Dazheng Chen

List of Publications by Year
in descending order

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Version: 2024-02-01

87	2,644	201385	205818
papers	citations	27 h-index	48 g-index

87	87	87	2884
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Highâ€Performance Planar Perovskite Solar Cells Using Low Temperature, Solutionâ€“Combustionâ€Based Nickel Oxide Hole Transporting Layer with Efficiency Exceeding 20%. Advanced Energy Materials, 2018, 8, 1703432.	10.2	279
2	Intermolecular Exchange Boosts Efficiency of Airâ€Stable, Carbonâ€Based Allâ€Inorganic Planar CsPbIBr₂ Perovskite Solar Cells to Over 9%. Advanced Energy Materials, 2018, 8, 1802080.	10.2	215
3	Mixed-solvent-vapor annealing of perovskite for photovoltaic device efficiency enhancement. Nano Energy, 2016, 28, 417-425.	8.2	114
4	Dual-Phase CsPbCl₃â€“Cs₄PbCl₆ Perovskite Films for Self-Powered, Visible-Blind UV Photodetectors with Fast Response. ACS Applied Materials & Interfaces, 2020, 12, 32961-32969.	4.0	114
5	Band Alignment Engineering Towards High Efficiency Carbonâ€Based Inorganic Planar CsPbIBr₂ Perovskite Solar Cells. ChemSusChem, 2019, 12, 2318-2325.	3.6	110
6	High-Efficiency (>14%) and Air-Stable Carbon-Based, All-Inorganic CsPbI₂Br Perovskite Solar Cells through a Top-Seeded Growth Strategy. ACS Energy Letters, 0, , 1500-1510.	8.8	106
7	Light Processing Enables Efficient Carbon-Based, All-Inorganic Planar CsPbIBr₂ Solar Cells with High Photovoltages. ACS Applied Materials & Interfaces, 2019, 11, 2997-3005.	4.0	98
8	Device simulation of inverted CH3NH3PbI3â^'xClx perovskite solar cells based on PCBM electron transport layer and NiO hole transport layer. Solar Energy, 2018, 169, 11-18.	2.9	92
9	Interfacial Voids Trigger Carbon-Based, All-Inorganic CsPbIBr2 Perovskite Solar Cells with Photovoltage Exceeding 1.33ÂV. Nano-Micro Letters, 2020, 12, 87.	14.4	84
10	Aged Precursor Solution toward Low-Temperature Fabrication of Efficient Carbon-Based All-Inorganic Planar CsPbIBr₂ Perovskite Solar Cells. ACS Applied Energy Materials, 2018, 1, 4991-4997.	2.5	83
11	Enhanced efficiency of planar perovskite solar cells via a two-step deposition using DMF as an additive to optimize the crystal growth behavior. Journal of Materials Chemistry A, 2017, 5, 13032-13038.	5.2	82
12	Enhanced planar perovskite solar cell efficiency and stability using a perovskite/PCBM heterojunction formed in one step. Nanoscale, 2018, 10, 3053-3059.	2.8	80
13	Performance Enhancement of Planar Heterojunction Perovskite Solar Cells through Tuning the Doping Properties of Hole-Transporting Materials. ACS Omega, 2017, 2, 326-336.	1.6	72
14	Boosting performance of perovskite solar cells with Graphene quantum dots decorated SnO2 electron transport layers. Applied Surface Science, 2020, 507, 145099.	3.1	66
15	Efficient Bifacial Semitransparent Perovskite Solar Cells Using Ag/V₂O₅ as Transparent Anodes. ACS Applied Materials & Interfaces, 2018, 10, 12731-12739.	4.0	46
16	Recycling of FTO/TiO₂ Substrates: Route toward Simultaneously High-Performance and Cost-Efficient Carbon-Based, All-Inorganic CsPbIBr₂ Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 4549-4557.	4.0	38
17	Benign Pinholes in CsPbIBr₂ Absorber Film Enable Efficient Carbon-Based, All-Inorganic Perovskite Solar Cells. ACS Applied Energy Materials, 2019, 2, 5254-5262.	2.5	37
18	An efficient TeO₂/Ag transparent top electrode for 20%-efficiency bifacial perovskite solar cells with a bifaciality factor exceeding 80%. Journal of Materials Chemistry A, 2019, 7, 15156-15163.	5.2	37

