Methylammonium Chloride Induces Intermediate Phas Perovskite Solar Cells

Joule 3, 2179-2192 DOI: 10.1016/j.joule.2019.06.014

Citation Report

#	Article	IF	CITATIONS
1	Recent progress of light manipulation strategies in organic and perovskite solar cells. Nanoscale, 2019, 11, 18517-18536.	2.8	41
2	Multiple Roles of Cobalt Pyrazol-Pyridine Complexes in High-Performing Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2019, 10, 4675-4682.	2.1	13
3	Interfacial Residual Stress Relaxation in Perovskite Solar Cells with Improved Stability. Advanced Materials, 2019, 31, e1904408.	11.1	259
4	Double-Helicene-Based Hole-Transporter for Perovskite Solar Cells with 22% Efficiency and Operation Durability. ACS Energy Letters, 2019, 4, 2683-2688.	8.8	56
5	Efficient, stable solar cells by using inherent bandgap of α-phase formamidinium lead iodide. Science, 2019, 366, 749-753.	6.0	936
6	Methylammonium-Mediated Crystallization of Cesium-Based 2D/3D Perovskites toward High-Efficiency Light-Emitting Diodes. ACS Applied Materials & Interfaces, 2019, 11, 43452-43459.	4.0	8
7	Accelerating the Screening of Perovskite Compositions for Photovoltaic Applications through Highâ€Throughput Inkjet Printing. Advanced Functional Materials, 2019, 29, 1905487.	7.8	37
8	Inorganic perovskite solar cells: an emerging member of the photovoltaic community. Journal of Materials Chemistry A, 2019, 7, 21036-21068.	5.2	137
9	Unraveling the Structure–Property Relationship of Molecular Hole-Transporting Materials for Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 39001-39009.	4.0	39
10	Polymeric, Cost-Effective, Dopant-Free Hole Transport Materials for Efficient and Stable Perovskite Solar Cells. Journal of the American Chemical Society, 2019, 141, 19700-19707.	6.6	119
11	Introducing fluorene into organic hole transport materials to improve mobility and photovoltage for perovskite solar cells. Chemical Communications, 2019, 55, 13406-13409.	2.2	33
12	A sandwich-like electron transport layer to assist highly efficient planar perovskite solar cells. Nanoscale, 2019, 11, 21917-21926.	2.8	31
13	Br-containing alkyl ammonium salt-enabled scalable fabrication of high-quality perovskite films for efficient and stable perovskite modules. Journal of Materials Chemistry A, 2019, 7, 26849-26857.	5.2	40
14	A Facile Way to Improve the Performance of Perovskite Solar Cells by Toluene and Diethyl Ether Mixed Anti-Solvent Engineering. Coatings, 2019, 9, 766.	1.2	11
15	Efficient and Stable Low-Bandgap Perovskite Solar Cells Enabled by a CsPbBr ₃ -Cluster Assisted Bottom-up Crystallization Approach. Journal of the American Chemical Society, 2019, 141, 20537-20546.	6.6	79
16	All-vacuum deposited and thermally stable perovskite solar cells with F4-TCNQ/CuPc hole transport layer. Nanotechnology, 2020, 31, 065401.	1.3	14
17	Recent Progress of In Situ Transmission Electron Microscopy for Energy Materials. Advanced Materials, 2020, 32, e1904094.	11.1	59
18	A Review on Additives for Halide Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1902492.	10.2	240

#	Article	IF	CITATIONS
19	Interfacial Energy Level Tuning for Efficient and Thermostable CsPbI ₂ Br Perovskite Solar Cells. Advanced Science, 2020, 7, 1901952.	5.6	64
20	Ammonium Fluoride Interface Modification for Highâ€Performance and Longâ€Term Stable Perovskite Solar Cells. Energy Technology, 2020, 8, 1901017.	1.8	12
21	Additive Engineering for Efficient and Stable Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1902579.	10.2	477
22	Manipulation of Dipolar Polarization at Steady States for a Quasiâ€2D Organic–Inorganic Hybrid Perovskite with a Nanorod Network. Solar Rrl, 2020, 4, 1900378.	3.1	6
23	(CH3NH3)3Bi2I9 perovskite films fabricated via a two-stage electric-field-assisted reactive deposition method for solar cells application. Electrochimica Acta, 2020, 329, 135173.	2.6	8
24	1D Pyrrolidinium Lead Iodide for Efficient and Stable Perovskite Solar Cells. Energy Technology, 2020, 8, 1900918.	1.8	21
25	Alkylâ€Chainâ€Regulated Charge Transfer in Fluorescent Inorganic CsPbBr ₃ Perovskite Solar Cells. Angewandte Chemie - International Edition, 2020, 59, 4391-4395.	7.2	122
26	Alkylâ€Chainâ€Regulated Charge Transfer in Fluorescent Inorganic CsPbBr 3 Perovskite Solar Cells. Angewandte Chemie, 2020, 132, 4421-4425.	1.6	16
27	3 D NiO Nanowall Holeâ€Transporting Layer for the Passivation of Interfacial Contact in Inverted Perovskite Solar Cells. ChemSusChem, 2020, 13, 1006-1012.	3.6	30
28	Zn doped MAPbBr ₃ single crystal with advanced structural and optical stability achieved by strain compensation. Nanoscale, 2020, 12, 3692-3700.	2.8	22
29	Organic–inorganic hybrid (CH ₃ NH ₃) ₂ FeCul ₄ Cl ₂ and (CH ₃ NH ₃) ₂ InCul ₆ for ultraviolet light photodetectors. Chemical Communications, 2020, 56, 1875-1878.	2.2	15
30	A nanopillar-structured perovskite-based efficient semitransparent solar module for power-generating window applications. Journal of Materials Chemistry A, 2020, 8, 1457-1468.	5.2	39
31	Stabilizing n-type hetero-junctions for NiO _x based inverted planar perovskite solar cells with an efficiency of 21.6%. Journal of Materials Chemistry A, 2020, 8, 1865-1874.	5.2	40
32	Deep Blue Emission of All-Bromide-Based Cesium Lead Perovskite Nanocrystals. Journal of Physical Chemistry C, 2020, 124, 1617-1622.	1.5	14
33	Strontium Chloride-Passivated Perovskite Thin Films for Efficient Solar Cells with Power Conversion Efficiency over 21% and Superior Stability. ACS Applied Materials & amp; Interfaces, 2020, 12, 3661-3669.	4.0	19
34	Observing Defect Passivation of the Grain Boundary with 2â€Aminoterephthalic Acid for Efficient and Stable Perovskite Solar Cells. Angewandte Chemie, 2020, 132, 4190-4196.	1.6	29
35	Observing Defect Passivation of the Grain Boundary with 2â€Aminoterephthalic Acid for Efficient and Stable Perovskite Solar Cells. Angewandte Chemie - International Edition, 2020, 59, 4161-4167.	7.2	122
36	Welding Perovskite Nanowires for Stable, Sensitive, Flexible Photodetectors. ACS Nano, 2020, 14, 2777-2787.	7.3	90

#	Article	IF	CITATIONS
37	Molecule occupancy by a <i>n</i> -butylamine treatment to facilitate the conversion of PbI ₂ to perovskite in sequential deposition. Physical Chemistry Chemical Physics, 2020, 22, 981-984.	1.3	4
38	Gradient Energy Alignment Engineering for Planar Perovskite Solar Cells with Efficiency Over 23%. Advanced Materials, 2020, 32, e1905766.	11.1	172
39	The application of transition metal complexes in hole-transporting layers for perovskite solar cells: Recent progress and future perspectives. Coordination Chemistry Reviews, 2020, 406, 213143.	9.5	50
40	High Efficiency and Stability of Inverted Perovskite Solar Cells Using Phenethyl Ammonium Iodide-Modified Interface of NiO _x and Perovskite Layers. ACS Applied Materials & Interfaces, 2020, 12, 771-779.	4.0	76
41	Low-Temperature Processing All-Inorganic Carbon-Based Perovskite Solar Cells up to 11.78% Efficiency via Alkali Hydroxides Interfacial Engineering. ACS Applied Energy Materials, 2020, 3, 401-410.	2.5	40
42	Ultrathin Nanosheets of Oxoâ€functionalized Graphene Inhibit the Ion Migration in Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1902653.	10.2	52
43	Unveiling the interfacial charge extraction kinetics in inorganic perovskite solar cells with formamidinium lead halide (FAPbX3) nanocrystals. Solar Energy, 2020, 195, 644-650.	2.9	17
44	Achieving Reproducible and High-Efficiency (>21%) Perovskite Solar Cells with a Presynthesized FAPbI ₃ Powder. ACS Energy Letters, 2020, 5, 360-366.	8.8	139
45	Minimizing non-radiative recombination losses in perovskite solar cells. Nature Reviews Materials, 2020, 5, 44-60.	23.3	754
46	Processingâ€Performance Evolution of Perovskite Solar Cells: From Large Grain Polycrystalline Films to Single Crystals. Advanced Energy Materials, 2020, 10, 1902762.	10.2	50
47	Redâ€Carbonâ€Quantumâ€Dotâ€Doped SnO ₂ Composite with Enhanced Electron Mobility for Efficient and Stable Perovskite Solar Cells. Advanced Materials, 2020, 32, e1906374.	11.1	230
48	Improving the efficiency and stability of inverted perovskite solar cells by CuSCN-doped PEDOT:PSS. Solar Energy Materials and Solar Cells, 2020, 206, 110316.	3.0	62
49	Coordinated Optical Matching of a Texture Interface Made from Demixing Blended Polymers for High-Performance Inverted Perovskite Solar Cells. ACS Nano, 2020, 14, 196-203.	7.3	64
50	The donor-dependent methoxy effects on the performance of hole-transporting materials for perovskite solar cells. Journal of Energy Chemistry, 2020, 47, 10-17.	7.1	28
51	Additives in metal halide perovskite films and their applications in solar cells. Journal of Energy Chemistry, 2020, 46, 215-228.	7.1	64
52	Hole transport layers based on metal Schiff base complexes in perovskite solar cells. Synthetic Metals, 2020, 259, 116248.	2.1	9
53	Crystallographic orientation and layer impurities in two-dimensional metal halide perovskite thin films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, 010801.	0.9	19
54	Using Monovalent- to Trivalent-Cation Hybrid Perovskites for Producing High-Efficiency Solar Cells: Electrical Response, Impedance, and Stability. ACS Applied Energy Materials, 2020, 3, 10349-10361.	2.5	20

#	Article	IF	CITATIONS
55	Highâ€Pressure Nitrogenâ€Extraction and Effective Passivation to Attain Highest Largeâ€Area Perovskite Solar Module Efficiency. Advanced Materials, 2020, 32, e2004979.	11.1	145
56	Fully Solution Processed Pure αâ€Phase Formamidinium Lead Iodide Perovskite Solar Cells for Scalable Production in Ambient Condition. Advanced Energy Materials, 2020, 10, 2001869.	10.2	46
57	A data review on certified perovskite solar cells efficiency and I-V metrics: Insights into materials selection and process scaling up. Solar Energy, 2020, 209, 21-29.	2.9	5
58	Beach-Chair-Shaped Energy Band Alignment for High-Performance β-CsPbI3 Solar Cells. Cell Reports Physical Science, 2020, 1, 100180.	2.8	28
59	Highly thermal-stable perylene-bisimide small molecules as efficient electron-transport materials for perovskite solar cells. Journal of Materials Chemistry C, 2020, 8, 14773-14781.	2.7	14
60	Room Temperature Formation of Semiconductor Grade α-FAPbI3 Films for Efficient Perovskite Solar Cells. Cell Reports Physical Science, 2020, 1, 100205.	2.8	18
61	Paradoxical Approach with a Hydrophilic Passivation Layer for Moisture-Stable, 23% Efficient Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 3268-3275.	8.8	110
62	Control of Molecular Orientation of Spiro-OMeTAD on Substrates. ACS Applied Materials & Interfaces, 2020, 12, 50187-50191.	4.0	10
63	Understanding how chlorine additive in a dynamic sequential process affects FA0.3MA0.7PbI3 perovskite film growth for solar cell application. Materials Today Energy, 2020, 18, 100551.	2.5	5
64	Record-efficiency flexible perovskite solar cell and module enabled by a porous-planar structure as an electron transport layer. Energy and Environmental Science, 2020, 13, 4854-4861.	15.6	137
65	Historical Analysis of Highâ€Efficiency, Largeâ€Area Solar Cells: Toward Upscaling of Perovskite Solar Cells. Advanced Materials, 2020, 32, e2002202.	11.1	103
66	Origin of the luminescence spectra width in perovskite nanocrystals with surface passivation. Nanoscale, 2020, 12, 21695-21702.	2.8	16
67	Polymeric room-temperature molten salt as a multifunctional additive toward highly efficient and stable inverted planar perovskite solar cells. Energy and Environmental Science, 2020, 13, 5068-5079.	15.6	121
68	Lead-free halide perovskite photovoltaics: Challenges, open questions, and opportunities. APL Materials, 2020, 8, .	2.2	65
69	Zwitterionic-Surfactant-Assisted Room-Temperature Coating of Efficient Perovskite Solar Cells. Joule, 2020, 4, 2404-2425.	11.7	137
70	Bifunctional Chlorosilane Modification for Defect Passivation and Stability Enhancement of High-Efficiency Perovskite Solar Cells. Journal of Physical Chemistry C, 2020, 124, 22903-22913.	1.5	8
71	In Situ Formation of Ag ₂ MoO ₄ in a Ag/MoO ₃ Buffer Layer Enables Highly Efficient Inverted Perovskite Cell for a Tandem Structure. ACS Applied Energy Materials, 2020, 3, 9742-9749.	2.5	2
72	Morphology Evolution of a Highâ€Efficiency PSC by Modulating the Vapor Process. Small, 2020, 16, e2003582.	5.2	15

ARTICLE IF CITATIONS Ultra-low-cost all-air processed carbon-based perovskite solar cells from bottom electrode to 4.0 14 73 counter electrode. Journal of Power Sources, 2020, 478, 228764. High Efficiency over 20% of Perovskite Solar Cells by Spray Coating via a Simple Process. ACS Applied 74 2.5 Energy Materials, 2020, 3, 9696-9702. Long-term stable and highly efficient perovskite solar cells with a formamidinium chloride (FACI) 75 5.238 additive. Journal of Materials Chemistry A, 2020, 8, 17756-17764. Interdiffusion Stomatal Movement in Efficient Multiple-Cation-Based Perovskite Solar Cells. ACS 4.0 Applied Materials & amp; Interfaces, 2020, 12, 35105-<u>35112.</u> Fluorinated interfacial layers in perovskite solar cells: efficient enhancement of the fill factor. 77 5.2 17 Journal of Materials Chemistry A, 2020, 8, 16527-16533. In Situ Formation of Mixedâ€Dimensional Surface Passivation Layers in Perovskite Solar Cells with Dualâ€Isomer Alkylammonium Cations. Small, 2020, 16, e2005022. 5.2 Donor–Acceptor Type Polymers Containing Fused-Ring Units as Dopant-Free, Hole-Transporting 79 Materials for High-Performance Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 2.515 12475-12483. Ultrawide Band Gap Oxide Semiconductor-Triggered Performance Improvement of Perovskite Solar Cells via the Novel Ga₂O₃/SnO₂ Composite 4.0 26 Electron-Transporting Bilayer. ACS Applied Materials & Amp; Interfaces, 2020, 12, 54703-54710. Controlled Growth of Large Grains in CH₃NH₃Pbl₃Perovskite 81 Films Mediated by an Intermediate Liquid Phase without an Antisolvent for Efficient Solar Cells. ACS 2.5 13 Applied Energy Materials, 2020, 3, 12484-12493. Dependence of Precursors on Solution-Processed SnO₂ as Electron Transport Layers for CsPbBr₃ Perovskite Solar Cells. Nano, 2020, 15, 2050161. Bipyrimidine core structure-based hole transport materials for efficient perovskite solar cells. 83 2.5 11 Sustainable Energy and Fuels, 2020, 4, 5271-5276. Effect of alkaline earth metal chloride additives BCl₂ (B = Mg, Ca, Sr and Ba) on the photovoltaic performance of FAPbI₃ based perovskite solar cells. Nanoscale Horizons, 84 4.1 2020, 5, 1332-1343. Toward Efficient and Stable Perovskite Solar Cells: Choosing Appropriate Passivator to Specific 85 3.1 31 Defects. Solar Rrl, 2020, 4, 2000308. Stabilizing Organic–Inorganic Lead Halide Perovskite Solar Cells With Efficiency Beyond 20%. Frontiers in Chemistry, 2020, 8, 592. 1.8 Efficient strategies for improving the performance of EDOT derivatives and TPA derivatives-based hole 87 2.9 14 transport materials for perovskite solar cells. Solar Energy, 2020, 208, 10-19. 21.4% efficiency of perovskite solar cells using BMImI additive in the lead iodide precursor based on 34 carbon nanotubes/TiO2 electron transfer layer. Ceramics International, 2020, 46, 27647-27654. Ink Engineering of Inkjet Printing Perovskite. ACS Applied Materials & amp; Interfaces, 2020, 12, 89 4.0 85 39082-39091. PEAI-Based Interfacial Layer for High-Efficiency and Stable Solar Cells Based on a MACI-Mediated Grown FA_{0.94}MA_{0.06}PbI₃ Perovskite. ACS Applied Materials & amp; 90 Interfaces, 2020, 12, 37197-37207.

#	Article	IF	CITATIONS
91	Materials and Methods for Interface Engineering toward Stable and Efficient Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 2742-2786.	8.8	307
92	A fast response, self-powered and room temperature near infrared-terahertz photodetector based on a MAPbl ₃ /PEDOT:PSS composite. Journal of Materials Chemistry C, 2020, 8, 12148-12154.	2.7	41
93	Morphology Tuning and Its Role in Optimization of Perovskite Films Fabricated from A Novel Nonhalide Lead Source. Advanced Science, 2020, 7, 2002296.	5.6	14
94	Green Synthesis of Eco-Friendly Graphene Quantum Dots for Highly Efficient Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 10863-10871.	2.5	66
95	Metastable alloying structures in MAPbI3â^'xClx crystals. NPG Asia Materials, 2020, 12, .	3.8	12
96	Methylammonium chloride as an interface modificator for planar-structure perovskite solar cells with a high open circuit voltage of 1.19V. Journal of Power Sources, 2020, 480, 229073.	4.0	41
97	Mixed bulky cations for efficient and stable Ruddlesdenâ^'Popper perovskite solar cells. APL Materials, 2020, 8, .	2.2	12
98	Encapsulation of UV Glue, Hydrophobicity of Binder and Carbon Electrode Enhance the Stability of Organic–Inorganic Hybrid Perovskite Solar Cells up to 5 Years. Energy Technology, 2020, 8, 2000513.	1.8	17
99	Ambient Pressure X-ray Photoelectron Spectroscopy Investigation of Thermally Stable Halide Perovskite Solar Cells via Post-Treatment. ACS Applied Materials & Interfaces, 2020, 12, 43705-43713.	4.0	34
100	2D metal–organic framework for stable perovskite solar cells with minimized lead leakage. Nature Nanotechnology, 2020, 15, 934-940.	15.6	258
101	Molecular Engineering of Organic Spacer Cations for Efficient and Stable Formamidinium Perovskite Solar Cell. Advanced Energy Materials, 2020, 10, 2001759.	10.2	48
102	Stable perovskite solar cells with efficiency exceeding 24.8% and 0.3-V voltage loss. Science, 2020, 369, 1615-1620.	6.0	1,122
103	Interfacial Structure and Composition Managements for Highâ€Performance Methylammoniumâ€Free Perovskite Solar Cells. Advanced Functional Materials, 2020, 30, 2005846.	7.8	25
104	Surfactant Sodium Dodecyl Benzene Sulfonate Improves the Efficiency and Stability of Airâ€Processed Perovskite Solar Cells with Negligible Hysteresis. Solar Rrl, 2020, 4, 2000376.	3.1	30
105	Triple Interface Passivation Strategyâ€Enabled Efficient and Stable Inverted Perovskite Solar Cells. Small Methods, 2020, 4, 2000478.	4.6	44
106	Cd-Doped Triple-Cation Perovskite Thin Films with a 20 μs Carrier Lifetime. Journal of Physical Chemistry C, 2020, 124, 22011-22018.	1.5	10
107	Solutionâ€Processed Organic Solar Cells with High Open ircuit Voltage of 1.3 V and Low Nonâ€Radiative Voltage Loss of 0.16 V. Advanced Materials, 2020, 32, e2002122.	11.1	168
108	Gradient Engineered Light Absorption Layer for Enhanced Carrier Separation Efficiency in Perovskite Solar Cells. Nanoscale Research Letters, 2020, 15, 127.	3.1	2

#	Article	IF	CITATIONS
109	Antisolvents in Perovskite Solar Cells: Importance, Issues, and Alternatives. Advanced Materials Interfaces, 2020, 7, 2000950.	1.9	94
110	Efficient Vacuum-Deposited Perovskite Solar Cells with Stable Cubic FA _{1–<i>x</i>} MA _{<i>x</i>} PbI ₃ . ACS Energy Letters, 2020, 5, 3053-3061.	8.8	49
111	Quantum Dot Enabled Perovskite Thin Film with Enhanced Crystallization, Stability, and Carrier Diffusion via Pulsed Laser Nanoengineering. Advanced Materials Interfaces, 2020, 7, 2001021.	1.9	6
112	Double-Halide Composition-Engineered SnO ₂ -Triple Cation Perovskite Solar Cells Demonstrating Outstanding Performance and Stability. ACS Applied Energy Materials, 2020, 3, 8595-8605.	2.5	17
113	Hierarchically Manipulated Charge Recombination for Mitigating Energy Loss in CsPbI2Br Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 41596-41604.	4.0	11
114	Hole transport materials based on a twisted molecular structure with a single aromatic heterocyclic core to boost the performance of conventional perovskite solar cells. Journal of Materials Chemistry C, 2020, 8, 13415-13421.	2.7	23
115	Conformational and Compositional Tuning of Phenanthrocarbazole-Based Dopant-Free Hole-Transport Polymers Boosting the Performance of Perovskite Solar Cells. Journal of the American Chemical Society, 2020, 142, 17681-17692.	6.6	83
116	Gold Nanoparticles Functionalized with Fullerene Derivative as an Effective Interface Layer for Improving the Efficiency and Stability of Planar Perovskite Solar Cells. Advanced Materials Interfaces, 2020, 7, 2001144.	1.9	14
117	Defect passivation strategies in perovskites for an enhanced photovoltaic performance. Energy and Environmental Science, 2020, 13, 4017-4056.	15.6	235
118	Recombination junctions for efficient monolithic perovskite-based tandem solar cells: physical principles, properties, processing and prospects. Materials Horizons, 2020, 7, 2791-2809.	6.4	65
119	Modification Engineering in SnO ₂ Electron Transport Layer toward Perovskite Solar Cells: Efficiency and Stability. Advanced Functional Materials, 2020, 30, 2004209.	7.8	98
120	Novel Electron Transport Layer Material for Perovskite Solar Cells with Over 22% Efficiency and Longâ€Term Stability. Advanced Functional Materials, 2020, 30, 2004933.	7.8	55
121	Towards commercialization: the operational stability of perovskite solar cells. Chemical Society Reviews, 2020, 49, 8235-8286.	18.7	371
122	Recent advances of non-fullerene organic electron transport materials in perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 20819-20848.	5.2	29
123	Efficient and Stable Allâ€Inorganic Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000408.	3.1	43
124	Airâ€Processed Perovskite Films with Innerâ€toâ€Outside Passivation for Highâ€Efficiency Solar Cells. Solar Rrl, 2020, 4, 2000410.	3.1	5
125	Room-Temperature Sputtered Aluminum-Doped Zinc Oxide for Semitransparent Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 9610-9617.	2.5	19
126	Work-Function-Tunable Electron Transport Layer of Molecule-Capped Metal Oxide for a High-Efficiency and Stable p–i–n Perovskite Solar Cell. ACS Applied Materials & Interfaces, 2020, 12, 45936-45949.	4.0	23

