin</i> , 2021, 66, 36-43.	4.3	162

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19	Ethanedithiol Treatment of Solution-Processed ZnO Thin Films: Controlling the Intragap States of Electron Transporting Interlayers for Efficient and Stable Inverted Organic Photovoltaics. <i>Advanced Energy Materials</i> , 2015, 5, 1401606.	10.2	157
20	High-Quality Sequentially Vapor-Deposited Cs ₂ AgBiBr ₆ Thin Films for Lead-Free Perovskite Solar Cells. <i>Solar Rrl</i> , 2018, 2, 1800217.	3.1	138
21	High-Performance Perovskite Light-Emitting Diode with Enhanced Operational Stability Using Lithium Halide Passivation. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 4099-4105.	7.2	130
22	Unveiling the synergistic effect of precursor stoichiometry and interfacial reactions for perovskite light-emitting diodes. <i>Nature Communications</i> , 2019, 10, 2818.	5.8	129
23	Stable, High-Sensitivity and Fast-Response Photodetectors Based on Lead-Free Cs ₂ AgBiBr ₆ Double Perovskite Films. <i>Advanced Optical Materials</i> , 2019, 7, 1801732.	3.6	126
24	Bidirectional optical signal transmission between two identical devices using perovskite diodes. <i>Nature Electronics</i> , 2020, 3, 156-164.	13.1	126
25	High-performance inorganic metal halide perovskite transistors. <i>Nature Electronics</i> , 2022, 5, 78-83.	13.1	121
26	Thermochromic Lead-Free Halide Double Perovskites. <i>Advanced Functional Materials</i> , 2019, 29, 1807375.	7.8	120
27	Hot-Electron Injection in a Sandwiched TiO _x /Au/TiO _x Structure for High-Performance Planar Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2015, 5, 1500038.	10.2	119
28	Flexible silver grid/PEDOT:PSS hybrid electrodes for large area inverted polymer solar cells. <i>Nano Energy</i> , 2014, 10, 259-267.	8.2	111
29	Low-Temperature Combustion-Synthesized Nickel Oxide Thin Films as Hole-Transport Interlayers for Solution-Processed Optoelectronic Devices. <i>Advanced Energy Materials</i> , 2014, 4, 1301460.	10.2	110
30	Unveiling Property of Hydrolysis-Derived DMAPbI ₃ for Perovskite Devices: Composition Engineering, Defect Mitigation, and Stability Optimization. <i>IScience</i> , 2019, 15, 165-172.	1.9	107
31	Identification and Mitigation of a Critical Interfacial Instability in Perovskite Solar Cells Employing Copper Thiocyanate Hole-Transporter. <i>Advanced Materials Interfaces</i> , 2016, 3, 1600571.	1.9	105
32	High-Efficiency Flexible Solar Cells Based on Organometal Halide Perovskites. <i>Advanced Materials</i> , 2016, 28, 4532-4540.	11.1	102
33	A Universal Deposition Protocol for Planar Heterojunction Solar Cells with High Efficiency Based on Hybrid Lead Halide Perovskite Families. <i>Advanced Materials</i> , 2016, 28, 10701-10709.	11.1	100
34	Colloidal metal oxide nanocrystals as charge transporting layers for solution-processed light-emitting diodes and solar cells. <i>Chemical Society Reviews</i> , 2017, 46, 1730-1759.	18.7	99
35	Critical role of additive-induced molecular interaction on the operational stability of perovskite light-emitting diodes. <i>Joule</i> , 2021, 5, 618-630.	11.7	99
36	Boosting Perovskite Light-Emitting Diode Performance via Tailoring Interfacial Contact. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 24320-24326.	4.0	96

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37	Recent progress toward perovskite light-emitting diodes with enhanced spectral and operational stability. <i>Materials Today Nano</i> , 2019, 5, 100028.	2.3	86
38	Perovskite/Colloidal Quantum Dot Tandem Solar Cells: Theoretical Modeling and Monolithic Structure. <i>ACS Energy Letters</i> , 2018, 3, 869-874.	8.8	77
39	Highly Luminescent and Stable CsPbI ₃ Perovskite Nanocrystals with Sodium Dodecyl Sulfate Ligand Passivation for Red-Light-Emitting Diodes. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 2437-2443.	2.1	71
40	Colloidal Indium-Doped Zinc Oxide Nanocrystals with Tunable Work Function: Rational Synthesis and Optoelectronic Applications. <i>Chemistry of Materials</i> , 2014, 26, 5169-5178.	3.2	68
41	High-Brightness Perovskite Light-Emitting Diodes Based on FAPbBr ₃ Nanocrystals with Rationally Designed Aromatic Ligands. <i>ACS Energy Letters</i> , 2021, 6, 2395-2403.	8.8	67
42	Inverted organic solar cells based on aqueous processed ZnO interlayers at low temperature. <i>Applied Physics Letters</i> , 2012, 100, 203906.	1.5	57
43	Quantitative <i>in operando</i> visualization of the energy band depth profile in solar cells. <i>Nature Communications</i> , 2015, 6, 7745.	5.8	57
44	Inverted all-polymer solar cells based on a quinoxaline- <i>thiophene/naphthalene</i> -diimide polymer blend improved by annealing. <i>Journal of Materials Chemistry A</i> , 2016, 4, 3835-3843.	5.2	57
45	Manipulating crystallization dynamics through chelating molecules for bright perovskite emitters. <i>Nature Communications</i> , 2021, 12, 4831.	5.8	56
46	High-performance hysteresis-free perovskite transistors through anion engineering. <i>Nature Communications</i> , 2022, 13, 1741.	5.8	51
47	Synthesis of Unstable Colloidal Inorganic Nanocrystals through the Introduction of a Protecting Ligand. <i>Nano Letters</i> , 2014, 14, 3117-3123.	4.5	40
48	Surface Chlorination of ZnO for Perovskite Solar Cells with Enhanced Efficiency and Stability. <i>Solar Rrl</i> , 2019, 3, 1900154.	3.1	37
49	Approximately 800-nm-Thick Pinhole-Free Perovskite Films via Facile Solvent Retarding Process for Efficient Planar Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 34446-34454.	4.0	36
50	Iodomethane-Mediated Organometal Halide Perovskite with Record Photoluminescence Lifetime. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 23181-23189.	4.0	35
51	Reproducible Planar Heterojunction Solar Cells Based on One-Step Solution-Processed Methylammonium Lead Halide Perovskites. <i>Chemistry of Materials</i> , 2017, 29, 462-473.	3.2	35
52	High-Quality Ruddlesden-Popper Perovskite Films Based on In Situ Formed Organic Spacer Cations. <i>Advanced Materials</i> , 2019, 31, e1904243.	11.1	35
53	Thermal-induced interface degradation in perovskite light-emitting diodes. <i>Journal of Materials Chemistry C</i> , 2020, 8, 15079-15085.	2.7	30
54	Metal Doping/Alloying of Cesium Lead Halide Perovskite Nanocrystals and their Applications in Light-Emitting Diodes with Enhanced Efficiency and Stability. <i>Israel Journal of Chemistry</i> , 2019, 59, 695-707.	1.0	23