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19	Ultrahighâ€Performance Solarâ€Blind Photodetectors Based on High Quality Heteroepitaxial Single Crystalline Î²â€Ga₂O₃ Film Grown by Vacuumfree, Lowâ€Cost Mist Chemical Vapor Deposition. Advanced Materials Technologies, 2021, 6, 2001296.	3.0	36
20	Improving Electron Extraction Ability and Device Stability of Perovskite Solar Cells Using a Compatible PCBM/AZO Electron Transporting Bilayer. Nanomaterials, 2018, 8, 720.	1.9	34
21	Intermediate Phase Halide Exchange Strategy toward a High-Quality, Thick CsPbBr₃ Film for Optoelectronic Applications. ACS Applied Materials & Interfaces, 2019, 11, 22543-22549.	4.0	34
22	Suppressing Halide Phase Segregation in CsPbIBr₂ Films by Polymer Modification for Hysteresis-Less All-Inorganic Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 2868-2878.	4.0	34
23	High-Performance Î²-Ga₂O₃ Solar-Blind Schottky Barrier Photodiode With Record Detectivity and Ultrahigh Gain via Carrier Multiplication Process. IEEE Electron Device Letters, 2020, 41, 1794-1797.	2.2	33
24	Improvement of transparent silver thin film anodes for organic solar cells with a decreased percolation threshold of silver. Solar Energy Materials and Solar Cells, 2014, 127, 193-200.	3.0	30
25	Effects of Annealing Conditions on Mixed Lead Halide Perovskite Solar Cells and Their Thermal Stability Investigation. Materials, 2017, 10, 837.	1.3	30
26	Device Simulation of Organicâ€“Inorganic Halide Perovskite/Crystalline Silicon Four-Terminal Tandem Solar Cell With Various Antireflection Materials. IEEE Journal of Photovoltaics, 2018, 8, 1685-1691.	1.5	30
27	Flux-mediated growth strategy enables low-temperature fabrication of high-efficiency all-inorganic CsPbIBr2 perovskite solar cells. Electrochimica Acta, 2020, 330, 135325.	2.6	29
28	Sacrificial additive-assisted film growth endows self-powered CsPbBr₃ photodetectors with ultra-low dark current and high sensitivity. Journal of Materials Chemistry C, 2020, 8, 209-218.	2.7	28
29	High Performance Î²-Ga₂O₃ Solar-Blind Metalâ€“Oxideâ€“Semiconductor Field-Effect Phototransistor With Hafnium Oxide Gate Dielectric Process. IEEE Electron Device Letters, 2021, 42, 545-548.	2.2	28
30	Interfacial TiO2 atomic layer deposition triggers simultaneous crystallization control and band alignment for efficient CsPbIBr2 perovskite solar cell. Organic Electronics, 2019, 74, 103-109.	1.4	27
31	Ultrawide Band Gap Oxide Semiconductor-Triggered Performance Improvement of Perovskite Solar Cells via the Novel Ga₂O₃/SnO₂ Composite Electron-Transporting Bilayer. ACS Applied Materials & Interfaces, 2020, 12, 54703-54710.	4.0	26
32	Effect of polyelectrolyte interlayer on efficiency and stability of p-i-n perovskite solar cells. Solar Energy, 2016, 139, 190-198.	2.9	25
33	Suppressing intrinsic self-doping of CsPbIBr₂ films for high-performance all-inorganic, carbon-based perovskite solar cells. Sustainable Energy and Fuels, 2020, 4, 4506-4515.	2.5	25
34	Flexible Solar-Blind Ga₂O₃ Ultraviolet Photodetectors With High Responsivity and Photo-to-Dark Current Ratio. IEEE Photonics Journal, 2019, 11, 1-9.	1.0	24
35	Efficient Ni/Au Mesh Transparent Electrodes for ITO-Free Planar Perovskite Solar Cells. Nanomaterials, 2019, 9, 932.	1.9	23
36	Efficient â€œLight-soakingâ€•free Inverted Organic Solar Cells with Aqueous Solution Processed Low-Temperature ZnO Electron Extraction Layers. ACS Applied Materials & Interfaces, 2013, 5, 13318-13324.	4.0	22