#	Article	IF	CITATIONS
127	Perovskite-filled membranes for flexible and large-area direct-conversion X-ray detector arrays. Nature Photonics, 2020, 14, 612-617.	15.6	228
128	Impacts of carrier trapping and ion migration on charge transport of perovskite solar cells with TiO _x electron transport layer. RSC Advances, 2020, 10, 28083-28089.	1.7	4
129	Enhancing the Interface Contact of Stacking Perovskite Solar Cells with Hexamethylenediammonium Diiodide-Modified PEDOT:PSS as an Electrode. ACS Applied Materials & Interfaces, 2020, 12, 42321-42327.	4.0	9
130	Performance Promotion through Dual-Interface Engineering of CuSCN Layers in Planar Perovskite Solar Cells. Journal of Physical Chemistry C, 2020, 124, 27977-27984.	1.5	12
131	Critical Role of Functional Groups in Defect Passivation and Energy Band Modulation in Efficient and Stable Inverted Perovskite Solar Cells Exceeding 21% Efficiency. ACS Applied Materials & Interfaces, 2020, 12, 57165-57173.	4.0	24
132	Synergistic Effect of <i>N</i> , <i>N</i> -Dimethylformamide and Hydrochloric Acid on the Growth of MAPbl ₃ Perovskite Films for Solar Cells. ACS Omega, 2020, 5, 32295-32304.	1.6	3
133	Synthesis, Crystal Structure and Photoelectric Response of Allâ€Inorganic Copper Halide Salts CsCuCl ₃ . European Journal of Inorganic Chemistry, 2020, 2020, 2165-2169.	1.0	12
134	Monolithic Perovskite Tandem Solar Cells: A Review of the Present Status and Advanced Characterization Methods Toward 30% Efficiency. Advanced Energy Materials, 2020, 10, 1904102.	10.2	321
135	A Dopantâ€Free Hole Transporting Layer for Efficient and Stable Planar Perovskite Solar Cells. Physica Status Solidi - Rapid Research Letters, 2020, 14, 2000147.	1.2	3
136	Green Solution-Bathing Process for Efficient Large-Area Planar Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 24905-24912.	4.0	20
137	SiO ₂ nanoparticle-regulated crystallization of lead halide perovskite and improved efficiency of carbon-electrode-based low-temperature planar perovskite solar cells*. Chinese Physics B, 2020, 29, 078401.	0.7	6
138	Structured Perovskite Light Absorbers for Efficient and Stable Photovoltaics. Advanced Materials, 2020, 32, e1903937.	11.1	69
139	A favored crystal orientation for efficient printable mesoscopic perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 11148-11154.	5.2	42
140	Vertical Phase Separated Cesium Fluoride Doping Organic Electron Transport Layer: A Facile and Efficient "Bridge―Linked Heterojunction for Perovskite Solar Cells. Advanced Functional Materials, 2020, 30, 2001418.	7.8	44
141	Improved Crystallization and Stability of Mixed-Cation Tin Iodide for Lead-Free Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 5415-5426.	2.5	18
142	Revealing the Role of Methylammonium Chloride for Improving the Performance of 2D Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 25980-25990.	4.0	47
143	Tailoring Component Interaction for Airâ€Processed Efficient and Stable Allâ€Inorganic Perovskite Photovoltaic. Angewandte Chemie, 2020, 132, 13456-13463.	1.6	15
144	Potassiumâ€Induced Phase Stability Enables Stable and Efficient Wideâ€Bandgap Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000098.	3.1	37

#	ARTICLE	IF	CITATIONS
145	Stabilization of Highly Efficient and Stable Phaseâ€Pure FAPbI ₃ Perovskite Solar Cells by Molecularly Tailored 2Dâ€Overlayers. Angewandte Chemie - International Edition, 2020, 59, 15688-15694.	7.2	201
146	Highly Stable and Efficient Perovskite Solar Cells with 22.0% Efficiency Based on Inorganic–Organic Dopantâ€Free Double Hole Transporting Layers. Advanced Functional Materials, 2020, 30, 1908462.	7.8	59
147	Enhanced thermal stability of inverted perovskite solar cells by interface modification and additive strategy. RSC Advances, 2020, 10, 18400-18406.	1.7	15
148	Identifying, understanding and controlling defects and traps in halide perovskites for optoelectronic devices: a review. Journal Physics D: Applied Physics, 2020, 53, 373001.	1.3	20
149	Structure optimization of CH3NH3PbI3 by higher-valence Pb in perovskite solar cells with enhanced efficiency and stability. Solar Energy, 2020, 205, 202-210.	2.9	10
150	Highly stable and Efficient Perovskite Solar Cells Based on FAMAâ€Perovskiteâ€Cu:NiO Composites with 20.7% Efficiency and 80.5% Fill Factor. Advanced Energy Materials, 2020, 10, 2000967.	10.2	47
151	Methylammonium Polyiodides in Perovskite Photovoltaics: From Fundamentals to Applications. Frontiers in Chemistry, 2020, 8, 418.	1.8	3
152	Stabilization of Highly Efficient and Stable Phaseâ€Pure FAPbI ₃ Perovskite Solar Cells by Molecularly Tailored 2Dâ€Overlayers. Angewandte Chemie, 2020, 132, 15818-15824.	1.6	17
153	High-Quality Concentrated Precursor Solution in <i>N</i> , <i>N</i> -Dimethylformamide for Thick Methylammonium Triiodoplumbate Layer in Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 25972-25979.	4.0	5
154	Electron Transport Materials: Evolution and Case Study for Highâ€Efficiency Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000136.	3.1	32
155	Solution-processed perovskite solar cells. Journal of Central South University, 2020, 27, 1104-1133.	1.2	34
156	Defect suppression and passivation for perovskite solar cells: from the birth to the lifetime operation. EnergyChem, 2020, 2, 100032.	10.1	22
157	Modulation of Defects and Interfaces through Alkylammonium Interlayer for Efficient Inverted Perovskite Solar Cells. Joule, 2020, 4, 1248-1262.	11.7	260
158	Efficient Perovskite Solar Modules with Minimized Nonradiative Recombination and Local Carrier Transport Losses. Joule, 2020, 4, 1263-1277.	11.7	93
159	Preparation of high-performance polyacrylonitrile piezoelectric thin film by temperature control. Reactive and Functional Polymers, 2020, 154, 104638.	2.0	10
160	Surface modification of all-inorganic halide perovskite nanorods by a microscale hydrophobic zeolite for stable and sensitive laser humidity sensing. Nanoscale, 2020, 12, 13360-13367.	2.8	21
161	Self-Powered and Broadband Lead-Free Inorganic Perovskite Photodetector with High Stability. ACS Applied Materials & Interfaces, 2020, 12, 30530-30537.	4.0	101
162	Challenges and strategies relating to device function layers and their integration toward high-performance inorganic perovskite solar cells. Nanoscale, 2020, 12, 14369-14404.	2.8	99

#	Article	IF	CITATIONS
163	Influence of precursor concentration on printable mesoscopic perovskite solar cells. Frontiers of Optoelectronics, 2020, 13, 256-264.	1.9	11
164	Interface Engineering Driven Stabilization of Halide Perovskites against Moisture, Heat, and Light for Optoelectronic Applications. Advanced Energy Materials, 2020, 10, 2000768.	10.2	62
165	A Review on Solutionâ€Processable Dopantâ€Free Small Molecules as Holeâ€Transporting Materials for Efficient Perovskite Solar Cells. Small Methods, 2020, 4, 2000254.	4.6	64
166	Efficient and Stable Tin Perovskite Solar Cells Enabled by Graded Heterostructure of Lightâ€Absorbing Layer. Solar Rrl, 2020, 4, 2000240.	3.1	53
167	Recent Advances in Synaptic Devices Based on Halide Perovskite. ACS Applied Electronic Materials, 2020, 2, 1815-1825.	2.0	40
168	Achieving over 21% efficiency in inverted perovskite solar cells by fluorinating a dopant-free hole transporting material. Journal of Materials Chemistry A, 2020, 8, 6517-6523.	5.2	63
169	Diammonium Porphyrin-Induced CsPbBr3 Nanocrystals to Stabilize Perovskite Films for Efficient and Stable Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 16236-16242.	4.0	31
170	Boosting Efficiency and Stability of Planar Inverted (FAPbI 3) x (MAPbBr 3) 1â^' x Solar Cells via FAPbI 3 and MAPbBr 3 Crystal Powders. Solar Rrl, 2020, 4, 2000091.	3.1	19
171	First-principles study on photovoltaic properties of 2D Cs ₂ PbI ₄ -black phosphorus heterojunctions. Journal of Physics Condensed Matter, 2020, 32, 195501.	0.7	10
172	Thin Film of TiO ₂ –ZnO Binary Mixed Nanoparticles as Electron Transport Layers in Low-Temperature Processed Perovskite Solar Cells. Nano, 2020, 15, 2050036.	0.5	4
173	Perovskite Solution Aging: What Happened and How to Inhibit?. CheM, 2020, 6, 1369-1378.	5.8	112
174	Ozone-Mediated Controllable Hydrolysis for a High-Quality Amorphous NbO <i>_x</i> Electron Transport Layer in Efficient Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 15194-15201.	4.0	5
175	Methylamine-Dimer-Induced Phase Transition toward MAPbI ₃ Films and High-Efficiency Perovskite Solar Modules. Journal of the American Chemical Society, 2020, 142, 6149-6157.	6.6	59
176	How To Quantify the Efficiency Potential of Neat Perovskite Films: Perovskite Semiconductors with an Implied Efficiency Exceeding 28%. Advanced Materials, 2020, 32, e2000080.	11.1	134
177	Recent Advances in Improving Phase Stability of Perovskite Solar Cells. Small Methods, 2020, 4, 1900877.	4.6	74
178	A universal strategy combining interface and grain boundary engineering for negligible hysteresis and high efficiency (21.41%) planar perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 6349-6359.	5.2	28
179	Crystal structure and luminescence properties of lead-free metal halides (C ₆ H ₅ CH ₂ NH ₃) ₃ MBr ₆ (M = Bi) T	j E 12Q q0 0	0 kgBT /Overl
180	Modification of NiOx hole transport layer for acceleration of charge extraction in inverted perovskite solar cells. RSC Advances, 2020, 10, 12289-12296.	1.7	22

#	Article	IF	CITATIONS
181	Efficient Perovskite Solar Cells Based on CdSe/ZnS Quantum Dots Electron Transporting Layer with Superior UV Stability. Physica Status Solidi - Rapid Research Letters, 2020, 14, 2000062.	1.2	11
182	Revealing the compositional effect on the intrinsic long-term stability of perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 7653-7658.	5.2	30
183	Choline Chloride-Modified SnO ₂ Achieving High Output Voltage in MAPbI ₃ Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 3504-3511.	2.5	57
184	Reducing photovoltage loss at the anode contact of methylammonium-free inverted perovskite solar cells by conjugated polyelectrolyte doping. Journal of Materials Chemistry A, 2020, 8, 7309-7316.	5.2	28
185	Unveiling the Effects of Hydrolysisâ€Derived DMAI/DMAPbI <i>_x</i> Intermediate Compound on the Performance of CsPbI ₃ Solar Cells. Advanced Science, 2020, 7, 1902868.	5.6	97
186	Building on soft hybrid perovskites: highly oriented metal oxides as electron transport and moisture resistant layers. Applied Nanoscience (Switzerland), 2020, 10, 1871-1878.	1.6	3
187	Unveiling the Relationship between the Perovskite Precursor Solution and the Resulting Device Performance. Journal of the American Chemical Society, 2020, 142, 6251-6260.	6.6	103
188	Dopant-free X-shaped D-A type hole-transporting materials for p-i-n perovskite solar cells. Dyes and Pigments, 2020, 178, 108334.	2.0	16
189	Back-interface regulation for carbon-based perovskite solar cells. Carbon, 2020, 168, 372-391.	5.4	33
190	A highly transparent thin film hematite with multi-element dopability for an efficient unassisted water splitting system. Nano Energy, 2020, 76, 105089.	8.2	29
191	First principle study on interfacial interaction of black phosphorus and CsBr vdW heterostructure. Physics Letters, Section A: General, Atomic and Solid State Physics, 2020, 384, 126614.	0.9	10
192	Self-Assembled Hydrophobic Molecule-Based Surface Modification: A Strategy to Improve Efficiency and Stability of Perovskite Solar Cells. ACS Sustainable Chemistry and Engineering, 0, , .	3.2	2
193	Surface Ligand Management Aided by a Secondary Amine Enables Increased Synthesis Yield of CsPbI ₃ Perovskite Quantum Dots and High Photovoltaic Performance. Advanced Materials, 2020, 32, e2000449.	11.1	137
194	Ultrabroadband, Ultraviolet to Terahertz, and High Sensitivity CH ₃ NH ₃ Pbl ₃ Perovskite Photodetectors. Nano Letters, 2020, 20, 5646-5654.	4.5	73
195	Aryl Diammonium Iodide Passivation for Efficient and Stable Hybrid Organâ€Inorganic Perovskite Solar Cells. Advanced Functional Materials, 2020, 30, 2002366.	7.8	52
196	Passivating Charged Defects with 1,6-Hexamethylenediamine To Realize Efficient and Stable Tin-Based Perovskite Solar Cells. Journal of Physical Chemistry C, 2020, 124, 16289-16299.	1.5	29
197	High-Performance Large-Area Perovskite Solar Cells Enabled by Confined Space Sublimation. ACS Applied Materials & Interfaces, 2020, 12, 33870-33878.	4.0	19
198	Functionalized PFN-X (X = Cl, Br, or I) for Balanced Charge Carriers of Highly Efficient Blue Light-Emitting Diodes. ACS Applied Materials & Interfaces, 2020, 12, 35740-35747.	4.0	31

#	ARTICLE	IF	CITATIONS
199	Exploring Electron Transporting Layer in Combination with a Polyelectrolyte for nâ€iâ€p Perovskite Solar Cells. Advanced Materials Interfaces, 2020, 7, 2000412.	1.9	13
200	Interfacial defects passivation using fullerene-polymer mixing layer for planar-structure perovskite solar cells with negligible hysteresis. Solar Energy, 2020, 206, 816-825.	2.9	86
201	Compositional and Interface Engineering of Organic-Inorganic Lead Halide Perovskite Solar Cells. IScience, 2020, 23, 101359.	1.9	105
202	Organic Nâ€Type Molecule: Managing the Electronic States of Bulk Perovskite for Highâ€Performance Photovoltaics. Advanced Functional Materials, 2020, 30, 2001788.	7.8	49
203	Inverted devices are catching up. Nature Energy, 2020, 5, 123-124.	19.8	14
204	Advances in two-dimensional organic–inorganic hybrid perovskites. Energy and Environmental Science, 2020, 13, 1154-1186.	15.6	420
205	Inverted pyramid Er3+ and Yb3+ Co-doped TiO2 nanorod arrays based perovskite solar cell: Infrared response and improved current density. Ceramics International, 2020, 46, 12073-12079.	2.3	24
206	Efficient Perovskite Solar Cells by Reducing Interfaceâ€Mediated Recombination: a Bulky Amine Approach. Advanced Energy Materials, 2020, 10, 2000197.	10.2	198
207	Effects of the Dopant Site on the Absorption Properties of CsPb1–xMxl2Br (M = Ge, Sn, Sr, and Cu): A First-Principles Investigation. Journal of Physical Chemistry C, 2020, 124, 6028-6037.	1.5	10
208	Correctly Assessing Defect Tolerance in Halide Perovskites. Journal of Physical Chemistry C, 2020, 124, 6022-6027.	1.5	70
209	Tetraethylenepent-MAPbI _{3–<i>x</i>} Cl _{<i>x</i>} Unsymmetrical Structure-Enhanced Stability and Power Conversion Efficiency in Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 11224-11231.	4.0	16
210	Enhancing Device Performance in Quasi-2D Perovskite ((BA) ₂ (MA) ₃ Pb ₄ I ₁₃) Solar Cells Using PbCl ₂ Additives. ACS Applied Materials & Interfaces, 2020, 12, 11190-11196.	4.0	35
211	Optimized analysis of back-contact perovskite solar cells architectures. Optik, 2020, 207, 164362.	1.4	10
212	Interfacial and structural modifications in perovskite solar cells. Nanoscale, 2020, 12, 5719-5745.	2.8	39
213	Controllable Multistep Preparation Method for Highâ€Efficiency Perovskite Solar Cells with Low Annealing Temperature in Glove Box. Energy Technology, 2020, 8, 2000071.	1.8	6
214	Temperature-Dependent Dynamic Carrier Process of FAPbI ₃ Nanocrystals' Film. Journal of Physical Chemistry C, 2020, 124, 5093-5098.	1.5	14
215	MACl-Induced Intermediate Engineering for High-Performance Mixed-Cation Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 10535-10543.	4.0	48
216	Blade-Coated Perovskites on Textured Silicon for 26%-Efficient Monolithic Perovskite/Silicon Tandem Solar Cells. Joule, 2020, 4, 850-864.	11.7	281

#	Article	IF	CITATIONS
217	How far are we from attaining 10-year lifetime for metal halide perovskite solar cells?. Materials Science and Engineering Reports, 2020, 140, 100545.	14.8	67
218	High Efficiency Mesoscopic Solar Cells Using CsPbI ₃ Perovskite Quantum Dots Enabled by Chemical Interface Engineering. Journal of the American Chemical Society, 2020, 142, 3775-3783.	6.6	156
219	Materials chemistry and engineering in metal halide perovskite lasers. Chemical Society Reviews, 2020, 49, 951-982.	18.7	263
220	Crystallization tailoring of cesium/formamidinium double-cation perovskite for efficient and highly stable solar cells. Journal of Energy Chemistry, 2020, 48, 217-225.	7.1	45
221	In Situ Observation of Vapor-Assisted 2D–3D Heterostructure Formation for Stable and Efficient Perovskite Solar Cells. Nano Letters, 2020, 20, 1296-1304.	4.5	65
222	Efficient CsSnl ₃ -based inorganic perovskite solar cells based on a mesoscopic metal oxide framework <i>via</i> incorporating a donor element. Journal of Materials Chemistry A, 2020, 8, 4118-4124.	5.2	75
223	Surface Modification of TiO2 for Perovskite Solar Cells. Trends in Chemistry, 2020, 2, 148-162.	4.4	91
224	Novel approach toward hole-transporting layer doped by hydrophobic Lewis acid through infiltrated diffusion doping for perovskite solar cells. Nano Energy, 2020, 70, 104509.	8.2	67
225	Superior Textured Film and Process Tolerance Enabled by Intermediateâ€State Engineering for Highâ€Efficiency Perovskite Solar Cells. Advanced Science, 2020, 7, 1903009.	5.6	22
226	Introduction of Multifunctional Triphenylamino Derivatives at the Perovskite/HTL Interface To Promote Efficiency and Stability of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 9300-9306.	4.0	53
227	A Crossâ€Linked PCBM Interlayer for Efficient and UVâ€Stable Methylammoniumâ€Free Perovskite Solar Cells. Energy Technology, 2020, 8, 2000224.	1.8	9
228	Intermolecular ï€â€"ï€ Conjugation Selfâ€Assembly to Stabilize Surface Passivation of Highly Efficient Perovskite Solar Cells. Advanced Materials, 2020, 32, e1907396.	11.1	128
229	In-Situ Electropolymerized Polyamines as Dopant-Free Hole-Transporting Materials for Efficient and Stable Inverted Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 5058-5066.	2.5	26
230	Tailoring Component Interaction for Airâ€Processed Efficient and Stable Allâ€Inorganic Perovskite Photovoltaic. Angewandte Chemie - International Edition, 2020, 59, 13354-13361.	7.2	158
231	From 1D to 3D: Fabrication of CH 3 NH 3 PbI 3 Perovskite Solar Cell Thin Films from (Pyrrolidinium)PbI 3 via Organic Cation Exchange Approach. Energy Technology, 2020, 8, 2000148.	1.8	4
232	Extrinsic Ion Distribution Induced Field Effect in CsPbIBr ₂ Perovskite Solar Cells. Small, 2020, 16, e1907283.	5.2	44
233	Low-Temperature Aging Provides 22% Efficient Bromine-Free and Passivation Layer-Free Planar Perovskite Solar Cells. Nano-Micro Letters, 2020, 12, 84.	14.4	33
234	Enhanced photoconversion efficiency in cesium-antimony-halide perovskite derivatives by tuning crystallographic dimensionality. Applied Materials Today, 2020, 19, 100637.	2.3	32

#	Article	IF	CITATIONS
235	Controlled crystallinity and morphologies of 2D Ruddlesden-Popper perovskite films grown without anti-solvent for solar cells. Chemical Engineering Journal, 2020, 394, 124959.	6.6	33
236	Enhanced hole transport in benzoic acid doped spiro-OMeTAD composite layer with intergrowing benzoate phase for perovskite solar cells. Journal of Alloys and Compounds, 2020, 832, 154991.	2.8	18
237	Effects of solvent additives on the morphology and transport property of a perylene diimide dimer film in perovskite solar cells for improved performance. Solar Energy, 2020, 201, 927-934.	2.9	18
238	Aged sol-gel solution-processed texture tin oxide for high-efficient perovskite solar cells. Nanotechnology, 2020, 31, 315205.	1.3	8
239	Pyridine Bridging Diphenylamine-Carbazole with Linking Topology as Rational Hole Transporter for Perovskite Solar Cells Fabrication. ACS Applied Materials & Interfaces, 2020, 12, 22881-22890.	4.0	38
240	Large organic cation incorporation induces vertical orientation growth of Sn-based perovskites for high efficiency solar cells. Chemical Engineering Journal, 2020, 402, 125133.	6.6	25
241	CoCl2 as film morphology controller for efficient planar CsPbIBr2 perovskite solar cells. Electrochimica Acta, 2020, 349, 136162.	2.6	15
242	Vacuum-Controlled Growth of CsPbI ₂ Br for Highly Efficient and Stable All-Inorganic Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 21539-21547.	4.0	15
243	Accurately Stoichiometric Regulating Oxidation States in Hole Transporting Material to Enhance the Hole Mobility of Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000127.	3.1	5
244	Record Photocurrent Density over 26 mA cm â^2 in Planar Perovskite Solar Cells Enabled by Antireflective Cascaded Electron Transport Layer. Solar Rrl, 2020, 4, 2000169.	3.1	17
245	Improved interfacial property by small molecule ethanediamine for high performance inverted planar perovskite solar cells. Journal of Energy Chemistry, 2021, 54, 467-474.	7.1	12
246	Enhanced efficiency and stability in Sn-based perovskite solar cells with secondary crystallization growth. Journal of Energy Chemistry, 2021, 54, 414-421.	7.1	49
247	Synergistic effect of MACl and DMF towards efficient perovskite solar cells. Organic Electronics, 2021, 88, 106005.	1.4	7
248	Perovskite Passivation Strategies for Efficient and Stable Solar Cells. Solar Rrl, 2021, 5, .	3.1	23
249	Tetrazole modulated perovskite films for efficient solar cells with improved moisture stability. Chemical Engineering Journal, 2021, 420, 127579.	6.6	14
250	Low-temperature grown TiO2 nanorods for MAPbI3 photovoltaics. Journal of Materials Science: Materials in Electronics, 2021, 32, 12862-12871.	1.1	0
251	A universal method for hysteresis-free and stable perovskite solar cells using water pre-treatment. Chemical Engineering Journal, 2021, 403, 126435.	6.6	12
252	Highly Thermostable and Efficient Formamidiniumâ€Based Lowâ€Dimensional Perovskite Solar Cells. Angewandte Chemie - International Edition, 2021, 60, 856-864.	7.2	75

