Enhanced electron extraction using SnO2 for high-effici HC(NH2)2PbI3-based perovskite solar cells

Nature Energy

2,

DOI: 10.1038/nenergy.2016.177

Citation Report

#	Article	IF	Citations
1	Efficient and stable solution-processed planar perovskite solar cells via contact passivation. Science, 2017, 355, 722-726.	6.0	2,019
2	Effect of Energy Alignment, Electron Mobility, and Film Morphology of Perylene Diimide Based Polymers as Electron Transport Layer on the Performance of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 10983-10991.	4.0	76
3	Air-Induced High-Quality CH₃NH₃PbI₃ Thin Film for Efficient Planar Heterojunction Perovskite Solar Cells. Journal of Physical Chemistry C, 2017, 121, 6575-6580.	1.5	47
4	Direct Evidence of Ion Diffusion for the Silverâ€Electrodeâ€Induced Thermal Degradation of Inverted Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1602922.	10.2	277
5	Stable ultra-fast broad-bandwidth photodetectors based on Î±-CsPbI₃ perovskite and NaYF₄:Yb,Er quantum dots. Nanoscale, 2017, 9, 6278-6285.	2.8	93
6	Low-temperature processed In2S3 electron transport layer for efficient hybrid perovskite solar cells. Nano Energy, 2017, 36, 102-109.	8.2	87
7	Improving Interfacial Charge Recombination in Planar Heterojunction Perovskite Photovoltaics with Small Molecule as Electron Transport Layer. Advanced Energy Materials, 2017, 7, 1700522.	10.2	173
8	A Bandâ€Edge Potential Gradient Heterostructure to Enhance Electron Extraction Efficiency of the Electron Transport Layer in Highâ€Performance Perovskite Solar Cells. Advanced Functional Materials, 2017, 27, 1700878.	7.8	81
9	Perovskite Tandem Solar Cells. Advanced Energy Materials, 2017, 7, 1602761.	10.2	193
10	Indiumâ€Free Perovskite Solar Cells Enabled by Impermeable Tinâ€Oxide Electron Extraction Layers. Advanced Materials, 2017, 29, 1606656.	11.1	88
11	A Perylenediimide Tetramerâ€Based 3D Electron Transport Material for Efficient Planar Perovskite Solar Cell. Solar Rrl, 2017, 1, 1700046.	3.1	28
12	Understanding and Eliminating Hysteresis for Highly Efficient Planar Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1700414.	10.2	190
13	MgO Nanoparticle Modified Anode for Highly Efficient SnO₂â€Based Planar Perovskite Solar Cells. Advanced Science, 2017, 4, 1700031.	5.6	175
14	CsI Preâ€Intercalation in the Inorganic Framework for Efficient and Stable FA_{1â^'}_x Cs_xPbI₃(Cl) Perovskite Solar Cells. Small, 2017, 13, 1700484.	5.2	121
15	Enhanced light absorption of thin perovskite solar cells using textured substrates. Solar Energy Materials and Solar Cells, 2017, 168, 214-220.	3.0	50
16	ITIC surface modification to achieve synergistic electron transport layer enhancement for planar-type perovskite solar cells with efficiency exceeding 20%. Journal of Materials Chemistry A, 2017, 5, 9514-9522.	5.2	103
17	UV-Sintered Low-Temperature Solution-Processed SnO₂ as Robust Electron Transport Layer for Efficient Planar Heterojunction Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 21909-21920.	4.0	123
18	Room-Temperature Processed Nb₂O₅ as the Electron-Transporting Layer for Efficient Planar Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 23181-23188.	4.0	120

#	Article	IF	Citations
19	Hydrogenated TiO₂ Thin Film for Accelerating Electron Transport in Highly Efficient Planar Perovskite Solar Cells. Advanced Science, 2017, 4, 1700008.	5.6	22
20	Spiroâ€Phenylpyrazoleâ€9,9â€²â€Thioxanthene Analogues as Holeâ€Transporting Materials for Efficient Planar Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1700823.	10.2	74
21	Energy-Down-Shift CsPbCl₃:Mn Quantum Dots for Boosting the Efficiency and Stability of Perovskite Solar Cells. ACS Energy Letters, 2017, 2, 1479-1486.	8.8	221
22	Halide perovskite solar cells using monocrystalline TiO₂nanorod arrays as electron transport layers: impact of nanorod morphology. Nanotechnology, 2017, 28, 274001.	1.3	67
23	Discontinuous SnO 2 derived blended-interfacial-layer in mesoscopic perovskite solar cells: Minimizing electron transfer resistance and improving stability. Nano Energy, 2017, 38, 358-367.	8.2	47
24	Highly efficient and stable low-temperature processed ZnO solar cells with triple cation perovskite absorber. Journal of Materials Chemistry A, 2017, 5, 13439-13447.	5.2	86
25	Perovskite solar cells - An overview of critical issues. Progress in Quantum Electronics, 2017, 53, 1-37.	3.5	132
26	Cesium Doped NiO_x as an Efficient Hole Extraction Layer for Inverted Planar Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1700722.	10.2	353
27	An annealing-free aqueous-processed anatase TiO₂ compact layer for efficient planar heterojunction perovskite solar cells. Chemical Communications, 2017, 53, 10882-10885.	2.2	31
28	Water-Soluble Polymeric Interfacial Material for Planar Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 14129-14135.	4.0	9
29	Enhanced Performance of Planar Perovskite Solar Cells Using Low-Temperature Solution-Processed Al-Doped SnO2 as Electron Transport Layers. Nanoscale Research Letters, 2017, 12, 238.	3.1	66
30	Microwave-synthesized tin oxide nanocrystals for low-temperature solution-processed planar junction organo-halide perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 7759-7763.	5.2	45
31	Fabrication of high quality perovskite films by modulating the Pbâ€“O bonds in Lewis acidâ€“base adducts. Journal of Materials Chemistry A, 2017, 5, 8416-8422.	5.2	73
32	Ions Matter: Description of the Anomalous Electronic Behavior in Methylammonium Lead Halide Perovskite Devices. Advanced Functional Materials, 2017, 27, 1606584.	7.8	65
33	Current status of electron transport layers in perovskite solar cells: materials and properties. RSC Advances, 2017, 7, 17044-17062.	1.7	317
34	Mixed cation hybrid lead halide perovskites with enhanced performance and stability. Journal of Materials Chemistry A, 2017, 5, 11450-11461.	5.2	153
35	Solution-Processed Nb:SnO₂ Electron Transport Layer for Efficient Planar Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 2421-2429.	4.0	315
36	A novel quadruple-cation absorber for universal hysteresis elimination for high efficiency and stable perovskite solar cells. Energy and Environmental Science, 2017, 10, 2509-2515.	15.6	437

#	Article	IF	Citations
37	Toward Full Solution Processed Perovskite/Si Monolithic Tandem Solar Device With PCE Exceeding 20%. Solar Rrl, 2017, 1, 1700149.	3.1	69
38	The Many Faces of Mixed Ion Perovskites: Unraveling and Understanding the Crystallization Process. ACS Energy Letters, 2017, 2, 2686-2693.	8.8	154
39	Numerical simulation and experimental validation of inverted planar perovskite solar cells based on NiO x hole transport layer. Superlattices and Microstructures, 2017, 112, 383-393.	1.4	26
40	Sequential solvent processing with hole transport materials for improving efficiency of traditionally-structured perovskite solar cells. Nano Energy, 2017, 41, 591-599.	8.2	27
41	High-Performance Flexible Perovskite Solar Cells on Ultrathin Glass: Implications of the TCO. Journal of Physical Chemistry Letters, 2017, 8, 4960-4966.	2.1	111
42	Junction Quality of SnO₂-Based Perovskite Solar Cells Investigated by Nanometer-Scale Electrical Potential Profiling. ACS Applied Materials & Interfaces, 2017, 9, 38373-38380.	4.0	56
43	Thermal Stability-Enhanced and High-Efficiency Planar Perovskite Solar Cells with Interface Passivation. ACS Applied Materials & Interfaces, 2017, 9, 38467-38476.	4.0	76
44	High Performance PbS Colloidal Quantum Dot Solar Cells by Employing Solutionâ€Processed CdS Thin Films from a Singleâ€Source Precursor as the Electron Transport Layer. Advanced Functional Materials, 2017, 27, 1703687.	7.8	40
45	Planarâ€Structure Perovskite Solar Cells with Efficiency beyond 21%. Advanced Materials, 2017, 29, 1703852.	11.1	1,003
46	Very high hole drift mobility in neat and doped molecular thin films for normal and inverted perovskite solar cells. Nano Energy, 2017, 41, 681-686.	8.2	14
47	Solution-processed indium oxide electron transporting layers for high-performance and photo-stable perovskite and organic solar cells. Nanoscale, 2017, 9, 16305-16312.	2.8	34
48	Enhanced performance of perovskite solar cells by strengthening a self-embedded solvent annealing effect in perovskite precursor films. RSC Advances, 2017, 7, 49144-49150.	1.7	11
49	Ambient-air-solution-processed efficient and highly stable perovskite solar cells based on CH3NH3PbI3â^'xClx-NiO composite with Al2O3/NiO interfacial engineering. Nano Energy, 2017, 40, 408-417.	8.2	60
50	Energetically favored formation of SnO2 nanocrystals as electron transfer layer in perovskite solar cells with high efficiency exceeding 19%. Nano Energy, 2017, 40, 336-344.	8.2	160
51	Enhanced Electronic Properties of SnO₂ via Electron Transfer from Graphene Quantum Dots for Efficient Perovskite Solar Cells. ACS Nano, 2017, 11, 9176-9182.	7.3	302
52	Surface treatment via Li-bis-(trifluoromethanesulfonyl) imide to eliminate the hysteresis and enhance the efficiency of inverted perovskite solar cells. Journal of Materials Chemistry C, 2017, 5, 10280-10287.	2.7	15
53	Enhancing Performance and Uniformity of Perovskite Solar Cells via a Solution-Processed C₇₀ Interlayer for Interface Engineering. ACS Applied Materials & Interfaces, 2017, 9, 33810-33818.	4.0	24
54	Wearable Largeâ€Scale Perovskite Solarâ€Power Source via Nanocellular Scaffold. Advanced Materials, 2017, 29, 1703236.	11.1	152

#	Article	IF	Citations
55	Flexibly assembled and readily detachable photovoltaics. Energy and Environmental Science, 2017, 10, 2117-2123.	15.6	17
56	Thin Films of Tin Oxide Nanosheets Used as the Electron Transporting Layer for Improved Performance and Ambient Stability of Perovskite Photovoltaics. Solar Rrl, 2017, 1, 1700117.	3.1	69
57	Highly Efficient and Stable Planar Perovskite Solar Cells With Largeâ€Scale Manufacture of Eâ€Beam Evaporated SnO₂ Toward Commercialization. Solar Rrl, 2017, 1, 1700118.	3.1	75
58	A general approach for nanoparticle composite transport materials toward efficient perovskite solar cells. Chemical Communications, 2017, 53, 11028-11031.	2.2	3
59	Hysteresis-free perovskite solar cells made of potassium-doped organometal halide perovskite. Scientific Reports, 2017, 7, 12183.	1.6	229
60	TiO₂ Nanocrystal/Perovskite Bilayer for Highâ€Performance Photodetectors. Advanced Electronic Materials, 2017, 3, 1700251.	2.6	39
61	Vertical recrystallization for highly efficient and stable formamidinium-based inverted-structure perovskite solar cells. Energy and Environmental Science, 2017, 10, 1942-1949.	15.6	402
62	Low-temperature-processed SnO₂â€“Cl for efficient PbS quantum-dot solar cells via defect passivation. Journal of Materials Chemistry A, 2017, 5, 17240-17247.	5.2	63
63	Interface Engineering of electron Transport Layerâ€Free Planar Perovskite Solar Cells with Efficiency Exceeding 15â€‰%. Energy Technology, 2017, 5, 1844-1851.	1.8	13
64	Synergic Interface Optimization with Green Solvent Engineering in Mixed Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1700576.	10.2	240
65	Metal Oxides as Efficient Charge Transporters in Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1602803.	10.2	147
66	High Crystallization of Perovskite Film by a Fast Electric Current Annealing Process. ACS Applied Materials & Interfaces, 2017, 9, 26915-26920.	4.0	11
67	Efficient and Hysteresisâ€Free Perovskite Solar Cells Based on a Solution Processable Polar Fullerene Electron Transport Layer. Advanced Energy Materials, 2017, 7, 1701144.	10.2	114
68	Efficient and highly light stable planar perovskite solar cells with graphene quantum dots doped PCBM electron transport layer. Nano Energy, 2017, 40, 345-351.	8.2	101
69	Highly Efficient Porphyrinâ€Based OPV/Perovskite Hybrid Solar Cells with Extended Photoresponse and High Fill Factor. Advanced Materials, 2017, 29, 1703980.	11.1	176
70	Additiveâ€Enhanced Crystallization of Solution Process for Planar Perovskite Solar Cells with Efficiency Exceeding 19â€‰%. Chemistry - A European Journal, 2017, 23, 18140-18145.	1.7	33
71	Efficacious engineering on charge extraction for realizing highly efficient perovskite solar cells. Energy and Environmental Science, 2017, 10, 2570-2578.	15.6	155
72	Room-Temperature and Solution-Processable Cu-Doped Nickel Oxide Nanoparticles for Efficient Hole-Transport Layers of Flexible Large-Area Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 41887-41897.	4.0	171

#	Article	IF	Citations
73	Solution-processed SnO₂thin film for a hysteresis-free planar perovskite solar cell with a power conversion efficiency of 19.2%. Journal of Materials Chemistry A, 2017, 5, 24790-24803.	5.2	143
74	Enhancing Electron and Hole Extractions for Efficient PbS Quantum Dot Solar Cells. Solar Rrl, 2017, 1, 1700176.	3.1	12
75	Defect passivation in hybrid perovskite solar cells using quaternary ammonium halide anions andÂcations. Nature Energy, 2017, 2, .	19.8	1,694
76	Interface passivation using ultrathin polymerâ€“fullerene films for high-efficiency perovskite solar cells with negligible hysteresis. Energy and Environmental Science, 2017, 10, 1792-1800.	15.6	381
77	Iodide management in formamidinium-lead-halideâ€“based perovskite layers for efficient solar cells. Science, 2017, 356, 1376-1379.	6.0	4,721
78	Numerical optical optimization of monolithic planar perovskite-silicon tandem solar cells with regular and inverted device architectures. Optics Express, 2017, 25, A473.	1.7	114
79	One-Dimensional Electron Transport Layers for Perovskite Solar Cells. Nanomaterials, 2017, 7, 95.	1.9	41
80	Effect of Modulating Spin-Coating Rate of TiO₂Precursor for Mesoporous Layer on<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" id="M1"><mml:mi>J</mml:mi><mml:mtext>-</mml:mtext><mml:mi>V</mml:mi></mml:math>Hysteresis of Solar Cells with Polar CH₃NH₃PbI₃Perovskite Thin Film. International Journal of Photoenergy, 2017, 2017, 1-11.	1.4	1
81	Insulated Interlayer for Efficient and Photostable Electron-Transport-Layer-Free Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 10132-10140.	4.0	32
82	Efficient and Stable Perovskite Solar Cells via Dual Functionalization of Dopamine Semiquinone Radical with Improved Trap Passivation Capabilities. Advanced Functional Materials, 2018, 28, 1707444.	7.8	94
83	A ternary organic electron transport layer for efficient and photostable perovskite solar cells under full spectrum illumination. Journal of Materials Chemistry A, 2018, 6, 5566-5573.	5.2	35
84	Recent Progress on the Longâ€Term Stability of Perovskite Solar Cells. Advanced Science, 2018, 5, 1700387.	5.6	348
85	Effective Carrierâ€Concentration Tuning of SnO₂ Quantum Dot Electronâ€Selective Layers for Highâ€Performance Planar Perovskite Solar Cells. Advanced Materials, 2018, 30, e1706023.	11.1	333
86	Improved performance of perovskite photodetectors based on a solution-processed CH3NH3PbI3/SnO2 heterojunction. Organic Electronics, 2018, 57, 206-210.	1.4	31
87	Low-Temperature Nb-Doped SnO₂ Electron-Selective Contact Yields over 20% Efficiency in Planar Perovskite Solar Cells. ACS Energy Letters, 2018, 3, 773-778.	8.8	157
88	Accurate Measurement of New Type Non-silicon Solar Cellsâ€™ Photoelectric Conversion Efficiency. Journal of Physics: Conference Series, 2018, 972, 012017.	0.3	1
89	Device simulation of inverted CH3NH3PbI3âˆ’xClx perovskite solar cells based on PCBM electron transport layer and NiO hole transport layer. Solar Energy, 2018, 169, 11-18.	2.9	92
90	Exploring Inorganic Binary Alkaline Halide to Passivate Defects in Lowâ€Temperatureâ€Processed Planarâ€Structure Hybrid Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1800138.	10.2	186

#	Article	IF	Citations
91	ZnO/SnO₂ Double Electron Transport Layer Guides Improved Open Circuit Voltage for Highly Efficient CH₃NH₃PbI₃-Based Planar Perovskite Solar Cells. ACS Applied Energy Materials, 2018, 1, 2215-2221.	2.5	59
92	Perovskite seeding growth of formamidinium-lead-iodide-based perovskites for efficient and stable solar cells. Nature Communications, 2018, 9, 1607.	5.8	309
93	Black phosphorus quantum dots as dual-functional electron-selective materials for efficient plastic perovskite solar cells. Journal of Materials Chemistry A, 2018, 6, 8886-8894.	5.2	80
94	Thermal calcination fabrication of porous tin dioxide for new flexible ultraviolet photodetectors. Journal of Alloys and Compounds, 2018, 753, 212-218.	2.8	6
95	Improving the Performance of Perovskite Solar Cells Through Solvent Vapor Annealingâ€based Morphology Control of the Holeâ€Transport Layer. Energy Technology, 2018, 6, 1283-1289.	1.8	9
96	High-air-flow-velocity assisted intermediate phase engineering for controlled crystallization of mixed perovskite in high efficiency photovoltaics. Journal of Materials Chemistry A, 2018, 6, 8860-8867.	5.2	15
97	Performance Enhancement of Perovskite Solar Cells Induced by Lead Acetate as an Additive. Solar Rrl, 2018, 2, 1800066.	3.1	94
98	Tin oxide (SnO2) as effective electron selective layer material in hybrid organicâ€“inorganic metal halide perovskite solar cells. Journal of Energy Chemistry, 2018, 27, 962-970.	7.1	39
99	Nanoparticle-induced fast nucleation of pinhole-free PbI2 film for ambient-processed highly-efficient perovskite solar cell. Nano Energy, 2018, 49, 109-116.	8.2	35
100	Synthesis of SnO₂ nanofibers and nanobelts electron transporting layer for efficient perovskite solar cells. Nanoscale, 2018, 10, 8275-8284.	2.8	51
101	Dual nanocomposite carrier transport layers enhance the efficiency of planar perovskite photovoltaics. RSC Advances, 2018, 8, 12526-12534.	1.7	20
102	Facile Solâ€“Gel-Derived Craterlike Dual-Functioning TiO₂ Electron Transport Layer for High-Efficiency Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 14649-14658.	4.0	18
103	Efficient and Stable Inverted Planar Perovskite Solar Cells Using a Triphenylamine Holeâ€Transporting Material. ChemSusChem, 2018, 11, 1467-1473.	3.6	45
104	Low-pressure assisted solution synthesis of CH3NH3PbI3-Cl perovskite solar cells. Ceramics International, 2018, 44, 11603-11609.	2.3	10
105	Efficient, stable and flexible perovskite solar cells using two-step solution-processed SnO2 layers as electron-transport-material. Organic Electronics, 2018, 58, 126-132.	1.4	31
106	A Semitransparent Inorganic Perovskite Film for Overcoming Ultraviolet Light Instability of Organic Solar Cells and Achieving 14.03% Efficiency. Advanced Materials, 2018, 30, e1800855.	11.1	243
107	Interfacing Pristine C₆₀ onto TiO₂ for Viable Flexibility in Perovskite Solar Cells by a Lowâ€Temperature Allâ€Solution Process. Advanced Energy Materials, 2018, 8, 1800399.	10.2	72
108	Low-Temperature Presynthesized Crystalline Tin Oxide for Efficient Flexible Perovskite Solar Cells and Modules. ACS Applied Materials & Interfaces, 2018, 10, 14922-14929.	4.0	81