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55	Spectral-Stable Blue Emission from Moisture-Treated Low-Dimensional Lead Bromide-Based Perovskite Films. <i>ACS Photonics</i> , 2019, 6, 1728-1735.	3.2	21
56	Efficient and High-Luminance Perovskite Light-Emitting Diodes Based on CsPbBr ₃ Nanocrystals Synthesized from a Dual-Purpose Organic Lead Source. <i>Small</i> , 2020, 16, e2003939.	5.2	18
57	Spectral Response Measurements of Perovskite Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2019, 9, 220-226.	1.5	17
58	Modulation of vacancy-ordered double perovskite Cs ₂ SnI ₆ for air-stable thin-film transistors. <i>Cell Reports Physical Science</i> , 2022, 3, 100812.	2.8	17
59	Layered bismuth selenide utilized as hole transporting layer for highly stable organic photovoltaics. <i>Organic Electronics</i> , 2015, 26, 327-333.	1.4	12
60	Room-temperature film formation of metal halide perovskites on n-type metal oxides: the catalysis of ZnO on perovskite crystallization. <i>Chemical Communications</i> , 2018, 54, 6887-6890.	2.2	11
61	Electrophoretic deposited oxide thin films as charge transporting interlayers for solution-processed optoelectronic devices: the case of ZnO nanocrystals. <i>RSC Advances</i> , 2015, 5, 8216-8222.	1.7	9
62	High-Quality Sequential Vapor-Deposited Cs ₂ AgBiBr ₆ Thin Films for Lead-Free Perovskite Solar Cells (Solar RRL 12•2018). <i>Solar Rrl</i> , 2018, 2, 1870238.	3.1	9
63	Ligand Exchange of Colloidal ZnO Nanocrystals from the High Temperature and Nonaqueous Approach. <i>Nano-Micro Letters</i> , 2013, 5, 274-280.	14.4	8
64	Photodetectors: High Performance and Stable All-Inorganic Metal Halide Perovskite-Based Photodetectors for Optical Communication Applications (Adv. Mater. 38/2018). <i>Advanced Materials</i> , 2018, 30, 1870288.	11.1	8
65	High-Performance Perovskite Light-Emitting Diode with Enhanced Operational Stability Using Lithium Halide Passivation. <i>Angewandte Chemie</i> , 2020, 132, 4128-4134.	1.6	8
66	Effects of oxygen plasma treatment on the surface properties of Ga-doped ZnO thin films. <i>Applied Physics A: Materials Science and Processing</i> , 2014, 114, 509-513.	1.1	4
67	Perovskite Solar Cells: Hot-Electron Injection in a Sandwiched TiO _x -Au-TiO _x Structure for High-Performance Planar Perovskite Solar Cells (Adv. Energy Mater. 10/2015). <i>Advanced Energy Materials</i> , 2015, 5, .	10.2	3
68	Thin Films: Ethanedithiol Treatment of Solution-Processed ZnO Thin Films: Controlling the Intragap States of Electron Transporting Interlayers for Efficient and Stable Inverted Organic Photovoltaics (Adv. Energy Mater. 5/2015). <i>Advanced Energy Materials</i> , 2015, 5, n/a-n/a.	10.2	1
69	Solar Cells: Role of Microstructure in Oxygen Induced Photodegradation of Methylammonium Lead Triiodide Perovskite Films (Adv. Energy Mater. 20/2017). <i>Advanced Energy Materials</i> , 2017, 7, .	10.2	1
70	Optoelectronic Devices: Low-Temperature Combustion-Synthesized Nickel Oxide Thin Films as Hole-Transport Interlayers for Solution-Processed Optoelectronic Devices (Adv. Energy Mater. 6/2014). <i>Advanced Energy Materials</i> , 2014, 4, .	10.2	0
71	Mixed Halide Perovskites for Spectrally Stable and High-Efficiency Blue Light-Emitting Diodes. , 0, , .		0