#	Article	IF	CITATIONS
253	Minimizing Voltage Losses in Perovskite Solar Cells. Small Structures, 2021, 2, 2000050.	6.9	43
254	High-performance fully-ambient air processed perovskite solar cells using solvent additive. Journal of Physics and Chemistry of Solids, 2021, 149, 109792.	1.9	33
255	Efficient and stable flexible perovskite solar cells based on graphene-AgNWs substrate and carbon electrode without hole transport materials. Journal of Power Sources, 2021, 482, 228953.	4.0	49
256	Lead-free perovskite Cs2AgBiBr6@g-C3N4 Z-scheme system for improving CH4 production in photocatalytic CO2 reduction. Applied Catalysis B: Environmental, 2021, 282, 119570.	10.8	195
257	Impact of halide additives on green antisolvent and high-humidity processed perovskite solar cells. Applied Surface Science, 2021, 536, 147949.	3.1	11
258	F4-TCNQ doped strategy of nickel oxide as high-efficient hole transporting materials for invert perovskite solar cell. Materials Science in Semiconductor Processing, 2021, 121, 105458.	1.9	11
259	Perovskite tandem solar cells with improved efficiency and stability. Journal of Energy Chemistry, 2021, 58, 219-232.	7.1	32
260	Effects of guanidinium cations on structural, optoelectronic and photovoltaic properties of perovskites. Journal of Energy Chemistry, 2021, 58, 48-54.	7.1	21
261	Simultaneously enhanced moisture tolerance and defect passivation of perovskite solar cells with cross-linked grain encapsulation. Journal of Energy Chemistry, 2021, 56, 455-462.	7.1	31
262	A charge-separated interfacial hole transport semiconductor for efficient and stable perovskite solar cells. Organic Electronics, 2021, 88, 105988.	1.4	4
263	Highly Thermostable and Efficient Formamidiniumâ€Based Lowâ€Đimensional Perovskite Solar Cells. Angewandte Chemie, 2021, 133, 869-877.	1.6	12
264	Two-dimensional halide perovskite-based solar cells: Strategies for performance and stability enhancement. FlatChem, 2021, 25, 100213.	2.8	4
265	Eliminating the electric field response in a perovskite heterojunction solar cell to improve operational stability. Science Bulletin, 2021, 66, 536-544.	4.3	10
266	A spiro-OMeTAD based semiconductor composite with over 100°C glass transition temperature for durable perovskite solar cells. Nano Energy, 2021, 81, 105655.	8.2	41
267	Inorganic Electron Transport Materials in Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2008300.	7.8	105
268	Roles of MACl in Sequentially Deposited Bromineâ€Free Perovskite Absorbers for Efficient Solar Cells. Advanced Materials, 2021, 33, e2007126.	11.1	112
269	Preparation and properties of optoelectronic conversion films of perovskite modified by octadecyl-trichloro silane. Organic Electronics, 2021, 88, 106028.	1.4	1
270	The effect of methyl ammonium chloride doping for perovskite solar cells on structure, crystallization and power conversion efficiency. Modern Physics Letters B, 2021, 35, 2150096.	1.0	2

#	Article	IF	CITATIONS
271	Tailoring organic bulk-heterojunction for charge extraction and spectral absorption in CsPbBr3 perovskite solar cells. Science China Materials, 2021, 64, 798-807.	3.5	17
272	Effects of A site doping on the crystallization of perovskite films. Journal of Materials Chemistry A, 2021, 9, 1372-1394.	5.2	43
273	Improving hysteresis of room-temperature air-quenching MAPbI3-xClx solar cells by using mixed-lead halide precursor. Materials Chemistry and Physics, 2021, 259, 124032.	2.0	7
274	Tetrapropyl-substituted palladium phthalocyanine used as an efficient hole transport material in perovskite solar cells. Organic Electronics, 2021, 88, 106018.	1.4	16
275	Til4-doping induced bulk defects passivation in halide perovskites for high efficient photovoltaic devices. Organic Electronics, 2021, 88, 105973.	1.4	1
276	Epitaxial halide perovskite-based materials for photoelectric energy conversion. Energy and Environmental Science, 2021, 14, 127-157.	15.6	37
277	Highly efficient and stable perovskite solar cells produced by maximizing additive engineering. Sustainable Energy and Fuels, 2021, 5, 469-477.	2.5	8
278	Dimensionality and Defect Engineering Using Fluoroaromatic Cations for Efficiency and Stability Enhancement in 3D/2D Perovskite Photovoltaics. Solar Rrl, 2021, 5, 2000589.	3.1	21
279	Surface Engineering of Ambient-Air-Processed Cesium Lead Triiodide Layers for Efficient Solar Cells. Joule, 2021, 5, 183-196.	11.7	308
280	Crown Etherâ€Assisted Growth and Scaling Up of FACsPbI ₃ Films for Efficient and Stable Perovskite Solar Modules. Advanced Functional Materials, 2021, 31, 2008760.	7.8	50
281	A Scalable Integrated Dopantâ€Free Heterostructure to Stabilize Perovskite Solar Cell Modules. Advanced Energy Materials, 2021, 11, 2003301.	10.2	43
282	Doping in Semiconductor Oxidesâ€Based Electron Transport Materials for Perovskite Solar Cells Application. Solar Rrl, 2021, 5, 2000605.	3.1	19
283	All-inorganic CsPbBr ₃ perovskite: a promising choice for photovoltaics. Materials Advances, 2021, 2, 646-683.	2.6	100
284	Conjugated copolymers as doping- and annealing-free hole transport materials for highly stable and efficient p–i–n perovskite solar cells. Journal of Materials Chemistry A, 2021, 9, 2269-2275.	5.2	15
285	Fabrication of stable and efficient 2D/3D perovskite solar cells through post-treatment with TBABF ₄ . Journal of Materials Chemistry C, 2021, 9, 957-966.	2.7	60
286	Low-temperature-deposited SnO2 films for efficient planar CH3NH3PbI3 photovoltaics. Journal of Materials Science, 2021, 56, 677-690.	1.7	4
287	Cross-linkable fullerene interfacial contacts for enhancing humidity stability of inverted perovskite solar cells. Rare Metals, 2021, 40, 1691-1697.	3.6	8
288	Inkjet printed organic and perovskite photovoltaics—review and perspectives. , 2021, , 305-333.		4

#	Article	IF	CITATIONS
289	Bilayer broadband antireflective coating to achieve planar heterojunction perovskite solar cells with 23.9% efficiency. Science China Materials, 2021, 64, 789-797.	3.5	10
290	Leadâ€Free Perovskiteâ€Inspired Absorbers for Indoor Photovoltaics. Advanced Energy Materials, 2021, 11, 2002761.	10.2	95
291	SMART Perovskite Growth: Enabling a Larger Range of Process Conditions. ACS Energy Letters, 2021, 6, 650-658.	8.8	14
292	Improving the Efficiency and Stability of Organic-Inorganic Hybrid Perovskite Solar Cells by Absorption Layer Ion Doping. Wuli Xuebao/Acta Physica Sinica, 2021, .	0.2	0
293	Using hysteresis to predict the charge recombination properties of perovskite solar cells. Journal of Materials Chemistry A, 2021, 9, 6382-6392.	5.2	25
294	A novel AIE molecule as a hole transport layer enables efficient and stable perovskite solar cells. Chemical Communications, 2021, 57, 4015-4018.	2.2	10
295	Study on the Interfacial Improvement of Hole-Transport Layer in Perovskite Solar Cells via Acetonitrile Additive. Hans Journal of Nanotechnology, 2021, 11, 27-35.	0.1	0
296	Anion Exchangeâ€Induced Crystal Engineering via Hotâ€Pressing Sublimation Affording Highly Efficient and Stable Perovskite Solar Cells. Solar Rrl, 2021, 5, 2000729.	3.1	6
297	Recent progress in meniscus coating for large-area perovskite solar cells and solar modules. Sustainable Energy and Fuels, 2021, 5, 1926-1951.	2.5	11
298	Recent Progress in Metal Oxide for Photovoltaic Application. , 2021, , 99-145.		0
299	Overcoming photovoltage deficit <i>via</i> natural amino acid passivation for efficient perovskite solar cells and modules. Journal of Materials Chemistry A, 2021, 9, 5857-5865.	5.2	43
300	Two birds with one stone: dual grain-boundary and interface passivation enables >22% efficient inverted methylammonium-free perovskite solar cells. Energy and Environmental Science, 2021, 14, 5875-5893.	15.6	180
301	Computational Study of Dipole Radiation in Reâ€Absorbing Perovskite Semiconductors for Optoelectronics. Advanced Science, 2021, 8, 2003559.	5.6	18
302	Formamidine disulfide oxidant as a localised electron scavenger for >20% perovskite solar cell modules. Energy and Environmental Science, 2021, 14, 4903-4914.	15.6	63
303	Crystallization in one-step solution deposition of perovskite films: Upward or downward?. Science Advances, 2021, 7, .	4.7	165
304	Self-passivation of low-dimensional hybrid halide perovskites guided by structural characteristics and degradation kinetics. Energy and Environmental Science, 2021, 14, 2357-2368.	15.6	12
305	Elemental Pb initiated in situ Cl doping for improved photovoltaic performances of perovskite. Journal of Renewable and Sustainable Energy, 2021, 13, 013503.	0.8	3
306	Preparation and Optical Properties of Na-Doped CsCuCl ₃ Single Crystals. Material Sciences, 2021, 11, 126-134.	0.0	0

#	Article	IF	CITATIONS
307	Boosted charge extraction of NbO _{<i>x</i>} -enveloped SnO ₂ nanocrystals enables 24% efficient planar perovskite solar cells. Energy and Environmental Science, 2021, 14, 5074-5083.	15.6	98
308	Perovskite-type stabilizers for efficient and stable formamidinium-based lead iodide perovskite solar cells. Journal of Materials Chemistry A, 2021, 9, 20807-20815.	5.2	23
309	Influence of the MACI additive on grain boundaries, trap-state properties, and charge dynamics in perovskite solar cells. Physical Chemistry Chemical Physics, 2021, 23, 6162-6170.	1.3	18
310	Polymeric hole-transporting material with a flexible backbone for constructing thermally stable inverted perovskite solar cells. Materials Chemistry Frontiers, 2021, 5, 7241-7250.	3.2	6
311	First-principles study on photoelectric and transport properties of CsXBr3 (X = Ge, Sn) and blue phosphorus van der Waals heterojunctions. Journal of Applied Physics, 2021, 129, .	1.1	9
312	High-Performance Perovskite Solar Cells Fabricated by a Hybrid Physical–Chemical Vapor Deposition. Journal of Solar Energy Engineering, Transactions of the ASME, 2021, 143, .	1.1	3
313	Improving the efficiency and stability of tin-based perovskite solar cells using anilinium hypophosphite additive. New Journal of Chemistry, 2021, 45, 8092-8100.	1.4	10
314	Atomic-scale insight into the enhanced surface stability of methylammonium lead iodide perovskite by controlled deposition of lead chloride. Energy and Environmental Science, 2021, 14, 4541-4554.	15.6	31
315	Dynamic halide perovskite heterojunction generates direct current. Energy and Environmental Science, 2021, 14, 374-381.	15.6	31
316	Microscopic (Dis)order and Dynamics of Cations in Mixed FA/MA Lead Halide Perovskites. Journal of Physical Chemistry C, 2021, 125, 1742-1753.	1.5	28
317	Water and oxygen co-induced microstructure relaxation and evolution in CH ₃ NH ₃ PbI ₃ . Physical Chemistry Chemical Physics, 2021, 23, 17242-17247.	1.3	5
318	A facile and broadly applicable CdBr ₂ -passivating strategy for halide migration-inhibiting perovskite films and high-performance solar cells. Journal of Materials Chemistry A, 2021, 9, 14758-14767.	5.2	9
319	Highly stable and efficient cathode-buffer-layer-free inverted perovskite solar cells. Nanoscale, 2021, 13, 5652-5659.	2.8	7
320	Perovskite solar cells. , 2021, , 249-281.		5
321	Advances in SnO ₂ -based perovskite solar cells: from preparation to photovoltaic applications. Journal of Materials Chemistry A, 2021, 9, 19554-19588.	5.2	88
322	Deactivation/Activation of Quenching Defects in CH3NH3Pbl3 Perovskite by Direct Electron Injection/Extraction. Journal of Physical Chemistry Letters, 2021, 12, 773-780.	2.1	2
323	Tuning Ionic and Electronic Conductivities in the "Hollow―Perovskite { <i>en</i> }MAPbI ₃ . Chemistry of Materials, 2021, 33, 719-726.	3.2	24
324	Halide-driven formation of lead halide perovskites: insight from <i>ab initio</i> molecular dynamics simulations. Materials Advances, 2021, 2, 3915-3926.	2.6	18

#	Article	IF	CITATIONS
325	Manipulating the Crystallization Kinetics by Additive Engineering toward Highâ€Efficient Photovoltaic Performance. Advanced Functional Materials, 2021, 31, 2009103.	7.8	20
326	Towards the environmentally friendly solution processing of metal halide perovskite technology. Green Chemistry, 2021, 23, 5302-5336.	4.6	38
327	Tuning the Interfacial Dipole Moment of Spacer Cations for Charge Extraction in Efficient and Ultrastable Perovskite Solar Cells. Journal of Physical Chemistry C, 2021, 125, 1256-1268.	1.5	56
328	Efficiency improvement of perovskite solar cell by modifying structural parameters and using Ag nanoparticles. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	1.1	5
329	Methylammonium Chloride reduces the bandgap width and trap densities for efficient perovskite photodetectors. Journal of Materials Science, 2021, 56, 9242-9253.	1.7	11
330	Rapid Microwave-Assisted Synthesis of SnO ₂ Quantum Dots for Efficient Planar Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 1887-1893.	2.5	37
331	Advances to Highâ€Performance Blackâ€Phase FAPbI ₃ Perovskite for Efficient and Stable Photovoltaics. Small Structures, 2021, 2, 2000130.	6.9	81
332	Stability Improvement of Perovskite Solar Cells by Compositional and Interfacial Engineering. Chemistry of Materials, 2021, 33, 1540-1570.	3.2	65
333	Crystallinity-dependent device characteristics of polycrystalline 2D n = 4 Ruddlesden–Popper perovskite photodetectors. Nanotechnology, 2021, 32, 185203.	1.3	10
334	Recent Progress in Perovskite Solar Cells Modified by Sulfur Compounds. Solar Rrl, 2021, 5, 2000713.	3.1	17
335	Large-Grain Double Cation Perovskites with 18 μs Lifetime and High Luminescence Yield for Efficient Inverted Perovskite Solar Cells. ACS Energy Letters, 2021, 6, 1045-1054.	8.8	54
336	Factors influencing the nucleation and crystal growth of solution-processed organic lead halide perovskites: a review. Journal Physics D: Applied Physics, 2021, 54, 163001.	1.3	35
337	Single-Layer ZnO Hollow Hemispheres Enable High-Performance Self-Powered Perovskite Photodetector for Optical Communication. Nano-Micro Letters, 2021, 13, 70.	14.4	56
338	Solution-processed PbCdS nanocrystals as a novel hole transport material for inverted CH3NH3PbI3 perovskite solar cells. Solar Energy, 2021, 216, 321-328.	2.9	3
339	Additive Engineering toward Highâ€Performance Tin Perovskite Solar Cells. Solar Rrl, 2021, 5, 2100034.	3.1	34
340	Simultaneous Transport Promotion and Recombination Suppression in Perovskite Solar Cells by Defect Passivation with Li-Doped Graphitic Carbon Nitride. Journal of Physical Chemistry C, 2021, 125, 5525-5533.	1.5	7
341	Leadâ€Free Cs ₂ Snl ₆ Perovskites for Optoelectronic Applications: Recent Developments and Perspectives. Solar Rrl, 2021, 5, 2000830.	3.1	25
342	Multifunctional molecular incorporation boosting the efficiency and stability of the inverted perovskite solar cells. Journal of Power Sources, 2021, 488, 229449.	4.0	10

#	Article	IF	CITATIONS
343	Strategies for High-Performance Large-Area Perovskite Solar Cells toward Commercialization. Crystals, 2021, 11, 295.	1.0	23
344	Efficient and Stable Mesoscopic Perovskite Solar Cells Using a Dopantâ€Free D–A Copolymer Holeâ€Transporting Layer. Solar Rrl, 2021, 5, 2000801.	3.1	7
345	The effects of pyridine molecules structure on the defects passivation of perovskite solar cells. Journal of Solid State Electrochemistry, 2021, 25, 1531-1540.	1.2	12
346	Trifluoromethylphenylacetic Acid as In Situ Accelerant of Ostwald Ripening for Stable and Efficient Perovskite Solar Cells. Solar Rrl, 2021, 5, 2100040.	3.1	11
347	Precise Nucleation Regulation and Defect Passivation for Highly Efficient and Stable Carbon-Based CsPbI ₂ Br Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 3508-3517.	2.5	12
348	Solvent Engineering of the Precursor Solution toward Largeâ€Area Production of Perovskite Solar Cells. Advanced Materials, 2021, 33, e2005410.	11.1	182
349	Organic Ammonium Halide Modulators as Effective Strategy for Enhanced Perovskite Photovoltaic Performance. Advanced Science, 2021, 8, 2004593.	5.6	57
350	Dual Additive for Simultaneous Improvement of Photovoltaic Performance and Stability of Perovskite Solar Cell. Advanced Functional Materials, 2021, 31, 2100396.	7.8	66
351	Localized Electron Density Engineering for Stabilized B-Î ³ CsSnI ₃ -Based Perovskite Solar Cells with Efficiencies >10%. ACS Energy Letters, 0, , 1480-1489.	8.8	125
352	Bulk Passivation and Interfacial Passivation for Perovskite Solar Cells: Which One is More Effective?. Advanced Materials Interfaces, 2021, 8, 2002078.	1.9	34
353	Compositional and Interfacial Engineering Yield High-Performance and Stable p-i-n Perovskite Solar Cells and Mini-Modules. ACS Applied Materials & Interfaces, 2021, 13, 13022-13033.	4.0	69
354	Origin of Efficiency and Stability Enhancement in Highâ€Performing Mixed Dimensional 2Dâ€3D Perovskite Solar Cells: A Review. Advanced Functional Materials, 2022, 32, 2009164.	7.8	96
355	Thermal Stability and Cation Composition of Hybrid Organic–Inorganic Perovskites. ACS Applied Materials & Interfaces, 2021, 13, 15292-15304.	4.0	41
356	An efficient post-treatment strategy with acetylacetone for low temperature CsPbI2Br solar cells. Solar Energy, 2021, 216, 7-13.	2.9	15
357	A Synergistic Precursor Regulation Strategy for Scalable Fabrication of Perovskite Solar Cells. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2000613.	1.2	3
358	All room-temperature processing efficient planar carbon-based perovskite solar cells. Journal of Power Sources, 2021, 489, 229345.	4.0	29
359	Efficient p–n Heterojunction Perovskite Solar Cell without a Redundant Electron Transport Layer and Interface Engineering. Journal of Physical Chemistry Letters, 2021, 12, 2266-2272.	2.1	11
360	Efficient Perovskite Solar Cells Achieved using the 2-Methoxyethanol Additive: Morphology and Composition Control of Intermediate Film. ACS Applied Energy Materials, 2021, 4, 2681-2689.	2.5	10

#	Article	IF	CITATIONS
361	Formation of Highâ€Performance Multiâ€Cation Halide Perovskites Photovoltaics by Î′â€CsPbl ₃ /Î′â€RbPbl ₃ Seedâ€Assisted Heterogeneous Nucleation. Advanced Energy Materials, 2021, 11, 2003785.	10.2	32
362	Enhanced electrical properties of Li-salts doped mesoporous TiO2 in perovskite solar cells. Joule, 2021, 5, 659-672.	11.7	127
363	Tin Oxide Electronâ€Selective Layers for Efficient, Stable, and Scalable Perovskite Solar Cells. Advanced Materials, 2021, 33, e2005504.	11.1	196
364	Origin, Influence, and Countermeasures of Defects in Perovskite Solar Cells. Small, 2021, 17, e2005495.	5.2	61
365	Controlling the Microstructure and Porosity of Perovskite Films by Additive Engineering. ACS Applied Energy Materials, 2021, 4, 2990-2998.	2.5	13
366	Molecularly Engineered Cyclopenta[2,1- <i>b</i> ;3,4- <i>b</i> ′]dithiophene-Based Hole-Transporting Materials for High-Performance Perovskite Solar Cells with Efficiency over 19%. ACS Applied Energy Materials, 2021, 4, 4719-4728.	2.5	21
367	Stabilization of formamidinium lead triiodide α-phase with isopropylammonium chloride for perovskite solar cells. Nature Energy, 2021, 6, 419-428.	19.8	157
368	Pseudo-halide anion engineering for α-FAPbI3 perovskite solar cells. Nature, 2021, 592, 381-385.	13.7	2,095
369	Passivation of PEA+ to MAPbI3 (110) surface states by first-principles calculations*. Chinese Physics B, 2021, 30, 047101.	0.7	1
370	Trap State Passivation by Rational Ligand Molecule Engineering toward Efficient and Stable Perovskite Solar Cells Exceeding 23% Efficiency. Advanced Energy Materials, 2021, 11, 2100529.	10.2	201
371	Perovskite Quantum Dots as Multifunctional Interlayers in Perovskite Solar Cells with Dopant-Free Organic Hole Transporting Layers. Journal of the American Chemical Society, 2021, 143, 5855-5866.	6.6	59
372	Ionic Liquid-Assisted MAPbI ₃ Nanoparticle-Seeded Growth for Efficient and Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 21194-21206.	4.0	47
373	Highly Stable Bulk Perovskite for Blue LEDs with Anion-Exchange Method. Nano Letters, 2021, 21, 3473-3479.	4.5	36
374	Discovery of temperature-induced stability reversal in perovskites using high-throughput robotic learning. Nature Communications, 2021, 12, 2191.	5.8	77
375	Structural Stability of Formamidinium- and Cesium-Based Halide Perovskites. ACS Energy Letters, 2021, 6, 1942-1969.	8.8	76
376	Dual-Functional Additive to Simultaneously Modify the Interface and Grain Boundary for Highly Efficient and Hysteresis-Free Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 20043-20050.	4.0	21
377	Fully Inorganic CsSnI ₃ Mesoporous Perovskite Solar Cells with High Efficiency and Stability via Coadditive Engineering. Solar Rrl, 2021, 5, 2100069.	3.1	29
378	cPCN-Regulated SnO2 Composites Enables Perovskite Solar Cell with Efficiency Beyond 23%. Nano-Micro Letters, 2021, 13, 101.	14.4	31