#	Article	IF	Citations
109	Room-Temperature and Aqueous Solution-Processed Two-Dimensional TiS₂ as an Electron Transport Layer for Highly Efficient and Stable Planar nâ€“iâ€“p Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 14796-14802.	4.0	49
110	Extremely low trap-state energy level perovskite solar cells passivated using NH2-POSS with improved efficiency and stability. Journal of Materials Chemistry A, 2018, 6, 6806-6814.	5.2	45
111	Highly efficient perovskite solar cells for light harvesting under indoor illumination via solution processed SnO2/MgO composite electron transport layers. Nano Energy, 2018, 49, 290-299.	8.2	205
112	Cadmium sulfide as an efficient electron transport material for inverted planar perovskite solar cells. Chemical Communications, 2018, 54, 3170-3173.	2.2	41
113	Passivation in perovskite solar cells: A review. Materials Today Energy, 2018, 7, 267-286.	2.5	170
114	Oxygen doping in nickel oxide for highly efficient planar perovskite solar cells. Journal of Materials Chemistry A, 2018, 6, 4721-4728.	5.2	57
115	Ligand-exchange TiO2 nanocrystals induced formation of high-quality electron transporting layers at low temperature for efficient planar perovskite solar cells. Solar Energy Materials and Solar Cells, 2018, 178, 65-73.	3.0	34
116	Improved performance and stability of perovskite solar cells with bilayer electron-transporting layers. RSC Advances, 2018, 8, 5897-5901.	1.7	34
117	Interface Engineering of High-Performance Perovskite Photodetectors Based on PVP/SnO₂ Electron Transport Layer. ACS Applied Materials & Interfaces, 2018, 10, 6505-6512.	4.0	37
118	Interfacial Modification Using Hydrogenated TiO₂ Electronâ€Selective Layers for Highâ€Efficiency and Lightâ€Soakingâ€Free Organic Solar Cells. Advanced Energy Materials, 2018, 8, 1703064.	10.2	23
119	Low-temperature processed non-TiO₂ electron selective layers for perovskite solar cells. Journal of Materials Chemistry A, 2018, 6, 4572-4589.	5.2	65
120	Superfast Roomâ€Temperature Activation of SnO₂ Thin Films via Atmospheric Plasma Oxidation and their Application in Planar Perovskite Photovoltaics. Advanced Materials, 2018, 30, 1704825.	11.1	73
121	Efficient, Hysteresisâ€Free, and Stable Perovskite Solar Cells with ZnO as Electronâ€Transport Layer: Effect of Surface Passivation. Advanced Materials, 2018, 30, 1705596.	11.1	363
122	Amideâ€Catalyzed Phaseâ€Selective Crystallization Reduces Defect Density in Wideâ€Bandgap Perovskites. Advanced Materials, 2018, 30, e1706275.	11.1	80
123	Lowâ€Temperature Processed, Efficient, and Highly Reproducible Cesiumâ€Doped Triple Cation Perovskite Planar Heterojunction Solar Cells. Solar Rrl, 2018, 2, 1700209.	3.1	113
124	Performance enhancement of mesoporous TiO2-based perovskite solar cells by ZnS ultrathin-interfacial modification layer. Journal of Alloys and Compounds, 2018, 738, 405-414.	2.8	36
125	Efficient and stable CH 3 NH 3 PbI 3-x (SCN) x planar perovskite solar cells fabricated in ambient air with low-temperature process. Journal of Power Sources, 2018, 377, 52-58.	4.0	53
126	Impact of Ultrathin C₆₀ on Perovskite Photovoltaic Devices. ACS Nano, 2018, 12, 876-883.	7.3	80

#	Article	IF	Citations
127	Transparent electrode for monolithic perovskite/silicon-heterojunction two-terminal tandem solar cells. Nano Energy, 2018, 45, 280-286.	8.2	67
128	The Dawn of Leadâ€Free Perovskite Solar Cell: Highly Stable Double Perovskite Cs₂AgBiBr₆ Film. Advanced Science, 2018, 5, 1700759.	5.6	363
129	A New Hole Transport Material for Efficient Perovskite Solar Cells With Reduced Device Cost. Solar Rrl, 2018, 2, 1700175.	3.1	31
130	Control of Electrical Potential Distribution for High-Performance Perovskite Solar Cells. Joule, 2018, 2, 296-306.	11.7	138
131	Recent advances of flexible perovskite solar cells. Journal of Energy Chemistry, 2018, 27, 673-689.	7.1	75
132	Elucidating the phase transitions and temperature-dependent photoluminescence of MAPbBr₃ single crystal. Journal Physics D: Applied Physics, 2018, 51, 045105.	1.3	54
133	Thermal Stability of Mixed Cation Metal Halide Perovskites in Air. ACS Applied Materials & Interfaces, 2018, 10, 5485-5491.	4.0	123
134	High-performance inverted planar perovskite solar cells based on efficient hole-transporting layers from well-crystalline NiO nanocrystals. Solar Energy, 2018, 161, 100-108.	2.9	60
135	Band Engineering via Snâ€doping of Zinc Oxide Electron Transport Materials for Perovskite Solar Cells. ChemistrySelect, 2018, 3, 363-367.	0.7	9
136	Tailored interfaces of unencapsulated perovskite solar cells for >1,000 hour operational stability. Nature Energy, 2018, 3, 68-74.	19.8	722
137	Fully Highâ€Temperatureâ€Processed SnO₂ as Blocking Layer and Scaffold for Efficient, Stable, and Hysteresisâ€Free Mesoporous Perovskite Solar Cells. Advanced Functional Materials, 2018, 28, 1706276.	7.8	143
138	Compositionally Graded Absorber for Efficient and Stable Nearâ€Infraredâ€Transparent Perovskite Solar Cells. Advanced Science, 2018, 5, 1700675.	5.6	65
139	Enhanced Grain Size and Crystallinity in CH3NH3PbI3 Perovskite Films by Metal Additives to the Single-Step Solution Fabrication Process. MRS Advances, 2018, 3, 3237-3242.	0.5	26
140	Rapid thermal annealing of CH₃NH₃PbI₃ perovskite thin films by intense pulsed light with aid of diiodomethane additive. Journal of Materials Chemistry A, 2018, 6, 9378-9383.	5.2	42
141	A one-step laser process for rapid manufacture of mesoscopic perovskite solar cells prepared under high relative humidity. Sustainable Energy and Fuels, 2018, 2, 1216-1224.	2.5	13
142	Enhanced performance of planar perovskite solar cells using low-temperature processed Ga-doped TiO 2 compact film as efficient electron-transport layer. Electrochimica Acta, 2018, 272, 68-76.	2.6	19
143	Effect of the post-annealing temperature on the thermal-decomposed NiO_x hole contact layer for perovskite solar cells. Journal of Advanced Dielectrics, 2018, 08, 1850006.	1.5	8
144	The Relationship between Chemical Flexibility and Nanoscale Charge Collection in Hybrid Halide Perovskites. Advanced Functional Materials, 2018, 28, 1706995.	7.8	28

#	Article	IF	Citations
145	Low-temperature deposited SnO 2 used as the buffer layer of Sb 2 Se 3 solar cell. Materials Letters, 2018, 222, 142-145.	1.3	18
146	Natural Random Nanotexturing of the Au Interface for Light Backscattering Enhanced Performance in Perovskite Solar Cells. ACS Photonics, 2018, 5, 2243-2250.	3.2	39
147	Scalable fabrication of perovskite solar cells. Nature Reviews Materials, 2018, 3, .	23.3	764
148	Benefits of fullerene/SnO 2 bilayers as electron transport layer for efficient planar perovskite solar cells. Organic Electronics, 2018, 58, 294-300.	1.4	26
149	Correlation of ETL in perovskite light-emitting diodes and the ultra-long rise time in time-resolved electroluminescence. Materials Science in Semiconductor Processing, 2018, 80, 131-136.	1.9	2
150	A novel ball milling technique for room temperature processing of TiO₂ nanoparticles employed as the electron transport layer in perovskite solar cells and modules. Journal of Materials Chemistry A, 2018, 6, 7114-7122.	5.2	35
151	Improved performance of mesostructured perovskite solar cells via an anti-solvent method. Journal of Crystal Growth, 2018, 491, 66-72.	0.7	6
152	Understanding the Doping Effect on NiO: Toward Highâ€Performance Inverted Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1703519.	10.2	286
153	Ru-Doping in TiO₂electron transport layers of planar heterojunction perovskite solar cells for enhanced performance. Journal of Materials Chemistry C, 2018, 6, 4746-4752.	2.7	65
154	Mesoscopic Oxide Double Layer as Electron Specific Contact for Highly Efficient and UV Stable Perovskite Photovoltaics. Nano Letters, 2018, 18, 2428-2434.	4.5	116
155	Large-area perovskite solar cells â€“ a review of recent progress and issues. RSC Advances, 2018, 8, 10489-10508.	1.7	171
156	Low-temperature SnO₂-modified TiO₂ yields record efficiency for normal planar perovskite solar modules. Journal of Materials Chemistry A, 2018, 6, 10233-10242.	5.2	75
157	Perowskitâ€Solarzellen: atomare Ebene, SchichtqualitÄt und LeistungsfÄhigkeit der Zellen. Angewandte Chemie, 2018, 130, 2582-2598.	1.6	37
158	Perovskite Solar Cells: From the Atomic Level to Film Quality and Device Performance. Angewandte Chemie - International Edition, 2018, 57, 2554-2569.	7.2	413
159	Effect of non-stoichiometric solution chemistry on improving the performance of wide-bandgap perovskite solar cells. Materials Today Energy, 2018, 7, 232-238.	2.5	31
160	Advances and challenges to the commercialization of organicâ€“inorganic halide perovskite solar cell technology. Materials Today Energy, 2018, 7, 169-189.	2.5	231
161	Interfacial charge-transfer engineering by ionic liquid for high performance planar CH3NH3PbBr3 solar cells. Journal of Energy Chemistry, 2018, 27, 748-752.	7.1	18
162	Donorâ€“Acceptor Type Dopantâ€Free, Polymeric Hole Transport Material for Planar Perovskite Solar Cells (19.8%). Advanced Energy Materials, 2018, 8, 1701935.	10.2	116

#	Article	IF	Citations
163	Polymer Doping for Highâ€Efficiency Perovskite Solar Cells with Improved Moisture Stability. Advanced Energy Materials, 2018, 8, 1701757.	10.2	293
164	Graphdiyne Quantum Dots for Much Improved Stability and Efficiency of Perovskite Solar Cells. Advanced Materials Interfaces, 2018, 5, 1701117.	1.9	76
165	Efficient fully laser-patterned flexible perovskite modules and solar cells based on low-temperature solution-processed SnO2/mesoporous-TiO2 electron transport layers. Nano Research, 2018, 11, 2669-2681.	5.8	116
166	The architecture of the electron transport layer for a perovskite solar cell. Journal of Materials Chemistry C, 2018, 6, 682-712.	2.7	172
167	Room-temperature processed tin oxide thin film as effective hole blocking layer for planar perovskite solar cells. Applied Surface Science, 2018, 434, 1336-1343.	3.1	49
168	Cerium oxide as an efficient electron extraction layer for pâ€“iâ€“n structured perovskite solar cells. Chemical Communications, 2018, 54, 471-474.	2.2	61
169	Heterojunction Engineering for High Efficiency Cesium Formamidinium Doubleâ€Cation Lead Halide Perovskite Solar Cells. ChemSusChem, 2018, 11, 837-842.	3.6	61
170	Molecular design with silicon core: toward commercially available hole transport materials for high-performance planar pâ€“iâ€“n perovskite solar cells. Journal of Materials Chemistry A, 2018, 6, 404-413.	5.2	60
171	Electron transport layer driven to improve the open-circuit voltage of CH3NH3PbI3 planar perovskite solar cells. Science China Materials, 2018, 61, 65-72.	3.5	12
172	Energy level and thickness control on PEDOT:PSS layer for efficient planar heterojunction perovskite cells. Journal Physics D: Applied Physics, 2018, 51, 025110.	1.3	15
173	Stacking n-type layers: Effective route towards stable, efficient and hysteresis-free planar perovskite solar cells. Nano Energy, 2018, 44, 34-42.	8.2	56
174	Efficient and stable planar hole-transport-material-free perovskite solar cells using low temperature processed SnO2 as electron transport material. Organic Electronics, 2018, 53, 235-241.	1.4	66
175	Interface Engineering for Highly Efficient and Stable Planar pâ€iâ€n Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1701883.	10.2	338
176	Combination of Hybrid CVD and Cation Exchange for Upscaling Csâ€Substituted Mixed Cation Perovskite Solar Cells with High Efficiency and Stability. Advanced Functional Materials, 2018, 28, 1703835.	7.8	158
177	Recent progress in organohalide lead perovskites for photovoltaic and optoelectronic applications. Coordination Chemistry Reviews, 2018, 373, 258-294.	9.5	67
178	Solution Processed Trilayer Structure for High-Performance Perovskite Photodetector. Nanoscale Research Letters, 2018, 13, 399.	3.1	42
179	La-doped BaSnO₃ electron transport layer for perovskite solar cells. Journal of Materials Chemistry A, 2018, 6, 23071-23077.	5.2	37
180	Realizing solution-processed monolithic PbS QDs/perovskite tandem solar cells with high UV stability. Journal of Materials Chemistry A, 2018, 6, 24693-24701.	5.2	45

#	Article	IF	Citations
181	High performance ambient-air-stable FAPbI₃ perovskite solar cells with molecule-passivated Ruddlesdenâ€“Popper/3D heterostructured film. Energy and Environmental Science, 2018, 11, 3358-3366.	15.6	196
182	Tailoring a dynamic crystalline process during the conversion of lead-halide perovskite layer to achieve high performance solar cells. Journal of Materials Chemistry A, 2018, 6, 24793-24804.	5.2	24
183	Hot dipping post treatment for improved efficiency in micro patterned semi-transparent perovskite solar cells. Journal of Materials Chemistry A, 2018, 6, 23787-23796.	5.2	21
184	Performance enhancement of perovskite solar cell on AZO substrate via atomic layer deposited TiO<inf>2</inf> layer. , 2018, , .		0
185	High-Efficiency Spray-Coated Perovskite Solar Cells Utilizing Vacuum-Assisted Solution Processing. ACS Applied Materials & Interfaces, 2018, 10, 39428-39434.	4.0	74
186	TiO₂/SnO₂ Nanocomposites as Electron Transporting Layer for Efficiency Enhancement in Planar CH₃NH₃PbI₃-Based Perovskite Solar Cells. ACS Applied Energy Materials, 2018, 1, 6936-6944.	2.5	18
187	Tailored Phase Conversion under Conjugated Polymer Enables Thermally Stable Perovskite Solar Cells with Efficiency Exceeding 21%. Journal of the American Chemical Society, 2018, 140, 17255-17262.	6.6	235
188	Perovskite/Poly[bis(4-phenyl)(2,4,6-trimethylphenyl)amine] Bulk Heterojunction for High-Efficient Carbon-Based Large-Area Solar Cells by Gradient Engineering. ACS Applied Materials & Interfaces, 2018, 10, 42328-42334.	4.0	37
189	CsPbBr₃ Nanocrystal/MO₂ (M = Si, Ti, Sn) Composites: Insight into Charge-Carrier Dynamics and Photoelectrochemical Applications. ACS Applied Materials & Interfaces, 2018, 10, 42301-42309.	4.0	66
190	Anomalous Scaling Exponents in the Capacitanceâ€“Voltage Characteristics of Perovskite Thin Film Devices. Journal of Physical Chemistry C, 2018, 122, 27935-27940.	1.5	10
191	Thermionic Emissionâ€“Based Interconnecting Layer Featuring Solvent Resistance for Monolithic Tandem Solar Cells with Solutionâ€Processed Perovskites. Advanced Energy Materials, 2018, 8, 1801954.	10.2	40
192	Thick TiO₂-Based Top Electron Transport Layer on Perovskite for Highly Efficient and Stable Solar Cells. ACS Energy Letters, 2018, 3, 2891-2898.	8.8	71
193	Dual interfacial modification engineering with p-type NiO nanocrystals for preparing efficient planar perovskite solar cells. Journal of Materials Chemistry C, 2018, 6, 13034-13042.	2.7	37
194	Bilayer SnO₂ as Electron Transport Layer for Highly Efficient Perovskite Solar Cells. ACS Applied Energy Materials, 2018, 1, 6027-6039.	2.5	88
195	SnO2 nanorod arrays with tailored area density as efficient electron transport layers for perovskite solar cells. Journal of Power Sources, 2018, 402, 460-467.	4.0	42
196	Fullerene derivative anchored SnO₂ for high-performance perovskite solar cells. Energy and Environmental Science, 2018, 11, 3463-3471.	15.6	205
197	Band-Aligned Polymeric Hole Transport Materials for Extremely Low Energy Loss Î±-CsPbI3 Perovskite Nanocrystal Solar Cells. Joule, 2018, 2, 2450-2463.	11.7	275
198	Electrode Design to Overcome Substrate Transparency Limitations for Highly Efficient 1 cm2 Mesoscopic Perovskite Solar Cells. Joule, 2018, 2, 2694-2705.	11.7	34

#	Article	IF	Citations
199	Graphene quantum dots decorated TiO2 mesoporous film as an efficient electron transport layer for high-performance perovskite solar cells. Journal of Power Sources, 2018, 402, 320-326.	4.0	86
200	Monolithic perovskite/Si tandem solar cells exceeding 22% efficiency via optimizing top cell absorber. Nano Energy, 2018, 53, 798-807.	8.2	83
201	14.1% efficiency hybrid planar-Si/organic heterojunction solar cells with SnO2 insertion layer. Solar Energy, 2018, 174, 549-555.	2.9	25
202	Antisolvent with an Ultrawide Processing Window for the Oneâ€Step Fabrication of Efficient and Largeâ€Area Perovskite Solar Cells. Advanced Materials, 2018, 30, e1802763.	11.1	130
203	Methylammonium-free, high-performance, and stable perovskite solar cells on a planar architecture. Science, 2018, 362, 449-453.	6.0	816
204	Universal passivation strategy to slot-die printed SnO2 for hysteresis-free efficient flexible perovskite solar module. Nature Communications, 2018, 9, 4609.	5.8	596
205	Light Trapping Effect in Perovskite Solar Cells by the Addition of Ag Nanoparticles, Using Textured Substrates. Nanomaterials, 2018, 8, 815.	1.9	20
206	Comprehensive understanding of heat-induced degradation of triple-cation mixed halide perovskite for a robust solar cell. Nano Energy, 2018, 54, 218-226.	8.2	72
207	Significant Stability Enhancement of Perovskite Solar Cells by Facile Adhesive Encapsulation. Journal of Physical Chemistry C, 2018, 122, 25260-25267.	1.5	31
208	Room-Temperature-Sputtered Nanocrystalline Nickel Oxide as Hole Transport Layer for pâ€“iâ€“n Perovskite Solar Cells. ACS Applied Energy Materials, 2018, 1, 6227-6233.	2.5	88
209	Composition and Interface Engineering for Efficient and Thermally Stable Pbâ€“Sn Mixed Lowâ€Bandgap Perovskite Solar Cells. Advanced Functional Materials, 2018, 28, 1804603.	7.8	87
210	All-inorganic cesium lead iodide perovskite solar cells with stabilized efficiency beyond 15%. Nature Communications, 2018, 9, 4544.	5.8	379
211	SnO₂â€inâ€Polymer Matrix for Highâ€Efficiency Perovskite Solar Cells with Improved Reproducibility and Stability. Advanced Materials, 2018, 30, e1805153.	11.1	185
212	Initial photochemical stability in perovskite solar cells based on the Cu electrode and the appropriate charge transport layers. Synthetic Metals, 2018, 246, 101-107.	2.1	18
213	Giant Zero-Drift Electronic Behaviors in Methylammonium Lead Halide Perovskite Diodes by Doping Iodine Ions. Materials, 2018, 11, 1606.	1.3	11
214	Carrier Dynamics Engineering for High-Performance Electron-Transport-Layer-free Perovskite Photovoltaics. CheM, 2018, 4, 2405-2417.	5.8	57
215	An overview: Facet-dependent metal oxide semiconductor gas sensors. Sensors and Actuators B: Chemical, 2018, 277, 604-633.	4.0	286
216	In-situ cross-linking strategy for efficient and operationally stable methylammoniun lead iodide solar cells. Nature Communications, 2018, 9, 3806.	5.8	227

#	Article	IF	Citations
217	Charge Injection and Electrical Response in Low-Temperature SnO₂-Based Efficient Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 35118-35128.	4.0	33
218	Highly Efficient, Solution-Processed CsPbI₂Br Planar Heterojunction Perovskite Solar Cells via Flash Annealing. ACS Photonics, 2018, 5, 4104-4110.	3.2	64
219	Highly efficient and humidity stable perovskite solar cells achieved by introducing perovskite-like metal formate material as the nanocrystal scaffold. Journal of Power Sources, 2018, 402, 229-236.	4.0	7
220	High efficiency MAPbI_{3â^'x}Cl_x perovskite solar cell via interfacial passivation. Nanoscale, 2018, 10, 18909-18914.	2.8	39
221	Challenges for commercializing perovskite solar cells. Science, 2018, 361, .	6.0	1,327
222	Stability at Scale: Challenges of Module Interconnects for Perovskite Photovoltaics. ACS Energy Letters, 2018, 3, 2502-2503.	8.8	31
223	Facile Solution Spin-Coating SnO2 Thin Film Covering Cracks of TiO2 Hole Blocking Layer for Perovskite Solar Cells. Coatings, 2018, 8, 314.	1.2	19
224	Twoâ€Dimensional Organicâ€“Inorganic Hybrid Perovskites: A New Platform for Optoelectronic Applications. Advanced Materials, 2018, 30, e1802041.	11.1	138
225	Efficiency Exceeding 20% in Perovskite Solar Cells with Sideâ€Chain Liquid Crystalline Polymerâ€“Doped Perovskite Absorbers. Advanced Energy Materials, 2018, 8, 1801637.	10.2	48
226	Morphology Control of Organicâ€“Inorganic Bismuthâ€Based Perovskites for Solar Cell Application. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800409.	0.8	16
227	Room-temperature solution-processed amorphous NbO_x as an electron transport layer in high-efficiency photovoltaics. Journal of Materials Chemistry A, 2018, 6, 17882-17888.	5.2	19
228	In Situ Cesium Modification at Interface Enhances the Stability of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 33205-33213.	4.0	27
229	Improving carrier extraction in a PbSe quantum dot solar cell by introducing a solution-processed antimony-doped SnO₂ buffer layer. Journal of Materials Chemistry C, 2018, 6, 9861-9866.	2.7	20
230	Integrating Ultrathin Bulkâ€Heterojunction Organic Semiconductor Intermediary for Highâ€Performance Lowâ€Bandgap Perovskite Solar Cells with Low Energy Loss. Advanced Functional Materials, 2018, 28, 1804427.	7.8	111
231	Unraveling the Passivation Process of PbI₂ to Enhance the Efficiency of Planar Perovskite Solar Cells. Journal of Physical Chemistry C, 2018, 122, 21269-21276.	1.5	97
232	Simultaneous Ligand Exchange Fabrication of Flexible Perovskite Solar Cells using Newly Synthesized Uniform Tin Oxide Quantum Dots. Journal of Physical Chemistry Letters, 2018, 9, 5460-5467.	2.1	31
233	Design and Synthesis of 1D-Polymeric Chain Based [(CH₃NH₃)₃Bi₂Cl₉]n Perovskite: A New Light Absorber Material for Lead Free Perovskite Solar Cells. ACS Applied Energy Materials, 2018, 1, 2405-2409.	2.5	63
234	Toward Longâ€Term Stable and Highly Efficient Perovskite Solar Cells via Effective Charge Transporting Materials. Advanced Energy Materials, 2018, 8, 1800249.	10.2	85