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37	A PCBM-Modified TiO₂ Blocking Layer towards Efficient Perovskite Solar Cells. International Journal of Photoenergy, 2017, 2017, 1-9.	1.4	20
38	Polycrystalline Diamond MOSFET With MoO₃ Gate Dielectric and Passivation Layer. IEEE Electron Device Letters, 2017, 38, 1302-1304.	2.2	15
39	Synchronous Interface Modification and Bulk Passivation via a One-Step Cesium Bromide Diffusion Process for Highly Efficient Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 10110-10119.	4.0	15
40	Promising applications of wide bandgap inorganic perovskites in underwater photovoltaic cells. Solar Energy, 2022, 233, 489-493.	2.9	15
41	Wafer-Scale Siâ€“GaN Monolithic Integrated E-Mode Cascode FET Realized by Transfer Printing and Self-Aligned Etching Technology. IEEE Transactions on Electron Devices, 2020, 67, 3304-3308.	1.6	14
42	AlN/GaN Superlattice Channel HEMTs on Silicon Substrate. IEEE Transactions on Electron Devices, 2021, 68, 3296-3301.	1.6	14
43	Stability Improvement of Perovskite Solar Cells by the Moisture-Resistant PMMA:Spiro-OMeTAD Hole Transport Layer. Polymers, 2022, 14, 343.	2.0	14
44	Annealingâ€Free, Highâ€Performance Perovskite Solar Cells by Controlling Crystallization via Guanidinium Cation Doping. Solar Rrl, 2021, 5, 2100097.	3.1	13
45	Intermediate Phaseâ€Assisted Sequential Deposition Toward 15.24%â€Efficiency Carbonâ€Electrode Cspbi₂br Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	13
46	A Modulated Doubleâ€Passivation Strategy Toward Highly Efficient Perovskite Solar Cells with Efficiency Over 21%. Solar Rrl, 2019, 3, 1900291.	3.1	12
47	High-performance Acetone Soluble Tape Transfer Printing Method for Heterogeneous Integration. Scientific Reports, 2019, 9, 15769.	1.6	12
48	Combustion-processed NiO/ALD TiO2 bilayer as a novel low-temperature electron transporting material for efficient all-inorganic CsPbIBr2 solar cell. Solar Energy, 2020, 203, 10-18.	2.9	12
49	Efficient inverted polymer solar cells using low-temperature zinc oxide interlayer processed from aqueous solution. Japanese Journal of Applied Physics, 2015, 54, 042301.	0.8	11
50	Enhancing material quality and device performance of perovskite solar cells via a facile regrowth way assisted by the DMF/Chlorobenzene mixed solution. Organic Electronics, 2019, 70, 300-305.	1.4	11
51	Highly efficient bifacial CsPbIBr₂ solar cells with a TeO₂/Ag transparent electrode and unsymmetrical carrier transport behavior. Dalton Transactions, 2020, 49, 6012-6019.	1.6	11
52	Carbon-based, all-inorganic, lead-free Ag2BiI5 rudorffite solar cells with high photovoltages. Solid-State Electronics, 2021, 176, 107950.	0.8	11
53	Improving perovskite solar cell performance by compositional engineering via triple-mixed cations. Solar Energy, 2021, 220, 412-417.	2.9	11
54	Alleviating hysteresis and improving efficiency of MA1â^'yFAyPbI3â^'xBrx perovskite solar cells by controlling the halide composition. Journal of Materials Science, 2018, 53, 16500-16510.	1.7	10

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55	Slow halide exchange in CsPbIBr2 films for high-efficiency, carbon-based, all-inorganic perovskite solar cells. Science China Materials, 2021, 64, 2107-2117.	3.5	10
56	Generic water-based spray-assisted growth for scalable high-efficiency carbon-electrode all-inorganic perovskite solar cells. IScience, 2021, 24, 103365.	1.9	10
57	Charge-Transporting-Layer-Free, Vacuum-Free, All-Inorganic CsPbIBr2 Perovskite Solar Cells Via Dipoles-Adjusted Interface. Nanomaterials, 2020, 10, 1324.	1.9	9
58	Performance enhancement of perovskite solar cells via material quality improvement assisted by MAI/IPA solution post-treatment. Dalton Transactions, 2019, 48, 5292-5298.	1.6	8
59	High-Purity, Thick CsPbCl₃ Films toward Selective Ultraviolet-Harvesting Visibly Transparent Photovoltaics. ACS Applied Energy Materials, 2021, 4, 12121-12127.	2.5	8
60	Performance Improvement of a Î²-Gaâ„Oâ‚ƒ-Based Solar-Blind Metal Oxide Semiconductor Field-Effect Phototransistor Using In Situ Ozone Pretreatment Technology. IEEE Transactions on Electron Devices, 2022, 69, 1143-1148.	1.6	8
61	Efficient Semitransparent Perovskite Solar Cells Using a Transparent Silver Electrode and Four-Terminal Perovskite/Silicon Tandem Device Exploration. Journal of Nanomaterials, 2018, 2018, 1-8.	1.5	7
62	Wide-range-adjusted threshold voltages for E-mode AlGaN/GaN HEMT with a p-SnO cap gate. Science China Materials, 2022, 65, 795-802.	3.5	7
63	Polycrystalline diamond RF MOSFET with MoO3 gate dielectric. AIP Advances, 2017, 7, .	0.6	6
64	Simulation study towards high performance transparent-conductive-oxide free perovskite solar cells using metal microcavity and optical coupling layer. IEEE Photonics Journal, 2018, , 1-1.	1.0	6
65	ITO-Free Semitransparent Organic Solar Cells Based on Silver Thin Film Electrodes. International Journal of Photoenergy, 2014, 2014, 1-7.	1.4	5
66	Tailored interfacial crystal facets for efficient CH3NH3PbI3 perovskite solar cells. Organic Electronics, 2020, 78, 105598.	1.4	5
67	Enhancing the Performance of Two-Terminal All-Perovskite Tandem Solar Cells by the Optical Coupling Layer Beyond the Antireflection Function. IEEE Photonics Journal, 2020, 12, 1-12.	1.0	5
68	Performance Enhancement of All-Inorganic Carbon-Based CsPbIBr2 Perovskite Solar Cells Using a Moth-Eye Anti-Reflector. Nanomaterials, 2021, 11, 2726.	1.9	5
69	Bendable Single Crystal Silicon Nanomembrane Thin Film Transistors with Improved Low-Temperature Processed Metal/n-Si Ohmic Contact by Inserting TiO2 Interlayer. Nanomaterials, 2018, 8, 1060.	1.9	4
70	Simple and Convenient Interface Modification by Nanosized Diamond for Carbon Based All-Inorganic CsPbIBr₂ Solar Cells. ACS Applied Energy Materials, 2021, 4, 5661-5667.	2.5	4
71	Î²-Ga2O3 epitaxial growth on Fe-GaN template by non-vacuum mist CVD and its application in Schottky barrier diodes. AIP Advances, 2021, 11, .	0.6	4
72	Enhancement-Mode Heterojunction Vertical Î²-Ga2O3 MOSFET with a P-Type Oxide Current-Blocking Layer. Applied Sciences (Switzerland), 2022, 12, 1757.	1.3	4