#	Article	IF	CITATIONS
379	Perovskite random lasers: a tunable coherent light source for emerging applications. Nanotechnology, 2021, 32, 282001.	1.3	26
380	Lead-free tin perovskite solar cells. Joule, 2021, 5, 863-886.	11.7	134
381	Ink Engineering for Blade Coating FA-Dominated Perovskites in Ambient Air for Efficient Solar Cells and Modules. ACS Applied Materials & Interfaces, 2021, 13, 18724-18732.	4.0	20
382	Enhanced Efficiency and Stability of NiOx-Based Perovskite Solar Cells Using [6,6]-Phenyl-C ₆₁ -butyric Acid Methyl-Doped Poly(9-vinylcarbazole)-Modified Layer. ACS Applied Energy Materials, 2021, 4, 3812-3821.	2.5	10
383	Multiple functional groups synergistically improve the performance of inverted planar perovskite solar cells. Nano Energy, 2021, 82, 105742.	8.2	79
384	Highly crystalline colloidal nickel oxide hole transport layer for low-temperature processable perovskite solar cell. Chemical Engineering Journal, 2021, 412, 128746.	6.6	11
385	Energy Tracing of Photovoltaic Cells. Solar Rrl, 2021, 5, 2100199.	3.1	5
386	Enhanced crystallization of solution-processed perovskite using urea as an additive for large-grain MAPbl ₃ perovskite solar cells. Nanotechnology, 2021, 32, 30LT02.	1.3	8
387	Development of perovskite solar cells with >25% conversion efficiency. Joule, 2021, 5, 1033-1035.	11.7	137
388	Subpicosecond magneto-optical response probed by the Kerr rotation technique in PbI2 film. Journal of the Optical Society of America B: Optical Physics, 2021, 38, 1858.	0.9	0
389	Insights into the Development of Monolithic Perovskite/Silicon Tandem Solar Cells. Advanced Energy Materials, 2022, 12, 2003628.	10.2	72
390	Metalâ€Halide Perovskite Crystallization Kinetics: A Review of Experimental and Theoretical Studies. Advanced Energy Materials, 2021, 11, 2100784.	10.2	35
391	Impacts of MAPbBr3 Additive on Crystallization Kinetics of FAPbI3 Perovskite for High Performance Solar Cells. Coatings, 2021, 11, 545.	1.2	5
392	Evaporation Deposition Strategies for Allâ€Inorganic CsPb(I _{1–<i>x</i>} Br _{<i>x</i>}) ₃ Perovskite Solar Cells: Recent Advances and Perspectives. Solar Rrl, 2021, 5, 2100172.	3.1	24
393	Strain-relaxed tetragonal MAPbI3 results in efficient mesoporous solar cells. Nano Energy, 2021, 83, 105788.	8.2	29
394	40.1% Record Lowâ€Light Solarâ€Cell Efficiency by Holistic Trapâ€Passivation using Micrometerâ€Thick Perovskite Film. Advanced Materials, 2021, 33, e2100770.	11.1	110
395	Photonic crystals for perovskiteâ€based optoelectronic applications. Nano Select, 2022, 3, 39-50.	1.9	4
396	Defect Passivation by a D–A–D Type Hole-Transporting Interfacial Layer for Efficient and Stable Perovskite Solar Cells. ACS Energy Letters, 2021, 6, 2030-2037.	8.8	50

#	Article	IF	CITATIONS
397	Improved stability and efficiency of perovskite via a simple solid diffusion method. Materials Today Physics, 2021, 18, 100374.	2.9	19
398	Small grains as recombination hot spots in perovskite solar cells. Matter, 2021, 4, 1683-1701.	5.0	73
399	Fluorinated Oligomer Wrapped Perovskite Crystals for Inverted MAPbI ₃ Solar Cells with 21% Efficiency and Enhanced Stability. ACS Applied Materials & Interfaces, 2021, 13, 26093-26101.	4.0	18
400	Synergistic Engineering of Conduction Band, Conductivity, and Interface of Bilayered Electron Transport Layers with Scalable TiO ₂ and SnO ₂ Nanoparticles for High-Efficiency Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 23606-23615.	4.0	17
401	The benefits of ionic liquids for the fabrication of efficient and stable perovskite photovoltaics. Chemical Engineering Journal, 2021, 411, 128461.	6.6	70
402	Prospects for metal halide perovskite-based tandem solar cells. Nature Photonics, 2021, 15, 411-425.	15.6	195
403	A conjugated ligand interfacial modifier for enhancing efficiency and operational stability of planar perovskite solar cells. Chemical Engineering Journal, 2021, 412, 128680.	6.6	17
404	Low Temperature Processed Fully Printed Efficient Planar Structure Carbon Electrode Perovskite Solar Cells and Modules. Advanced Energy Materials, 2021, 11, 2101219.	10.2	52
405	Hydrophobic Organic Ammonium Halide Modification toward Highly Efficient and Stable CsPbI _{2.25} Br _{0.75} Solar Cell. Solar Rrl, 2021, 5, 2100178.	3.1	8
406	Insights into the impact of Mn-doped inorganic CsPbBr3 perovskite on electronic structures and magnetism for photovoltaic application. Materials Today Energy, 2021, 21, 100796.	2.5	13
407	Electrical Loss Management by Molecularly Manipulating Dopantâ€free Poly(3â€hexylthiophene) towards 16.93 % CsPbl ₂ Br Solar Cells. Angewandte Chemie, 2021, 133, 16524-16529.	1.6	18
408	A facile light managing strategy in inverted perovskite solar cells. JPhys Energy, 2021, 3, 035004.	2.3	3
409	Uniform Stepped Interfacial Energy Level Structure Boosts Efficiency and Stability of CsPbI ₂ Br Solar Cells. Advanced Functional Materials, 2021, 31, 2103316.	7.8	18
410	Universal Bottom Contact Modification with Diverse 2D Spacers for Highâ€Performance Inverted Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2104036.	7.8	29
411	Achieving 256 × 256â€Pixel Color Images by Perovskiteâ€Based Photodetectors Coupled with Algorithms. Advanced Functional Materials, 2021, 31, 2104320.	7.8	27
412	Interfacial Defect Passivation and Stress Release via Multi-Active-Site Ligand Anchoring Enables Efficient and Stable Methylammonium-Free Perovskite Solar Cells. ACS Energy Letters, 2021, 6, 2526-2538.	8.8	170
413	Viscosity Blending Approach for 22.42% Efficient Perovskite Solar Cells. Bulletin of the Korean Chemical Society, 2021, 42, 1112-1120.	1.0	11
414	Tailored Key Parameters of Perovskite for High-Performance Photovoltaics. Accounts of Materials Research, 2021, 2, 447-457.	5.9	5

#	Article	IF	CITATIONS
415	Dendrite-Free Anodes Enabled by a Composite of a ZnAl Alloy with a Copper Mesh for High-Performing Aqueous Zinc-Ion Batteries. ACS Applied Materials & Interfaces, 2021, 13, 28129-28139.	4.0	47
416	Electrical Loss Management by Molecularly Manipulating Dopantâ€free Poly(3â€hexylthiophene) towards 16.93 % CsPbl ₂ Br Solar Cells. Angewandte Chemie - International Edition, 2021, 60, 16388-16393.	7.2	57
417	Recent Progress on Formamidiniumâ€Dominated Perovskite Photovoltaics. Advanced Energy Materials, 2022, 12, 2100690.	10.2	45
418	Roomâ€Temperatureâ€Processed, Carbonâ€Based Fully Printed Mesoscopic Perovskite Solar Cells with 15% Efficiency. Solar Rrl, 2021, 5, 2100274.	3.1	11
419	Advances in cesium lead iodide perovskite solar cells: Processing science matters. Materials Today, 2021, 47, 156-169.	8.3	25
420	Unraveling Allâ€Inorganic CsPbI ₃ and CsPbI ₂ Br Perovskite Thin Films Formation – Black Phase Stabilization by Cs ₂ PbCl ₂ I ₂ Addition and Flashâ€Annealing. European Journal of Inorganic Chemistry, 2021, 2021, 3059-3073.	1.0	9
421	Sulfonate-Assisted Surface Iodide Management for High-Performance Perovskite Solar Cells and Modules. Journal of the American Chemical Society, 2021, 143, 10624-10632.	6.6	101
422	Perovskite crystals redissolution strategy for affordable, reproducible, efficient and stable perovskite photovoltaics. Materials Today, 2021, 50, 199-223.	8.3	43
423	Perovskitoidâ€Templated Formation of a 1D@3D Perovskite Structure toward Highly Efficient and Stable Perovskite Solar Cells. Advanced Energy Materials, 2021, 11, 2101018.	10.2	85
424	Understanding the Mechanism of PbCl ₂ Additive for MAPbl ₃ â€Based Perovskite Solar Cells. Advanced Photonics Research, 2021, 2, 2100012.	1.7	4
425	Pathways toward 30% Efficient Singleâ€Junction Perovskite Solar Cells and the Role of Mobile Ions. Solar Rrl, 2021, 5, 2100219.	3.1	48
426	Mg-Doped Nickel Oxide as Efficient Hole-Transport Layer for Perovskite Photodetectors. Journal of Physical Chemistry C, 2021, 125, 16066-16074.	1.5	28
427	Coâ€Evaporated MAPbI ₃ with Graded Fermi Levels Enables Highly Performing, Scalable, and Flexible pâ€iâ€n Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2103252.	7.8	40
428	Coâ€Evaporated Formamidinium Lead Iodide Based Perovskites with 1000 h Constant Stability for Fully Textured Monolithic Perovskite/Silicon Tandem Solar Cells. Advanced Energy Materials, 2021, 11, 2101460.	10.2	102
429	Significant enhancement of output performance of piezoelectric nanogenerators based on CsPbBr3 quantum dots-NOA63 nanocomposites. Nano Energy, 2021, 85, 105975.	8.2	12
430	Unraveling the surface state of photovoltaic perovskite thin film. Matter, 2021, 4, 2417-2428.	5.0	22
431	Stable and low-photovoltage-loss perovskite solar cells by multifunctional passivation. Nature Photonics, 2021, 15, 681-689.	15.6	255
432	Defect Passivation of Perovskite Films for Highly Efficient and Stable Solar Cells. Solar Rrl, 2021, 5, 2100295.	3.1	58

#	Article	IF	CITATIONS
433	Dipole evoked hole-transporting material p-doping by utilizing organic salt for perovskite solar cells. Nano Energy, 2021, 85, 106018.	8.2	32
434	Low temperature open-air plasma deposition of amorphous tin oxide for perovskite solar cells. Thin Solid Films, 2021, 730, 138708.	0.8	6
435	Flexible Perovskite Solar Cells with High Power-Per-Weight: Progress, Application, and Perspectives. ACS Energy Letters, 2021, 6, 2917-2943.	8.8	100
436	Zwitterionic Ionic Liquid Confer Defect Tolerance, High Conductivity, and Hydrophobicity toward Efficient Perovskite Solar Cells Exceeding 22% Efficiency. Solar Rrl, 2021, 5, 2100352.	3.1	35
437	Universal Current Losses in Perovskite Solar Cells Due to Mobile Ions. Advanced Energy Materials, 2021, 11, 2101447.	10.2	52
438	Bottom Interfacial Engineering for Methylammoniumâ€Free Regularâ€Structure Planar Perovskite Solar Cells over 21%. Solar Rrl, 2021, 5, 2100285.	3.1	11
439	Beyond the Limit of Goldschmidt Tolerance Factor: Crystal Surface Engineering to Boost the αâ€Phase Stability of Formamidiniumâ€Only Hybrid Inorganic–Organic Perovskites. Solar Rrl, 2021, 5, 2100188.	3.1	8
440	Effect of Antisolvent Application Rate on Film Formation and Photovoltaic Performance of Methylammoniumâ€Free Perovskite Solar Cells. Advanced Energy and Sustainability Research, 2021, 2, 2100061.	2.8	13
441	Surface Stabilization of a Formamidinium Perovskite Solar Cell Using Quaternary Ammonium Salt. ACS Applied Materials & Interfaces, 2021, 13, 37052-37062.	4.0	23
442	Manipulated Crystallization and Passivated Defects for Efficient Perovskite Solar Cells via Addition of Ammonium Iodide. ACS Applied Materials & amp; Interfaces, 2021, 13, 34053-34063.	4.0	18
443	Oneâ€Step Slotâ€Die Coating Deposition of Wideâ€Bandgap Perovskite Absorber for Highly Efficient Solar Cells. Solar Rrl, 2021, 5, 2100391.	3.1	10
444	An asymmetrically substituted dithieno[3,2-b:2′,3′-d]pyrrole organic small-molecule hole-transporting material for high-performance perovskite solar cells. Chinese Journal of Chemical Engineering, 2022, 45, 51-57.	1.7	0
445	Interfacial Embedding of Laserâ€Manufactured Fluorinated Gold Clusters Enabling Stable Perovskite Solar Cells with Efficiency Over 24%. Advanced Materials, 2021, 33, e2101590.	11.1	62
446	A Review on Emerging Barrier Materials and Encapsulation Strategies for Flexible Perovskite and Organic Photovoltaics. Advanced Energy Materials, 2021, 11, 2101383.	10.2	57
447	Strong Electron Acceptor of a Fluorine-Containing Group Leads to High Performance of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 41149-41158.	4.0	24
448	Selective Passivation of Grain Boundaries via Incorporation of a Fluidic Small Molecule in Perovskite Solar Absorbers. ACS Applied Energy Materials, 2021, 4, 10059-10068.	2.5	3
449	Perovskite Passivation with a Bifunctional Molecule 1,2â€Benzisothiazolinâ€3â€One for Efficient and Stable Planar Solar Cells. Solar Rrl, 2021, 5, 2100472.	3.1	5
450	Uniaxially Oriented Monolithically Grained Perovskite Films for Enhanced Performance of Solar Cells. Journal of Physical Chemistry C, 2021, 125, 19131-19141.	1.5	4

ARTICLE IF CITATIONS # Superiority of two-step deposition over one-step deposition for perovskite solar cells processed in 451 1.7 9 high humidity atmosphere. Optical Materials, 2021, 118, 111288. Amorphous TiO₂ Coatings Stabilize Perovskite Solar Cells. ACS Energy Letters, 2021, 6, 8.8 38 3332-3341. Apparent Defect Densities in Halide Perovskite Thin Films and Single Crystals. ACS Energy Letters, 2021, 453 8.8 73 6, 3244-3251. Efficient post-treatment of CsPbBr3 film with enhanced photovoltaic performance. Journal of Alloys 454 and Compounds, 2021, 872, 159601. Stabilizing perovskite-substrate interfaces for high-performance perovskite modules. Science, 2021, 455 6.0 402 373, 902-907. Environmentally Compatible Lead-Free Perovskite Solar Cells and Their Potential as Light Harvesters in Energy Storage Systems. Nanomaterials, 2021, 11, 2066. Ion migration in halide perovskite solar cells: Mechanism, characterization, impact and suppression. 457 7.1 76 Journal of Energy Chemistry, 2021, 63, 528-549. Control Perovskite Crystals Vertical Growth for Obtaining Highâ€Performance Monolithic Perovskite/Silicon Heterojunction Tandem Solar Cells with <i>V</i>_{OC} of 1.93 V. Solar Rrl, 3.1 2021, 5, 2100357. Interfacial defect passivation and stress release by multifunctional KPF6 modification for planar 459 perovskite solar cells with enhanced efficiency and stability. Chemical Engineering Journal, 2021, 418, 6.6 157 129375. Photo-assisted Cl doping of SnO2 electron transport layer for hysteresis-less perovskite solar cells 3.6 with enhanced efficiency. Rare Metals, 2022, 41, 361-367. Defect passivation grain boundaries using 3-aminopropyltrimethoxysilane for highly efficient and 461 2.9 14 stable perovskite solar cells. Solar Energy, 2021, 224, 472-479. Dopant-free hole transporting polymeric materials based on pyrroloindacenodithiophene donor unit for efficient perovskite solar cells. Dyes and Pigments, 2021, 192, 109432. Low-Temperature Fabrication of Phase-Pure α-FAPbI3 Films by Cation Exchange from Two-Dimensional 463 2.5 11 Perovskites for Solar Cell Applications. Energy & amp; Fuels, 0, , . Immediate and Temporal Enhancement of Power Conversion Efficiency in Surface-Passivated Perovskite 464 4.0 Solar Cells. ACS Applied Materials & amp; Interfaces, 2021, 13, 39178-39185. Material, Phase, and Interface Stability of Photovoltaic Perovskite: A Perspective. Journal of Physical 465 7 1.5 Chemistry C, 2021, 125, 19088-19096. Combined Bulk and Surface Passivation in Dimensionally Engineered 2Dâ€3D Perovskite Films via Chlorine Diffusion. Advanced Functional Materials, 2021, 31, 2104251. MA Cation-Induced Diffusional Growth of Low-Bandgap FA-Cs Perovskites Driven by Natural Gradient 467 2.8 8 Annealing. Research, 2021, 2021, 9765106. Enhancing air-stability and reproducibility of lead-free formamidinium-based tin perovskite solar cell by chlorine doping. Solar Energy Materials and Solar Cells, 2021, 227, 111072.

ARTICLE IF CITATIONS # Chlorides, other Halides, and Pseudoâ€Halides as Additives for the Fabrication of Efficient and Stable 3.6 14 469 Perovskite Solar Cells. ChemSusChem, 2021, 14, 3665-3692. Upscaling perovskite solar cells via the ambient deposition of perovskite thin films. Trends in 470 4.4 Chemistry, 2021, 3, 747-764. Bulky organic cations engineered lead-halide perovskites: a review on dimensionality and 471 2.524 optoelectronic applications. Materials Today Energy, 2021, 21, 100759. Revealing phase evolution mechanism for stabilizing formamidinium-based lead halide perovskites by a 5.8 key intermediate phase. CheM, 2021, 7, 2513-2526. Additive Engineering for Efficient and Stable MAPbI₃-Perovskite Solar Cells with an 473 4.0 18 Efficiency of over 21%. ACS Applied Materials & amp; Interfaces, 2021, 13, 44451-44459. Improvement Performance of Planar Perovskite Solar Cells by Bulk and Surface Defect Passivation. ACS Sustainable Chemistry and Engineering, 2021, 9, 13001-13009. 474 3.2 Crystallization Kinetics Engineering toward High-Performance and Stable CsPbBr₃-Based 475 2.5 10 Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 10610-10617. The Trapped Charges at Grain Boundaries in Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2107125. 7.8 47 Improving the Morphology Stability of Spiro-OMeTAD Films for Enhanced Thermal Stability of Perovskite Solar Cells. ACS Applied Materials & amp; Interfaces, 2021, 13, 44294-44301. 477 4.0 20 Cyclohexylammoniumâ€Based 2D/3D Perovskite Heterojunction with Funnelâ€Like Energy Band Alignment 10.2 for Efficient Solar Cells (23.91%). Advanced Energy Materials, 2021, 11, 2102236. Ionic Liquid Additiveâ€Assisted Highly Efficient Electron Transport Layerâ€Free Perovskite Solar Cells. 479 3.110 Solar Rrl, 2021, 5, 2100648. MAAc Ionic Liquid-Assisted Defect Passivation for Efficient and Stable CsPbIBr₂ Perovskite 480 Solar Cells. AC'S Applied Energy Materials, 2021, 4, 10584-10592. Removal of residual compositions by powder engineering for high efficiency formamidinium-based 481 8.2 41 perovskite solar cells with operation lifetime over 2000Åh. Nano Energy, 2021, 87, 106152. Strategies and methods for fabricating high quality metal halide perovskite thin films for solar cells. 7.1 Journal of Energy Chemistry, 2021, 60, 300-333. Modulating Oxygen Vacancies in BaSnO₃ for Printable Carbon-Based Mesoscopic 483 2.517 Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 11032-11040. Polymerization stabilized black-phase FAPbI3 perovskite solar cells retain 100% of initial efficiency 484 over 100Âdays. Chemical Engineering Journal, 2021, 419, 129482. Halogen-halogen bonds enable improved long-term operational stability of mixed-halide perovskite 485 5.8 55 photovoltaics. CheM, 2021, 7, 3131-3143. Materials and Methods for Highâ€Efficiency Perovskite Solar Modules. Solar Rrl, 2022, 6, 2100455. 3.1

#	Article	IF	Citations
487	Boosting the Conductivity of the NiO <i>_x</i> Layer through Cerium Doping for Efficient Planar Inverted Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 9038-9045.	2.5	4
488	Genetic Manipulation of M13 Bacteriophage for Enhancing the Efficiency of Virusâ€Inoculated Perovskite Solar Cells with a Certified Efficiency of 22.3%. Advanced Energy Materials, 2021, 11, 2101221.	10.2	20
489	Unraveling the influence of CsCl/MACl on the formation of nanotwins, stacking faults and cubic supercell structure in FA-based perovskite solar cells. Nano Energy, 2021, 87, 106226.	8.2	27
490	(FA 0.83 MA 0.17) 0.95 Cs 0.05 Pb(I 0.83 Br 0.17) 3 Perovskite Films Prepared by Solvent Volatilization for Highâ€Efficiency Solar Cells. Solar Rrl, 2021, 5, 2100640.	3.1	3
491	Methylammonium halide-doped perovskite artificial synapse for light-assisted environmental perception and learning. Materials Today Physics, 2021, 21, 100540.	2.9	30
492	Multiple-Function Surface Engineering of SnO ₂ Nanoparticles to Achieve Efficient Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2021, 12, 9142-9148.	2.1	19
493	Recent advances of organometallic complexes in emerging photovoltaics. Journal of Polymer Science, 2022, 60, 865-916.	2.0	23
494	Repair Strategies for Perovskite Solar Cells. Chemical Research in Chinese Universities, 2021, 37, 1055-1066.	1.3	3
495	Deactivating grain boundary defect by bifunctional polymer additive for humid air-synthesized stable halide perovskite solar cells. Solar Energy, 2021, 225, 211-220.	2.9	5
496	Functionalized SnO2 films by using EDTA-2ÂM for high efficiency perovskite solar cells with efficiency over 23%. Chemical Engineering Journal, 2022, 430, 132683.	6.6	38
497	Iodide <i>vs</i> Chloride: The Impact of Different Lead Halides on the Solution Chemistry of Perovskite Precursors. ACS Applied Energy Materials, 2021, 4, 9827-9835.	2.5	11
498	Favorable grain growth of thermally stable formamidinium-methylammonium perovskite solar cells by hydrazine chloride. Chemical Engineering Journal, 2022, 430, 132730.	6.6	21
499	Compositional Engineering of FAPbI3 Perovskite Added MACl with MAPbBr3 or FAPbBr3. Coatings, 2021, 11, 1184.	1.2	8
500	Interface Passivation of Inverted Perovskite Solar Cells by Dye Molecules. ACS Applied Energy Materials, 2021, 4, 9525-9533.	2.5	10
501	Light management in highly-textured perovskite solar cells: From full-device ellipsometry characterization to optical modelling for quantum efficiency optimization. Solar Energy Materials and Solar Cells, 2021, 230, 111144.	3.0	8
502	Anion regulation engineering for efficient Ruddlesden-Popper inverted perovskite solar cells. Solar Energy Materials and Solar Cells, 2021, 232, 111345.	3.0	5
503	Stability of mixed-halide wide bandgap perovskite solar cells: Strategies and progress. Journal of Energy Chemistry, 2021, 61, 395-415.	7.1	34
504	High efficiency reduction of CO2 to CO and CH4 via photothermal synergistic catalysis of lead-free perovskite Cs3Sb2I9. Applied Catalysis B: Environmental, 2021, 294, 120236.	10.8	48