#	Article	IF	Citations
235	Surface Engineering of TiO₂ ETL for Highly Efficient and Hysteresisâ€Less Planar Perovskite Solar Cell (21.4%) with Enhanced Openâ€Circuit Voltage and Stability. Advanced Energy Materials, 2018, 8, 1800794.	10.2	255
236	Plant Sunscreen and Co(II)/(III) Porphyrins for UVâ€Resistant and Thermally Stable Perovskite Solar Cells: From Natural to Artificial. Advanced Materials, 2018, 30, e1800568.	11.1	114
237	CsPbCl₃â€Driven Lowâ€Trapâ€Density Perovskite Grain Growth for >20% Solar Cell Efficiency. Advanced Science, 2018, 5, 1800474.	5.6	65
238	Thermal-evaporated selenium as a hole-transporting material for planar perovskite solar cells. Solar Energy Materials and Solar Cells, 2018, 185, 130-135.	3.0	22
239	Conformal coverage of TiO2 compact layers for high-efficient planar heterojunction perovskite solar cells. Organic Electronics, 2018, 59, 177-183.	1.4	12
240	Recent progressive efforts in perovskite solar cells toward commercialization. Journal of Materials Chemistry A, 2018, 6, 12215-12236.	5.2	56
241	Solution-processed ZnO/SnO₂ bilayer ultraviolet phototransistor with high responsivity and fast photoresponse. Journal of Materials Chemistry C, 2018, 6, 6014-6022.	2.7	28
242	Cost Analysis of Perovskite Tandem Photovoltaics. Joule, 2018, 2, 1559-1572.	11.7	266
243	Phase Segregation in Potassium-Doped Lead Halide Perovskites from ³⁹K Solid-State NMR at 21.1 T. Journal of the American Chemical Society, 2018, 140, 7232-7238.	6.6	130
244	Diâ€Spiroâ€Based Holeâ€Transporting Materials for Highly Efficient Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1800809.	10.2	79
245	Band gap engineering in SnO2 by Pb doping. Journal of Alloys and Compounds, 2018, 762, 16-20.	2.8	34
246	Restrained light-soaking and reduced hysteresis in perovskite solar cells employing a helical perylene diimide interfacial layer. Journal of Materials Chemistry A, 2018, 6, 10379-10387.	5.2	51
247	Facile Fabrication of SnO₂ Nanorod Arrays Films as Electron Transporting Layer for Perovskite Solar Cells. Solar Rrl, 2018, 2, 1800133.	3.1	41
248	Planar FAPbBr₃ Solar Cells with Power Conversion Efficiency above 10%. ACS Energy Letters, 2018, 3, 1808-1814.	8.8	41
249	Ionic liquid modified SnO₂ nanocrystals as a robust electron transporting layer for efficient planar perovskite solar cells. Journal of Materials Chemistry A, 2018, 6, 22086-22095.	5.2	66
250	Semiconducting Metal Oxides for High Performance Perovskite Solar Cells. , 2018, , 241-265.		4
251	Breakthroughs in NiOx-HTMs towards stable, low-cost and efficient perovskite solar cells. Nano Energy, 2018, 51, 408-424.	8.2	145
252	Supersaturation controlled growth of MAFAPbI3 perovskite film for high efficiency solar cells. Science China Chemistry, 2018, 61, 1278-1284.	4.2	49

#	Article	IF	Citations
253	Evolution of Perovskite Solar Cells. , 2018, , 43-88.		18
254	Enhanced device performance and stability of perovskite solar cells with low-temperature ZnO/TiO2 bilayered electron transport layers. RSC Advances, 2018, 8, 23019-23026.	1.7	17
255	Ionâ€Migration Inhibition by the Cationâ€“Ï€ Interaction in Perovskite Materials for Efficient and Stable Perovskite Solar Cells. Advanced Materials, 2018, 30, e1707583.	11.1	248
256	SnO₂: A Wonderful Electron Transport Layer for Perovskite Solar Cells. Small, 2018, 14, e1801154.	5.2	639
257	High-performance planar perovskite solar cells based on low-temperature solution-processed well-crystalline SnO2 nanorods electron-transporting layers. Chemical Engineering Journal, 2018, 351, 391-398.	6.6	35
258	High efficient perovskite whispering-gallery solar cells. Nano Energy, 2018, 51, 556-562.	8.2	51
259	Atomic Layer Deposited Electron Transport Layers in Efficient Organometallic Halide Perovskite Devices. MRS Advances, 2018, 3, 3075-3084.	0.5	8
260	Fabrication and Characterization of Air-Stable Organic-Inorganic Bismuth-Based Perovskite Solar Cells. MRS Advances, 2018, 3, 3085-3090.	0.5	4
261	Ultrahigh open-circuit voltage for high performance mixed-cation perovskite solar cells using acetate anions. Journal of Materials Chemistry A, 2018, 6, 14387-14391.	5.2	18
262	Cascade charge transfer enabled by incorporating edge-enriched graphene nanoribbons for mesostructured perovskite solar cells with enhanced performance. Nano Energy, 2018, 52, 123-133.	8.2	123
263	Dithiafulvenylâ€Naphthalenediimideâ€based Small Molecules as efficient Nonâ€Fullerene Electronâ€Transport Layer for Inverted Perovskite Solar Cells. Asian Journal of Organic Chemistry, 2018, 7, 2294-2301.	1.3	21
264	Dew point temperature as an invariant replacement for relative humidity for advanced perovskite solar cell fabrication systems. Journal of Materials Chemistry A, 2018, 6, 20695-20701.	5.2	10
265	One-Step Fiber Laser Fabrication of Mesoporous and Compact TiO₂ Layers for Enhanced Performance of Dye-Sensitized Solar Cells. ACS Sustainable Chemistry and Engineering, 2018, 6, 12299-12308.	3.2	9
266	High Bending Durability of Efficient Flexible Perovskite Solar Cells Using Metal Oxide Electron Transport Layer. Journal of Physical Chemistry C, 2018, 122, 17088-17095.	1.5	28
267	Organic Inorganic Hybrid Perovskite Materials and Devices. , 2018, , 282-291.		0
268	Electronâ€Transport Materials in Perovskite Solar Cells. Small Methods, 2018, 2, 1800082.	4.6	136
269	Energy Level Alignment at Interfaces in Metal Halide Perovskite Solar Cells. Advanced Materials Interfaces, 2018, 5, 1800260.	1.9	215
270	Defect Engineering toward Highly Efficient and Stable Perovskite Solar Cells. Advanced Materials Interfaces, 2018, 5, 1800326.	1.9	40

#	Article	IF	Citations
271	V₂O₅ as Hole Transporting Material for Efficient All Inorganic Sb₂S₃ Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 27098-27105.	4.0	88
272	All that glitters is not gold: Recent progress of alternative counter electrodes for perovskite solar cells. Nano Energy, 2018, 52, 211-238.	8.2	85
273	Enhancing the efficiency of perovskite solar cells using mesoscopic zinc-doped TiO₂ as the electron extraction layer through band alignment. Journal of Materials Chemistry A, 2018, 6, 16920-16931.	5.2	71
274	Metal Halide Perovskites: Synthesis, Ion Migration, and Application in Fieldâ€Effect Transistors. Small, 2018, 14, e1801460.	5.2	88
275	Polyoxometalate doped tin oxide as electron transport layer for low cost, hole-transport-material-free perovskite solar cells. Electrochimica Acta, 2018, 284, 10-17.	2.6	26
276	Analysing the Prospects of Perovskite Solar Cells within the Purview of Recent Scientific Advancements. Crystals, 2018, 8, 242.	1.0	13
277	Ultrasonicâ€Assisted Wet Chemistry Synthesis of Ultrafine SnO₂ Nanoparticles for the Electronâ€Transport Layer in Perovskite Solar Cells. ChemSusChem, 2018, 11, 3000-3006.	3.6	12
278	Controllable assembly of tin oxide thin films with efficient photoconductive activity. Materials Letters, 2018, 229, 244-247.	1.3	7
279	Highly Efficient and Stable MAPbI3 Perovskite Solar Cell Induced by Regulated Nucleation and Ostwald Recrystallization. Materials, 2018, 11, 778.	1.3	30
280	The Impact of Hybrid Compositional Film/Structure on Organicâ€“Inorganic Perovskite Solar Cells. Nanomaterials, 2018, 8, 356.	1.9	30
281	Cesium Halides-Assisted Crystal Growth of Perovskite Films for Efficient Planar Heterojunction Solar Cells. Chemistry of Materials, 2018, 30, 5264-5271.	3.2	30
282	Boosting the performance of perovskite solar cells through a novel active passivation method. Journal of Materials Chemistry A, 2018, 6, 15853-15858.	5.2	66
283	Introducing lead acetate into stoichiometric perovskite lewis acid-base precursor for improved solar cell photovoltaic performance. Journal of Alloys and Compounds, 2018, 767, 829-837.	2.8	8
284	Manipulation of facet orientation in hybrid perovskite polycrystalline films by cation cascade. Nature Communications, 2018, 9, 2793.	5.8	189
285	Enhanced Planar Perovskite Solar Cell Performance via Contact Passivation of TiO₂/Perovskite Interface with NaCl Doping Approach. ACS Applied Energy Materials, 2018, 1, 3826-3834.	2.5	68
286	Facile Deposition of Nb₂O₅ Thin Film as an Electron-Transporting Layer for Highly Efficient Perovskite Solar Cells. ACS Applied Nano Materials, 2018, 1, 4101-4109.	2.4	33
287	Review on the Application of SnO₂ in Perovskite Solar Cells. Advanced Functional Materials, 2018, 28, 1802757.	7.8	448
288	Enhanced Crystallinity of Lowâ€Temperature Solutionâ€Processed SnO₂ for Highly Reproducible Planar Perovskite Solar Cells. ChemSusChem, 2018, 11, 2898-2903.	3.6	31

#	Article	IF	Citations
289	General Method To Define the Type of Carrier Transport Materials for Perovskite Solar Cells via Kelvin Probes Microscopy. ACS Applied Energy Materials, 2018, 1, 3984-3991.	2.5	15
290	Suppressing TiO₂/Perovskite Interfacial Electron Trapping in Perovskite Solar Cell for Efficient Charge Extraction and Improved Device Performance. ACS Sustainable Chemistry and Engineering, 2018, 6, 11295-11302.	3.2	18
291	Recent Advance in Solutionâ€Processed Organic Interlayers for Highâ€Performance Planar Perovskite Solar Cells. Advanced Science, 2018, 5, 1800159.	5.6	84
292	Enhanced performance of planar perovskite solar cells based on low-temperature processed TiO2 electron transport layer modified by Li2SiO3. Journal of Power Sources, 2018, 392, 1-7.	4.0	9
293	Room-temperature film formation of metal halide perovskites on n-type metal oxides: the catalysis of ZnO on perovskite crystallization. Chemical Communications, 2018, 54, 6887-6890.	2.2	11
294	Accelerated electron extraction and improved UV stability of TiO2 based perovskite solar cells by SnO2 based surface passivation. Organic Electronics, 2018, 59, 184-189.	1.4	45
295	High efficiency planar-type perovskite solar cells with negligible hysteresis using EDTA-complexed SnO2. Nature Communications, 2018, 9, 3239.	5.8	1,017
296	Efficient Perovskite Solar Cells Fabricated Through CsClâ€Enhanced PbI₂ Precursor via Sequential Deposition. Advanced Materials, 2018, 30, e1803095.	11.1	109
297	Effects of Ti precursors on the performance of planar perovskite solar cells. Applied Surface Science, 2018, 462, 598-605.	3.1	11
298	Oxygen management in carbon electrode for high-performance printable perovskite solar cells. Nano Energy, 2018, 53, 160-167.	8.2	83
299	Methylammonium, formamidinium and ethylenediamine mixed triple-cation perovskite solar cells with high efficiency and remarkable stability. Journal of Materials Chemistry A, 2018, 6, 17625-17632.	5.2	37
300	Modifying Perovskite Films with Polyvinylpyrrolidone for Ambient-Air-Stable Highly Bendable Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 35385-35394.	4.0	64
301	Low-temperature electrospray-processed SnO2 nanosheets as an electron transporting layer for stable and high-efficiency perovskite solar cells. Journal of Colloid and Interface Science, 2018, 532, 387-394.	5.0	31
302	Surface Trap States Passivation for Highâ€Performance Inorganic Perovskite Solar Cells. Solar Rrl, 2018, 2, 1800188.	3.1	103
303	â€œOnâ€“Offâ€“Onâ€•Photoelectrochemical/Visual Lab-on-Paper Sensing via Signal Amplification of CdS Quantum Dots@Leaf-Shape ZnO and Quenching of Au-Modified Prism-Anchored Octahedral CeO₂ Nanoparticles. Analytical Chemistry, 2018, 90, 11297-11304.	3.2	65
304	A Zero-Dimensional Mixed-Anion Hybrid Halogenobismuthate(III) Semiconductor: Structural, Optical, and Photovoltaic Properties. Inorganic Chemistry, 2018, 57, 10576-10586.	1.9	26
305	Thermally stable, planar hybrid perovskite solar cells with high efficiency. Energy and Environmental Science, 2018, 11, 3238-3247.	15.6	348
306	Fast two-step deposition of perovskite via mediator extraction treatment for large-area, high-performance perovskite solar cells. Journal of Materials Chemistry A, 2018, 6, 12447-12454.	5.2	83

#	Article	IF	Citations
307	How the formation of interfacial charge causes hysteresis in perovskite solar cells. Energy and Environmental Science, 2018, 11, 2404-2413.	15.6	289
308	Pushing the Envelope: Achieving an Openâ€Circuit Voltage of 1.18 V for Unalloyed MAPbI₃ Perovskite Solar Cells of a Planar Architecture. Advanced Functional Materials, 2018, 28, 1801237.	7.8	26
309	Efficient perovskite light-emitting diodes based on a solution-processed tin dioxide electron transport layer. Journal of Materials Chemistry C, 2018, 6, 6996-7002.	2.7	25
310	Beyond Fullerenes: Indacenodithiophene-Based Organic Charge-Transport Layer toward Upscaling of Low-Cost Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 22143-22155.	4.0	27
311	Annealing atmosphere effect on Ni states in the thermal-decomposed NiOx films for perovskite solar cell application. Electrochimica Acta, 2018, 282, 81-88.	2.6	31
312	Solvent-controlled growth of inorganic perovskite films in dry environment for efficient and stable solar cells. Nature Communications, 2018, 9, 2225.	5.8	526
313	Flexible and Stretchable Perovskite Solar Cells: Device Design and Development Methods. Small Methods, 2018, 2, 1800031.	4.6	71
314	Ultrathin Hole Extraction Layer for Efficient Inverted Perovskite Solar Cells. ACS Omega, 2018, 3, 6339-6345.	1.6	5
315	Low-Temperature Processable Charge Transporting Materials for the Flexible Perovskite Solar Cells. Electronic Materials Letters, 2018, 14, 657-668.	1.0	17
316	Highly efficient solar cells based on Cl incorporated tri-cation perovskite materials. Journal of Materials Chemistry A, 2018, 6, 13725-13734.	5.2	43
317	Metal Oxide-Based Charge Extraction and Recombination Layers for Organic Solar Cells. , 2018, , 159-181.		2
318	Tailoring electrical property of the low-temperature processed SnO2 for high-performance perovskite solar cells. Science China Materials, 2019, 62, 173-180.	3.5	13
319	Low temperature combustion synthesized indium oxide electron transport layer for high performance and stable perovskite solar cells. Journal of Power Sources, 2019, 438, 226981.	4.0	22
320	Light Management via Tuning the Fluorineâ€Doped Tin Oxide Glass Hazeâ€Drives Highâ€Efficiency CsPbI 3 Solar Cells. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1900602.	0.8	5
321	General Synthesis of Lead-Free Metal Halide Perovskite Colloidal Nanocrystals in 1-Dodecanol. Inorganic Chemistry, 2019, 58, 11807-11818.	1.9	34
322	Overcoming the interface losses in mesoporous n-i-p perovskite solar cells: Bronsted acid as an effective interface layer. Organic Electronics, 2019, 75, 105403.	1.4	3
323	Moisture proof hole transport layers based on CISe quantum dots for highly stable and large active area perovskite solar cells. Applied Surface Science, 2019, 496, 143610.	3.1	17
324	Multifunctional Chemical Linker Imidazoleacetic Acid Hydrochloride for 21% Efficient and Stable Planar Perovskite Solar Cells. Advanced Materials, 2019, 31, e1902902.	11.1	366

#	Article	IF	Citations
325	Simultaneous Bottomâ€Up Interfacial and Bulk Defect Passivation in Highly Efficient Planar Perovskite Solar Cells using Nonconjugated Smallâ€Molecule Electrolytes. Advanced Materials, 2019, 31, e1903239.	11.1	89
326	Vertically Oriented BiI₃ Template Featured BiI₃/Polymer Heterojunction for High Photocurrent and Long-Term Stable Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 32509-32516.	4.0	27
327	A Highly Stable Allâ€Inorganic CsPbBr₃ Perovskite Solar Cell. European Journal of Inorganic Chemistry, 2019, 2019, 3699-3703.	1.0	31
328	Effects of heat treatment on the structure and photocatalytic activity of polymer carbon nitride. Journal of Materials Science, 2019, 54, 14599-14608.	1.7	15
329	Low-Temperature Solution-Processed Thin SnO₂/Al₂O₃Double Electron Transport Layers Toward 20% Efficient Perovskite Solar Cells. IEEE Journal of Photovoltaics, 2019, 9, 1309-1315.	1.5	21
330	Interfacial Engineering for High-Efficiency Nanorod Array-Structured Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 33770-33780.	4.0	47
331	Suppressing the ions-induced degradation for operationally stable perovskite solar cells. Nano Energy, 2019, 64, 103962.	8.2	55
332	Fully-ambient-air and antisolvent-free-processed stable perovskite solar cells with perovskite-based composites and interface engineering. Nano Energy, 2019, 64, 103964.	8.2	35
333	Organometal Halide Perovskites Thin Film and Their Impact on the Efficiency of Perovskite Solar Cells. , 0, , .		0
334	A general strategy to prepare high-quality inorganic charge-transporting layers for efficient and stable all-layer-inorganic perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 18603-18611.	5.2	31
335	A dopant-free polyelectrolyte hole-transport layer for high efficiency and stable planar perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 18898-18905.	5.2	36
336	Device Physics of the Carrier Transporting Layer in Planar Perovskite Solar Cells. Advanced Optical Materials, 2019, 7, 1900407.	3.6	34
337	Enhanced efficiency and stability of inverted perovskite solar cells by carbon dots cathode interlayer via solution process. Organic Electronics, 2019, 74, 228-236.	1.4	16
338	Enhanced Electrons Extraction of Lithium-Doped SnO$_{2}$ Nanoparticles for Efficient Planar Perovskite Solar Cells. IEEE Journal of Photovoltaics, 2019, 9, 1273-1279.	1.5	10
339	Unveiling the origin of performance reduction in perovskite solar cells with TiO2 electron transport layer: Conduction band minimum mismatches and chemical interactions at buried interface. Applied Surface Science, 2019, 495, 143490.	3.1	7
340	Light trapping nano structures with over 30% enhancement in perovskite solar cells. Organic Electronics, 2019, 75, 105385.	1.4	14
341	Functional Metal Oxides in Perovskite Solar Cells. ChemPhysChem, 2019, 20, 2580-2586.	1.0	39
342	A dopant-free twisted organic small-molecule hole transport material for inverted planar perovskite solar cells with enhanced efficiency and operational stability. Nano Energy, 2019, 64, 103946.	8.2	49