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73	Charge-selective-contact-dependent halide phase segregation in CsPbIBr2 perovskite solar cells and its correlation to device degradation. Applied Surface Science, 2022, 595, 153544.	3.1	4
74	Performance Improvement of All-Inorganic, Hole-Transport-Layer-Free Perovskite Solar Cells Through Dipoles-Adjustion by Polyethyleneimine Incorporating. IEEE Electron Device Letters, 2021, 42, 537-540.	2.2	3
75	High-Performance Low-Bandgap Polymer Solar Cells With Optical Microcavity Employing Ultrathin Ag Film Electrode. IEEE Photonics Journal, 2016, 8, 1-12.	1.0	2
76	In situ polymer-covered annealing strategy for high-efficiency carbon-electrode CsPbIBr₂ solar cells. New Journal of Chemistry, 2021, 45, 22661-22667.	1.4	2
77	In situ, seed-free formation of a Ruddlesdenâ€“Popper perovskite Cs₂PbI₂Cl₂ nanowires/PbI₂ heterojunction for a high-responsivity, self-powered photodetector. Journal of Materials Chemistry C, 2022, 10, 3538-3546.	2.7	2
78	Enhanced breakdown voltage of Si-GaN monolithic heterogeneous integrated Cascode FETs by the device structure design. Solid-State Electronics, 2022, 190, 108251.	0.8	2
79	High-Performance Î²-Ga₂O₃-Based Solar-Blind Metalâ€“Oxideâ€“Semiconductor Field-Effect Phototransistor Under Zero Gate Bias. IEEE Transactions on Electron Devices, 2022, 69, 3807-3810.	1.6	2
80	Interfacial Dipole poly(2-ethyl-2-oxazoline) Modification Triggers Simultaneous Band Alignment and Passivation for Air-Stable Perovskite Solar Cells. Polymers, 2022, 14, 2748.	2.0	2
81	Wide-Bandgap All-Inorganic CsPbIBr2 Top Cells With MoOx/Ag/TeO2 Composite Transparent Anode Towards Efficient Four-Terminal Perovskite/Si Tandem Solar Cells. IEEE Photonics Journal, 2021, 13, 1-8.	1.0	1
82	1.2 kV reverse blocking Schottky-drain Siâ€“GaN monolithic integrated cascode FET. AIP Advances, 2021, 11, 105112.	0.6	1
83	Transparent Ultrathin Metal Electrode with Microcavity Configuration for Highly Efficient TCO-Free Perovskite Solar Cells. Materials, 2020, 13, 2328.	1.3	1
84	Optimization of Sacrificial Layer Etching in Single-Crystal Silicon Nano-Films Transfer Printing for Heterogeneous Integration Application. Nanomaterials, 2021, 11, 3085.	1.9	1
85	Depletion-Mode Î²-Ga₂O₃ MOSFETs Grown by Nonvacuum, Cost-Effective Mist-CVD Method on Fe-Doped GaN Substrates. IEEE Transactions on Electron Devices, 2022, 69, 1196-1199.	1.6	1
86	Efficient Inverted ITO-Free Organic Solar Cells Based on Transparent Silver Electrode with Aqueous Solution-Processed ZnO Interlayer. International Journal of Photoenergy, 2017, 2017, 1-6.	1.4	0
87	All-Inorganic Two-Dimensional Ruddlesden-Popper Perovskite Cs2PbI2Cl2 Nanosheet Films for Self-Powered, Visible-Blind UV Photodetectors. , 2021, , .		0