#	Article	IF	CITATIONS
505	In Situ Management of Ions Migration to Control Hysteresis Effect for Planar Heterojunction Perovskite Solar Cells. Advanced Functional Materials, 2022, 32, 2108417.	7.8	28
506	A bilateral cyano molecule serving as an effective additive enables high-efficiency and stable perovskite solar cells. Journal of Energy Chemistry, 2021, 62, 243-251.	7.1	35
507	Blending isomers of fluorine-substituted sulfonyldibenzene as hole transport materials to achieve high efficiency beyond 21% in perovskite solar cells. Chemical Engineering Journal, 2021, 424, 130396.	6.6	23
508	Interface modification by ethanolamine interfacial layer for efficient planar structure perovskite solar cells. Journal of Power Sources, 2021, 513, 230549.	4.0	11
509	Organic nanocrystals induced surface passivation towards high-efficiency and stable perovskite solar cells. Nano Energy, 2021, 89, 106445.	8.2	19
510	Enhanced stability of CsPbBr3 Quantum Dots by anchoring on the hierarchical three-dimensional layered double hydroxide. Chemical Engineering Journal, 2021, 425, 130471.	6.6	15
511	Methylammonium- and bromide-free perovskites enable efficient and stable photovoltaics. Journal of Energy Chemistry, 2021, 63, 12-24.	7.1	1
512	Grain boundary defect passivation by in situ formed wide-bandgap lead sulfate for efficient and stable perovskite solar cells. Chemical Engineering Journal, 2021, 426, 130685.	6.6	34
513	Over 23% power conversion efficiency of planar perovskite solar cells via bulk heterojunction design. Chemical Engineering Journal, 2021, 426, 131838.	6.6	18
514	Interface regulation enables hysteresis free wide-bandgap perovskite solar cells with low VOC deficit and high stability. Nano Energy, 2021, 90, 106537.	8.2	12
515	Undercoordinated Pb2+ defects passivation via tetramethoxysilane-modified for efficient and stable perovskite solar cells. Organic Electronics, 2021, 99, 106332.	1.4	6
516	Benzotriazole derivative inhibits nonradiative recombination and improves the UV-stability of inverted MAPbI3 perovskite solar cells. Journal of Energy Chemistry, 2022, 65, 592-599.	7.1	18
517	Exploring low-temperature processed multifunctional HEPES-Au NSs-modified SnO2 for efficient planar perovskite solar cells. Chemical Engineering Journal, 2022, 427, 131832.	6.6	12
518	Recent strategies to improve moisture stability in metal halide perovskites materials and devices. Journal of Energy Chemistry, 2022, 65, 219-235.	7.1	23
519	Functional molecule modified SnO2 nanocrystal films toward efficient and moisture-stable perovskite solar cells. Journal of Alloys and Compounds, 2022, 890, 161912.	2.8	5
520	High-performance perovskite solar cells based on dopant-free hole-transporting material fabricated by a thermal-assisted blade-coating method with efficiency exceeding 21%. Chemical Engineering Journal, 2022, 427, 131609.	6.6	37
521	Excess PbI2 evolution for triple-cation based perovskite solar cells with 21.9% efficiency. Journal of Energy Chemistry, 2022, 66, 152-160.	7.1	43
522	A synopsis of progressive transition in precursor inks development for metal halide perovskites-based photovoltaic technology. Journal of Materials Chemistry A, 2021, 9, 26650-26668.	5.2	6

#	Article	IF	Citations
523	Hydrazine dihydrochloride as a new additive to promote the performance of tin-based mixed organic cation perovskite solar cells. Sustainable Energy and Fuels, 2021, 5, 2660-2667.	2.5	14
524	Strategies of modifying spiro-OMeTAD materials for perovskite solar cells: a review. Journal of Materials Chemistry A, 2021, 9, 4589-4625.	5.2	149
525	Bandgap tuning strategy by cations and halide ions of lead halide perovskites learned from machine learning. RSC Advances, 2021, 11, 15688-15694.	1.7	36
526	Multifunctional organic ammonium salt-modified SnO ₂ nanoparticles toward efficient and stable planar perovskite solar cells. Journal of Materials Chemistry A, 2021, 9, 3940-3951.	5.2	146
527	Rational design of D–π–D hole-transporting materials for efficient perovskite solar cells. Materials Chemistry Frontiers, 2021, 5, 7824-7832.	3.2	3
528	Progress of Leadâ€Free Halide Perovskites: From Material Synthesis to Photodetector Application. Advanced Functional Materials, 2021, 31, 2008275.	7.8	52
529	Perovskite Single Crystals: Synthesis, Optoelectronic Properties, and Application. Advanced Functional Materials, 2021, 31, 2008684.	7.8	70
530	Tailored Amphiphilic Molecular Mitigators for Stable Perovskite Solar Cells with 23.5% Efficiency. Advanced Materials, 2020, 32, e1907757.	11.1	303
531	Controlling Crystal Growth via an Autonomously Longitudinal Scaffold for Planar Perovskite Solar Cells. Advanced Materials, 2020, 32, e2000617.	11.1	118
532	Precursor Engineering of the Electron Transport Layer for Application in Highâ€Performance Perovskite Solar Cells. Advanced Science, 2021, 8, e2102845.	5.6	62
533	Doped Bilayer Tin(IV) Oxide Electron Transport Layer for High Open ircuit Voltage Planar Perovskite Solar Cells with Reduced Hysteresis. Small, 2021, 17, e2005671.	5.2	34
534	Synergistic Benefits of Cesiumâ€Doped Aqueous Precursor in Airâ€Processed Inverted Perovskite Solar Cells. Solar Rrl, 2020, 4, 1900406.	3.1	10
535	Two dimensional graphitic carbon nitride quantum dots modified perovskite solar cells and photodetectors with high performances. Journal of Power Sources, 2020, 451, 227825.	4.0	44
536	Progress and Opportunities for Cs Incorporated Perovskite Photovoltaics. Trends in Chemistry, 2020, 2, 638-653.	4.4	35
537	Resolving Spectral Mismatch Errors for Perovskite Solar Cells in Commercial Class AAA Solar Simulators. Journal of Physical Chemistry Letters, 2020, 11, 3782-3788.	2.1	10
538	Synergistic Engineering of Natural Carnitine Molecules Allowing for Efficient and Stable Inverted Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 8595-8605.	4.0	14
539	Microstructural and photoconversion efficiency enhancement of compact films of lead-free perovskite derivative Rb ₃ Sb ₂ I ₉ . Journal of Materials Chemistry A, 2020, 8, 4396-4406.	5.2	32
540	Decoupled molecular and inorganic framework dynamics in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>CH</mml:mi><mml: Physical Review Materials, 2019, 3, .</mml: </mml:msub></mml:mrow></mml:math 	mn o3 <td>nl:æʊn> </td>	nl:æʊn>

#	Article	IF	CITATIONS
541	Role of fluoride and fluorocarbons in enhanced stability and performance of halide perovskites for photovoltaics. Physical Review Materials, 2020, 4, .	0.9	20
543	Quantum dot-modified titanium dioxide nanoparticles as an energy-band tunable electron-transporting layer for open air-fabricated planar perovskite solar cells. Nanomaterials and Nanotechnology, 2020, 10, 184798042096163.	1.2	10
544	High-Performance and Hysteresis-Free Perovskite Solar Cells Based on Rare-Earth-Doped SnO ₂ Mesoporous Scaffold. Research, 2019, 2019, 4049793.	2.8	35
545	High throughput screening of novel tribromide perovskite materials for high-photovoltage solar cells. Journal of Materials Chemistry A, 2021, 9, 25502-25512.	5.2	8
546	Depth-dependent defect manipulation in perovskites for high-performance solar cells. Energy and Environmental Science, 2021, 14, 6526-6535.	15.6	114
547	Improved efficiency and stability of flexible perovskite solar cells by a new spacer cation additive. RSC Advances, 2021, 11, 33637-33645.	1.7	6
548	Designs from single junctions, heterojunctions to multijunctions for high-performance perovskite solar cells. Chemical Society Reviews, 2021, 50, 13090-13128.	18.7	91
549	Surface recrystallized stable 2D–3D graded perovskite solar cells for efficiency beyond 21%. Journal of Materials Chemistry A, 2021, 9, 26069-26076.	5.2	36
550	Ionic Liquid for Perovskite Solar Cells: An Emerging Solvent Engineering Technology. Accounts of Materials Research, 2021, 2, 1059-1070.	5.9	31
551	Achieving Efficient and Stable Perovskite Solar Cells in Ambient Air Through Nonâ€Halide Engineering. Advanced Energy Materials, 2021, 11, 2102169.	10.2	35
552	Interfacial Engineering of Wideâ€Bandgap Perovskites for Efficient Perovskite/CZTSSe Tandem Solar Cells. Advanced Functional Materials, 2022, 32, 2107359.	7.8	43
553	High performance electrochromic supercapacitors powered by perovskite-solar-cell for real-time light energy flow control. Chemical Engineering Journal, 2022, 430, 133082.	6.6	15
554	Machine learning for high-throughput experimental exploration of metal halide perovskites. Joule, 2021, 5, 2797-2822.	11.7	44
555	Perovskite solar cells with atomically coherent interlayers on SnO2 electrodes. Nature, 2021, 598, 444-450.	13.7	2,065
556	Enhanced electron transfer dynamics in perylene diimide passivated efficient and stable perovskite solar cells. EcoMat, 2021, 3, e12146.	6.8	24
557	Tailoring the Energy Band Structure and Interfacial Morphology of the ETL via Controllable Nanocluster Size Achieves High-Performance Planar Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 48555-48568.	4.0	8
558	Allâ€Inorganic CsPbl ₂ Br Perovskite Solar Cells: Recent Developments and Challenges. Energy Technology, 2021, 9, 2100691.	1.8	11
559	Grain Boundary Engineering with Self-Assembled Porphyrin Supramolecules for Highly Efficient Large-Area Perovskite Photovoltaics. Journal of the American Chemical Society, 2021, 143, 18989-18996.	6.6	83

#	Article	IF	CITATIONS
560	Highly oriented MAPbI3 crystals for efficient hole-conductor-free printable mesoscopic perovskite solar cells. Fundamental Research, 2022, 2, 276-283.	1.6	40
561	Over 21% Efficiency Stable 2D Perovskite Solar Cells. Advanced Materials, 2022, 34, e2107211.	11.1	160
562	Progress in flexible perovskite solar cells with improved efficiency. Journal of Semiconductors, 2021, 42, 101605.	2.0	16
563	Advancing 2D Perovskites for Efficient and Stable Solar Cells: Challenges and Opportunities. Advanced Materials, 2022, 34, e2105849.	11.1	104
564	Defect passivation of perovskites in high efficiency solar cells. JPhys Energy, 2021, 3, 042003.	2.3	13
565	Combined Precursor Engineering and Grain Anchoring Leading to MAâ€Free, Phaseâ€Pure, and Stable αâ€Formamidinium Lead Iodide Perovskites for Efficient Solar Cells. Angewandte Chemie - International Edition, 2021, 60, 27299-27306.	7.2	46
566	Propylammonium Chloride Additive for Efficient and Stable FAPbI ₃ Perovskite Solar Cells. Advanced Energy Materials, 2021, 11, 2102538.	10.2	84
567	PTB7 as additive in Anti-solvent to enhance perovskite film surface crystallinity for solar cells with efficiency over 21%. Applied Surface Science, 2022, 575, 151737.	3.1	5
568	Combined precursor engineering and grain anchoring leading to MAâ€free, phaseâ€pure and stable αâ€formamidinium lead iodide perovskites for efficient solar cells. Angewandte Chemie, 0, , .	1.6	11
569	Defect Passivation through Cyclohexylethylamine Post-treatment for High-Performance and Stable Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 12848-12857.	2.5	6
570	Photon-Responsive Nanomaterials for Solar Cells. Springer Series in Materials Science, 2020, , 1-63.	0.4	0
571	Improvement of quality and stability of MAPbI ₃ films grown by post annealing under high pressure argon atmosphere. Journal Physics D: Applied Physics, 2021, 54, 075101.	1.3	2
572	Organic ammonium salt-assisted pinhole-free CuSCN films for carbon-based perovskite solar cells. New Journal of Chemistry, 2021, 45, 21382-21388.	1.4	2
573	Development of encapsulation strategies towards the commercialization of perovskite solar cells. Energy and Environmental Science, 2022, 15, 13-55.	15.6	158
574	Crystal growth, defect passivation and strain release via In-situ Self-polymerization strategy enables efficient and stable perovskite solar cells. Chemical Engineering Journal, 2022, 430, 132869.	6.6	25
575	Research progress of wide bandgap perovskite materials and solar cells. Wuli Xuebao/Acta Physica Sinica, 2020, 69, 207401.	0.2	2
576	Growth and Degradation Kinetics of Organic–Inorganic Hybrid Perovskite Films Determined by In Situ Grazingâ€Incidence Xâ€Ray Scattering Techniques. Small Methods, 2021, 5, e2100829.	4.6	8
577	An intermediate phase stability for high performance of perovskite solar cells. Matter, 2021, 4, 3377-3378.	5.0	2

ARTICLE IF CITATIONS # Rear Interface Engineering to Suppress Migration of Iodide Ions for Efficient Perovskite Solar Cells 579 7.8 57 with Minimized Hysteresis. Advanced Functional Materials, 2022, 32, 2107823. Growth of 1D Nanorod Perovskite for Surface Passivation in FAPbI₃ Perovskite Solar 580 5.2 23 Cells. Small, 2022, 18, e2104100. Recent Progress in Perovskiteâ€Based Reversible Photonâ€"Electricity Conversion Devices. Advanced 581 7.8 18 Functional Materials, 2022, 32, 2108926. Dispersed SnO2 colloids using sodium dodecyl benzene sulfonate for high-performance planar 2.9 perovskite solar cells. Solar Energy, 2021, 230, 747-753. Using commercially available cost-effective Zn(II) phthalocyanine as hole-transporting material for inverted type perovskite solar cells and investigation of dopant effect. Synthetic Metals, 2021, 282, 583 2.1 1 116961. Enhanced photovoltaic performance of SnO2 based flexible perovskite solar cells via introducing interfacial dipolar layer and defect passivation. Journal of Power Sources, 2022, 519, 230814. 584 4.0 Cs incorporation via sequential deposition for stable and scalable organometal halide perovskite 585 4.0 6 solar cells. Journal of Power Sources, 2022, 520, 230783. Extended X-ray absorption fine structure (EXAFS) of FAPbI3 for understanding local 7.1 586 16 structure-stability relation in perovskite solar cells. Journal of Energy Chemistry, 2022, 67, 549-554. High-efficiency (>20%) planar carbon-based perovskite solar cells through device configuration 587 5.0 34 engineering. Journal of Colloid and Interface Science, 2022, 608, 3151-3158. Methodologies for >30% Efficient Perovskite Solar Cells via Enhancement of Voltage and Fill 3.1 Factor. Solar Rrl, 2022, 6, 2100767. Low-cost and efficient hole transport materials based on 9-phenyl-9H-carbazole branch for perovskite 589 2 1.5 solar cells. Surfaces and Interfaces, 2022, 28, 101598. Highly efficient (200) oriented MAPbI3 perovskite solar cells. Chemical Engineering Journal, 2022, 433, 6.6 133845. A Phenanthrocarbazoleâ€Based Dopantâ€Free Holeâ€Transport Polymer with Noncovalent Conformational 591 7.2 47 Locking for Efficient Perovskite Solar Cells. Angewandte Chemie - International Edition, 2022, 61, . Phenanthrocarbazoleâ€Based Dopantâ€Free Holeâ€Transport Polymer with Noncovalently Conformational 1.6 Locking for Efficient Perovskite Solar Cells. Angewandte Chemie, Ó, , . Mechanochemistry Advances Highâ€Performance Perovskite Solar Cells. Advanced Materials, 2022, 34, 593 11.1 51 e2107420. Unraveling the Role of Chloride in Vertical Growth of Low-Dimensional Ruddlesdenâ€"Popper 594 Perovskites for Efficient Perovskite Solar Cells. ACS Applied Materials & amp; Interfaces, 2021, , . The Chemical Design in High-Performance Lead Halide Perovskite: Additive vs Dopant?. Journal of 595 2.1 13 Physical Chemistry Letters, 2021, 12, 11636-11644. Chemical insights into perovskite ink stability. CheM, 2022, 8, 31-45. 5.8 19

#	Article	IF	CITATIONS
597	The evolution and future of metal halide perovskite-based optoelectronic devices. Matter, 2021, 4, 3814-3834.	5.0	35
598	Anti-Ribbing: Ink Optimization Enables Certified Slot-Die Coated Perovskite Solar Cells with > 22% Certified Power Conversion Efficiency and a Full Year Outdoor Stability. SSRN Electronic Journal, 0, ,	0.4	1
599	Universal Dynamic Liquid Interface for Healing Perovskite Solar Cells. SSRN Electronic Journal, 0, , .	0.4	0
600	Crystallization kinetics modulation and defect suppression of all-inorganic CsPbX ₃ perovskite films. Energy and Environmental Science, 2022, 15, 413-438.	15.6	53
601	Stability enhancement of perovskite solar cells via multi-point ultraviolet-curing-based protection. Journal of Power Sources, 2022, 520, 230906.	4.0	7
602	Perovskite/P3HT graded heterojunction by an additive-assisted method for high-efficiency perovskite solar cells with carbon electrodes. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 635, 128072.	2.3	9
603	Growth of 2D passivation layer in FAPbI3 perovskite solar cells for high open-circuit voltage. Nano Today, 2022, 42, 101357.	6.2	24
604	Robust heterojunction to strengthen the performances of FAPbI3 perovskite solar cells. Chemical Engineering Journal, 2022, 432, 134311.	6.6	7
605	3D cubic framework of fluoride perovskite SEI inducing uniform lithium deposition for air-stable and dendrite-free lithium metal anodes. Chemical Engineering Journal, 2022, 431, 134266.	6.6	17
606	Alkali metal ions induced high-quality all-inorganic Cs2AgBiBr6 perovskite films for flexible self-powered photodetectors. Applied Surface Science, 2022, 579, 152198.	3.1	20
607	Recent progress in perovskite solar cells: challenges from efficiency to stability. Materials Today Chemistry, 2022, 23, 100686.	1.7	26
608	Interfacial engineering from material to solvent: A mechanistic understanding on stabilizing <mml:math <br="" xmlns:mml="http://www.w3.org/1998/Math/MathML">altimg="si0001.svg"><mml:mi>î±</mml:mi></mml:math> -formamidinium lead triiodide perovskite photovoltaics. Nano Energy. 2022. 94. 106924.	8.2	13
609	A universal co-solvent dilution strategy enables facile and cost-effective fabrication of perovskite photovoltaics. Nature Communications, 2022, 13, 89.	5.8	77
610	Diaminobenzene Dihydroiodideâ€MA _{0.6} FA _{0.4} PbI _{3â^'} <i>_x</i> Cl <i>_{xUnsymmetrical Perovskites with over 22% Efficiency for High Stability Solar Cells. Advanced Functional Materials, 2022, 32, .}</i>	⊃> 7.8 ⁱ >	16
611	Vacuum Quenching for Large-Area Perovskite Film Deposition. ACS Applied Materials & Interfaces, 2022, 14, 2949-2957.	4.0	15
612	Development of formamidinium lead iodide-based perovskite solar cells: efficiency and stability. Chemical Science, 2022, 13, 2167-2183.	3.7	37
613	Facet Orientation and Intermediate Phase Regulation via a Green Antisolvent for Highâ€Performance Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	12
614	A finely regulated quantum well structure in quasi-2D Ruddlesden–Popper perovskite solar cells with efficiency exceeding 20%. Energy and Environmental Science, 2022, 15, 296-310.	15.6	54

#	Article	IF	CITATIONS
615	Rubidium chloride doping TiO2 for efficient and hysteresis-free perovskite solar cells with decreasing traps. Solar Energy, 2022, 231, 440-446.	2.9	10
616	Large-area perovskite solar cells employing spiro-Naph hole transport material. Nature Photonics, 2022, 16, 119-125.	15.6	123
617	Several Triazine-Based Small Molecules Assisted in the Preparation of High-Performance and Stable Perovskite Solar Cells by Trap Passivation and Heterojunction Engineering. ACS Applied Materials & Interfaces, 2022, 14, 6625-6637.	4.0	32
618	Defects and stability of perovskite solar cells: a critical analysis. Materials Chemistry Frontiers, 2022, 6, 400-417.	3.2	68
619	Amidinium additives for high-performance perovskite solar cells. Journal of Materials Chemistry A, 2022, 10, 3506-3512.	5.2	11
620	Acetone complexes for high-performance perovskite photovoltaics with reduced nonradiative recombination. Materials Advances, 2022, 3, 2047-2055.	2.6	2
621	In Situ Formation of δ-FAPbI ₃ at the Perovskite/Carbon Interface for Enhanced Photovoltage of Printable Mesoscopic Perovskite Solar Cells. Chemistry of Materials, 2022, 34, 728-735.	3.2	24
622	Additive-Assisted Optimization in Morphology and Optoelectronic Properties of Inorganic Mixed Sn-Pb Halide Perovskites. Materials, 2022, 15, 899.	1.3	4
623	Challenges for Thermally Stable Spiro-MeOTAD toward the Market Entry of Highly Efficient Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 34220-34227.	4.0	17
624	Surface Passivation Using 2D Perovskites toward Efficient and Stable Perovskite Solar Cells. Advanced Materials, 2022, 34, e2105635.	11.1	221
625	Synergy Effect of a Ï€â€Conjugated Ionic Compound: Dual Interfacial Energy Level Regulation and Passivation to Promote <i>V</i> _{oc} and Stability of Planar Perovskite Solar Cells. Angewandte Chemie - International Edition, 2022, 61, .	7.2	30
626	Conformal quantum dot–SnO ₂ layers as electron transporters for efficient perovskite solar cells. Science, 2022, 375, 302-306.	6.0	872
627	Over 8% efficient CsSnI ₃ -based mesoporous perovskite solar cells enabled by two-step thermal annealing and surface cationic coordination dual treatment. Journal of Materials Chemistry A, 2022, 10, 3642-3649.	5.2	35
628	Self-Assembled Donor–Acceptor Dyad Molecules Stabilize the Heterojunction of Inverted Perovskite Solar Cells and Modules. ACS Applied Materials & Interfaces, 2022, 14, 6794-6800.	4.0	16
629	Inspired from Spiro-OMeTAD: developing ambipolar spirobifluorene derivatives as effective passivation molecules for perovskite solar cells. Journal of Materials Chemistry C, 2022, 10, 1357-1364.	2.7	10
630	Synergy Effect of a π onjugated Ionic Compound: Dual Interfacial Energy Level Regulation and Passivation to Promote V oc and Stability of Planar Perovskite Solar Cells. Angewandte Chemie, 0, , .	1.6	4
631	Ethylamine Iodide Additive Enables Solidâ€ŧo‣olid Transformed Highly Oriented Perovskite for Excellent Photodetectors. Advanced Materials, 2022, 34, e2108569.	11.1	23
632	Centimetre-scale perovskite solar cells with fill factors of more than 86 per cent. Nature, 2022, 601, 573-578.	13.7	137