#	Article	IF	Citations
343	Moth-eye Structured Polydimethylsiloxane Films for High-Efficiency Perovskite Solar Cells. Nano-Micro Letters, 2019, 11, 53.	14.4	44
344	Recent Progress in Highâ€efficiency Planarâ€structure Perovskite Solar Cells. Energy and Environmental Materials, 2019, 2, 93-106.	7.3	45
345	Modulation of Ni3+ and crystallization of dopant-free NiOx hole transporting layer for efficient p-i-n perovskite solar cells. Electrochimica Acta, 2019, 319, 41-48.	2.6	22
346	Efficient all-air processed mixed cation carbon-based perovskite solar cells with ultra-high stability. Journal of Materials Chemistry A, 2019, 7, 17594-17603.	5.2	56
347	Solvent Engineering for Intermediates Phase, All-Ambient-Air-Processed in Organicâ€“Inorganic Hybrid Perovskite Solar Cells. Nanomaterials, 2019, 9, 915.	1.9	9
348	Vitrification Transformation of Poly(Ethylene Oxide) Activating Interface Passivation for Highâ€Efficiency Perovskite Solar Cells. Solar Rrl, 2019, 3, 1900134.	3.1	43
349	Iodine-rich mixed composition perovskites optimised for tin(<scp>iv</scp>) oxide transport layers: the influence of halide ion ratio, annealing time, and ambient air aging on solar cell performance. Journal of Materials Chemistry A, 2019, 7, 16947-16953.	5.2	32
350	Synergistic Effect of Elevated Device Temperature and Excess Charge Carriers on the Rapid Lightâ€induced Degradation of Perovskite Solar Cells. Advanced Materials, 2019, 31, e1902413.	11.1	90
351	Fully low-temperature processed carbon-based perovskite solar cells using thermally evaporated cadmium sulfide as efficient electron transport layer. Organic Electronics, 2019, 74, 152-160.	1.4	14
352	Revisit of the band gaps of rutile SnO₂ and TiO₂: a first-principles study. Journal of Semiconductors, 2019, 40, 092101.	2.0	24
353	An Interlayer with Strong Pb-Cl Bond Delivers Ultraviolet-Filter-Free, Efficient, and Photostable Perovskite Solar Cells. IScience, 2019, 21, 217-227.	1.9	43
354	Interfacial modification using ultrasonic atomized graphene quantum dots for efficient perovskite solar cells. Organic Electronics, 2019, 75, 105415.	1.4	16
355	A Simple Way to Simultaneously Release the Interface Stress and Realize the Inner Encapsulation for Highly Efficient and Stable Perovskite Solar Cells. Advanced Functional Materials, 2019, 29, 1905336.	7.8	96
356	Cesium Lead Inorganic Solar Cell with Efficiency beyond 18% via Reduced Charge Recombination. Advanced Materials, 2019, 31, e1905143.	11.1	202
357	Highâ€Performance Flexible Perovskite Solar Cells via Precise Control of Electron Transport Layer. Advanced Energy Materials, 2019, 9, 1901419.	10.2	167
358	UVâ€Inert ZnTiO₃ Electron Selective Layer for Photostable Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1901620.	10.2	43
359	Ruddlesdenâ€“Popper 2D Component to Stabilize Î³â€CsPbI₃ Perovskite Phase for Stable and Efficient Photovoltaics. Advanced Energy Materials, 2019, 9, 1902529.	10.2	111
360	Selfâ€Assembly of Hybrid Oxidant POM@Cuâ€BTC for Enhanced Efficiency and Longâ€Term Stability of Perovskite Solar Cells. Angewandte Chemie - International Edition, 2019, 58, 17610-17615.	7.2	95

#	Article	IF	Citations
361	Enhanced Lifetime and Photostability with Lowâ€Temperature Mesoporous ZnTiO₃/Compact SnO₂Electrodes in Perovskite Solar Cells. Angewandte Chemie - International Edition, 2019, 58, 18460-18465.	7.2	33
362	Dopantâ€Free Hole Transporting Molecules for Highly Efficient Perovskite Photovoltaic with Strong Interfacial Interaction. Solar Rrl, 2019, 3, 1900319.	3.1	20
363	Band Alignment Engineering between Planar SnO₂ and Halide Perovskites via Two-Step Annealing. Journal of Physical Chemistry Letters, 2019, 10, 6545-6550.	2.1	28
364	Hysteresis-Free Planar Perovskite Solar Cells with a Breakthrough Efficiency of 22% and Superior Operational Stability over 2000 h. ACS Applied Materials & Interfaces, 2019, 11, 39998-40005.	4.0	86
365	Organic salt mediated growth of phase pure and stable all-inorganic CsPbX3 (Xâ€¯=â€¯I, Br) perovskites for efficient photovoltaics. Science Bulletin, 2019, 64, 1773-1779.	4.3	45
366	Lithography-free and dopant-free back-contact silicon heterojunction solar cells with solution-processed TiO2 as the efficient electron selective layer. Solar Energy Materials and Solar Cells, 2019, 203, 110196.	3.0	18
367	Coreâ€“Shell ZnO@SnO₂ Nanoparticles for Efficient Inorganic Perovskite Solar Cells. Journal of the American Chemical Society, 2019, 141, 17610-17616.	6.6	113
368	Insights into Fullerene Passivation of SnO₂ Electron Transport Layers in Perovskite Solar Cells. Advanced Functional Materials, 2019, 29, 1905883.	7.8	124
369	Halogen Engineering for Operationally Stable Perovskite Solar Cells via Sequential Deposition. Advanced Energy Materials, 2019, 9, 1902239.	10.2	41
370	Zwitterion Nondetergent Sulfobetaine-Modified SnO₂ as an Efficient Electron Transport Layer for Inverted Organic Solar Cells. ACS Omega, 2019, 4, 19225-19237.	1.6	14
371	Diindolotriazatruxene-Based Hole-Transporting Materials for High-Efficiency Planar Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 45717-45725.	4.0	22
372	Enhancing the Charge Extraction and Stability of Perovskite Solar Cells Using Strontium Titanate (SrTiO₃) Electron Transport Layer. ACS Applied Energy Materials, 2019, 2, 8090-8097.	2.5	51
373	Mechanism of PbI₂ in Situ Passivated Perovskite Films for Enhancing the Performance of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 44101-44108.	4.0	100
375	Incorporating CsF into the PbI₂ Film for Stable Mixed Cationâ€Halide Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1901726.	10.2	46
376	Selfâ€Assembly of Hybrid Oxidant POM@Cuâ€BTC for Enhanced Efficiency and Longâ€Term Stability of Perovskite Solar Cells. Angewandte Chemie, 2019, 131, 17774-17779.	1.6	4
377	Enhanced Lifetime and Photostability with Lowâ€Temperature Mesoporous ZnTiO₃/Compact SnO₂Electrodes in Perovskite Solar Cells. Angewandte Chemie, 2019, 131, 18631-18636.	1.6	13
378	Electron Transport Bilayer with Cascade Energy Alignment for Efficient Perovskite Solar Cells. Solar Rrl, 2019, 3, 1900333.	3.1	49
379	Improved crystallinity of perovskite via molecularly tailored surface modification of SnO2. Journal of Power Sources, 2019, 441, 227161.	4.0	20

#	Article	IF	Citations
380	Elucidating the effect of shunt losses on the performance of mesoporous perovskite solar cells. Solar Energy, 2019, 193, 956-961.	2.9	56
381	Carrier Extraction from Perovskite to Polymeric Charge Transport Layers Probed by Ultrafast Transient Absorption Spectroscopy. Journal of Physical Chemistry Letters, 2019, 10, 6921-6928.	2.1	19
382	Charge Carrier Dynamics in Electron-Transport-Layer-Free Perovskite Solar Cells. ACS Applied Electronic Materials, 2019, 1, 2334-2341.	2.0	11
383	Antiâ€Oxidizing Radical Polymerâ€Incorporated Perovskite Layers and their Photovoltaic Characteristics in Solar Cells. ChemSusChem, 2019, 12, 5207-5212.	3.6	20
384	A novel inorganic hole-transporting material of CuInS2 for perovskite solar cells with high efficiency and improved stability. Organic Electronics, 2019, 75, 105430.	1.4	34
385	ZnO-Modified Anode for High-Performance SnO₂-Based Planar Perovskite Solar Cells. ACS Applied Energy Materials, 2019, 2, 7062-7069.	2.5	21
386	Poly(vinylpyrrolidone)-doped SnO₂as an electron transport layer for perovskite solar cells with improved performance. Journal of Materials Chemistry C, 2019, 7, 12204-12210.	2.7	28
387	Inverted planar perovskite solar cells based on CsI-doped PEDOT:PSS with efficiency beyond 20% and small energy loss. Journal of Materials Chemistry A, 2019, 7, 21662-21667.	5.2	77
388	Reversible Removal of Intermixed Shallow States by Light Soaking in Multication Mixed Halide Perovskite Films. ACS Energy Letters, 2019, 4, 2360-2367.	8.8	41
389	High Efficient Large-area Perovskite Solar Cells Based on Paintable Carbon Electrode with NiO Nanocrystal-carbon Intermediate Layer. Chemistry Letters, 2019, 48, 734-737.	0.7	8
390	Flexible Perovskite Solar Cells. Joule, 2019, 3, 1850-1880.	11.7	242
391	Spontaneous low-temperature crystallization of Î±-FAPbI3 for highly efficient perovskite solar cells. Science Bulletin, 2019, 64, 1608-1616.	4.3	58
392	Interfacial Engineering at the 2D/3D Heterojunction for High-Performance Perovskite Solar Cells. Nano Letters, 2019, 19, 7181-7190.	4.5	163
393	Enhanced performance of carbon-based planar CsPbBr3 perovskite solar cells with room-temperature sputtered Nb2O5 electron transport layer. Solar Energy, 2019, 191, 263-271.	2.9	37
394	PbS quantum dots as additives in methylammonium halide perovskite solar cells: the effect of quantum dot capping. Nanoscale Advances, 2019, 1, 4109-4118.	2.2	32
395	Expanding the Light Harvesting of CsPbI₂Br to Near Infrared by Integrating with Organic Bulk Heterojunction for Efficient and Stable Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 37991-37998.	4.0	25
396	Phosphate-Passivated SnO₂ Electron Transport Layer for High-Performance Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 36727-36734.	4.0	84
397	Green low-temperature-solution-processed in situ HI modified TiO2/SnO2 bilayer for efficient and stable planar perovskite solar cells build at ambient air conditions. Electrochimica Acta, 2019, 326, 134924.	2.6	19

#	Article	IF	Citations
398	Morphology control of perovskite in green antisolvent system for MAPbI3-based solar cells with over 20% efficiency. Solar Energy Materials and Solar Cells, 2019, 203, 110197.	3.0	25
399	Improvement of planar perovskite solar cells by using solution processed SnO2/CdS as electron transport layer. Solar Energy, 2019, 191, 647-653.	2.9	34
400	Improving the conductivity of solâ€“gel derived NiO_x with a mixed oxide composite to realize over 80% fill factor in inverted planar perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 9578-9586.	5.2	47
401	A graphene/ZnO electron transfer layer together with perovskite passivation enables highly efficient and stable perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 679-686.	5.2	145
402	Reliable Measurement of Perovskite Solar Cells. Advanced Materials, 2019, 31, e1803231.	11.1	62
403	Highly efficient prismatic perovskite solar cells. Energy and Environmental Science, 2019, 12, 929-937.	15.6	54
404	Room-temperature-processed fullerene single-crystalline nanoparticles for high-performance flexible perovskite photovoltaics. Journal of Materials Chemistry A, 2019, 7, 1509-1518.	5.2	25
405	Moisture-tolerant supermolecule for the stability enhancement of organicâ€“inorganic perovskite solar cells in ambient air. Nanoscale, 2019, 11, 1228-1235.	2.8	46
406	Flower-like MoS₂ nanocrystals: a powerful sorbent of Li⁺ in the Spiro-OMeTAD layer for highly efficient and stable perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 3655-3663.	5.2	70
407	All-inorganic lead-free perovskites for optoelectronic applications. Materials Chemistry Frontiers, 2019, 3, 365-375.	3.2	133
408	Composition and Energy Bandâ€“Modified Commercial FTO Substrate for In Situ Formed Highly Efficient Electron Transport Layer in Planar Perovskite Solar Cells. Advanced Functional Materials, 2019, 29, 1808667.	7.8	30
409	Gravureâ€Printed Flexible Perovskite Solar Cells: Toward Rollâ€toâ€Roll Manufacturing. Advanced Science, 2019, 6, 1802094.	5.6	115
410	Novel Molecular Doping Mechanism for nâ€Doping of SnO₂ via Triphenylphosphine Oxide and Its Effect on Perovskite Solar Cells. Advanced Materials, 2019, 31, e1805944.	11.1	152
411	Effect of the AlN interlayer on electroluminescent performance of n-SnO2/p-GaN heterojunction light-emitting diodes. Materials Science in Semiconductor Processing, 2019, 91, 409-413.	1.9	9
412	Solutionâ€Processed Tin Oxideâ€PEDOT:PSS Interconnecting Layers for Efficient Inverted and Conventional Tandem Polymer Solar Cells. Solar Rrl, 2019, 3, 1800366.	3.1	22
413	Introduction of carbon nanodots into SnO₂ electron transport layer for efficient and UV stable planar perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 5353-5362.	5.2	67
414	Recent Progress of Flexible Perovskite Solar Cells. Physica Status Solidi - Rapid Research Letters, 2019, 13, 1800566.	1.2	36
415	An inorganic hole-transport material of CuInSe2 for stable and efficient perovskite solar cells. Organic Electronics, 2019, 67, 168-174.	1.4	39

#	Article	IF	Citations
416	Highly Efficient and Stable Perovskite Solar Cells via Modification of Energy Levels at the Perovskite/Carbon Electrode Interface. Advanced Materials, 2019, 31, e1804284.	11.1	161
417	TiO2-B as an electron transporting material for highly efficient perovskite solar cells. Journal of Power Sources, 2019, 415, 8-14.	4.0	33
418	Low-temperature processed yttrium-doped SrSnO3 perovskite electron transport layer for planar heterojunction perovskite solar cells with high efficiency. Nano Energy, 2019, 59, 1-9.	8.2	52
419	Bright perovskite light-emitting diodes with improved film morphology and reduced trap density via surface passivation using quaternary ammonium salts. Organic Electronics, 2019, 67, 187-193.	1.4	28
420	Spontaneous grain polymerization for efficient and stable perovskite solar cells. Nano Energy, 2019, 58, 825-833.	8.2	64
421	Efficient and Stable Perovskite Solar Cell with High Open-Circuit Voltage by Dimensional Interface Modification. ACS Applied Materials & Interfaces, 2019, 11, 9149-9155.	4.0	54
422	Enhancing electron transport via graphene quantum dot/SnO₂ composites for efficient and durable flexible perovskite photovoltaics. Journal of Materials Chemistry A, 2019, 7, 1878-1888.	5.2	67
423	All-inorganic cesium lead halide perovskite nanocrystals: synthesis, surface engineering and applications. Journal of Materials Chemistry C, 2019, 7, 757-789.	2.7	193
424	Recent progress on highly sensitive perovskite photodetectors. Journal of Materials Chemistry C, 2019, 7, 1741-1791.	2.7	353
425	Trap-State Passivation by Nonvolatile Small Molecules with Carboxylic Acid Groups for Efficient Planar Perovskite Solar Cells. Journal of Physical Chemistry C, 2019, 123, 14223-14228.	1.5	40
426	Numerical Simulation of Planar Heterojunction Perovskite Solar Cells Based on SnO₂ Electron Transport Layer. ACS Applied Energy Materials, 2019, 2, 4504-4512.	2.5	83
427	Nitrogenâ€Doped Nickel Oxide as Hole Transport Layer for Highâ€Efficiency Inverted Planar Perovskite Solar Cells. Solar Rrl, 2019, 3, 1900164.	3.1	29
428	Waterâ€Based TiO₂ Nanocrystal as an Electronic Transport Layer for Operationally Stable Perovskite Solar Cells. Solar Rrl, 2019, 3, 1900167.	3.1	12
429	Fabrication of efficient formamidinium perovskite solar cells under ambient air via intermediate-modulated crystallization. Solar Energy, 2019, 187, 147-155.	2.9	34
430	Kinetic Stabilization of the Solâ€“Gel State in Perovskites Enables Facile Processing of Highâ€Efficiency Solar Cells. Advanced Materials, 2019, 31, e1808357.	11.1	76
431	Highly efficient fullerene and non-fullerene based ternary organic solar cells incorporating a new tetrathiocin-cored semiconductor. Sustainable Energy and Fuels, 2019, 3, 2087-2099.	2.5	12
432	Discrete SnO 2 Nanoparticleâ€Modified Poly(3,4â€Ethylenedioxythiophene):Poly(Styrenesulfonate) for Efficient Perovskite Solar Cells. Solar Rrl, 2019, 3, 1900162.	3.1	13
433	Exploring low-temperature processed a-WOx/SnO2 hybrid electron transporting layer for perovskite solar cells with efficiency >20.5%. Nano Energy, 2019, 63, 103825.	8.2	49

#	Article	IF	Citations
434	Spin-Coating Process for 10 cm Ã— 10 cm Perovskite Solar Modules Enabled by Self-Assembly of SnO₂ Nanocolloids. ACS Energy Letters, 2019, 4, 1845-1851.	8.8	56
435	Graphene and carbon nanotube-based solar cells. , 2019, , 603-660.		2
436	High-Performance Planar Perovskite Solar Cells with Negligible Hysteresis Using 2,2,2-Trifluoroethanol-Incorporated SnO2. IScience, 2019, 16, 433-441.	1.9	63
437	Facile synthesis of triphenylamine-based hole-transporting materials for planar perovskite solar cells. Journal of Power Sources, 2019, 435, 226767.	4.0	12
438	SnO2/Mg combination electron selective transport layer for Si heterojunction solar cells. Solar Energy Materials and Solar Cells, 2019, 200, 109996.	3.0	27
439	Chemical Bath Deposition of Coâ€Doped TiO₂ Electron Transport Layer for Hysteresisâ€Suppressed Highâ€Efficiency Planar Perovskite Solar Cells. Solar Rrl, 2019, 3, 1900176.	3.1	36
440	Unveiling the synergistic effect of precursor stoichiometry and interfacial reactions for perovskite light-emitting diodes. Nature Communications, 2019, 10, 2818.	5.8	129
441	Recent progress of inorganic perovskite solar cells. Energy and Environmental Science, 2019, 12, 2375-2405.	15.6	405
442	Irradiance and temperature considerations in the design and deployment of high annual energy yield perovskite/CIGS tandems. Sustainable Energy and Fuels, 2019, 3, 1841-1851.	2.5	30
443	Analysis of the UVâ€“Ozoneâ€Treated SnO₂ Electron Transporting Layer in Planar Perovskite Solar Cells for High Performance and Reduced Hysteresis. Solar Rrl, 2019, 3, 1900191.	3.1	62
444	Highâ€Performance Inverted Perovskite Solar Cells by Reducing Electron Capture Region for Electron Transport Layers. Solar Rrl, 2019, 3, 1900207.	3.1	6
445	Stabilizing the black phase of cesium lead halide inorganic perovskite for efficient solar cells. Science China Chemistry, 2019, 62, 810-821.	4.2	40
446	Efficient planar perovskite solar cells with low-temperature atomic layer deposited TiO2 electron transport layer and interfacial modifier. Solar Energy, 2019, 188, 239-246.	2.9	24
447	Achieving High Open-Circuit Voltage on Planar Perovskite Solar Cells via Chlorine-Doped Tin Oxide Electron Transport Layers. ACS Applied Materials & Interfaces, 2019, 11, 23152-23159.	4.0	89
448	Improved SnO₂ Electron Transport Layers Solutionâ€Deposited at Near Room Temperature for Rigid or Flexible Perovskite Solar Cells with High Efficiencies. Advanced Energy Materials, 2019, 9, 1900834.	10.2	100
449	Structural, Electronic, and Optical Characterizations of the Interface between CH₃NH₃PbI₃ and BaSnO₃ Perovskite: A First-Principles Study. Journal of Physical Chemistry C, 2019, 123, 16075-16082.	1.5	10
450	Coagulated SnO₂ Colloids for Highâ€Performance Planar Perovskite Solar Cells with Negligible Hysteresis and Improved Stability. Angewandte Chemie - International Edition, 2019, 58, 11497-11504.	7.2	159
451	Coagulated SnO₂ Colloids for Highâ€Performance Planar Perovskite Solar Cells with Negligible Hysteresis and Improved Stability. Angewandte Chemie, 2019, 131, 11621-11628.	1.6	52

#	Article	IF	Citations
452	Enhanced stability and photovoltage for inverted perovskite solar cells via precursor engineering. Journal of Materials Chemistry A, 2019, 7, 15880-15886.	5.2	22
453	Post-treatment of Perovskite Films toward Efficient Solar Cells via Mixed Solvent Annealing. ACS Applied Energy Materials, 2019, 2, 4954-4963.	2.5	24
454	Aryl-Perfluoroaryl Interaction in Two-Dimensional Organicâ€“Inorganic Hybrid Perovskites Boosts Stability and Photovoltaic Efficiency. , 2019, 1, 171-176.		63
455	Boosting the Efficiency of SnO₂â€Triple Cation Perovskite System Beyond 20% Using Nonhalogenated Antisolvent. Advanced Functional Materials, 2019, 29, 1903213.	7.8	66
456	Imperfections and their passivation in halide perovskite solar cells. Chemical Society Reviews, 2019, 48, 3842-3867.	18.7	1,257
457	Metal Oxide Charge Transport Layers for Efficient and Stable Perovskite Solar Cells. Advanced Functional Materials, 2019, 29, 1900455.	7.8	186
458	In Situ Observation of Crystallization Dynamics and Grain Orientation in Sequential Deposition of Metal Halide Perovskites. Advanced Functional Materials, 2019, 29, 1902319.	7.8	53
459	Shortâ€Term Stability of Perovskite Solar Cells Affected by In Situ Interface Modification. Solar Rrl, 2019, 3, 1900089.	3.1	10
460	Stabilizer-assisted growth of formamdinium-based perovskites for highly efficient and stable planar solar cells with over 22% efficiency. Nano Energy, 2019, 63, 103835.	8.2	51
461	Reactive-Sputtered Prepared Tin Oxide Thin Film as an Electron Transport Layer for Planar Perovskite Solar Cells. Coatings, 2019, 9, 320.	1.2	5
462	Solventâ€Assisted Lowâ€Temperature Crystallization of SnO₂ Electronâ€Transfer Layer for Highâ€Efficiency Planar Perovskite Solar Cells. Advanced Functional Materials, 2019, 29, 1900557.	7.8	59
463	Polyoxometalate-Based Inorganicâ€“Organic Hybrid [Cu(phen)2]2[(Î±-Mo8O26)]: A New Additive to Spiro-OMeTAD for Efficient and Stable Perovskite Solar Cells. ACS Applied Energy Materials, 2019, 2, 4224-4233.	2.5	17
464	Analysis of light-induced degradation in inverted perovskite solar cells under short-circuited conditions. Organic Electronics, 2019, 71, 123-130.	1.4	22
465	Room-Temperature Sputtered SnO2 as Robust Electron Transport Layer for Air-Stable and Efficient Perovskite Solar Cells on Rigid and Flexible Substrates. Scientific Reports, 2019, 9, 6963.	1.6	57
466	Patterned Wettability Surface for Competitionâ€Driving Largeâ€Grained Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1900838.	10.2	44
467	Quasi-full-visible-light absorption by D35-TiO2/g-C3N4 for synergistic persulfate activation towards efficient photodegradation of micropollutants. Applied Catalysis B: Environmental, 2019, 256, 117759.	10.8	165
468	Defect and Contact Passivation for Perovskite Solar Cells. Advanced Materials, 2019, 31, e1900428.	11.1	445
469	Photovoltage Approaching 0.9 V for Planar Heterojunction Silver Bismuth Iodide Solar Cells with Li-TFSI Additive. ACS Applied Energy Materials, 2019, 2, 3651-3656.	2.5	51

#	Article	IF	Citations
470	Radiation tolerance of perovskite solar cells under gamma ray. Organic Electronics, 2019, 71, 79-84.	1.4	40
471	Tailoring the Functionality of Organic Spacer Cations for Efficient and Stable Quasiâ€2D Perovskite Solar Cells. Advanced Functional Materials, 2019, 29, 1900221.	7.8	144
472	A Thermodynamically Favored Crystal Orientation in Mixed Formamidinium/Methylammonium Perovskite for Efficient Solar Cells. Advanced Materials, 2019, 31, e1900390.	11.1	101
473	Hydrothermally Treated SnO₂ as the Electron Transport Layer in Highâ€Efficiency Flexible Perovskite Solar Cells with a Certificated Efficiency of 17.3%. Advanced Functional Materials, 2019, 29, 1807604.	7.8	72
474	Colloidal synthesis of Y-doped SnO2 nanocrystals for efficient and slight hysteresis planar perovskite solar cells. Solar Energy, 2019, 185, 508-515.	2.9	47
475	High-performance inverted planar perovskite solar cells using a pristine fullerene mixture as an electron-transport layer. Journal of Materials Chemistry C, 2019, 7, 6956-6963.	2.7	29
476	Intralayer A-Site Compositional Engineering of Ruddlesdenâ€“Popper Perovskites for Thermostable and Efficient Solar Cells. ACS Energy Letters, 2019, 4, 1216-1224.	8.8	65
477	Enhancement in the efficiency of Sb2Se3 solar cells using a TiO2-modified SnO2 buffer layer. Vacuum, 2019, 166, 201-205.	1.6	11
478	A Copper Coordination Polymer with Matching Energy Level for Modifying Hole Transport Layers to Improve the Performance of Perovskite Solar Cells. ChemSusChem, 2019, 12, 2763-2772.	3.6	17
479	A Purified, Solventâ€Intercalated Precursor Complex for Wideâ€Processâ€Window Fabrication of Efficient Perovskite Solar Cells and Modules. Angewandte Chemie, 2019, 131, 9489-9493.	1.6	5
480	A Purified, Solventâ€Intercalated Precursor Complex for Wideâ€Processâ€Window Fabrication of Efficient Perovskite Solar Cells and Modules. Angewandte Chemie - International Edition, 2019, 58, 9389-9393.	7.2	46
481	Stable Efficiency Exceeding 20.6% for Inverted Perovskite Solar Cells through Polymer-Optimized PCBM Electron-Transport Layers. Nano Letters, 2019, 19, 3313-3320.	4.5	181
482	Origins of Efficient Perovskite Solar Cells with Low-Temperature Processed SnO₂ Electron Transport Layer. ACS Applied Energy Materials, 2019, 2, 3554-3560.	2.5	73
483	Boosting inverted perovskite solar cell performance by using 9,9-bis(4-diphenylaminophenyl)fluorene functionalized with triphenylamine as a dopant-free hole transporting material. Journal of Materials Chemistry A, 2019, 7, 12507-12517.	5.2	62
484	Bismuthâ€Based Perovskiteâ€Inspired Solar Cells: In Situ Diagnostics Reveal Similarities and Differences in the Film Formation of Bismuthâ€and Leadâ€Based Films. Solar Rrl, 2019, 3, 1800305.	3.1	41
485	Materials and structures for the electron transport layer of efficient and stable perovskite solar cells. Science China Chemistry, 2019, 62, 800-809.	4.2	59
486	Perovskite Solar Cells Processed by Solution Nanotechnology. , 2019, , 119-174.		0
487	Defect engineering of oxygen vacancies in SnOx electron transporting layer for perovskite solar cells. Materials Today Energy, 2019, 12, 389-397.	2.5	21

#	Article	IF	Citations
488	Steering the crystallization of perovskites for high-performance solar cells in ambient air. Journal of Materials Chemistry A, 2019, 7, 12166-12175.	5.2	65
489	Roomâ€Temperature Meniscus Coating of >20% Perovskite Solar Cells: A Film Formation Mechanism Investigation. Advanced Functional Materials, 2019, 29, 1900092.	7.8	92
490	Caffeine Improves the Performance and Thermal Stability of Perovskite Solar Cells. Joule, 2019, 3, 1464-1477.	11.7	448
491	Effect of Br content on phase stability and performance of H₂N=CHNH₂Pb(I_{1â^'x}Br _x)₃ perovskite thin films. Nanotechnology, 2019, 30, 165402.	1.3	11
492	High performance perovskite sub-module with sputtered SnO2 electron transport layer. Solar Energy, 2019, 183, 306-314.	2.9	46
493	Toward ultra-thin and omnidirectional perovskite solar cells: Concurrent improvement in conversion efficiency by employing light-trapping and recrystallizing treatment. Nano Energy, 2019, 60, 198-204.	8.2	42
494	Point defect-reduced colloidal SnO2 electron transport layers for stable and almost hysteresis-free perovskite solar cells. RSC Advances, 2019, 9, 7334-7337.	1.7	10
495	Highly efficient flexible MAPbI₃ solar cells with a fullerene derivative-modified SnO₂ layer as the electron transport layer. Journal of Materials Chemistry A, 2019, 7, 6659-6664.	5.2	77
496	Pressure engineering of photovoltaic perovskites. Materials Today, 2019, 27, 91-106.	8.3	79
498	High-efficiency perovskite solar cell based on TiO2 nanorod arrays under natural ambient conditions: Solvent effect. Ceramics International, 2019, 45, 12353-12359.	2.3	7
499	High-Performance Perovskite Solar Cells Based on Low-Temperature Processed Electron Extraction Layer. Frontiers in Materials, 2019, 6, .	1.2	15
500	Sequential Deposition of Highâ€Quality Photovoltaic Perovskite Layers via Scalable Printing Methods. Advanced Functional Materials, 2019, 29, 1900964.	7.8	69
501	New Strategy to Overcome the Instability That Could Speed up the Commercialization of Perovskite Solar Cells. Advanced Materials Interfaces, 2019, 6, 1900134.	1.9	11
502	Nanoimprinted Gratingâ€Embedded Perovskite Solar Cells with Improved Light Management. Advanced Functional Materials, 2019, 29, 1900830.	7.8	77
503	Two-dimensional additive diethylammonium iodide promoting crystal growth for efficient and stable perovskite solar cells. RSC Advances, 2019, 9, 7984-7991.	1.7	25
504	Nonsiliceous Mesoporous Materials: Design and Applications in Energy Conversion and Storage. Small, 2019, 15, 1805277.	5.2	13
505	Fully-printed, flexible cesium-doped triple cation perovskite photodetector. Applied Materials Today, 2019, 15, 389-397.	2.3	41
506	Facile synthesis of composite tin oxide nanostructures for high-performance planar perovskite solar cells. Nano Energy, 2019, 60, 275-284.	8.2	57

#	Article	IF	Citations
507	Piezo-phototronic Effect Enhanced Efficient Flexible Perovskite Solar Cells. ACS Nano, 2019, 13, 4507-4513.	7.3	82
508	Solutionâ€Processable Perovskite Solar Cells toward Commercialization: Progress and Challenges. Advanced Functional Materials, 2019, 29, 1807661.	7.8	149
509	Planar Perovskite Solar Cells with High Efficiency and Fill Factor Obtained Using Two-Step Growth Process. ACS Applied Materials & Interfaces, 2019, 11, 15680-15687.	4.0	18
510	Novel Surface Passivation for Stable FA_{0.85}MA_{0.15}PbI₃ Perovskite Solar Cells with 21.6% Efficiency. Solar Rrl, 2019, 3, 1900072.	3.1	64
511	Research activities on perovskite solar cells in China. Science China Chemistry, 2019, 62, 822-828.	4.2	22
512	Stable perovskite solar cells using tin acetylacetonate based electron transporting layers. Energy and Environmental Science, 2019, 12, 1910-1917.	15.6	57
513	High efficient and long-time stable planar heterojunction perovskite solar cells with doctor-bladed carbon electrode. Journal of Power Sources, 2019, 424, 61-67.	4.0	13
514	Lowâ€Temperature Solutionâ€Processed ZnO Electron Transport Layer for Highly Efficient and Stable Planar Perovskite Solar Cells with Efficiency Over 20%. Solar Rrl, 2019, 3, 1900096.	3.1	66
515	La-doped SnO2 as ETL for efficient planar-structure hybrid perovskite solar cells. Organic Electronics, 2019, 73, 62-68.	1.4	53
516	Surface passivation of perovskite film for efficient solar cells. Nature Photonics, 2019, 13, 460-466.	15.6	3,458
517	A facile room temperature solution synthesis of SnO₂quantum dots for perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 10636-10643.	5.2	52
518	Photocatalytic effect of ZnO on the stability of nonfullerene acceptors and its mitigation by SnO₂for nonfullerene organic solar cells. Materials Horizons, 2019, 6, 1438-1443.	6.4	182
519	Review of strategies for the fabrication of heterojunctional nanocomposites as efficient visible-light catalysts by modulating excited electrons with appropriate thermodynamic energy. Journal of Materials Chemistry A, 2019, 7, 10879-10897.	5.2	98
520	Electron-beam irradiation-hard metal-halide perovskite nanocrystals. Journal of Materials Chemistry A, 2019, 7, 10912-10917.	5.2	30
521	Efficient p-i-n structured perovskite solar cells employing low-cost and highly reproducible oligomers as hole transporting materials. Science China Chemistry, 2019, 62, 767-774.	4.2	16
522	Oxidation, reduction, and inert gases plasma-modified defects in TiO2 as electron transport layer for planar perovskite solar cells. Journal of CO2 Utilization, 2019, 32, 46-52.	3.3	8
523	Chlorine capped SnO2 quantum-dots modified TiO2 electron selective layer to enhance the performance of planar perovskite solar cells. Science Bulletin, 2019, 64, 547-552.	4.3	32
524	On the Currentâ€“Voltage Hysteresis in Perovskite Solar Cells: Dependence on Perovskite Composition and Methods to Remove Hysteresis. Advanced Materials, 2019, 31, e1805214.	11.1	351

#	Article	IF	Citations
525	Combustion Synthesized Zinc Oxide Electronâ€Transport Layers for Efficient and Stable Perovskite Solar Cells. Advanced Functional Materials, 2019, 29, 1900265.	7.8	121
526	Facile fabrication of highly efficient ETL-free perovskite solar cells with 20% efficiency by defect passivation and interface engineering. Chemical Communications, 2019, 55, 2777-2780.	2.2	61
527	Hydrophobic Cu₂O Quantum Dots Enabled by Surfactant Modification as Top Holeâ€Transport Materials for Efficient Perovskite Solar Cells. Advanced Science, 2019, 6, 1801169.	5.6	101
528	21.7% efficiency achieved in planar nâ€“iâ€“p perovskite solar cells via interface engineering with water-soluble 2D TiS₂. Journal of Materials Chemistry A, 2019, 7, 6213-6219.	5.2	87
529	Ergodic Light Propagation in a Halfâ€Cylinder Photonic Plate for Optimal Absorption in Perovskite Solar Cells. Advanced Optical Materials, 2019, 7, 1900018.	3.6	11
530	High efficiency and negligible hysteresis planar perovskite solar cells based on NiO nanocrystals modified TiO2 electron transport layers. Solar Energy, 2019, 181, 293-300.	2.9	16
531	In Situ Backâ€Contact Passivation Improves Photovoltage and Fill Factor in Perovskite Solar Cells. Advanced Materials, 2019, 31, e1807435.	11.1	143
532	Age-induced recrystallization in perovskite solar cells. Organic Electronics, 2019, 68, 143-150.	1.4	39
533	Ultracompact, Well-Packed Perovskite Flat Crystals: Preparation and Application in Planar Solar Cells with High Efficiency and Humidity Tolerance. ACS Applied Materials & Interfaces, 2019, 11, 11283-11291.	4.0	12
534	Temporal and spatial pinhole constraints in small-molecule hole transport layers for stable and efficient perovskite photovoltaics. Journal of Materials Chemistry A, 2019, 7, 7338-7346.	5.2	41
535	A Review of Perovskites Solar Cell Stability. Advanced Functional Materials, 2019, 29, 1808843.	7.8	835
536	Negligibleâ€Pbâ€Waste and Upscalable Perovskite Deposition Technology for Highâ€Operationalâ€Stability Perovskite Solar Modules. Advanced Energy Materials, 2019, 9, 1803047.	10.2	68
537	Strategies for Modifying TiO₂ Based Electron Transport Layers to Boost Perovskite Solar Cells. ACS Sustainable Chemistry and Engineering, 2019, 7, 4586-4618.	3.2	83
538	Operando Microscopy Characterization of Perovskite Solar Cells. , 2019, , .		1
539	Aqueous Solution Processed Copper Iodide as Hole Transport Material For Planar Inverted Perovskite Solar Cells. , 2019, , .		1
540	Enhanced Crystallinity of Triple-Cation Perovskite Film via Doping NH4SCN. Nanoscale Research Letters, 2019, 14, 304.	3.1	14
541	In situ surface modification of TiO2 by CaTiO3 to improve the UV stability and power conversion efficiency of perovskite solar cells. Applied Physics Letters, 2019, 115, .	1.5	25
542	Self-assembled naphthalimide derivatives as an efficient and low-cost electron extraction layer for n-i-p perovskite solar cells. Chemical Communications, 2019, 55, 13239-13242.	2.2	27

#	Article	IF	Citations
543	A sandwich-like electron transport layer to assist highly efficient planar perovskite solar cells. Nanoscale, 2019, 11, 21917-21926.	2.8	31
544	Plasma-enhanced atomic-layer-deposited gallium nitride as an electron transport layer for planar perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 25347-25354.	5.2	28
545	Solution-processed perovskite-colloidal quantum dot tandem solar cells for photon collection beyond 1000 nm. Journal of Materials Chemistry A, 2019, 7, 26020-26028.	5.2	44
546	Efficient and Stable Low-Bandgap Perovskite Solar Cells Enabled by a CsPbBr₃-Cluster Assisted Bottom-up Crystallization Approach. Journal of the American Chemical Society, 2019, 141, 20537-20546.	6.6	79
547	Investigating the chemical bath deposited n-SnO2/p-Si heterojunction devices for optoelectronic applications. , 2019, , .		0
548	Effect of Metal Electrodes on Aging-Induced Performance Recovery in Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 48497-48504.	4.0	26
549	Side-Chain Engineering of Donorâ€“Acceptor Conjugated Small Molecules As Dopant-Free Hole-Transport Materials for Efficient Normal Planar Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 48556-48563.	4.0	49
550	Impact of K+ Doping on Modulating Majority Charge Carrier Type and Quality of Perovskite Thin Films by Two-step Solution Method for Solar Cells. Coatings, 2019, 9, 647.	1.2	2
551	Passivating contacts for crystalline silicon solar cells. Nature Energy, 2019, 4, 914-928.	19.8	374
552	A perovskite/silicon hybrid system with a solar-to-electric power conversion efficiency of 25.5%. Journal of Materials Chemistry A, 2019, 7, 26479-26489.	5.2	23
553	Mechanism of plant mediated methane emission in tropical lowland rice. Science of the Total Environment, 2019, 651, 84-92.	3.9	44
554	Low temperature solution-derived TiO2-SnO2 bilayered electron transport layer for high performance perovskite solar cells. Applied Surface Science, 2019, 464, 700-707.	3.1	48
555	Monodispersed SnO2 microspheres aggregated by tunable building units as effective photoelectrodes in solar cells. Applied Surface Science, 2019, 463, 679-685.	3.1	19
556	Singleâ€Walled Carbon Nanotubes in Emerging Solar Cells: Synthesis and Electrode Applications. Advanced Energy Materials, 2019, 9, 1801312.	10.2	86
557	Bulk Heterojunction Quasi-Two-Dimensional Perovskite Solar Cell with 1.18 V High Photovoltage. ACS Applied Materials & Interfaces, 2019, 11, 2935-2943.	4.0	13
558	Interfacial Modification in Organic and Perovskite Solar Cells. Advanced Materials, 2019, 31, e1805708.	11.1	106
559	Control of Crystal Growth toward Scalable Fabrication of Perovskite Solar Cells. Advanced Functional Materials, 2019, 29, 1807047.	7.8	111
560	An Aromatic Diamine Molecule as the Aâ€Site Solute for Highly Durable and Efficient Perovskite Solar Cells. Small Methods, 2019, 3, 1800361.	4.6	51

#	Article	IF	Citations
561	Emerging solar cells energy trade-off: Interface engineering materials impact on stability and efficiency progress. International Journal of Energy Research, 2019, 43, 1670-1688.	2.2	13
562	Surface modification and stoichiometry control of Cu2O/SnO2 heterojunction solar cell by an ultrathin MgO tunneling layer. Journal of Alloys and Compounds, 2019, 779, 387-393.	2.8	20
563	Metal Halide Perovskite Materials for Solar Cells with Longâ€Term Stability. Advanced Energy Materials, 2019, 9, 1802671.	10.2	97
564	Evaluating the environmental impact of the lead species in perovskite solar cells via environmental-fate modeling. Journal of Industrial and Engineering Chemistry, 2019, 70, 453-461.	2.9	22
565	Physisorption of Oxygen in SnO₂Nanoparticles for Perovskite Solar Cells. IEEE Journal of Photovoltaics, 2019, 9, 200-206.	1.5	12
566	SnO2-based electron transporting layer materials for perovskite solar cells: A review of recent progress. Journal of Energy Chemistry, 2019, 35, 144-167.	7.1	129
567	Vacuum thermal-evaporated SnO2 as uniform electron transport layer and novel management of perovskite intermediates for efficient and stable planar perovskite solar cells. Organic Electronics, 2019, 65, 207-214.	1.4	35
568	SnO₂-rGO nanocomposite as an efficient electron transport layer for stable perovskite solar cells on AZO substrate. Nanotechnology, 2019, 30, 075202.	1.3	17
569	Substrate-Dependent Photoconductivity Dynamics in a High-Efficiency Hybrid Perovskite Alloy. Journal of Physical Chemistry C, 2019, 123, 3402-3415.	1.5	10
570	Influence of Cl Incorporation in Perovskite Precursor on the Crystal Growth and Storage Stability of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 6022-6030.	4.0	48
571	SnO₂â€Based Perovskite Solar Cells: Configuration Design and Performance Improvement. Solar Rrl, 2019, 3, 1800292.	3.1	80
572	Using SnO₂ QDs and CsMBr₃ (Mâ€‰=â€‰Sn, Bi, Cu) QDs as Chargeâ€Transporting Materials for 10.6%â€Efficiency Allâ€Inorganic CsPbBr₃ Perovskite Solar Cells with an Ultrahigh Openâ€Circuit Voltage of 1.610 V. Solar Rrl, 2019, 3, 1800284.	3.1	84
573	Bifunctional electron transporting layer/perovskite interface linker for highly efficient perovskite solar cells. Electrochimica Acta, 2019, 296, 75-81.	2.6	37
574	Multilayer evaporation of MAFAPbI_{3â^'x}Cl_x for the fabrication of efficient and large-scale device perovskite solar cells. Journal Physics D: Applied Physics, 2019, 52, 034005.	1.3	19
575	Synthetic Approaches for Halide Perovskite Thin Films. Chemical Reviews, 2019, 119, 3193-3295.	23.0	454
576	From scalable solution fabrication of perovskite films towards commercialization of solar cells. Energy and Environmental Science, 2019, 12, 518-549.	15.6	269
577	Graphene-Modified Tin Dioxide for Efficient Planar Perovskite Solar Cells with Enhanced Electron Extraction and Reduced Hysteresis. ACS Applied Materials & Interfaces, 2019, 11, 666-673.	4.0	66
578	High-Efficiency, Hysteresis-Less, UV-Stable Perovskite Solar Cells with Cascade ZnOâ€“ZnS Electron Transport Layer. Journal of the American Chemical Society, 2019, 141, 541-547.	6.6	189