#	Article	IF	CITATIONS
633	Toward stable lead halide perovskite solar cells: A knob on the A/X sites components. IScience, 2022, 25, 103599.	1.9	13
634	Additiveâ€Free, Lowâ€Temperature Crystallization of Stable αâ€FAPbI ₃ Perovskite. Advanced Materials, 2022, 34, e2107850.	11.1	71
635	Electrodeposition of lead dioxide induces the fabrication of perovskite FAPbI3 film and electron-transport-layer-free solar cells. Solar Energy, 2022, 233, 515-522.	2.9	5
636	Review on efficiency improvement effort of perovskite solar cell. Solar Energy, 2022, 233, 421-434.	2.9	74
637	FAPbI ₃ Perovskite Films Prepared by Solvent Self-Volatilization for Photovoltaic Applications. ACS Applied Energy Materials, 2022, 5, 1487-1495.	2.5	18
638	Dual Modification Engineering via Lanthanideâ€Based Halide Quantum Dots and Black Phosphorus Enabled Efficient Perovskite Solar Cells with High Openâ€Voltage of 1.235ÂV. Advanced Functional Materials, 2022, 32, .	7.8	22
639	In Situ Methylammonium Chloride-Assisted Perovskite Crystallization Strategy for High-Performance Solar Cells. , 2022, 4, 448-456.		13
640	Enhanced efficiency and stability of tripleâ€cation perovskite solar cells with CsPbl _{<i>x</i>} Br _{3 Ⱂ <i>x</i>} QDs "surface patchesâ€. SmartMat, 2022, 3,	51 3 -521.	22
641	Boost the efficiency of nickel oxide-based formamidinium-cesium perovskite solar cells to 21% by using coumarin 343 dye as defect passivator. Nano Energy, 2022, 94, 106935.	8.2	49
642	Multi-cation hybrid stannic oxide electron transport layer for high-efficiency perovskite solar cells. Journal of Colloid and Interface Science, 2022, 614, 415-424.	5.0	9
643	A "double-sided tape―modifier bridging the TiO ₂ /perovskite buried interface for efficient and stable all-inorganic perovskite solar cells. Journal of Materials Chemistry A, 2022, 10, 6649-6661.	5.2	25
644	Inhibiting Ion Migration by Guanidinium Cation Doping for Efficient Perovskite Solar Cells with Enhanced Operational Stability. Solar Rrl, 2022, 6, .	3.1	5
645	Multiâ€Functional MoO ₃ Doping of Carbonâ€Nanotube Top Electrodes for Highly Transparent and Efficient Semiâ€Transparent Perovskite Solar Cells. Advanced Materials Interfaces, 2022, 9, .	1.9	14
646	Molecularly Tailored SnO ₂ /Perovskite Interface Enabling Efficient and Stable FAPbI ₃ Solar Cells. ACS Energy Letters, 2022, 7, 929-938.	8.8	52
647	Flexible Perovskite Solar Cells with Enhanced Performance Based on a Void-Free Imbedded Interface via a Thin Layer of Mesoporous TiO ₂ . ACS Applied Energy Materials, 2022, 5, 2242-2251.	2.5	8
648	Enhanced Efficiency and Stability of Carbonâ€Based Perovskite Solar Cells by Eva Interface Engineering. Advanced Materials Interfaces, 2022, 9, .	1.9	4
649	Natural Chlorophyll Derivative Assisted Defect Passivation and Hole Extraction for MAPbl ₃ Perovskite Solar Cells with Efficiency Exceeding 20%. ACS Applied Energy Materials, 2022, 5, 1390-1396.	2.5	5
650	Postâ€Treatment Passivation by Quaternary Ammonium Chloride Zwitterion for Efficient and Stable Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	3

#	Article	IF	CITATIONS
651	Review of Two‣tep Method for Lead Halide Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	44
652	Roles of Longâ€Chain Alkylamine Ligands in Tripleâ€Halide Perovskites for Efficient NiO _{<i>x</i>} â€Based Inverted Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	14
653	Inclusion of triphenylamine unit in dopant-free hole transport material for enhanced interfacial interaction in perovskite photovoltaics. Dyes and Pigments, 2022, 200, 110162.	2.0	10
654	Role of π-conjugated-length-regulated perovskite intergrain interconnecting in the photovoltaic performance of perovskite solar cells. Applied Surface Science, 2022, 585, 152670.	3.1	5
655	Surfaceâ€Anchored Acetylcholine Regulates Bandâ€Edge States and Suppresses Ion Migration in a 21%â€Efficient Quadrupleâ€Cation Perovskite Solar Cell. Small, 2022, 18, e2105184.	5.2	30
656	All Green Solvent Engineering of Organic-Inorganic Hybrid Perovskite Layer for High-Performance Solar Cells. SSRN Electronic Journal, 0, , .	0.4	0
657	Boosting Radiation of Stacked Halide Layer for Perovskite Solar Cells With Efficiency Over 25%. SSRN Electronic Journal, 0, , .	0.4	0
658	A triple helicene based molecular semiconductor characteristic of a fully fused conjugated backbone for perovskite solar cells. Energy and Environmental Science, 2022, 15, 1630-1637.	15.6	28
659	Zn(Ii) and Cu(Ii) Tetrakis(Diarylamine)Phthalocyanines as Hole-Transporting Materials for Perovskite Solar Cells. SSRN Electronic Journal, 0, , .	0.4	0
660	Unveiling the roles of halogen ions in the surface passivation of CsPbI ₃ perovskite solar cells. Physical Chemistry Chemical Physics, 2022, 24, 10184-10192.	1.3	21
661	Simultaneous Bottom-Up Double-Layer Synergistic Optimization by Multifunctional Fused-Ring Acceptor with Electron-Deficient Core for Stable Planar Perovskite Solar Cells with Approaching 24% Efficiency. SSRN Electronic Journal, 0, , .	0.4	0
662	Molecular Dopant Induced Growth of Black Phase Cs _x FA _(1-x) PbI ₃ for Highly Efficient and Stable Perovskite Solar Cells. SSRN Electronic Journal, 0, , .	0.4	0
663	Exploring EDTA/SnO ₂ Double-Layer Composite Electron Transport Layer for Perovskite Solar Cells. Wuli Xuebao/Acta Physica Sinica, 2022, .	0.2	0
664	Intermediate phase engineering of halide perovskites for photovoltaics. Joule, 2022, 6, 315-339.	11.7	60
665	Effect of Chlorine Addition on the Performance and Stability of Electrodeposited Mixed Perovskite Solar Cells. Chemistry of Materials, 2022, 34, 2218-2230.	3.2	10
666	Alkali Additives Enable Efficient Large Area (>55 cm ²) Slotâ€Đie Coated Perovskite Solar Modules. Advanced Functional Materials, 2022, 32, .	7.8	39
667	Rethinking the A cation in halide perovskites. Science, 2022, 375, eabj1186.	6.0	207
668	Phase-Pure α-FAPbI ₃ for Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2022, 13, 1845-1854.	2.1	27

#	Article	IF	CITATIONS
669	Brominated PEAI as Multiâ€Functional Passivator for Highâ€Efficiency Perovskite Solar Cell. Energy and Environmental Materials, 2023, 6, .	7.3	16
670	FAPbI ₃ Perovskite Solar Cells: From Film Morphology Regulation to Device Optimization. Solar Rrl, 2022, 6, .	3.1	19
671	Chlorobenzenesulfonic Potassium Salts as the Efficient Multifunctional Passivator for the Buried Interface in Regular Perovskite Solar Cells. Advanced Energy Materials, 2022, 12, .	10.2	119
672	Synchronous Passivation of Defects with Low Formation Energies via Terdentate Anchoring Enabling High Performance Perovskite Solar Cells with Efficiency over 24%. Advanced Functional Materials, 2022, 32, .	7.8	52
673	Fully Roll-to-Roll Processed Efficient Perovskite Solar Cells via Precise Control on the Morphology of PbI2:CsI Layer. Nano-Micro Letters, 2022, 14, 79.	14.4	21
674	Interfacial Modification by Lowâ€Temperature Anchoring Surface Uncoordinated Pb for Efficient FAPbI ₃ Perovskite Solar Cells. Advanced Sustainable Systems, 2022, 6, .	2.7	13
675	A Universal Strategy of Intermolecular Exchange to Stabilize αâ€FAPbI ₃ and Manage Crystal Orientation for Highâ€Performance Humidâ€Airâ€Processed Perovskite Solar Cells. Advanced Materials, 2022, 34, e2200041.	11.1	50
676	Accelerated Design of High-Efficiency Lead-Free Tin Perovskite Solar Cells via Machine Learning. International Journal of Precision Engineering and Manufacturing - Green Technology, 2023, 10, 109-121.	2.7	9
677	Ion diffusion-induced double layer doping toward stable and efficient perovskite solar cells. Nano Research, 2022, 15, 5114-5122.	5.8	47
678	Highly Strengthened and Toughened Zn–Li–Mn Alloys as Longâ€Cycling Life and Dendriteâ€Free Zn Anode for Aqueous Zincâ€Ion Batteries. Small, 2022, 18, e2200787.	5.2	16
679	Manipulating Crystallization Kinetics in Highâ€Performance Bladeâ€Coated Perovskite Solar Cells via Cosolventâ€Assisted Phase Transition. Advanced Materials, 2022, 34, e2200276.	11.1	64
680	Influence of Halide Choice on Formation of Lowâ€Dimensional Perovskite Interlayer in Efficient Perovskite Solar Cells. Energy and Environmental Materials, 2022, 5, 670-682.	7.3	9
681	Stability-limiting heterointerfaces of perovskite photovoltaics. Nature, 2022, 605, 268-273.	13.7	229
682	An Integrated Bulk and Surface Modification Strategy for Gasâ€Quenched Inverted Perovskite Solar Cells with Efficiencies Exceeding 22%. Solar Rrl, 2022, 6, .	3.1	10
683	Enhanced band-filling effect in halide perovskites via hydrophobic conductive linkers. Cell Reports Physical Science, 2022, 3, 100800.	2.8	3
684	Synergistic Passivation of Perovskite Absorber Films for Efficient Fourâ€Terminal Perovskite/Silicon Tandem Solar Cells. Advanced Energy and Sustainability Research, 2022, 3, .	2.8	10
685	Phaseâ€Pure Engineering for Efficient and Stable Formamidiniumâ€Based Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	16
686	Highly efficient and stable perovskite solar cells induced by novel bulk organosulfur ammonium. Materials Today Energy, 2022, 26, 101004.	2.5	7

#	Article	IF	CITATIONS
687	Stable αâ€FAPbI ₃ in Inverted Perovskite Solar Cells with Efficiency Exceeding 22% via a Selfâ€Passivation Strategy. Advanced Functional Materials, 2022, 32, .	7.8	47
688	Modulated crystal growth enables efficient and stable perovskite solar cells in humid air. Chemical Engineering Journal, 2022, 442, 136267.	6.6	9
689	Improvement in the Performance of Inverted 3D/2D Perovskite Solar Cells by Ambient Exposure. Solar Rrl, 2022, 6, .	3.1	6
690	From Bulk to Surface Passivation: Double Role of Chlorineâ€Doping for Boosting Efficiency of FAPbI ₃ â€rich Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	12
691	Defect Healing in FAPb(l _{1â€} <i>_x</i> Br <i>_x</i>) _{)₃ Perovskites: Multifunctional Fluorinated Sulfonate Surfactant Anchoring Enables >21%ÂModules with Improved Operation Stability. Advanced Energy Materials, 2022, 12, .}	10.2	32
692	Halide Perovskite Crystallization Processes and Methods in Nanocrystals, Single Crystals, and Thin Films. Advanced Materials, 2022, 34, e2200720.	11.1	50
693	Encapsulation of commercial and emerging solar cells with focus on perovskite solar cells. Solar Energy, 2022, 237, 264-283.	2.9	35
694	A facile strategy for high performance air-processed perovskite solar cells with dopant-free poly(3-hexylthiophene) hole transporter. Solar Energy, 2022, 237, 153-160.	2.9	2
695	Tartaric acid additive to enhance perovskite multiple preferential orientations for high-performance solar cells. Journal of Energy Chemistry, 2022, 69, 406-413.	7.1	8
696	All green solvent engineering of organic–inorganic hybrid perovskite layer for high-performance solar cells. Chemical Engineering Journal, 2022, 437, 135458.	6.6	28
697	α-Phase intermediate for efficient and stable narrow bandgap triple cation perovskite solar cells. Journal of Alloys and Compounds, 2022, 910, 164722.	2.8	2
698	Interface barrier strategy for perovskite solar cells realized by In-situ synthesized polyionic layer. Chemical Engineering Journal, 2022, 439, 135704.	6.6	7
699	Para-halogenated triphenyltriazine induced surface passivation toward efficient and stable perovskite solar cells. Applied Surface Science, 2022, 590, 153051.	3.1	6
700	A new strategy for efficient light management in inverted perovskite solar cell. Chemical Engineering Journal, 2022, 439, 135703.	6.6	8
701	Inkjet-Printed Electron Transport Layers for Perovskite Solar Cells. Materials, 2021, 14, 7525.	1.3	4
702	Wideâ€Gap Perovskite via Synergetic Surface Passivation and Its Application toward Efficient Stacked Tandem Photovoltaics. Small, 2022, 18, e2103887.	5.2	3
703	Modification of SnO ₂ with Phosphorus ontaining Lewis Acid for Highâ€Performance Planar Perovskite Solar Cells with Negligible Hysteresis. Solar Rrl, 2022, 6, .	3.1	17
704	Role of additives and surface passivation on the performance of perovskite solar cells. Materials for Renewable and Sustainable Energy, 2022, 11, 47-70.	1.5	18

#	Article	IF	CITATIONS
705	Aiming at the industrialization of perovskite solar cells: Coping with stability challenge. Applied Physics Letters, 2021, 119, .	1.5	3
706	Lead-Free Perovskite Solar Cells with Over 10% Efficiency and Size 1 cm ² Enabled by Solvent–Crystallization Regulation in a Two-Step Deposition Method. ACS Energy Letters, 2022, 7, 425-431.	8.8	36
707	Critical Role of Organoamines in the Irreversible Degradation of a Metal Halide Perovskite Precursor Colloid: Mechanism and Inhibiting Strategy. ACS Energy Letters, 2022, 7, 481-489.	8.8	26
708	Polyacrylonitrileâ€Coordinated Perovskite Solar Cell with Openâ€Circuit Voltage Exceeding 1.23â€V. Angewandte Chemie - International Edition, 2022, 61, .	7.2	63
709	Polymer additive engineering of K ₂ CuBr ₃ nanocrystalline films to achieve efficient and stable deep-blue emission. JPhys Photonics, 2022, 4, 014001.	2.2	1
710	Manipulating the film morphology evolution toward green solventâ€processed perovskite solar cells. SusMat, 2021, 1, 537-544.	7.8	21
711	Electron Transport Assisted by Transparent Conductive Oxide Elements in Perovskite Solar Cells. ChemSusChem, 2022, 15, .	3.6	7
712	Laser Additively Manufactured Iron-Based Biocomposite: Microstructure, Degradation, and In Vitro Cell Behavior. Frontiers in Bioengineering and Biotechnology, 2021, 9, 783821.	2.0	3
713	Polyacrylonitrileâ€Coordinated Perovskite Solar Cell with Open ircuit Voltage Exceeding 1.23â€V. Angewandte Chemie, 2022, 134, .	1.6	18
714	Recent Progress of Critical Interface Engineering for Highly Efficient and Stable Perovskite Solar Cells. Advanced Energy Materials, 2022, 12, .	10.2	78
715	Ionicâ€Liquidâ€Perovskite Capping Layer for Stable 24.33%â€Efficient Solar Cell. Advanced Energy Materials, 2022, 12, .	10.2	80
716	Improving the Efficiency, Stability, and Adhesion of Perovskite Solar Cells Using Nanogel Additive Engineering. ACS Applied Materials & Interfaces, 2021, 13, 58640-58651.	4.0	2
717	Homogeneously Miscible Fullerene inducing Vertical Gradient in Perovskite Thinâ€Film toward Highly Efficient Solar Cells. Advanced Energy Materials, 2022, 12, .	10.2	28
718	Kinetics and energeticsÂof metal halide perovskite conversion reactions at the nanoscale. Communications Materials, 2022, 3, .	2.9	12
719	Potassium chloride templated α-FAPbI3 perovskite crystal growth for efficient planar perovskite solar cells. Organic Electronics, 2022, 106, 106527.	1.4	5
721	Universal Dynamic Liquid Interface for Healing Perovskite Solar Cells. Advanced Materials, 2022, 34, e2202301.	11.1	57
722	Synthesis and Extraction of Carbon-Encapsulated Iron Carbide Nanoparticles for Perovskite Solar Cell Application. SSRN Electronic Journal, 0, , .	0.4	0
723	Electron transport layer assisted by nickel chloride hexahydrate for open-circuit voltage improvement in MAPbI ₃ perovskite solar cells. RSC Advances, 2022, 12, 13820-13825.	1.7	Ο

#	Article	IF	CITATIONS
724	Progress of defect and defect passivation in perovskite solar cells. Wuli Xuebao/Acta Physica Sinica, 2022, 71, 166801.	0.2	1
725	Efficient and Stable FAâ€Rich Perovskite Photovoltaics: From Material Properties to Device Optimization. Advanced Energy Materials, 2022, 12, .	10.2	16
726	CsPbCl ₃ â€Clusterâ€Widened Bandgap and Inhibited Phase Segregation in a Wideâ€Bandgap Perovskite and its Application to NiO <i>_x</i> â€Based Perovskite/Silicon Tandem Solar Cells. Advanced Materials, 2022, 34, e2201451.	11.1	29
727	The Challenge of Making the Same Device Twice in Perovskite Photovoltaics. ACS Energy Letters, 2022, 7, 1750-1757.	8.8	14
728	High-Efficiency and Stable Perovskite Photodetectors with an F4-TCNQ-Modified Interface of NiO _{<i>x</i>} and Perovskite Layers. Journal of Physical Chemistry Letters, 2022, 13, 3904-3914.	2.1	6
729	Indigo: A Natural Molecular Passivator for Efficient Perovskite Solar Cells. Advanced Energy Materials, 2022, 12, .	10.2	60
730	An ammonium-pseudohalide ion pair for synergistic passivating surfaces in FAPbI3 perovskite solar cells. Matter, 2022, 5, 2209-2224.	5.0	26
731	One-dimensional perovskite-based Li-ion battery anodes with high capacity and cycling stability. Journal of Energy Chemistry, 2022, 72, 73-80.	7.1	8
732	Stabilizing α-phase FAPbI ₃ solar cells. Journal of Semiconductors, 2022, 43, 040202.	2.0	5
733	Mandelic Acid as an Interfacial Modifier for High Performance NiO _x â€based Inverted Perovskite Solar Cells. ChemNanoMat, 2022, 8, .	1.5	2
734	Strategies for highâ€performance perovskite solar cells from materials, film engineering to carrier dynamics and photon management. InformaÄnÃ-Materiály, 2022, 4, .	8.5	27
735	Formation of a Secondary Phase in Thermally Evaporated MAPbI ₃ and Its Effects on Solar Cell Performance. ACS Applied Materials & Interfaces, 2022, 14, 34269-34280.	4.0	5
736	Cesium trifluoroacetate induced synergistic effects of grain growth and defect passivation on high-performance perovskite solar cells. Chemical Engineering Journal, 2022, 446, 136936.	6.6	12
737	Multifunctional Passivation Strategy of Cationic and Anionic Defects for Efficient and Stable Perovskite Solar Cells. ACS Applied Energy Materials, 2022, 5, 5928-5936.	2.5	6
738	A Novel 4,4'-Bipiperidine-Based Organic Salt for Efficient and Stable 2D-3D Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 22324-22331.	4.0	6
739	Multifunctional Organic Additive for Improving the Open Circuit Voltage of Perovskite Solar Cells. Solar Rrl, O, , .	3.1	5
740	Improving Heat Transfer Enables Durable Perovskite Solar Cells. Advanced Energy Materials, 2022, 12, .	10.2	15
741	Simultaneous bottom-up double-layer synergistic optimization by multifunctional fused-ring acceptor with electron-deficient core for stable planar perovskite solar cells with approaching 24% efficiency.	8.2	10

#	Article	IF	CITATIONS
742	Interfacial passivation by polylactic acid in perovskite solar cells. Organic Electronics, 2022, 106, 106543.	1.4	4
743	Bromide complimented methylammonium-free wide bandgap perovskite solar modules with high efficiency and stability. Chemical Engineering Journal, 2022, 445, 136626.	6.6	12
744	Recent development in MOFs for perovskite-based solar cells. , 2022, , 507-534.		1
745	Ambient Airâ€Processed Wideâ€Bandgap Perovskite Solar Cells with Wellâ€Controlled Film Morphology for Fourâ€Terminal Tandem Application. Solar Rrl, 2022, 6, .	3.1	4
746	Unveiling the key factor affecting the illumination deterioration and response measures for lead halide perovskite solar cells. Journal of Energy Chemistry, 2022, 73, 429-435.	7.1	9
747	Recent advancement in perovskite solar cell with imidazole additive. Materials Science in Semiconductor Processing, 2022, 148, 106788.	1.9	7
748	A D–Ĩ€â€"A Organic Dye as a Passivator to Effectively Regulate the Performance of Perovskite Solar Cells. Energy Technology, 2022, 10, .	1.8	2
749	Terbiumâ€Doped and Dualâ€Passivated γâ€CsPb(I _{1â^'} <i>_x</i> Br <i>_x</i>) ₃ Inorganic Perovskite Solar Cells with Improved Air Thermal Stability and High Efficiency. Advanced Materials, 2022, 34, e2203204.	11.1	27
750	Uniaxial-oriented FAxMA1-xPbI3 films with low intragrain and structural defects for self-powered photodetectors. Journal of Materials Chemistry C, 0, , .	2.7	0
751	Synergistic effect of two hydrochlorides resulting in significantly enhanced performance of tin-based perovskite solar cells with 3D to quasi-2D structural transition. Journal of Materials Chemistry A, 2022, 10, 14441-14450.	5.2	10
752	Above 23% Efficiency by Binary Surface Passivation of Perovskite Solar Cells Using Guanidinium and Octylammonium Spacer Cations. Solar Rrl, 2022, 6, .	3.1	22
753	X-ray diffraction of photovoltaic perovskites: Principles and applications. Applied Physics Reviews, 2022, 9, .	5.5	28
754	Perovskite-based multi-dimension THz modulation of EIT-like metamaterials. Optik, 2022, 262, 169348.	1.4	13
755	Long term stability assessment of perovskite solar cell via recycling of metal contacts under ambient conditions. Materials Letters, 2022, 322, 132490.	1.3	4
756	Crystallization regulation of solution-processed two-dimensional perovskite solar cells. Journal of Materials Chemistry A, 2022, 10, 13625-13650.	5.2	11
757	(CH3)2C=NHCH3PbBr3/CH3NH3PbBr3 Core-Shell Heterostruture Fabricated by In-Situ A-Site Reaction for Fast Response 1D Perovskite Photodetectors. Physical Chemistry Chemical Physics, 0, , .	1.3	1
758	Dual Optimization of Bulk and Surface via Guanidine Halide for Efficient and Stable 2D/3D Hybrid Perovskite Solar Cells. Advanced Energy Materials, 2022, 12, .	10.2	30
759	Tin dioxide buffer layer-assisted efficiency and stability of wide-bandgap inverted perovskite solar cells. Journal of Semiconductors, 2022, 43, 052201.	2.0	5