#	Article	IF	Citations
579	Scalable Fabrication of Stable High Efficiency Perovskite Solar Cells and Modules Utilizing Room Temperature Sputtered SnO₂ Electron Transport Layer. Advanced Functional Materials, 2019, 29, 1806779.	7.8	118
580	Effect of compact TiO2 layer on structural, optical, and performance characteristics of mesoporous perovskite solar cells. Materials Today Communications, 2019, 18, 176-183.	0.9	33
581	3,4-Dihydroxybenzhydrazide as an additive to improve the morphology of perovskite films for efficient and stable perovskite solar cells. Organic Electronics, 2019, 66, 47-52.	1.4	9
582	Benzobis(thiadiazole)-based small molecules as efficient electron transporting materials in perovskite solar cells. Solar Energy Materials and Solar Cells, 2019, 191, 437-443.	3.0	7
583	Electronic and optical properties of SnO₂ (110)/MAPbI₃ (100) interface by first-principles calculations. Materials Research Express, 2019, 6, 026312.	0.8	3
584	Recent Advances in Energetics and Stability of Metal Halide Perovskites for Optoelectronic Applications. Advanced Materials Interfaces, 2019, 6, 1801351.	1.9	29
585	Stability Challenges for Perovskite Solar Cells. ChemNanoMat, 2019, 5, 253-265.	1.5	39
586	High quality perovskite film solar cell using methanol as additive with 19.5% power conversion efficiency. Electrochimica Acta, 2019, 293, 356-363.	2.6	38
587	Controlled Synthesis and Photonics Applications of Metal Halide Perovskite Nanowires. Small Methods, 2019, 3, 1800294.	4.6	45
588	Solvothermal synthesis of highly crystalline SnO2 nanoparticles for flexible perovskite solar cells application. Materials Letters, 2019, 234, 311-314.	1.3	32
589	Eliminating oxygen vacancies in SnO2 films via aerosol-assisted chemical vapour deposition for perovskite solar cells and photoelectrochemical cells. Journal of Alloys and Compounds, 2019, 773, 997-1008.	2.8	79
590	Antimonene quantum dot-based solid-state solar cells with enhanced performance and high stability. Solar Energy Materials and Solar Cells, 2019, 189, 11-20.	3.0	34
591	Strategically Constructed Bilayer Tin (IV) Oxide as Electron Transport Layer Boosts Performance and Reduces Hysteresis in Perovskite Solar Cells. Small, 2020, 16, e1901466.	5.2	32
592	Optical Design in Perovskite Solar Cells. Small Methods, 2020, 4, 1900150.	4.6	32
593	A low-temperature TiO2/SnO2 electron transport layer for high-performance planar perovskite solar cells. Science China Materials, 2020, 63, 207-215.	3.5	31
594	Effect of annealing temperature on internal absorption, charge recombination and internal quantum efficiency of HC(NH2)2PbI3 perovskite solar cells. Organic Electronics, 2020, 77, 105508.	1.4	4
595	A Review on Additives for Halide Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1902492.	10.2	240
596	Recent Progresses on Defect Passivation toward Efficient Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1902650.	10.2	516

#	Article	IF	Citations
597	Interfacial Bridge Using a cisâ€Fulleropyrrolidine for Efficient Planar Perovskite Solar Cells with Enhanced Stability. Small Methods, 2020, 4, 1900476.	4.6	65
598	Polyelectrolyteâ€Doped SnO₂ as a Tunable Electron Transport Layer for Highâ€Efficiency and Stable Perovskite Solar Cells. Solar Rrl, 2020, 4, 1900336.	3.1	56
599	SnO₂â€“Carbon Nanotubes Hybrid Electron Transport Layer for Efficient and Hysteresisâ€Free Planar Perovskite Solar Cells. Solar Rrl, 2020, 4, 1900415.	3.1	61
600	Electrical properties of tin oxide materials. , 2020, , 41-60.		5
601	Rapid fabrication of perovskite solar cells through intense pulse light annealing of SnO2 and triple cation perovskite thin films. Materials and Design, 2020, 185, 108237.	3.3	36
602	To Be Higher and Strongerâ€"Metal Oxide Electron Transport Materials for Perovskite Solar Cells. Small, 2020, 16, e1902579.	5.2	80
603	Semitransparent Perovskite Solar Cells: From Materials and Devices to Applications. Advanced Materials, 2020, 32, e1806474.	11.1	148
604	Lowâ€Temperature Electron Beam Deposition of Znâ€SnO_x for Stable and Flexible Perovskite Solar Cells. Solar Rrl, 2020, 4, 1900266.	3.1	27
605	Review on Practical Interface Engineering of Perovskite Solar Cells: From Efficiency to Stability. Solar Rrl, 2020, 4, 1900257.	3.1	119
606	Ethyl acetate green antisolvent process for high-performance planar low-temperature SnO2-based perovskite solar cells made in ambient air. Chemical Engineering Journal, 2020, 379, 122298.	6.6	95
607	Flexible Planar Heterojunction Perovskite Solar Cells Fabricated via Sequential Rollâ€toâ€Roll Microgravure Printing and Slotâ€Die Coating Deposition. Solar Rrl, 2020, 4, 1900204.	3.1	47
608	Energyâ€Level Modulation in Diboronâ€Modified SnO₂ for Highâ€Efficiency Perovskite Solar Cells. Solar Rrl, 2020, 4, 1900217.	3.1	28
609	Interconnected SnO₂ Nanocrystals Electron Transport Layer for Highly Efficient Flexible Perovskite Solar Cells. Solar Rrl, 2020, 4, 1900229.	3.1	31
610	Solutionâ€Processed Ternary Oxides as Carrier Transport/Injection Layers in Optoelectronics. Advanced Energy Materials, 2020, 10, 1900903.	10.2	44
611	Regulation of Interfacial Charge Transfer and Recombination for Efficient Planar Perovskite Solar Cells. Solar Rrl, 2020, 4, 1900198.	3.1	46
612	A Short Review on Interface Engineering of Perovskite Solar Cells: A Selfâ€Assembled Monolayer and Its Roles. Solar Rrl, 2020, 4, 1900251.	3.1	75
613	Material and Interface Engineering for Highâ€Performance Perovskite Solar Cells: A Personal Journey and Perspective. Chemical Record, 2020, 20, 209-229.	2.9	9
614	Stability of all-inorganic perovskite solar cells. Nano Energy, 2020, 67, 104249.	8.2	153

#	Article	IF	Citations
615	The low temperature solution-processable SnO2 modified by Bi2O2S as an efficient electron transport layer for perovskite solar cells. Electrochimica Acta, 2020, 330, 135197.	2.6	25
616	Improve the oxide/perovskite heterojunction contact for low temperature high efficiency and stable all-inorganic CsPbI2Br perovskite solar cells. Nano Energy, 2020, 67, 104241.	8.2	97
617	Impact of Residual Lead Iodide on Photophysical Properties of Lead Triiodide Perovskite Solar Cells. Energy Technology, 2020, 8, 1900627.	1.8	10
618	Electron Transporting Bilayer of SnO₂ and TiO₂ Nanocolloid Enables Highly Efficient Planar Perovskite Solar Cells. Solar Rrl, 2020, 4, 1900331.	3.1	46
619	Electron Transporting Bilayer of SnO₂ and TiO₂ Nanocolloid Enables Highly Efficient Planar Perovskite Solar Cells. Solar Rrl, 2020, 4, 2070014.	3.1	3
620	Band-bending induced passivation: high performance and stable perovskite solar cells using a perhydropoly(silazane) precursor. Energy and Environmental Science, 2020, 13, 1222-1230.	15.6	114
621	Surface Modification of SnO₂ via MAPbI₃ Nanowires for a Highly Efficient Non-Fullerene Acceptor-Based Organic Solar Cell. ACS Applied Materials & Interfaces, 2020, 12, 5120-5127.	4.0	28
622	Lowâ€Temperatureâ€Processed WO_x as Electron Transfer Layer for Planar Perovskite Solar Cells Exceeding 20% Efficiency. Solar Rrl, 2020, 4, 1900499.	3.1	36
623	Edge functionalized graphene nanoribbons with tunable band edges for carrier transport interlayers in organicâ€“inorganic perovskite solar cells. Physical Chemistry Chemical Physics, 2020, 22, 2955-2962.	1.3	4
624	The mechanism of universal green antisolvents for intermediate phase controlled high-efficiency formamidinium-based perovskite solar cells. Materials Horizons, 2020, 7, 934-942.	6.4	51
625	Graphitic carbon nitride doped SnO₂ enabling efficient perovskite solar cells with PCEs exceeding 22%. Journal of Materials Chemistry A, 2020, 8, 2644-2653.	5.2	98
626	High Efficiency Perovskite Solar Cells: Materials and Devices Engineering. Transactions on Electrical and Electronic Materials, 2020, 21, 1-15.	1.0	21
627	Elimination of Light-Soaking Effect in Hysteresis-Free Perovskite Solar Cells by Interfacial Modification. Journal of Physical Chemistry C, 2020, 124, 1851-1860.	1.5	18
628	Efficient PbSe Colloidal Quantum Dot Solar Cells Using SnO₂ as a Buffer Layer. ACS Applied Materials & Interfaces, 2020, 12, 2566-2571.	4.0	21
629	Halogen bonding induced aqueously stable CsPbBr3@MOFs-Derived Co3O4/N-doped-C heterostructure for high-performance photoelectrochemical water oxidation. Applied Catalysis B: Environmental, 2020, 265, 118583.	10.8	37
630	A facile strategy for enhanced performance of inverted organic solar cells based on low-temperature solution-processed SnO2 electron transport layer. Organic Electronics, 2020, 78, 105555.	1.4	23
631	The Role of the Interfaces in Perovskite Solar Cells. Advanced Materials Interfaces, 2020, 7, 1901469.	1.9	239
632	Highly efficient tin perovskite solar cells achieved in a wide oxygen concentration range. Journal of Materials Chemistry A, 2020, 8, 2760-2768.	5.2	85

#	Article	IF	Citations
633	Reconstructed transparent conductive layers of fluorine doped tin oxide for greatly weakened hysteresis and improved efficiency of perovskite solar cells. Chemical Communications, 2020, 56, 129-132.	2.2	5
634	Flexible perovskite solar cells fabricated by a gradient heat treatment process. Sustainable Energy and Fuels, 2020, 4, 824-831.	2.5	8
635	Lithium Ion Alloying-Type Artificial Synapses. ACS Applied Electronic Materials, 2020, 2, 316-322.	2.0	7
636	Gradient Energy Alignment Engineering for Planar Perovskite Solar Cells with Efficiency Over 23%. Advanced Materials, 2020, 32, e1905766.	11.1	172
637	Chlorineâ€modified SnO₂ electron transport layer for highâ€efficiency perovskite solar cells. InformaÄnÃ-MateriÃ¡ly, 2020, 2, 401-408.	8.5	48
638	Distinguish the Quenching and Degradation of CH₃NH₃PbI₃ Perovskite by Simultaneous Absorption and Photoluminescence Measurements. Journal of Physical Chemistry C, 2020, 124, 1207-1213.	1.5	6
639	Room-temperature synthesis of ZrSnO4 nanoparticles for electron transport layer in efficient planar hetrojunction perovskite solar cells. Journal of Materials Science and Technology, 2020, 42, 38-45.	5.6	15
640	Boosting performance of perovskite solar cells with Graphene quantum dots decorated SnO2 electron transport layers. Applied Surface Science, 2020, 507, 145099.	3.1	66
641	Insights into the Mechanism of Solid-State Metal Organic Complexes as Controllable and Stable p-Type Dopants in Efficient Planar Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 546-555.	4.0	15
642	The balance between efficiency, stability and environmental impacts in perovskite solar cells: a review. JPhys Energy, 2020, 2, 022001.	2.3	76
643	Hexylammonium Iodide Derived Two-Dimensional Perovskite as Interfacial Passivation Layer in Efficient Two-Dimensional/Three-Dimensional Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 698-705.	4.0	36
644	Minimizing non-radiative recombination losses in perovskite solar cells. Nature Reviews Materials, 2020, 5, 44-60.	23.3	754
645	Reconfiguration of Interfacial and Bulk Energy Band Structure for Highâ€Performance Organic and Thermalâ€“Stability Enhanced Perovskite Solar Cells. Solar Rrl, 2020, 4, 1900482.	3.1	16
646	CH3NH3PbI3:MoS2 heterostructure for stable and efficient inverted perovskite solar cell. Solar Energy, 2020, 195, 436-445.	2.9	42
647	Highâ€Performance Polymer Photodetector Using the Nonâ€Thermalâ€andâ€Nonâ€Ultravioletâ€“Ozoneâ€Treated SnO 2 Interfacial Layer. Physica Status Solidi - Rapid Research Letters, 2020, 14, 1900531.	1.2	10
648	Spontaneous enhancement of the stable power conversion efficiency in perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 670-682.	5.2	47
649	Redâ€Carbonâ€Quantumâ€Dotâ€Doped SnO₂ Composite with Enhanced Electron Mobility for Efficient and Stable Perovskite Solar Cells. Advanced Materials, 2020, 32, e1906374.	11.1	230
650	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

#	Article	IF	Citations
651	Î'â€CsPbI₃ Intermediate Phase Growth Assisted Sequential Deposition Boosts Stable and Highâ€Efficiency Triple Cation Perovskite Solar Cells. Advanced Functional Materials, 2020, 30, 1908343.	7.8	40
652	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
653	SrTiO₃/Al₂O₃â€Graphene Electron Transport Layer for Highly Stable and Efficient Compositesâ€Based Perovskite Solar Cells with 20.6% Efficiency. Advanced Energy Materials, 2020, 10, 1903369.	10.2	53
654	Interface Engineering of Cubic Zinc Metatitanate as an Excellent Electron Transport Material for Stable Perovskite Solar Cells. Solar Rrl, 2020, 4, 1900533.	3.1	12
655	Novel cathode interfacial layer using creatine for enhancing the photovoltaic properties of perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 21721-21728.	5.2	28
656	Fully Solution Processed Pure Î±â€Phase Formamidinium Lead Iodide Perovskite Solar Cells for Scalable Production in Ambient Condition. Advanced Energy Materials, 2020, 10, 2001869.	10.2	46
657	Flexible semitransparent perovskite solar cells with gradient energy levels enable efficient tandems with Cu(In,Ga)Se2. Nano Energy, 2020, 78, 105378.	8.2	28
658	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
659	Room Temperature Formation of Semiconductor Grade Î±-FAPbI3 Films for Efficient Perovskite Solar Cells. Cell Reports Physical Science, 2020, 1, 100205.	2.8	18
660	Rapid hybrid chemical vapor deposition for efficient and hysteresis-free perovskite solar modules with an operation lifetime exceeding 800 hours. Journal of Materials Chemistry A, 2020, 8, 23404-23412.	5.2	34
661	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
662	HClO4-assisted fabrication of SnO2/C60 bilayer electron-transport materials for all air-processed efficient and stable inverted planar perovskite solar cells. Journal of Power Sources, 2020, 476, 228648.	4.0	23
663	Recent Progress in Interconnection Layer for Hybrid Photovoltaic Tandems. Advanced Materials, 2020, 32, 2002196.	11.1	20
664	Environmental Impact per Energy Yield for Bifacial Perovskite Solar Cells Outperforms Crystalline Silicon Solar Cells. Cell Reports Physical Science, 2020, 1, 100216.	2.8	11
665	Toward mixed-halide perovskites: insight into photo-induced anion phase segregation. Journal of Materials Chemistry C, 2020, 8, 14626-14644.	2.7	11
666	CuGaS2 quantum dots with controlled surface defects as an hole-transport material for high-efficient and stable perovskite solar cells. Solar Energy, 2020, 211, 55-61.	2.9	9
667	Preparing Ambient-Processed Perovskite Solar Cells with Better Electronic Properties via Preheating Assisted One-Step Deposition Method. Nanoscale Research Letters, 2020, 15, 178.	3.1	5
668	Experimental Evidence of CO₂ Photoreduction Activity of SnO₂ Nanoparticles. ChemPhysChem, 2020, 21, 2392-2396.	1.0	13

#	Article	IF	Citations
669	Ï€-Extended donor-acceptor conjugated copolymers for use as hole transporting materials in perovskite solar cells. Organic Electronics, 2020, 87, 105943.	1.4	5
670	Enhanced performance of planar perovskite solar cells using TiO2/SnO2 and TiO2/WO3 bilayer structures: Roles of the interfacial layers. Solar Energy, 2020, 208, 697-707.	2.9	66
671	Two-Step Processed Efficient Potassium and Cesium-Alloyed Quaternary Cations Perovskite Solar Cells. Synthetic Metals, 2020, 269, 116564.	2.1	6
672	Molecularly engineered thienyl-triphenylamine substituted zinc phthalocyanine as dopant free hole transporting materials in perovskite solar cells. Sustainable Energy and Fuels, 2020, 4, 6188-6195.	2.5	12
673	A holistic approach to interface stabilization for efficient perovskite solar modules with over 2,000-hour operational stability. Nature Energy, 2020, 5, 596-604.	19.8	274
674	TiO₂ Mesocrystals Processed at Low Temperature as the Electronâ€Transport Material in Perovskite Solar Cells. ChemSusChem, 2020, 13, 5256-5263.	3.6	7
675	Mo⁵⁺ doping induced interface polarization for improving performance of planar perovskite solar cells. Journal of Semiconductors, 2020, 41, 052203.	2.0	1
676	Electron transport enhancement in perovskite solar cell via the polarized BaTiO₃ thin film. Journal of Materials Research, 2020, 35, 2158-2165.	1.2	12
677	Roomâ€Temperatureâ€Processed Fullerene/TiO₂ Nanocomposite Electron Transporting Layer for Highâ€Efficiency Rigid and Flexible Planar Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000247.	3.1	18
678	Thermal-assisted photo-annealed TiO2 thin films for perovskite solar cells fabricated under ambient air. Applied Surface Science, 2020, 530, 147221.	3.1	5
679	Î³-ray Radiation on Flexible Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 7318-7324.	2.5	27
680	Inorganic Pbâ€Free Perovskite Light Absorbers for Efficient Perovskite Solar Cells with Enhanced Performance. Chemistry - an Asian Journal, 2020, 15, 2859-2863.	1.7	33
681	Investigation of hysteresis in hole transport layer free metal halide perovskites cells under dark conditions. Nanotechnology, 2020, 31, 445201.	1.3	17
682	Nanoscale chemical and structural reconstruction in thermally oxidized TiN/SnO2 ultrathin films. Journal of Alloys and Compounds, 2020, 843, 155896.	2.8	1
683	Water-Soluble SnO₂ Nanoparticles as the Electron Collection Layer for Efficient and Stable Inverted Organic Tandem Solar Cells. ACS Applied Energy Materials, 2020, 3, 12662-12671.	2.5	12
684	Compositional optimization of a 2Dâ€“3D heterojunction interface for 22.6% efficient and stable planar perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 25831-25841.	5.2	59
685	Stabilizing Î³â€CsPbI₃ Perovskite via Phenylethylammonium for Efficient Solar Cells with Openâ€Circuit Voltage over 1.3ÂV. Small, 2020, 16, e2005246.	5.2	67
686	Ultrawide Band Gap Oxide Semiconductor-Triggered Performance Improvement of Perovskite Solar Cells via the Novel Ga₂O₃/SnO₂ Composite Electron-Transporting Bilayer. ACS Applied Materials & Interfaces, 2020, 12, 54703-54710.	4.0	26

#	Article	IF	Citations
687	Sputtered Ga-Doped SnO_x Electron Transport Layer for Large-Area All-Inorganic Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 54904-54915.	4.0	18
688	Benzo[1,2-c:4,5-câ€²]dithiophene-4,8-dione (BDD) Core Building Block Based Dopant-Free Hole-Transport Materials for Efficient and Stable Perovskite Solar Cell. ACS Applied Energy Materials, 2020, 3, 10333-10339.	2.5	3
689	Atomic Structure and Properties of SnO₂ (100) and (101) Surfaces and (301) Steps in the (100) Surface. Journal of Physical Chemistry C, 2020, 124, 27631-27636.	1.5	6
690	Potassium iodide reduces the stability of triple-cation perovskite solar cells. RSC Advances, 2020, 10, 40341-40350.	1.7	27
691	Lattice constriction and trapped excitons: a structureâ€“property relationship unveiled in CsPbBr₃ perovskite QDs. Journal of Materials Chemistry C, 2020, 8, 17090-17098.	2.7	11
692	MXene-Modulated Electrode/SnO₂ Interface Boosting Charge Transport in Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 53973-53983.	4.0	71
693	Perovskite Tandem Solar Cells: From Fundamentals to Commercial Deployment. Chemical Reviews, 2020, 120, 9835-9950.	23.0	248
694	Perovskite Films with Reduced Interfacial Strains via a Molecularâ€Level Flexible Interlayer for Photovoltaic Application. Advanced Materials, 2020, 32, e2001479.	11.1	110
695	Alkali-cation-enhanced benzylammonium passivation for efficient and stable perovskite solar cells fabricated through sequential deposition. Journal of Materials Chemistry A, 2020, 8, 19357-19366.	5.2	13
696	UVâ€“O₃ treated annealing-free cerium oxide as electron transport layers in flexible planar perovskite solar cells. Nanoscale Advances, 2020, 2, 4062-4069.	2.2	15
697	Ruddlesdenâ€“Popper Perovskite Oxides for Photocatalysis-Based Water Splitting and Wastewater Treatment. Energy & Fuels, 2020, 34, 9208-9221.	2.5	53
698	Inhibition of Phase Segregation in Cesium Lead Mixed-Halide Perovskites by B-Site Doping. IScience, 2020, 23, 101415.	1.9	18
699	High-Efficiency Perovskite Solar Cells. Chemical Reviews, 2020, 120, 7867-7918.	23.0	1,480
700	Recent progress and prospects of integrated perovskite/organic solar cells. Applied Physics Reviews, 2020, 7, .	5.5	33
701	Back Contact Interfacial Modification in Highly-Efficient All-Inorganic Planar n-i-p Sb₂Se₃ Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 38397-38405.	4.0	26
702	Enamine-based hole transporting materials for vacuum-deposited perovskite solar cells. Sustainable Energy and Fuels, 2020, 4, 5017-5023.	2.5	6
703	Dopantâ€Free and Greenâ€Solventâ€Processable Holeâ€Transporting Materials for Highly Efficient Inverted Planar Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000327.	3.1	16
704	21.4% efficiency of perovskite solar cells using BMImI additive in the lead iodide precursor based on carbon nanotubes/TiO2 electron transfer layer. Ceramics International, 2020, 46, 27647-27654.	2.3	34

#	Article	IF	Citations
705	Efficient carrier utilization induced by conductive polypyrrole additives in organic-inorganic halide perovskite solar cells. Solar Energy, 2020, 207, 1300-1307.	2.9	15
706	Bifunctional Surface Engineering on SnO₂ Reduces Energy Loss in Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 2796-2801.	8.8	239
707	Passivation engineering for hysteresis-free mixed perovskite solar cells. Solar Energy Materials and Solar Cells, 2020, 215, 110648.	3.0	21
709	Novel mixed solution of ethanol/MACl for improving the crystallinity of air-processed triple cation perovskite solar cells. Solar Energy, 2020, 207, 1240-1246.	2.9	38
710	Performance enhancement of low temperature processed tin oxide as an electron transport layer for perovskite solar cells under ambient conditions. International Journal of Energy Research, 2020, 44, 11361-11371.	2.2	7
711	Snâ€“N/Snâ€“O interaction improving electron collection in non-fullerene organic solar cells. Journal of Materials Chemistry C, 2020, 8, 12218-12223.	2.7	21
712	Efficient Bifacial Passivation Enables Printable Mesoscopic Perovskite Solar Cells with Improved Photovoltage and Fill Factor. Solar Rrl, 2020, 4, 2000288.	3.1	10
713	Fused Furanâ€Based Organic Small Molecules as Dopantâ€Free Hole Transporting Material for Inverted Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000536.	3.1	8
714	The Jâ€“V Hysteresis Behavior and Solutions in Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000586.	3.1	27
715	Scalable open-air deposition of compact ETL TiO_xon perovskite for fullerene-free solar cells. Journal of Materials Chemistry A, 2020, 8, 22858-22866.	5.2	6
716	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
717	Unravelling the origin of the photocarrier dynamics of fullerene-derivative passivation of SnO₂ electron transporters in perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 23607-23616.	5.2	30
718	Effect of Polyethylene Glycol Incorporation in Electron Transport Layer on Photovoltaic Properties of Perovskite Solar Cells. Nanomaterials, 2020, 10, 1753.	1.9	12
719	TiO₂ Colloidâ€Spray Coated Electronâ€Transporting Layers for Efficient Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 2001799.	10.2	45
720	Multifunctional Polymerâ€Regulated SnO₂ Nanocrystals Enhance Interface Contact for Efficient and Stable Planar Perovskite Solar Cells. Advanced Materials, 2020, 32, e2003990.	11.1	208
721	Compact Titania Films by Spray Pyrolysis for Application as ETL in Perovskite Solar Cells. Journal of Electronic Materials, 2020, 49, 7159-7167.	1.0	3
722	Interfacial Dipole in Organic and Perovskite Solar Cells. Journal of the American Chemical Society, 2020, 142, 18281-18292.	6.6	182
723	Toward Seeâ€Through Optoelectronics: Transparent Lightâ€Emitting Diodes and Solar Cells. Advanced Optical Materials, 2020, 8, 2001122.	3.6	35

#	Article	IF	Citations
724	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
725	Chemical vapor deposited polymer layer for efficient passivation of planar perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 20122-20132.	5.2	27
726	Seleniumâ€Based Solar Cell with Conjugated Polymers as Both Electron and Hole Transport Layers to Realize High Water Tolerance as well as Good Longâ€Term and Thermal Stability. Solar Rrl, 2020, 4, 2000425.	3.1	3
727	High-Performance Electron Transport Layer via Ultrasonic Spray Deposition for Commercialized Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 11570-11580.	2.5	14
728	Bipolar Organic Material Assisted Surface and Boundary Defects Passivation for Highly Efficient MAPbI 3 â€Based Inverted Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000369.	3.1	5
729	How Humidity and Light Exposure Change the Photophysics of Metal Halide Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000382.	3.1	23
730	Efficiency progress of inverted perovskite solar cells. Energy and Environmental Science, 2020, 13, 3823-3847.	15.6	210
731	An emerging high performance photovoltaic device with mechanical stability constants of hybrid (HC(NH2)2PbI3) perovskite. Journal of Materials Science: Materials in Electronics, 2020, 31, 18004-18017.	1.1	19
732	Precise Control of Perovskite Crystallization Kinetics via Sequential Aâ€Site Doping. Advanced Materials, 2020, 32, e2004630.	11.1	122
733	Modification Engineering in SnO₂ Electron Transport Layer toward Perovskite Solar Cells: Efficiency and Stability. Advanced Functional Materials, 2020, 30, 2004209.	7.8	98
734	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
735	Flexible Lead Bromide Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 9817-9823.	2.5	17
736	Direct Growth of Vertically Aligned Carbon Nanotubes onto Transparent Conductive Oxide Glass for Enhanced Charge Extraction in Perovskite Solar Cells. Advanced Materials Interfaces, 2020, 7, 2001121.	1.9	13
737	Constructing Graded Perovskite Homojunctions by Adding Large Radius Phenylmethylamine Ions for Sequential Spin-Coating Deposition Method To Improve the Efficiency of Perovskite Solar Cells. Journal of Physical Chemistry C, 2020, 124, 20765-20772.	1.5	15
738	Graphene/Metal Oxide Nanocomposite Usage as Photoanode in Dye-Sensitized and Perovskite Solar Cells. , 2020, , .		2
739	Femtosecond Laser Induced Phase Transformation of TiO₂ with Exposed Reactive Facets for Improved Photoelectrochemistry Performance. ACS Applied Materials & Interfaces, 2020, 12, 41250-41258.	4.0	14
740	Role of formamidinium in the crystallization of FAxMA1-xPbI3-yCly perovskite via recrystallization-assisted bath-immersion sequential ambient deposition. Journal of Power Sources, 2020, 477, 228736.	4.0	3
741	Investigate of TiO2 and SnO2 as electron transport layer for perovskite solar cells. AIP Conference Proceedings, 2020, , .	0.3	10

#	Article	IF	Citations
742	Introducing ammonium salt into hole transporting materials for perovskite solar cells. Chemical Communications, 2020, 56, 14471-14474.	2.2	14
743	Perovskite quantum dot solar cells: Mapping interfacial energetics for improving charge separation. Nano Energy, 2020, 78, 105319.	8.2	31
744	Choose Your Own Adventure: Fabrication of Monolithic Allâ€Perovskite Tandem Photovoltaics. Advanced Materials, 2020, 32, e2003312.	11.1	39
745	Oriented Crystallization of Mixedâ€Cation Tin Halides for Highly Efficient and Stable Leadâ€Free Perovskite Solar Cells. Advanced Functional Materials, 2020, 30, 2002230.	7.8	64
746	Deep insights into interface engineering by buffer layer for efficient perovskite solar cells: a first-principles study. Science China Materials, 2020, 63, 1588-1596.	3.5	10
747	High-humidity processed perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 10481-10518.	5.2	56
748	Structured Perovskite Light Absorbers for Efficient and Stable Photovoltaics. Advanced Materials, 2020, 32, e1903937.	11.1	69
749	Effect of oxygen vacancies in the electron transfer layer SiZnSnO on the performance of perovskite solar cells. Journal of Alloys and Compounds, 2020, 835, 155284.	2.8	11
750	Effect of Interfacial Layers on the Device Lifetime of Perovskite Solar Cells. Small Methods, 2020, 4, 2000065.	4.6	22
751	Magnetron Sputtered SnO₂ Constituting Double Electron Transport Layers for Efficient PbS Quantum Dot Solar Cells. Solar Rrl, 2020, 4, 2000218.	3.1	12
752	Rapid Scalable Processing of Tin Oxide Transport Layers for Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 5552-5562.	2.5	52
753	Highly Stable and Efficient Perovskite Solar Cells with 22.0% Efficiency Based on Inorganicâ€“Organic Dopantâ€Free Double Hole Transporting Layers. Advanced Functional Materials, 2020, 30, 1908462.	7.8	59
754	Electron Transport Materials: Evolution and Case Study for Highâ€Efficiency Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000136.	3.1	32
755	Solution-processed perovskite solar cells. Journal of Central South University, 2020, 27, 1104-1133.	1.2	34
756	Hybrid interfacial ETL engineering using PCBM-SnS2 for High-Performance p-i-n structured planar perovskite solar cells. Chemical Engineering Journal, 2020, 397, 125504.	6.6	37
757	Lewis-Acid Doping of Triphenylamine-Based Hole Transport Materials Improves the Performance and Stability of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 23874-23884.	4.0	38
758	Efficient Perovskite Solar Modules with Minimized Nonradiative Recombination and Local Carrier Transport Losses. Joule, 2020, 4, 1263-1277.	11.7	93
759	Flexible optoelectronic devices based on metal halide perovskites. Nano Research, 2020, 13, 1997-2018.	5.8	52

#	Article	IF	Citations
760	Fabrication of high efficiency, low-temperature planar perovskite solar cells via scalable double-step crystal engineering deposition method fully out of glove box. Solar Energy, 2020, 206, 181-187.	2.9	9
761	Lanthanum-Doped Strontium Stannate for Efficient Electron-Transport Layers in Planar Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 6889-6896.	2.5	11
762	Doping and ion substitution in colloidal metal halide perovskite nanocrystals. Chemical Society Reviews, 2020, 49, 4953-5007.	18.7	269
763	High-Power and Flexible Indoor Solar Cells via Controlled Growth of Perovskite Using a Greener Antisolvent. ACS Applied Energy Materials, 2020, 3, 6995-7003.	2.5	44
764	Combustion procedure deposited SnO2 electron transport layers for high efficient perovskite solar cells. Journal of Alloys and Compounds, 2020, 844, 156032.	2.8	34
765	Dual Interfacial Engineering Enables Efficient and Reproducible CsPbI₂Br All-Inorganic Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 31659-31666.	4.0	38
766	Ultrafine SnO₂/010 Facet-Exposed BiVO₄ Nanocomposites as Efficient Photoanodes for Controllable Conversion of 2,4-Dichlorophenol via a Preferential Dechlorination Path. ACS Applied Materials & Interfaces, 2020, 12, 28264-28272.	4.0	19
767	Growth of metal halide perovskite materials. Science China Materials, 2020, 63, 1438-1463.	3.5	31
768	Highly efficient, stable and hysteresisâ€'less planar perovskite solar cell based on chemical bath treated Zn2SnO4 electron transport layer. Nano Energy, 2020, 75, 105038.	8.2	77
769	Large Conduction Band Energy Offset Is Critical for High Fill Factors in Inorganic Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 2343-2348.	8.8	20
770	Enhancing the interfacial carrier dynamic in perovskite solar cells with an ultra-thin single-crystalline nanograss-like TiO₂ electron transport layer. Journal of Materials Chemistry A, 2020, 8, 13820-13831.	5.2	12
771	Performance improvement of perovskite solar cells via spiro-OMeTAD pre-crystallization. Journal of Materials Science, 2020, 55, 12264-12273.	1.7	5
772	Influence of Hole Transport Layers/Perovskite Interfaces on the Hysteresis Behavior of Inverted Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 6391-6399.	2.5	9
773	Influence of polytetrafluoroethylene (PTFE) on photovoltaic performance and perovskite solar cell stability. Sustainable Energy and Fuels, 2020, 4, 4257-4263.	2.5	13
774	Lowâ€Temperatureâ€Processed Zr/F Coâ€Doped SnO₂ Electron Transport Layer for Highâ€Efficiency Planar Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000090.	3.1	42
775	Enhancing performance of perovskite solar cells with efficiency exceeding 21% via a graded-index mesoporous aluminum oxide antireflection coating. Nanotechnology, 2020, 31, 275407.	1.3	6
776	Mesoporous TiO2/g-C3N4 composites with O-Ti-N bridge for improved visible-light photodegradation of enrofloxacin. Science of the Total Environment, 2020, 724, 138280.	3.9	38
777	Improving efficiency and stability of colorful perovskite solar cells with two-dimensional photonic crystals. Nanoscale, 2020, 12, 8425-8431.	2.8	27

#	Article	IF	Citations
778	Facile Deposition of Mesoporous PbI2 through DMF:DMSO Solvent Engineering for Sequentially Deposited Metal Halide Perovskites. ACS Applied Energy Materials, 2020, 3, 3358-3368.	2.5	11
779	Choline Chloride-Modified SnO₂ Achieving High Output Voltage in MAPbI₃ Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 3504-3511.	2.5	57
780	A cost-device efficiency balanced spiro based hole transport material for perovskite solar cells. Journal of Materials Chemistry C, 2020, 8, 6221-6227.	2.7	16
781	From Metallic Lead Films to Perovskite Solar Cells through Lead Conversion with Polyhalide Solutions. ACS Applied Materials & Interfaces, 2020, 12, 20456-20461.	4.0	12
782	Dual effective dopant based hole transport layer for stable and efficient perovskite solar cells. Nano Energy, 2020, 72, 104673.	8.2	78
783	Interfacial Chemical Bridge Constructed by Zwitterionic Sulfamic Acid for Efficient and Stable Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 3186-3192.	2.5	37
784	Interfacial engineering for organic and perovskite solar cells using molecular materials. Journal Physics D: Applied Physics, 2020, 53, 263001.	1.3	6
785	Synergistic Reinforcement of Builtâ€In Electric Fields for Highly Efficient and Stable Perovskite Photovoltaics. Advanced Functional Materials, 2020, 30, 1909755.	7.8	47
786	Understanding of perovskite crystal growth and film formation in scalable deposition processes. Chemical Society Reviews, 2020, 49, 1653-1687.	18.7	364
787	Understanding the Effect of Crystalline Structural Transformation for Leadâ€Free Inorganic Halide Perovskites. Advanced Materials, 2020, 32, e2002137.	11.1	101
788	Improving the Stability of Ambient Processed, SnO₂â€Based, Perovskite Solar Cells by the UVâ€Treatment of Subâ€Cells. Solar Rrl, 2020, 4, 2000262.	3.1	21
789	Organic Salts as p-Type Dopants for Efficient LiTFSI-Free Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 33751-33758.	4.0	24
790	Î±â€CsPbI₃ Bilayers via Oneâ€Step Deposition for Efficient and Stable Allâ€Inorganic Perovskite Solar Cells. Advanced Materials, 2020, 32, e2002632.	11.1	70
791	High-efficiency perovskite solar cells with poly(vinylpyrrolidone)-doped SnO₂as an electron transport layer. Materials Advances, 2020, 1, 617-624.	2.6	30
792	Applications in photovoltaics. , 2020, , 109-140.		3
793	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
794	Effect of Annealing Temperature on Spatial Atomic Layer Deposited Titanium Oxide and Its Application in Perovskite Solar Cells. Nanomaterials, 2020, 10, 1322.	1.9	17
795	Interfacial Molecular Doping of Metal Halide Perovskites for Highly Efficient Solar Cells. Advanced Materials, 2020, 32, e2001581.	11.1	139

#	Article	IF	Citations
796	An intermeshing electron transporting layer for efficient and stable CsPbI₂Br perovskite solar cells with open circuit voltage over 1.3 V. Journal of Materials Chemistry A, 2020, 8, 14555-14565.	5.2	24
797	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
798	Assimilation of Yb defect states in ZnO: Structural, optical and magnetic investigations. Vacuum, 2020, 179, 109522.	1.6	7
799	Comprehensive insights into defect passivation and charge dynamics for FA0.8MA0.15Cs0.05PbI2.8Br0.2 perovskite solar cells. Applied Physics Letters, 2020, 117, .	1.5	7
800	High-efficiency and UV-stable flexible perovskite solar cells enabled by an alkaloid-doped C₆₀electron transport layer. Journal of Materials Chemistry C, 2020, 8, 10401-10407.	2.7	9
801	Defect control in perovskite solar cells by interfacial engineering using iodobenzene diacetate. Journal of Alloys and Compounds, 2020, 825, 154035.	2.8	10
802	Highly Efficient and Stable GABrâ€Modified Idealâ€Bandgap (1.35 eV) Sn/Pb Perovskite Solar Cells Achieve 20.63% Efficiency with a Record Small V_{oc} Deficit of 0.33 V. Advanced Materials, 2020, 32, e1908107.	11.1	101
803	Detrimental Effect of Unreacted PbI₂ on the Longâ€Term Stability of Perovskite Solar Cells. Advanced Materials, 2020, 32, e1905035.	11.1	256
804	Defect Control Strategy by Bifunctional Thioacetamide at Low Temperature for Highly Efficient Planar Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 12883-12891.	4.0	24
805	Radiative and non-radiative losses by voltage-dependent in-situ photoluminescence in perovskite solar cell current-voltage curves. Journal of Luminescence, 2020, 222, 117106.	1.5	10
806	Constructing binary electron transport layer with cascade energy level alignment for efficient CsPbI2Br solar cells. Nano Energy, 2020, 71, 104604.	8.2	56
807	Self-Assembly of 2D/3D Perovskites by Crystal Engineering for Efficient Air-Processed, Air-Stable Inverted Planar Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 2975-2982.	2.5	26
808	Effect of Sr substitution on the air-stability of perovskite solar cells. Ceramics International, 2020, 46, 14038-14047.	2.3	8
809	Enhanced self-powered photoresponse in perovskite films with in situ induced pâ€“n homojunction by Ar+ bombardment. Optical Materials, 2020, 100, 109687.	1.7	5
810	Metal Oxide Oxidation Catalysts as Scaffolds for Perovskite Solar Cells. Materials, 2020, 13, 949.	1.3	5
812	Ammoniated aqueous precursor ink processed copper iodide as hole transport layer for inverted planar perovskite solar cells. Solar Energy Materials and Solar Cells, 2020, 210, 110486.	3.0	30
813	Is Formamidinium Always More Stable than Methylammonium?. Chemistry of Materials, 2020, 32, 2501-2507.	3.2	34
815	Introduction of LiCl into SnO2 electron transport layer for efficient planar perovskite solar cells. Chemical Physics Letters, 2020, 745, 137220.	1.2	20

#	Article	IF	Citations
816	Correlating Hysteresis and Stability with Organic Cation Composition in the Two-Step Solution-Processed Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 10588-10596.	4.0	27
817	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
818	Temperature-Dependent Dynamic Carrier Process of FAPbI₃ Nanocrystalsâ€™ Film. Journal of Physical Chemistry C, 2020, 124, 5093-5098.	1.5	14
819	TiO₂ Nanocolumn Arrays for More Efficient and Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 5979-5989.	4.0	36
820	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
821	High-Efficiency Flexible Perovskite Solar Cells Enabled by an Ultrafast Room-Temperature Reactive Ion Etching Process. ACS Applied Materials & Interfaces, 2020, 12, 7125-7134.	4.0	8
822	Planar MgxZn1-xO-based perovskite solar cell with superior ultraviolet light stability. Solar Energy Materials and Solar Cells, 2020, 208, 110417.	3.0	15
823	Flexible OPV modules for highly efficient indoor applications. Flexible and Printed Electronics, 2020, 5, 014008.	1.5	41
824	Stable and Highâ€Efficiency Methylammoniumâ€Free Perovskite Solar Cells. Advanced Materials, 2020, 32, e1905502.	11.1	131
825	Dopant-free methoxy substituted copper(II) phthalocyanine for highly efficient and stable perovskite solar cells. Chemical Engineering Journal, 2020, 387, 124130.	6.6	34
826	Precise control of PbI2 excess into grain boundary for efficacious charge extraction in off-stoichiometric perovskite solar cells. Electrochimica Acta, 2020, 338, 135697.	2.6	25
827	Multifunctional nanostructured materials for next generation photovoltaics. Nano Energy, 2020, 70, 104480.	8.2	52
828	Large-area, green solvent spray deposited nickel oxide films for scalable fabrication of triple-cation perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 3357-3368.	5.2	52
829	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
830	High Electron Affinity Enables Fast Hole Extraction for Efficient Flexible Inverted Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1903487.	10.2	210
831	Highâ€Efficiency Lowâ€Temperatureâ€Processed Mesoscopic Perovskite Solar Cells from SnO₂ Nanorod Selfâ€Assembled Microspheres. Solar Rrl, 2020, 4, 1900558.	3.1	21
832	Roomâ€Temperature Partial Conversion of Î±â€FAPbI₃Perovskite Phase via PbI₂Solvation Enables Highâ€Performance Solar Cells. Advanced Functional Materials, 2020, 30, 1907442.	7.8	41
833	Passivating Surface Defects of nâ€SnO₂ Electron Transporting Layer by InP/ZnS Quantum Dots: Toward Efficient and Stable Organic Solar Cells. Advanced Electronic Materials, 2020, 6, 1901245.	2.6	35