#	Article	IF	CITATIONS
760	A Thiophene Based Dopant-Free Hole-Transport Polymer for Efficient and Stable Perovskite Solar Cells. Macromolecular Research, 2022, 30, 391-396.	1.0	5
761	Impact of Halide Anions in CsX (X = I, Br, Cl) on the Microstructure and Photovoltaic Performance of FAPbI ₃ â€Based Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	4
762	Over 24% efficient MA-free CsxFA1â^'xPbX3 perovskite solar cells. Joule, 2022, 6, 1344-1356.	11.7	58
763	Functionalized-MXene-nanosheet-doped tin oxide enhances the electrical properties in perovskite solar cells. Cell Reports Physical Science, 2022, 3, 100905.	2.8	17
764	Modulating crystal growth of formamidinium–caesium perovskites for over 200 cm2 photovoltaic sub-modules. Nature Energy, 2022, 7, 528-536.	19.8	89
765	Phenylethylammonium-formamidinium-methylammonium quasi-2D/3D tin wide-bandgap perovskite solar cell with improved efficiency and stability. Chemical Engineering Journal, 2022, 446, 137388.	6.6	17
766	Solution-Processed Quantum-Dot Solar Cells. Springer Handbooks, 2022, , 1215-1266.	0.3	2
767	The high open-circuit voltage of perovskite solar cells: a review. Energy and Environmental Science, 2022, 15, 3171-3222.	15.6	181
769	Dibenzoâ€18â€crownâ€6â€assisted inhibition of cationâ€migration for stable perovskite solar cells. Solar Rrl, 0, ,	3.1	3
770	Critical Role of Perovskite Film Stoichiometry in Determining Solar Cell Operational Stability: a Study on the Effects of Volatile A-Cation Additives. ACS Applied Materials & amp; Interfaces, 2022, 14, 27922-27931.	4.0	11
771	Toward <scp>allâ€inorganic</scp> perovskite solar cells: Materials, performance, and stability. International Journal of Energy Research, 2022, 46, 14659-14695.	2.2	8
772	Efficient and Lessâ€Toxic Indiumâ€Doped MAPbI ₃ Perovskite Solar Cells Prepared by Metal Alloying Technique. Solar Rrl, 2022, 6, .	3.1	6
773	Degradation mechanism and stability improvement of formamidine-based perovskite solar cells under high humidity conditions. Nano Research, 2022, 15, 8955-8961.	5.8	8
774	Tailoring electric dipole of hole-transporting material p-dopants for perovskite solar cells. Joule, 2022, 6, 1689-1709.	11.7	38
775	Visualizing the Surface Photocurrent Distribution in Perovskite Photovoltaics. Small, 2022, 18, .	5.2	12
776	The effect of chloride atoms to induce organohalide perovskite intermediate crystal phase: a simulation rationale. Applied Physics Express, 2022, 15, 075504.	1.1	2
777	Universal Surface Passivation of Organic–Inorganic Halide Perovskite Films by Tetraoctylammonium Chloride for High-Performance and Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 28044-28059.	4.0	15
779	Heterogeneous lead iodide obtains perovskite solar cells with efficiency of 24.27%. Chemical Engineering Journal, 2022, 448, 137676.	6.6	29

#	Article	IF	CITATIONS
780	Modulating Donor Assemblies of D-Î-D Type Hole Transport Materials for Perovskite Solar Cells. SSRN Electronic Journal, 0, , .	0.4	0
781	Suppression of Sn ²⁺ oxidation and formation of large-size crystal grains with multifunctional chloride salt for perovskite solar cell applications. Journal of Materials Chemistry C, 0, , .	2.7	5
782	Coordination Modulated Passivation for Stable Organic-Inorganic Perovskite Solar Cells. SSRN Electronic Journal, 0, , .	0.4	0
783	Stabilizing wide-bandgap halide perovskites through hydrogen bonding. Science China Chemistry, 2022, 65, 1650-1660.	4.2	9
784	Reactive Inhibition Strategy for Tripleâ€cation Mixedâ€halide Perovskite Ink with Prolonged Shelfâ€life. Advanced Energy Materials, 2022, 12, .	10.2	16
785	Investigation of 3D and 2D/3D heterojunction perovskite-based phototransistors. Applied Physics Letters, 2022, 120, 263501.	1.5	3
786	Phonon-Assisted Nonradiative Recombination Tuned by Organic Cations in Ruddlesden-Popper Hybrid Perovskites. Physical Review Applied, 2022, 17, .	1.5	4
787	Long Carrier Diffusion Length and Efficient Charge Transport in Thick Quasi-Two-Dimensional Perovskite Solar Cells Enabled by Modulating Crystal Orientation and Phase Distribution. ACS Applied Energy Materials, 2022, 5, 8930-8939.	2.5	7
788	Nanoscale interfacial engineering of <scp> 1D gâ€C ₃ N ₄ </scp> enables effective and thermally stable <scp>HTL</scp> â€free <scp>carbonâ€based</scp> perovskite solar cells with aging for 100 hours. International Journal of Energy Research, 2022, 46, 20194-20205.	2.2	3
789	Ink Engineering in Blade oating Largeâ€Area Perovskite Solar Cells. Advanced Energy Materials, 2022, 12,	10.2	39
790	Organic Holeâ€Transport Layers for Efficient, Stable, and Scalable Inverted Perovskite Solar Cells. Advanced Materials, 2022, 34, .	11.1	107
791	Synergistic Crystallization and Passivation by a Single Molecular Additive for Highâ€Performance Perovskite Solar Cells. Advanced Materials, 2022, 34, .	11.1	37
792	Hot astingâ€Assisted Liquid Additive Engineering for Efficient and Stable Perovskite Solar Cells. Advanced Materials, 2022, 34, .	11.1	21
793	Defect Passivation by a Multifunctional Phosphate Additive toward Improvements of Efficiency and Stability of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 31911-31919.	4.0	6
794	Back-Contact Ionic Compound Engineering Boosting the Efficiency and Stability of Blade-Coated Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 34040-34048.	4.0	1
795	Recent defect passivation drifts and role of additive engineering in perovskite photovoltaics. Nano Energy, 2022, 101, 107579.	8.2	46
796	Blade-coated inverted perovskite solar cells in an ambient environment. Solar Energy Materials and Solar Cells, 2022, 246, 111894.	3.0	10
797	Surface defect passivation by 1,8-Naphthyridine for efficient and stable Formamidinium-based 2D/3D perovskite solar cells. Chemical Engineering Journal, 2022, 449, 137806.	6.6	15

#	Article	IF	CITATIONS
798	Relaxation of externally strained halide perovskite thin layers with neutral ligands. Joule, 2022, 6, 2175-2185.	11.7	35
799	Polar methylammonium organic cations detune state coupling and extend hot-carrier lifetime in lead halide perovskites. CheM, 2022, 8, 3051-3063.	5.8	4
800	Heat Management Strategy for Allâ€Inorganic, Fullâ€5pectral Concentrator CsPbBr ₃ /Bi ₂ Te ₃ â€Integrated Solar Cells. Solar Rrl, 2022, 6, .	3.1	4
801	Slot-die coating of a formamidinium-cesium mixed-cation perovskite for roll-to-roll fabrication of perovskite solar cells under ambient laboratory conditions. Solar Energy Materials and Solar Cells, 2022, 246, 111884.	3.0	8
802	Ion-modulated radical doping of spiro-OMeTAD for more efficient and stable perovskite solar cells. Science, 2022, 377, 495-501.	6.0	148
803	Inactive (Pbl ₂) ₂ RbCl stabilizes perovskite films for efficient solar cells. Science, 2022, 377, 531-534.	6.0	623
804	2,2′-Dihydroxy-4,4′-dimethoxy-benzophenon as Bifunctional Additives for Passivated Defects and Improved Photostability of Efficient Perovskite Photovoltaics. ACS Applied Materials & Interfaces, 2022, 14, 36602-36610.	4.0	3
805	Reductive ionic liquid-mediated crystallization for enhanced photovoltaic performance of Sn-based perovskite solar cells. Science China Chemistry, 2022, 65, 1895-1902.	4.2	4
806	Influence of the Alkyl Chain Length of (Pentafluorophenylalkyl) Ammonium Salts on Inverted Perovskite Solar Cell Performance. ACS Applied Materials & Interfaces, 0, , .	4.0	3
807	Recent Progress on the Phase Stabilization of FAPbl ₃ for Highâ€Performance Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	25
808	Van der Waals Force-Assisted Heat-Transfer Engineering for Overcoming Limited Efficiency of Flexible Perovskite Solar Cells. ACS Energy Letters, 2022, 7, 2893-2903.	8.8	32
809	Phase-Pure γ-CsPbI ₃ for Efficient Inorganic Perovskite Solar Cells. ACS Energy Letters, 2022, 7, 2911-2918.	8.8	34
810	Amine Salts Vapor Healing Perfected Perovskite Layers for NiO _x Based pâ€iâ€n Solar Cells. Advanced Functional Materials, 2022, 32, .	7.8	11
811	Coordination modulated passivation for stable organic-inorganic perovskite solar cells. Chemical Engineering Journal, 2023, 451, 138740.	6.6	12
812	Moisture-triggered fast crystallization enables efficient and stable perovskite solar cells. Nature Communications, 2022, 13, .	5.8	65
813	Direct and stable α-phase formation via ionic liquid solvation for formamidinium-based perovskite solar cells. Joule, 2022, 6, 2203-2217.	11.7	51
814	Thermally induced failure mechanisms in double and triple cations perovskite solar cells. AIP Advances, 2022, 12, .	0.6	2
815	Ethanol-based green-solution processing of α-formamidinium lead triiodide perovskite layers. Nature Energy, 2022, 7, 828-834.	19.8	53

#	Article	IF	CITATIONS
816	Synergistic enhancement of potassium halide and SnOx:Cl to weak hysteresis in perovskite photovoltaics. Journal of Materials Research, 0, , .	1.2	0
817	Maximizing Merits of Undesirable δâ€FAPbI ₃ by Constructing yellow/black Heterophase Bilayer for Efficient and Stable Perovskite Photovoltaics. Advanced Functional Materials, 2022, 32, .	7.8	11
818	Crystallization and Defect Regulation in Sn–Pb Perovskite Solar Cells via Optimized Antiâ€Solvent Passivation Strategy. Solar Rrl, 2022, 6, .	3.1	3
819	In silico investigation and potential therapeutic approaches of natural products for COVID-19: Computer-aided drug design perspective. Frontiers in Cellular and Infection Microbiology, 0, 12, .	1.8	15
820	Passivation of perovskite layer surface states with pyridine in flexible and printed perovskite solar cells. Flexible and Printed Electronics, 2022, 7, 035012.	1.5	2
821	Zn(II) and Cu(II) tetrakis(diarylamine)phthalocyanines as hole-transporting materials for perovskite solar cells. Materials Today Energy, 2022, 29, 101110.	2.5	7
822	Performance enhancement of cost-effective mixed cationic perovskite solar cell with MgCl2 and n-BAI as surface passivating agents. Optical Materials, 2022, 132, 112845.	1.7	2
823	First-principles studies on electronic and optical properties of formate-doped organic-inorganic perovskites MAPbI3. Solar Energy Materials and Solar Cells, 2022, 246, 111941.	3.0	5
824	Effect of out-gassing from polymeric encapsulant materials on the lifetime of perovskite solar cells. Solar Energy Materials and Solar Cells, 2022, 246, 111887.	3.0	3
825	Tailoring multifunctional anion modifiers to modulate interfacial chemical interactions for efficient and stable perovskite solar cells. Nano Energy, 2022, 102, 107747.	8.2	73
826	Advances in components engineering in vapor deposited perovskite thin film for photovoltaic application. Materials Today Advances, 2022, 16, 100277.	2.5	10
827	Fabrication and Modification Strategies of Metal Halide Perovskite Absorbers. Journal of Renewable Materials, 2023, 11, 61-77.	1.1	1
828	Acetylacetone modulated <scp> TiO ₂ </scp> nanoparticles for lowâ€ŧemperature solution processable perovskite solar cell. International Journal of Energy Research, 2022, 46, 22819-22831.	2.2	3
829	Alleviating defects in perovskites using single-walled carbon nanotubes. JPhys Energy, 2022, 4, 042004.	2.3	3
830	Prevention of Noise Current Generation in Tinâ€Based Leadâ€Free Perovskites for Highly Sensitive Photodetection. Advanced Functional Materials, 2022, 32, .	7.8	14
831	Improving the performance of perovskite solar cells via TiO2 electron transport layer prepared by direct current pulsed magnetron sputtering. Journal of Alloys and Compounds, 2022, 929, 167278.	2.8	6
832	Understanding the role of inorganic carrier transport layer materials and interfaces in emerging perovskite solar cells. Journal of Materials Chemistry C, 2022, 10, 15725-15780.	2.7	17
833	Elimination of light-induced degradation at the nickel oxide-perovskite heterojunction by aprotic sulfonium layers towards long-term operationally stable inverted perovskite solar cells. Energy and Environmental Science, 2022, 15, 4612-4624.	15.6	49

# 834	ARTICLE Carbazolyl phenylacetone-based asymmetric hole transport material enables high-performance perovskite solar cells. Journal of Materials Chemistry C, 2022, 10, 14668-14674.	IF 2.7	Citations
835	Modulating the deep-level defects and charge extraction for efficient perovskite solar cells with high fill factor over 86%. Energy and Environmental Science, 2022, 15, 4813-4822.	15.6	54
836	Stabilizing black-phase FAPbI ₃ in humid air with secondary ammoniums. Journal of Materials Chemistry A, 2022, 10, 21422-21429.	5.2	3
837	Stable perovskite solar cells with 25.17% efficiency enabled by improving crystallization and passivating defects synergistically. Energy and Environmental Science, 2022, 15, 4700-4709.	15.6	86
838	Nearâ€Bandâ€Edge Enhancement in Perovskite Solar Cells via Tunable Surface Plasmons. Advanced Optical Materials, 2022, 10, .	3.6	4
839	Compositional engineering for lead halide perovskite solar cells. Journal of Semiconductors, 2022, 43, 080202.	2.0	8
840	Facet Engineering for Stable, Efficient Perovskite Solar Cells. ACS Energy Letters, 2022, 7, 3120-3128.	8.8	36
841	Tailoring the 2D/3D Phase Segregation for Highly Efficient Si-Based Perovskite Light-Emitting Diodes. , 2022, 4, 2080-2089.		3
842	Efficiency Potential and Voltage Loss of Inorganic CsPbI ₂ Br Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	10
843	Comparative architecture in monolithic perovskite/silicon tandem solar cells. Science China: Physics, Mechanics and Astronomy, 2023, 66, .	2.0	3
844	Vapor Deposited Pure αâ€FAPbI ₃ Perovskite Solar Cell via Moistureâ€Induced Phase Transition Strategy. Advanced Functional Materials, 2022, 32, .	7.8	21
845	Bilayer metal halide perovskite for efficient and stable solar cells and modules. Materials Futures, 2022, 1, 042102.	3.1	19
846	Stable pure-iodide wide-band-gap perovskites for efficient Si tandem cells via kinetically controlled phase evolution. Joule, 2022, 6, 2390-2405.	11.7	35
847	A Way to Reach 10% Efficiency with Carbonâ€Based Electrodeposited Mixed Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	7
848	Ionic Liquids for Efficient and Stable Perovskite Solar Cells. Advanced Materials Interfaces, 2022, 9, .	1.9	7
849	What are Methylammonium and Solvent Fates upon Halide Perovskite Thinâ€Film Preparation and Thermal Aging?. Advanced Materials Interfaces, 2022, 9, .	1.9	7
850	A Oneâ€Step Ionic Liquid Interfaceâ€ŧoâ€Bulk Modification for Stable Carbonâ€Based CsPbI ₃ Perovskite Solar Cells with Efficiency Over 15%. Advanced Materials Interfaces, 2022, 9, .	1.9	9
851	Recent Development of Lead-Free Perovskite Solar Cells. , 0, , .		0

#	Article	IF	CITATIONS
852	BT-MA _{0.6} FA _{0.4} PbI _{3–<i>x</i>} Cl _{<i>x</i>} Unsymmetrical Perovskite for Solar Cells with Superior Stability and PCE over 23%. ACS Applied Energy Materials, 2022, 5, 11058-11066.	2.5	5
853	Highâ€Performance and Stable Plasmonicâ€Functionalized Formamidiniumâ€Based Quasiâ€2D Perovskite Photodetector for Potential Application in Optical Communication. Advanced Functional Materials, 2022, 32, .	7.8	27
854	Bottom-up holistic carrier management strategy induced synergistically by multiple chemical bonds to minimize energy losses for efficient and stable perovskite solar cells. Journal of Energy Chemistry, 2023, 76, 277-287.	7.1	26
855	Slot-Die Coated Triple-Halide Perovskites for Efficient and Scalable Perovskite/Silicon Tandem Solar Cells. ACS Energy Letters, 2022, 7, 3600-3611.	8.8	29
856	Lowâ€Temperature Phaseâ€Transition for Compositionalâ€Pure αâ€FAPbI ₃ Solar Cells with Low Residualâ€Stress and High Crystalâ€Orientation. Small Methods, 2022, 6, .	4.6	19
857	Hole-Transporting Vanadium-Containing Oxide (V ₂ O _{5–<i>x</i>}) Interlayers Enhance Stability of α-FAPbI ₃ -Based Perovskite Solar Cells (â^¼23%). ACS Applied Materials & Interfaces, 2022, 14, 42007-42017.	4.0	9
858	Methylammonium Chloride Additive in Lead Iodide Optimizing the Crystallization Process for Efficient Perovskite Solar Cells. International Journal of Photoenergy, 2022, 2022, 1-8.	1.4	2
859	Perovskites: Emergence of highly efficient thirdâ€generation solar cells. International Journal of Energy Research, 2022, 46, 21856-21883.	2.2	13
860	Moisture-dependent room-temperature perovskite crystallization in vacuum flash-assisted solution processed intermediate phase films. Organic Electronics, 2022, 111, 106652.	1.4	2
861	Asymmetrically substituted 10H,10'Hâ€9,9'â€spirobi[acridine] derivatives as holeâ€ŧransporting materials for perovskite solar cells. Angewandte Chemie, 0, , .	1.6	0
862	Dopantâ€Free Bithiopheneâ€Imideâ€Based Polymeric Holeâ€Transporting Materials for Efficient and Stable Perovskite Solar Cells. Advanced Materials, 2022, 34, .	11.1	37
863	Additive-assisted defect passivation of perovskite with metformin hydrochloride: toward high-performance p-i-n perovskite solar cells. JPhys Energy, 0, , .	2.3	0
864	Organic Additive Engineering to Grow Highâ€Quality Inorganic CsPbX ₃ Perovskite Films for Efficient and Stable Solar Cells. Solar Rrl, 2022, 6, .	3.1	7
865	Asymmetrically Substituted 10 <i>H</i> ,10′ <i>H</i> â€9,9′â€\$pirobi[acridine] Derivatives as Holeâ€Transpo Materials for Perovskite Solar Cells. Angewandte Chemie - International Edition, 2022, 61, .	rting 7.2	4
866	Formate as Antiâ€Oxidation Additives for Pbâ€Free FASnI ₃ Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	4
867	Solvent engineering in inkjet-printed perovskite solar cells. Chemical Physics Letters, 2022, 807, 140084.	1.2	2
868	Vertically oriented 2D layered perovskite-based resistive random access memory (ReRAM) crossbar arrays. Current Applied Physics, 2022, 44, 46-54.	1.1	1
869	High performance perovskite solar cells synthesized by dissolving FAPbl ₃ single crystal. Wuli Xuebao/Acta Physica Sinica, 2023, 72, 018801.	0.2	1

#	Article	IF	Citations
870	Organic–Inorganic Hybrid Devices—Perovskite-Based Devices. , 2022, , 283-307.		0
871	Polarity and moisture induced trans-grain-boundaries 2D/3D coupling structure for flexible perovskite solar cells with high mechanical reliability and efficiency. Energy and Environmental Science, 2022, 15, 5168-5180.	15.6	25
872	Tailoring the Quantum Well Structure and Distribution of Reduced-Dimensional Perovskites for Charge Dynamics Optimization. ACS Energy Letters, 2022, 7, 3917-3926.	8.8	2
873	Efficient Perovskite Solar Cells via Phenethylamine Iodide Cation-Modified Hole Transport Layer/Perovskite Interface. ACS Omega, 2022, 7, 37359-37368.	1.6	3
874	Chemiâ€Mechanically Peeling the Unstable Surface States of αâ€FAPbI ₃ . Small, 2022, 18, .	5.2	6
875	Volatile 2D Ruddlesdenâ€Popper Perovskite: A Gift for αâ€Formamidinium Lead Triiodide Solar Cells. Advanced Functional Materials, 2022, 32, .	7.8	13
876	<i>N</i> â€(2â€aminoethyl) Acetamide Additive Enables Phaseâ€Pure and Stable αâ€FAPbl ₃ for Efficient Selfâ€Powered Photodetectors. Advanced Materials, 2022, 34, .	11.1	9
877	é¢åౕé«~稳定性åध鯳èf½ç"µæ±å¼€å'çš"åäŒ−物钙钛矿稳定 性æå≢ç−ç•¥. Science China Materials,	2022,65	, 3 1 ₽0-3201.
878	Highâ€Performance Inverted Perovskite Solar Cells Enhanced via Partial Replacement of Dimethyl Sulfoxide with <i>N</i> â€Methylâ€2â€Pyrrolidinone. Solar Rrl, 2022, 6, .	3.1	5
879	Interface Engineering via Amino Acid for Efficient and Stable Perovskite Solar Cells. Advanced Materials Interfaces, 2022, 9, .	1.9	7
880	Synchronous defect passivation strategy via Lewis base for efficient and stable perovskite solar cells. Journal of Materials Science: Materials in Electronics, 0, , .	1.1	0
881	Intrinsic Phase Stability and Inherent Bandgap of Formamidinium Lead Triiodide Perovskite Single Crystals. Angewandte Chemie - International Edition, 2022, 61, .	7.2	25
882	Intrinsic Phase Stability and Inherent Bandgap of Formamidinium Lead Triiodide Perovskite Single Crystals. Angewandte Chemie, 2022, 134, .	1.6	6
883	Phaseâ€Transitionâ€Cycleâ€Induced Recrystallization of FAPbI3 Film in An Open Environment Toward Excellent Photodetectors with High Reproducibility. Advanced Science, 2022, 9, .	5.6	6
884	Predicting the device performance of the perovskite solar cells from the experimental parameters through machine learning of existing experimental results. Journal of Energy Chemistry, 2023, 77, 200-208.	7.1	21
885	Sulfoniumâ€Cationsâ€Assisted Intermediate Engineering for Quasiâ€2D Perovskite Solar Cells. Advanced Materials, 2023, 35, .	11.1	11
886	Modulating donor assemblies of D-Ï€-D type hole transport materials for perovskite solar cells. Journal of Power Sources, 2022, 551, 232199.	4.0	4
887	Three-dimensional (3D) and two-dimensional (2D) lead iodide-based perovskite materials: A comparison of material stability and ammonia gas sensitivity. Chemical Physics Impact, 2022, 5, 100116.	1.7	1

#	Article	IF	CITATIONS
888	Carbon nanofibers fabricated via electrospinning to guide crystalline orientation for stable perovskite solar cells with efficiency over 24%. Chemical Engineering Journal, 2023, 453, 139961.	6.6	10
889	Phase Rearrangement for Minimal Exciton Loss in Quasi-2D Perovskite toward Efficient Deep-Blue LEDs via Halide Post-treatment. Journal of Materials Chemistry C, 0, , .	2.7	1
890	Cuttingâ€Edge Studies Toward Commercialization of Large Area Solutionâ€Processed Perovskite Solar Cells. Advanced Materials Technologies, 2023, 8, .	3.0	4
891	Semitransparent Perovskite Solar Cells for Photovoltaic Application. Solar Rrl, 2023, 7, .	3.1	2
892	Recent progress in perovskite solar cells: from device to commercialization. Science China Chemistry, 2022, 65, 2369-2416.	4.2	53
893	Energy Transfer Induced by TADF Polymer Enables the Recycling of Excitons in Perovskite Solar Cells. Advanced Functional Materials, 2023, 33, .	7.8	9
894	Natural Amino Acid Enables Scalable Fabrication of Highâ€Performance Flexible Perovskite Solar Cells and Modules with Areas over 300 cm ² . Small Methods, 2022, 6, .	4.6	10
895	Stable α-FAPbI3 via porous PbI2 for efficient perovskite solar cells. Journal of Chemical Physics, 2022, 157, .	1.2	1
896	Suppressing the crystallographic disorders induced by excess PbI2 to achieve trade-off between efficiency and stability for PbI2-rich perovskite solar cells. Nano Energy, 2023, 105, 108014.	8.2	9
897	Broadly Applicable Synthesis of Heteroarylated Dithieno[3,2-b:2′,3′-d]pyrroles for Advanced Organic Materials – Part 2: Hole-Transporting Materials for Perovskite Solar Cells. Organic Materials, 2023, 5, 48-58.	1.0	3
898	Efficient Perovskite Solar Cells with Cesium Acetate-Modified TiO ₂ Electron Transport Layer. Journal of Physical Chemistry C, 2022, 126, 19963-19970.	1.5	3
899	Control of perovskite film crystallization and growth direction to target homogeneous monolithic structures. Nature Communications, 2022, 13, .	5.8	25
900	20.67%â€Efficiency Inorganic CsPbI ₃ Solar Cells Enabled by Zwitterion Ion Interface Treatment. Small, 2023, 19, .	5.2	21
901	Method to Inhibit Perovskite Solution Aging: Induced by Perovskite Microcrystals. ACS Applied Materials & Interfaces, 2022, 14, 52960-52970.	4.0	4
902	Ethylene glycol-containing ammonium salt for developing highly compatible interfaces in perovskite solar cells. Chemical Engineering Journal, 2023, 455, 140833.	6.6	2
903	α-FAPbI3 powder presynthesized by microwave irradiation for photovoltaic applications. Electrochimica Acta, 2023, 439, 141701.	2.6	2
904	The race between complicated multiple cation/anion compositions and stabilization of FAPbI ₃ for halide perovskite solar cells. Journal of Materials Chemistry C, 2023, 11, 2449-2468.	2.7	3
905	One-step synthesis of low-cost perylenediimide-based cathode interfacial materials for efficient inverted perovskite solar cells. Chemical Engineering Journal, 2023, 454, 140451.	6.6	6

#	Article	IF	CITATIONS
906	Chemical approaches for electronic doping in photovoltaic materials beyond crystalline silicon. Chemical Society Reviews, 2022, 51, 10016-10063.	18.7	11
907	Thienothiopheneâ€Assisted Property Optimization for Dopantâ€Free Ï€â€Conjugation Polymeric Hole Transport Material Achieving Over 23% Efficiency in Perovskite Solar Cells. Advanced Energy Materials, 2023, 13, .	10.2	18
908	Antisolvent Additive Engineering for Boosting Performance and Stability of Graded Heterojunction Perovskite Solar Cells Using Amide-Functionalized Graphene Quantum Dots. ACS Applied Materials & Interfaces, 2022, 14, 54623-54634.	4.0	12
909	Reconfiguration toward Selfâ€Assembled Monolayer Passivation for Highâ€Performance Perovskite Solar Cells. Advanced Energy Materials, 2023, 13, .	10.2	13
910	Multifunctional indaceno[1,2-b:5,6-b′]dithiophene chloride molecule for stable high-efficiency perovskite solar cells. Science China Chemistry, 2023, 66, 185-194.	4.2	4
911	Complex Additiveâ€Assisted Crystal Growth and Phase Stabilization of αâ€FAPbI ₃ Film for Highly Efficient, Airâ€Stable Perovskite Photovoltaics. Advanced Materials Interfaces, 2023, 10, .	1.9	5
912	Boosting radiation of stacked halide layer for perovskite solar cells with efficiency over 25%. Joule, 2023, 7, 112-127.	11.7	27
913	lodine-doped g-C3N4 modified zinc titanate electron transporting layer for highly efficient perovskite solar cells. Journal of Colloid and Interface Science, 2023, 635, 159-166.	5.0	5
914	Spontaneously Healing Buried Interfaces in n– <i>i</i> –p Halide Perovskite Photovoltaics. Advanced Energy and Sustainability Research, 0, , 2200150.	2.8	0
915	Intermediate-phase engineering via dimethylammonium cation additive for stable perovskite solar cells. Nature Materials, 2023, 22, 73-83.	13.3	73
916	Effect of Organic Chloride Additives on the Photovoltaic Performance of MAâ€Free Cs _{0.1} FA _{0.9} PbI ₃ Perovskite Solar Cells. Solar Rrl, 2023, 7, .	3.1	0
917	Interface Engineering at Sc ₂ C MXene and Germanium Iodine Perovskite Interface: First-Principles Insights. Journal of Physical Chemistry Letters, 2022, 13, 11801-11810.	2.1	1
918	Stability and efficiency improvement of perovskite solar cells by surface hydroxyl defect passivation of SnO ₂ layer with 4-fluorothiophenol. Journal of Materials Chemistry A, 2023, 11, 3673-3681.	5.2	10
919	Amine-Thiol/Selenol Chemistry for Efficient and Stable Perovskite Solar Cells. Journal of Physical Chemistry C, 2023, 127, 930-938.	1.5	2
920	Efficient Perovskite/Silicon Tandem Solar Cells on Industrially Compatible Textured Silicon. Advanced Materials, 2023, 35, .	11.1	38
921	High-performance α-FAPbI3 perovskite solar cells with an optimized interface energy band alignment by a Zn(O,S) electron transport layer. Journal of Materials Science: Materials in Electronics, 2023, 34, .	1.1	6
922	Unraveling Its Intrinsic Role of CH ₃ NH ₃ Cl Doping for Efficient Enhancement of Perovskite Solar Cells from Fine Insight by Ultrafast Chargeâ€Transfer Dynamics. Solar Rrl, 2023, 7, .	3.1	4
923	Controlled Growth of Hybrid Halide Perovskites by Crown Ether Complexation for Perovskite Solar Cells. Helvetica Chimica Acta, 2023, 106, .	1.0	2

#	Article	IF	CITATIONS
924	Effective Inhibition of Phase Segregation in Wideâ€Bandgap Perovskites with Alkali Halides Additives to Improve the Stability of Solar Cells. Solar Rrl, 2023, 7, .	3.1	10
925	Interfacial α-FAPbI3 phase stabilization by reducing oxygen vacancies in SnO2â^'x. Joule, 2023, 7, 380-397.	11.7	21
926	A DFT Study of Alkaline Earth Metal-Doped FAPbI3 (111) and (100) Surfaces. Molecules, 2023, 28, 372.	1.7	0
927	Stacking Interactions and Photovoltaic Performance of Cs ₂ AgBiBr ₆ Perovskite. Solar Rrl, 2023, 7, .	3.1	4
928	New Pathways toward Sustainable Snâ€Related Perovskite Solar Cells. Advanced Energy and Sustainability Research, 2023, 4, .	2.8	0
929	Research progress of perovskite/crystalline silicon tandem solar cells with efficiency of over 30%. Wuli Xuebao/Acta Physica Sinica, 2023, 72, 058801.	0.2	0
930	Bulk Incorporation with 4â€Methylphenethylammonium Chloride for Efficient and Stable Methylammoniumâ€Free Perovskite and Perovskiteâ€Silicon Tandem Solar Cells. Advanced Energy Materials, 2023, 13, .	10.2	14
931	Performance enhancement strategies of fibrous solar cells for wearable hybrid energy systems. Journal of Materials Chemistry A, 2023, 11, 3210-3244.	5.2	5
932	Reexamining the Postâ€Treatment Effects on Perovskite Solar Cells: Passivation and Chloride Redistribution. Small Methods, 2023, 7, .	4.6	6
933	Probing the stability of perovskite solar cell under working condition through an ultra-thin silver electrode: Beyond the halide ion diffusion and metal diffusion. Chemical Engineering Journal, 2023, 458, 141405.	6.6	4
934	Room temperature slot-die coated perovskite layer modified with sulfonyl-γ-AApeptide for high performance perovskite solar devices. Chemical Engineering Journal, 2023, 457, 141199.	6.6	7
935	Rinsing Intermediate Phase Strategy for Modulating Perovskite Crystal Growth and Fabricating Highly Efficient and Stable Inverted Solar Cells. ACS Applied Materials & Interfaces, 2023, 15, 818-829.	4.0	2
936	Binary Microcrystal Additives Enabled Antisolventâ€Free Perovskite Solar Cells with High Efficiency and Stability. Advanced Energy Materials, 2023, 13, .	10.2	12
937	Suppressing hydrogen bonds and controlling surface dipole: effective passivation for hydrophobic perovskite photoabsorber layers in solar cells. New Journal of Chemistry, 2023, 47, 4197-4201.	1.4	1
938	Sideâ€Chain Methylthioâ€Based Position Isomerism of Holeâ€Transport Materials for Perovskite Solar Cells: From Theoretical Simulation to Experimental Characterization. Advanced Functional Materials, 2023, 33, .	7.8	8
939	Reducing surficial and interfacial defects by thiocyanate ionic liquid additive and ammonium formate passivator for efficient and stable perovskite solar cells. Nano Research, 2023, 16, 6849-6858.	5.8	10
940	Synergistic Effects of Interfacial Energy Level Regulation and Stress Relaxation via a Buried Interface for Highly Efficient Perovskite Solar Cells. ACS Nano, 2023, 17, 2802-2812.	7.3	19
941	Synergistic Defect Passivation by the Treatment of Ionic Liquids for Efficient and Stable Perovskite Solar Cells. Advanced Energy and Sustainability Research, 2023, 4, .	2.8	3

#	Article	IF	CITATIONS
942	Numerical simulation of SnS/CZTSSe heterojunction solar cells. , 2023, 19, 31-41.		2
943	The degradation of perovskite precursor. Journal of Semiconductors, 2023, 44, 010201.	2.0	1
944	Modulated crystallization and enhanced stable of high efficient perovskite solar cells with Pb(Ac)2. Journal of Alloys and Compounds, 2023, 942, 168924.	2.8	4
945	Zn ²⁺ ion doping for structural modulation of lead-free Sn-based perovskite solar cells. Journal of Materials Chemistry A, 2023, 11, 10605-10611.	5.2	2
946	Effect of Surfactants on Preparation of Perovskite Films. Lecture Notes in Electrical Engineering, 2023, , 570-576.	0.3	0
947	Stability enhancement and pronounced three-photon absorption in SrCl ₂ -doped FAPbBr ₃ nano crystals. Journal of Materials Chemistry C, 2023, 11, 3275-3283.	2.7	4
948	Ink Design Enabling Slotâ€Đie Coated Perovskite Solar Cells with >22% Power Conversion Efficiency, Microâ€Modules, and 1 Year of Outdoor Performance Evaluation. Advanced Energy Materials, 2023, 13, .	10.2	21
949	Mitigating lattice strain and phase segregation of mixed-halide perovskite films via dual chloride additive strategy toward highly efficient and stable perovskite solar cells. Journal of Power Sources, 2023, 561, 232753.	4.0	6
950	Photoexcitation of perovskite precursor solution to induce high-valent iodoplumbate species for wide bandgap perovskite solar cells with enhanced photocurrent. Scientific Reports, 2023, 13, .	1.6	3
951	Brief Outlook on Top Cell Absorber of Siliconâ€Based Tandem Solar Cells. Solar Rrl, 2023, 7, .	3.1	2
952	Effect of molecular configuration of additives on perovskite crystallization and hot carriers behavior in perovskite solar cells. Chemical Engineering Journal, 2023, 463, 142449.	6.6	13
953	Efficient and stable perovskite solar cells based on blade-coated CH3NH3PbI3 thin films fabricated using "green―solvents under ambient conditions. Organic Electronics, 2023, 116, 106763.	1.4	6
954	Building optimistic perovskite-polymer composite solar cells: Feasible involvement of a BLP inclusion to efficiently stable perovskite films. Materials Science in Semiconductor Processing, 2023, 160, 107409.	1.9	0
955	The role of hydrophobic molecules in the optoelectronical attributes of triple-cation perovskite solar cells. Synthetic Metals, 2023, 295, 117323.	2.1	4
956	Solvent engineering towards scalable fabrication of high-quality perovskite films for efficient solar modules. Journal of Energy Chemistry, 2023, 80, 689-710.	7.1	16
957	Cs _{1â^'<i>x</i>} DMA _{<i>x</i>} Pbl ₃ versus CsPbl ₃ for Perovskite Solar Cells. Solar Rrl, 2023, 7, .	3.1	5
958	Instability of solution-processed perovskite films: origin and mitigation strategies. Materials Futures, 2023, 2, 012102.	3.1	11
959	Orientated crystallization of FA-based perovskite via hydrogen-bonded polymer network for efficient and stable solar cells. Nature Communications, 2023, 14, .	5.8	66

#	Article	IF	CITATIONS
960	Comparative study of the optical, structural, and solar cell performance of (MAPbBr3)x(FAPbI3)1-x(MACl)0.33 mixed perovskite solar cells: With and without the passivation layer. Optical Materials, 2023, 137, 113558.	1.7	1
961	Ethylenediamine Vaporsâ€Assisted Surface Passivation of Perovskite Films for Efficient Inverted Solar Cells. Solar Rrl, 2023, 7, .	3.1	2
962	Additive engineering for highly efficient and stable perovskite solar cells. Applied Physics Reviews, 2023, 10, .	5.5	13
963	<i>In situ</i> surface regulation of 3D perovskite using diethylammonium iodide for highly efficient perovskite solar cells. Physical Chemistry Chemical Physics, 2023, 25, 9349-9356.	1.3	2
964	Controlled growth of perovskite layers with volatile alkylammonium chlorides. Nature, 2023, 616, 724-730.	13.7	610
965	Investigation on guanidinium bromide incorporation in methylammonium lead iodide for enhanced efficiency and stability of perovskite solar cells. Solar Energy, 2023, 253, 1-8.	2.9	4
966	Liquidâ€ S tate Dithiocarbonateâ€Based Polymeric Additives with Monodispersity Rendering Perovskite Solar Cells with Exceptionally High Certified Photocurrent and Fill Factor. Advanced Energy Materials, 2023, 13, .	10.2	13
967	3D Polydentate Complexing Agents for Passivating Defects and Modulating Crystallinity for Highâ€Performance Perovskite Solar Cells. Advanced Functional Materials, 2023, 33, .	7.8	13
968	Fully Methylammonium-Free Stable Formamidinium Lead Iodide Perovskite Solar Cells Processed under Humid Air Conditions. ACS Applied Materials & Interfaces, 2023, 15, 13353-13362.	4.0	5
969	Lead free perovskite based heterojunction photodetectors: A mini review. Applied Surface Science Advances, 2023, 14, 100393.	2.9	2
970	Multifunctional Green Solvent for Efficient Perovskite Solar Cells. Electronic Materials Letters, 2023, 19, 462-470.	1.0	4
971	Improved Crystallization of Lead Halide Perovskite in Twoâ€Step Growth Method by Polymerâ€Assisted "Slowâ€Release Effectâ€: Small Methods, 2023, 7, .	4.6	9
972	<i>In Situ</i> and <i>Operando</i> Characterizations of Metal Halide Perovskite and Solar Cells: Insights from Lab-Sized Devices to Upscaling Processes. Chemical Reviews, 2023, 123, 3160-3236.	23.0	15
973	Intrinsic Dipole Arrangement to Coordinate Energy Levels for Efficient and Stable Perovskite Solar Cells. Advanced Materials, 2023, 35, .	11.1	20
974	Deciphering the Roles of MA-Based Volatile Additives for α-FAPbI ₃ to Enable Efficient Inverted Perovskite Solar Cells. Journal of the American Chemical Society, 2023, 145, 5920-5929.	6.6	43
975	Precise modulation strategies of 2D/3D perovskite heterojunctions in efficient and stable solar cells. Chemical Communications, 2023, 59, 4128-4141.	2.2	9
976	Internal electric fields control triplet formation in halide perovskite-sensitized photon upconverters. IScience, 2023, 26, 106365.	1.9	1
977	Potential of Iron Oxides in Photovoltaic Technology. Crystal Growth and Design, 2023, 23, 3034-3055.	1.4	2

#	Article	IF	Citations
978	Phase transition engineering for effective defect passivation to achieve highly efficient and stable perovskite solar cells. Energy and Environmental Science, 2023, 16, 2045-2055.	15.6	18
979	High Performance Inverted RbCsFAPbI ₃ Perovskite Solar Cells Based on Interface Engineering and Defects Passivation. Small, 2023, 19, .	5.2	3
980	Foldable Holeâ€Transporting Materials for Merging Electronic States between Defective and Perfect Perovskite Sites. Advanced Materials, 2023, 35, .	11.1	12
981	Upcycled synthesis and extraction of carbonâ€encapsulated iron carbide nanoparticles for gap Plasmon applications in perovskite solar cells. EcoMat, 0, , .	6.8	1
982	Examining a Year-Long Chemical Degradation Process and Reaction Kinetics in Pristine and Defect-Passivated Lead Halide Perovskites. Chemistry of Materials, 2023, 35, 2904-2917.	3.2	3
983	Stabilization of Component-Pure α-FAPbI ₃ via Volatile Additives for Stable Photovoltaics. ACS Applied Materials & Interfaces, 2023, 15, 16818-16827.	4.0	4
984	3D Perovskite Passivation with a Benzotriazole-Based 2D Interlayer for High-Efficiency Solar Cells. ACS Applied Energy Materials, 2023, 6, 3933-3943.	2.5	2
985	Additive-Induced Synergies of Ion Migration Inhibition and Defect Passivation toward Sensitive Perovskite X-ray Detectors. Journal of Physical Chemistry Letters, 2023, 14, 3313-3319.	2.1	1
986	CsPbBr ₃ Quantum Dotsâ€Sensitized Mesoporous TiO ₂ Electron Transport Layers for Highâ€Efficiency Perovskite Solar Cells. Solar Rrl, 2023, 7, .	3.1	2
987	Kinetic ontrolled Crystallization of <i>α</i> â€FAPbI ₃ Inducing Preferred Crystallographic Orientation Enhances Photovoltaic Performance. Advanced Science, 2023, 10, .	5.6	8
988	Some Aspects of Novel Materials from Optical to THz Engineering. Progress in Optical Science and Photonics, 2023, , 59-80.	0.3	1
989	Perovskite solar cells approaching 25% PCE using side chain terminated hole transport materials with low concentration in a non-halogenated solvent process. Journal of Materials Chemistry A, 2023, 11, 9608-9615.	5.2	5
990	Doped metal halide perovskite materials for solar energy. , 2023, , 169-188.		0
991	Advances in the large-scale production, fabrication, stability, and lifetime considerations of electronic materials for clean energy applications. , 2023, , 27-60.		0
992	A Review of Perovskite Nanocrystal Applications in Luminescent Solar Concentrators. Advanced Optical Materials, 2023, 11, .	3.6	4
993	Two‣tep Vapor‣olid Reaction for the Growth of Highâ€Quality CsFAâ€Based Lead Halide Perovskite Thin Films. Solar Rrl, 2023, 7, .	3.1	6
994	Hydrogen-bond-bridged intermediate for perovskite solar cells with enhanced efficiency and stability. Nature Photonics, 2023, 17, 478-484.	15.6	62
995	Effect of Residual Chloride in FAPbI ₃ Film on Photovoltaic Performance and Stability of Perovskite Solar Cell. ACS Energy Letters, 2023, 8, 2122-2129.	8.8	12

ARTICLE IF CITATIONS # R4N+ and Cl \hat{a}^{\prime} stabilized \hat{l} +-formamidinium lead triiodide and efficient bar-coated mini-modules. Joule, 996 11.7 6 2023, 7, 797-809. Perovskite solar cells using NaF additive with enhanced stability under air environment. 997 2.6 Electrochimica Acta, 2023, 456, 142409. 998 Prospects for Tin-Containing Halide Perovskite Photovoltaics., 2023, 1, 69-82. 8 Wide-bandgap perovskites for multijunction solar cells: improvement of crystalline quality of Cs_{0.1}FA_{0.9}Pbl_{1.4}Br_{1.6} by using lead thiocyanate. Journal of Materials Chemistry A, 2023, 11, 10254-10266. 999 5.2 Stable dual cations perovskite nanocrystals as absorbers for perovskite solar cells with efficiencies 1000 1.0 2 exceeding 24%. Bulletin of the Korean Chemical Society, 2023, 44, 658-664. Alkylammonium chloride promotes the record efficiency of perovskite solar cells. Joule, 2023, 7, 11.7 628-630. How Do Surface Polar Molecules Contribute to High Openâ€Circuit Voltage in Perovskite Solar Cells?. 1002 5.6 9 Advanced Science, 2023, 10, . Additive Engineering in Spray Enables Efficient Methylammonium-Free Wide-Bandgap Perovskite Solar 2.5 Cells. Materials Today Energy, 2023, , 101316. In-depth study of the effect of annealing temperature on the structural, chemical, and optical 1004 properties of MAPI thin films prepared by a one-step deposition method. Journal of Materials Science: 1.1 1 Materials in Electronics, 2023, 34, . Investigating the Molecular Orientation and Thermal Stability of Spiroâ€OMeTAD and its Dopants by Near Edge Xâ€Ray Absorption Fine Structure., 2023, 2, . Multifunctional Metalâ€Organic Frameworks Capsules Modulate Reactivity of Lead Iodide toward 1006 11.1 11 Efficient Perovskite Solar Cells with UV Resistance. Advanced Materials, 2023, 35, . Facet Engineering: A Promising Pathway toward Highly Efficient and Stable Perovskite Photovoltaics. Journal of Physical Chemistry Letters, 2023, 14, 4409-4418. 1042 Perovskite-based solar cells., 2023, , 265-292. 0 Recent progress in the development of high-efficiency inverted perovskite solar cells. NPG Asia 1044 3.8 38 Materials, 2023, 15, . Minimizing the Interface-Driven Losses in Inverted Perovskite Solar Cells and Modules. ACS Energy 1046 8.8 14 Letters, 2023, 8, 2532-2542. Photovoltaic Performance of FAPbl₃ Perovskite Is Hampered by Intrinsic Quantum Confinement. ACS Energy Letters, 2023, 8, 2543-2551. Recent progress in construction methods and applications of perovskite photodetector arrays. 1054 4.1 1 Nanoscale Horizons, 2023, 8, 1014-1033. A Comprehensive Review of Tandem Solar Cells Integrated on Silicon Substrate: III/V vs Perovskite. 1.8 Silicon, 2023, 15, 6329-6347.

#	Article	IF	CITATIONS
1068	Synergy of 3D and 2D Perovskites for Durable, Efficient Solar Cells and Beyond. Chemical Reviews, 2023, 123, 9565-9652.	23.0	21
1070	Advanced spectroscopic techniques for characterizing defects in perovskite solar cells. Communications Materials, 2023, 4, .	2.9	9
1080	Fabrication strategies for high quality halide perovskite films in solar cells. Materials Chemistry Frontiers, 2023, 7, 5309-5332.	3.2	4
1085	Long-term operating stability in perovskite photovoltaics. Nature Reviews Materials, 2023, 8, 569-586.	23.3	31
1134	Methylammonium-free wide-bandgap metal halide perovskites for tandem photovoltaics. Nature Reviews Materials, 2023, 8, 822-838.	23.3	2
1149	Advanced materials to overcome the challenges in the fabrication of stable and efficient perovskite solar cells by additive engineering: a review. Journal of Materials Science, 2023, 58, 16565-16590.	1.7	1
1157	Recent progress in monolithic two-terminal perovskite-based triple-junction solar cells. Energy and Environmental Science, 2024, 17, 1781-1818.	15.6	0
1158	Templated-Seeding Renders Tailored Crystallization in Perovskite Photovoltaics: Path towards Future Efficient Modules. Journal of Materials Chemistry A, 0, , .	5.2	0
1165	Optimization of Halide Composition and Interfacial Passivation for High-Performing Indoor Flexible Perovskite Solar Cells on PET. , 2023, , .		0
1179	Enhancing FAPbI ₃ perovskite solar cell performance with a methanesulfonate-based additive. Sustainable Energy and Fuels, 2024, 8, 491-495.	2.5	0
1186	Enhancing Efficiency and Stability in 2D DJ Perovskite Solar Cells by Varying Acceptor Density. , 2023, , .		0
1209	The impact of moisture on the stability and degradation of perovskites in solar cells. Materials Advances, 2024, 5, 2200-2217.	2.6	0
1210	Efficient additive-free FAPbI ₃ perovskite solar cells achieved by promoting homogeneity. Journal of Materials Chemistry C, 2024, 12, 3410-3417.	2.7	0