#	Article	IF	Citations
834	Surface Modification of TiO2 for Perovskite Solar Cells. Trends in Chemistry, 2020, 2, 148-162.	4.4	91
835	Effect of Sb doping on structural and photoelectric properties of SnO2 thin films. Journal of Materials Science: Materials in Electronics, 2020, 31, 3289-3302.	1.1	10
836	Enhanced Performance of Perovskite Solar Cells via Lowâ€Temperatureâ€Processed Mesoporous SnO₂. Advanced Materials Interfaces, 2020, 7, 1901866.	1.9	33
837	Tailoring C₆₀ for Efficient Inorganic CsPbI₂Br Perovskite Solar Cells and Modules. Advanced Materials, 2020, 32, e1907361.	11.1	88
838	Niobium doped TiO2 nanorod arrays as efficient electron transport materials in photovoltaic. Journal of Power Sources, 2020, 450, 227715.	4.0	17
839	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
840	Enhancing the stability of perovskites by constructing heterojunctions of graphene/MASnI₃. Physical Chemistry Chemical Physics, 2020, 22, 3724-3733.	1.3	6
841	Dopantâ€Free, Amorphousâ€“Crystalline Heterophase SnO₂Electron Transport Bilayer Enables >20% Efficiency in Tripleâ€Cation Perovskite Solar Cells. Advanced Functional Materials, 2020, 30, 2001559.	7.8	72
842	A Crossâ€Linked PCBM Interlayer for Efficient and UVâ€Stable Methylammoniumâ€Free Perovskite Solar Cells. Energy Technology, 2020, 8, 2000224.	1.8	9
843	Recent progress in morphology optimization in perovskite solar cell. Journal of Materials Chemistry A, 2020, 8, 21356-21386.	5.2	159
844	Approaching the Most Economic Preparation of Hole Transport Layer by Organic Monomolecular Strategy for Efficient Inverted Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000011.	3.1	6
845	Fluoroaromatic Cationâ€Assisted Planar Junction Perovskite Solar Cells with Improved V_{OC} and Stability: The Role of Fluorination Position. Solar Rrl, 2020, 4, 2000107.	3.1	68
846	Promoting Thermodynamic and Kinetic Stabilities of FA-based Perovskite by an in Situ Bilayer Structure. Nano Letters, 2020, 20, 3864-3871.	4.5	49
847	Effect of Grain Size on the Fracture Behavior of Organic-Inorganic Halide Perovskite Thin Films for Solar Cells. Scripta Materialia, 2020, 185, 47-50.	2.6	32
849	A Thermally Induced Perovskite Crystal Control Strategy for Efficient and Photostable Wideâ€Bandgap Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000033.	3.1	22
850	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
851	Impact of the implementation of a mesoscopic TiO2 film from a low-temperature method on the performance and degradation of hybrid perovskite solar cells. Solar Energy, 2020, 201, 836-845.	2.9	4
852	Secondary Grain Growth in Organicâ€“Inorganic Perovskite Films with Ethylamine Hydrochloride Additives for Highly Efficient Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 20026-20034.	4.0	25

#	Article	IF	Citations
853	Aged sol-gel solution-processed texture tin oxide for high-efficient perovskite solar cells. Nanotechnology, 2020, 31, 315205.	1.3	8
854	Dual Function of Surface Alkali-Gas Erosion on SnO₂ for Efficient and Stable Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 5039-5049.	2.5	19
855	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
856	Recent advances on synthesis and applications of lead- and tin-free perovskites. Journal of Alloys and Compounds, 2020, 835, 155112.	2.8	19
857	Polymer/Inorganic Hole Transport Layer for Low-Temperature-Processed Perovskite Solar Cells. Energies, 2020, 13, 2059.	1.6	11
858	Tungsten-Doped Zinc Oxide and Indiumâ€“Zinc Oxide Films as High-Performance Electron-Transport Layers in Nâ€“Iâ€“P Perovskite Solar Cells. Polymers, 2020, 12, 737.	2.0	10
859	Chlorinated Fullerene Dimers for Interfacial Engineering Toward Stable Planar Perovskite Solar Cells with 22.3% Efficiency. Advanced Energy Materials, 2020, 10, 2000615.	10.2	76
860	Moleculeâ€Induced pâ€Doping in Perovskite Nanocrystals Enables Efficient Colorâ€Saturated Red Lightâ€Emitting Diodes. Small, 2020, 16, e2001062.	5.2	53
861	Vacancies substitution induced interfacial dipole formation and defect passivation for highly stable perovskite solar cells. Chemical Engineering Journal, 2020, 396, 125010.	6.6	19
862	Efficient planar heterojunction perovskite solar cells with enhanced FTO/SnO2 interface electronic coupling. Journal of Alloys and Compounds, 2020, 831, 154717.	2.8	28
863	The diverse passivation effects of fullerene derivative on hysteresis behavior for normal and inverted perovskite solar cells. Journal of Power Sources, 2020, 461, 228156.	4.0	4
864	Novel ethanol vapor annealing treatment of SnO2 quantum dots film for highly efficient planar heterojunction perovskite solar cells. Organic Electronics, 2020, 84, 105751.	1.4	8
865	Fully Spray-Coated Triple-Cation Perovskite Solar Cells. Scientific Reports, 2020, 10, 6610.	1.6	100
866	The influence of the electron transport layer on charge dynamics and trap-state properties in planar perovskite solar cells. RSC Advances, 2020, 10, 12347-12353.	1.7	16
867	Quasi-quantum dot-induced stabilization of Î±-CsPbI3 perovskite for high-efficiency solar cells. Journal of Materials Chemistry A, 2020, 8, 10226-10232.	5.2	16
868	Ligandâ€Modulated Excess PbI₂ Nanosheets for Highly Efficient and Stable Perovskite Solar Cells. Advanced Materials, 2020, 32, e2000865.	11.1	136
869	Record Photocurrent Density over 26â€‰mAâ€‰cm â^'2 in Planar Perovskite Solar Cells Enabled by Antireflective Cascaded Electron Transport Layer. Solar Rrl, 2020, 4, 2000169.	3.1	17
870	Nickel oxide for inverted structure perovskite solar cells. Journal of Energy Chemistry, 2021, 52, 393-411.	7.1	132

#	Article	IF	Citations
871	Analytical Study of Solutionâ€Processed Tin Oxide as Electron Transport Layer in Printed Perovskite Solar Cells. Advanced Materials Technologies, 2021, 6, 2000282.	3.0	16
872	Interphases, Interfaces, and Surfaces of Active Materials in Rechargeable Batteries and Perovskite Solar Cells. Advanced Materials, 2021, 33, e1905245.	11.1	30
873	All-inorganic Cs2AgBiBr6/CuSCN-based photodetectors for weak light imaging. Science China Materials, 2021, 64, 198-208.	3.5	37
874	Energy level engineering of charge selective contact and halide perovskite by modulating band offset: Mechanistic insights. Journal of Energy Chemistry, 2021, 54, 822-829.	7.1	60
875	Effect of temperature on the performance of perovskite solar cells. Journal of Materials Science: Materials in Electronics, 2021, 32, 12784-12792.	1.1	44
876	Highâ€Efficiency Perovskite Solar Cells with Imidazoliumâ€Based Ionic Liquid for Surface Passivation and Charge Transport. Angewandte Chemie - International Edition, 2021, 60, 4238-4244.	7.2	221
877	Perovskite Passivation Strategies for Efficient and Stable Solar Cells. Solar Rrl, 2021, 5, .	3.1	23
878	Hydrogen peroxide-modified SnO2 as electron transport layer for perovskite solar cells with efficiency exceeding 22%. Journal of Power Sources, 2021, 481, 229160.	4.0	43
879	A universal method for hysteresis-free and stable perovskite solar cells using water pre-treatment. Chemical Engineering Journal, 2021, 403, 126435.	6.6	12
880	Hot Debate on Perovskite Solar Cells: Stability, Toxicity, High-Efficiency and Low Cost. Journal of Energy Chemistry, 2021, 53, 407-411.	7.1	9
881	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
882	Spontaneously supersaturated nucleation strategy for high reproducible and efficient perovskite solar cells. Chemical Engineering Journal, 2021, 405, 126998.	6.6	20
883	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
884	Facile synthesized fluorine substituted benzothiadiazole based dopant-free hole transport material for high efficiency perovskite solar cell. Dyes and Pigments, 2021, 184, 108786.	2.0	15
885	A conversion-type electrochemical artificial synapse for plasticity modulation and dendritic application. Materials Chemistry Frontiers, 2021, 5, 775-782.	3.2	6
886	Emerging perovskite quantum dot solar cells: feasible approaches to boost performance. Energy and Environmental Science, 2021, 14, 224-261.	15.6	94
887	Progress in Materials Development for Flexible Perovskite Solar Cells and Future Prospects. ChemSusChem, 2021, 14, 512-538.	3.6	38
888	Toward Efficient and Stable Perovskite Solar Cells by 2D Interface Energy Band Alignment. Advanced Materials Interfaces, 2021, 8, .	1.9	19

#	Article	IF	Citations
889	Chemical doping engineering by utilizing trilacunary Keggin polyoxometalates as a dopant for high performance perovskite solar cells. Dalton Transactions, 2021, 50, 279-286.	1.6	4
890	Grain size control for high-performance formamidinium-based perovskite solar cells via suppressing heterogenous nucleation. Journal of Materials Chemistry C, 2021, 9, 208-213.	2.7	26
891	Light Stability Enhancement of Perovskite Solar Cells Using 1H,1H,2H,2Hâ€Perfluorooctyltriethoxysilane Passivation. Solar Rrl, 2021, 5, 2000650.	3.1	7
892	Compositionally Designed 2D Ruddlesdenâ€“Popper Perovskites for Efficient and Stable Solar Cells. Solar Rrl, 2021, 5, 2000661.	3.1	8
893	Inorganic Electron Transport Materials in Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2008300.	7.8	105
894	High Efficiency Perovskite Solar Cells Exceeding 22% via a Photoâ€Assisted Twoâ€Step Sequential Deposition. Advanced Functional Materials, 2021, 31, 2006718.	7.8	33
895	A Review on Scaling Up Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2008621.	7.8	143
896	Roles of MACl in Sequentially Deposited Bromineâ€Free Perovskite Absorbers for Efficient Solar Cells. Advanced Materials, 2021, 33, e2007126.	11.1	112
897	Mechanisms and Suppression of Photoinduced Degradation in Perovskite Solar Cells. Advanced Energy Materials, 2021, 11, 2002326.	10.2	118
898	Effects of A site doping on the crystallization of perovskite films. Journal of Materials Chemistry A, 2021, 9, 1372-1394.	5.2	43
899	In Quest of Environmentally Stable Perovskite Solar Cells: A Perspective. Helvetica Chimica Acta, 2021, 104, .	1.0	15
900	Interfacial Potassiumâ€Guided Grain Growth for Efficient Deepâ€Blue Perovskite Lightâ€Emitting Diodes. Advanced Functional Materials, 2021, 31, 2006736.	7.8	93
901	Highly electroluminescent and stable inorganic CsPbI2Br perovskite solar cell enabled by balanced charge transfer. Chemical Engineering Journal, 2021, 417, 128053.	6.6	24
902	9.7%-efficient Sb₂(S,Se)₃ solar cells with a dithieno[3,2-b:2â€²,3â€²-d]pyrrole-cored hole transporting material. Energy and Environmental Science, 2021, 14, 359-364.	15.6	70
903	Strain-Induced Metallization and Defect Suppression at Zipper-like Interdigitated Atomically Thin Interfaces Enabling High-Efficiency Halide Perovskite Solar Cells. ACS Nano, 2021, 15, 1805-1816.	7.3	15
904	Solution-processed and self-powered photodetector in vertical architecture using mixed-halide perovskite for highly sensitive UVC detection. Journal of Materials Chemistry A, 2021, 9, 1269-1276.	5.2	54
905	Doping in Semiconductor Oxidesâ€Based Electron Transport Materials for Perovskite Solar Cells Application. Solar Rrl, 2021, 5, 2000605.	3.1	19
906	All-inorganic CsPbBr₃ perovskite: a promising choice for photovoltaics. Materials Advances, 2021, 2, 646-683.	2.6	100

#	Article	IF	Citations
907	Highâ€Efficiency Perovskite Solar Cells with Imidazoliumâ€Based Ionic Liquid for Surface Passivation and Charge Transport. Angewandte Chemie, 2021, 133, 4284-4290.	1.6	14
908	Design of Low Crystallinity Spiro-Typed Hole Transporting Material for Planar Perovskite Solar Cells to Achieve 21.76% Efficiency. Chemistry of Materials, 2021, 33, 285-297.	3.2	57
909	A synchronous defect passivation strategy for constructing high-performance and stable planar perovskite solar cells. Chemical Engineering Journal, 2021, 413, 127387.	6.6	40
910	Band alignment towards high-efficiency NiOx-based Sn-Pb mixed perovskite solar cells. Science China Materials, 2021, 64, 537-546.	3.5	23
911	Anchorable Perylene Diimides as Chemically Inert Electron Transport Layer for Efficient and Stable Perovskite Solar Cells with High Reproducibility. Solar Rrl, 2021, 5, 2000736.	3.1	14
912	4-Chlorobenzylamine-based 2D/3D Perovskite Solar Cell. Wuji Cailiao Xuebao/Journal of Inorganic Materials, 2021, , 199.	0.6	1
913	Recent cutting-edge strategies for flexible perovskite solar cells toward commercialization. Chemical Communications, 2021, 57, 11604-11612.	2.2	6
914	Controlling PbI₂ Stoichiometry during Synthesis to Improve the Performance of Perovskite Photovoltaics. Chemistry of Materials, 2021, 33, 554-566.	3.2	13
915	Advent of alkali metal doping: a roadmap for the evolution of perovskite solar cells. Chemical Society Reviews, 2021, 50, 2696-2736.	18.7	90
916	Postpassivation of Cs_{0.05}(FA_{0.83}MA_{0.17})_{0.95}Pb(I_{0.83}Br_{0.17})<sub>3</s Perovskite Films with Tris(pentafluorophenyl)borane. ACS Applied Materials & Interfaces, 2021, 13, 2472-2482.	4.0	34
917	Graphdiyne oxide doped SnO₂electron transport layer for high performance perovskite solar cells. Materials Chemistry Frontiers, 2021, 5, 6913-6922.	3.2	7
918	Suppressed Degradation and Enhanced Performance of CsPbI₃ Perovskite Quantum Dot Solar Cells via Engineering of Electron Transport Layers. ACS Applied Materials & Interfaces, 2021, 13, 6119-6129.	4.0	31
919	The dual effect of â€œinorganic fullereneâ€•{Mo₁₃₂} doped with SnO₂ for efficient perovskite-based photodetectors. Materials Chemistry Frontiers, 2021, 5, 6931-6940.	3.2	5
920	A Commercial Benchmark: Lightâ€Soaking Free, Fully Scalable, Largeâ€Area Organic Solar Cells for Lowâ€Light Applications. Advanced Energy Materials, 2021, 11, 2003405.	10.2	48
921	Defect-states Passivation Strategy in Perovskite Solar Cells. E3S Web of Conferences, 2021, 245, 01031.	0.2	1
922	A Perspective on Perovskite Solar Cells. Energy, Environment, and Sustainability, 2021, , 55-151.	0.6	1
923	Halide perovskites for light emission and artificial photosynthesis: Opportunities, challenges, and perspectives. EcoMat, 2021, 3, e12074.	6.8	29
924	The roles of fused-ring organic semiconductor treatment on SnO₂ in enhancing perovskite solar cell performance. RSC Advances, 2021, 11, 3792-3800.	1.7	8

#	Article	IF	Citations
925	Facile Synthesis of Spherical TiO2 Hollow Nanospheres with a Diameter of 150 nm for High-Performance Mesoporous Perovskite Solar Cells. Materials, 2021, 14, 629.	1.3	8
926	Inorganic hole transport layers in inverted perovskite solar cells: A review. Nano Select, 2021, 2, 1081-1116.	1.9	65
927	Strategies of perovskite mechanical stability for flexible photovoltaics. Materials Chemistry Frontiers, 2021, 5, 7467-7478.	3.2	9
928	Research progress of light irradiation stability of functional layers in perovskite solar cells. Wuli Xuebao/Acta Physica Sinica, 2021, 70, 098402.	0.2	2
929	High-efficiency quantum dot light-emitting diodes based on Li-doped TiO2 nanoparticles as an alternative electron transport layer. Nanoscale, 2021, 13, 2838-2842.	2.8	11
930	Advances in SnO₂-based perovskite solar cells: from preparation to photovoltaic applications. Journal of Materials Chemistry A, 2021, 9, 19554-19588.	5.2	88
931	Zwitterions: promising interfacial/doping materials for organic/perovskite solar cells. New Journal of Chemistry, 2021, 45, 15118-15130.	1.4	15
932	Correlations between Electrochemical Ion Migration and Anomalous Device Behaviors in Perovskite Solar Cells. ACS Energy Letters, 2021, 6, 1003-1014.	8.8	39
933	Rubidium Fluoride Modified SnO₂ for Planar nâ€iâ€p Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2010385.	7.8	170
934	Low-temperature-processed metal oxide electron transport layers for efficient planar perovskite solar cells. Rare Metals, 2021, 40, 2730-2746.	3.6	34
935	Europium ions doped WOx nanorods for dual interfacial modification facilitating high efficiency and stability of perovskite solar cells. Nano Energy, 2021, 80, 105564.	8.2	26
936	Lateral photovoltaic effect based on novel materials and external modulations. Journal Physics D: Applied Physics, 2021, 54, 153003.	1.3	11
937	Carbon Nanoparticles as Versatile Auxiliary Components of Perovskiteâ€Based Optoelectronic Devices. Advanced Functional Materials, 2021, 31, 2010768.	7.8	31
938	Dimensionality Control of SnO₂ Films for Hysteresis-Free, All-Inorganic CsPbBr₃ Perovskite Solar Cells with Efficiency Exceeding 10%. ACS Applied Materials & Interfaces, 2021, 13, 11058-11066.	4.0	24
939	Controlled Crystallization of CsRbâ€Based Multiâ€Cation Perovskite Using a Blended Sequential Process for Highâ€Performance Solar Cells. Solar Rrl, 2021, 5, 2100050.	3.1	10
940	Rapid Microwave-Assisted Synthesis of SnO₂ Quantum Dots for Efficient Planar Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 1887-1893.	2.5	37
941	Electrical and optical characterization of sprayed In2S3 thin films as an electron transporting layer in high efficient perovskite solar cells. Solar Energy, 2021, 215, 356-366.	2.9	19
942	Surface structure of quasi-2D perovskite PEA_{2m}MA_{nâ^'2m}Pb_nI_{3n}(n â‰« m). Applied Physics Express, 2021, 14, 031006.	1.1	0

#	Article	IF	Citations
943	First-Principles Study of Electronic Properties of SnO2/CsPbI2Br Interface. Journal of Electronic Materials, 2021, 50, 2129-2136.	1.0	4
944	Interpenetrating interfaces for efficient perovskite solar cells with high operational stability and mechanical robustness. Nature Communications, 2021, 12, 973.	5.8	189
945	Synchronous Interface Modification and Bulk Passivation via a One-Step Cesium Bromide Diffusion Process for Highly Efficient Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 10110-10119.	4.0	15
946	Manipulating SnO₂ Growth for Efficient Electron Transport in Perovskite Solar Cells. Advanced Materials Interfaces, 2021, 8, 2100128.	1.9	33
947	Gourmet powder functionalization of SnO2 for high-performance perovskite solar cells made in air. Electrochimica Acta, 2021, 371, 137812.	2.6	16
948	Doubleâ€layered SnO₂/NH₄Clâ€SnO₂ for efficient planar perovskite solar cells with improved operational stability. Nano Select, 2021, 2, 1779-1787.	1.9	17
949	Efficient and Stable Carbon-Based Perovskite Solar Cells via Passivation by a Multifunctional Hydrophobic Molecule with Bidentate Anchors. ACS Applied Materials & Interfaces, 2021, 13, 16485-16497.	4.0	30
950	SnO₂/TiO₂ Electron Transporting Bilayers: A Route to Light Stable Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 3424-3430.	2.5	32
951	Strategies for High-Performance Large-Area Perovskite Solar Cells toward Commercialization. Crystals, 2021, 11, 295.	1.0	23
952	Mesoscopic TiO₂/Nb₂O₅ Electron Transfer Layer for Efficient and Stable Perovskite Solar Cells. Advanced Materials Interfaces, 2021, 8, 2100177.	1.9	20
953	Recycling and recovery of perovskite solar cells. Materials Today, 2021, 43, 185-197.	8.3	58
954	Bulk Passivation and Interfacial Passivation for Perovskite Solar Cells: Which One is More Effective?. Advanced Materials Interfaces, 2021, 8, 2002078.	1.9	34
955	Colorful Efficient MoirÃ©â€Perovskite Solar Cells. Advanced Materials, 2021, 33, e2008091.	11.1	37
957	Formation of Highâ€Performance Multiâ€Cation Halide Perovskites Photovoltaics by Îˆâ€CsPbI₃/Îˆâ€RbPbI₃ Seedâ€Assisted Heterogeneous Nucleation. Advanced Energy Materials, 2021, 11, 2003785.	10.2	32
958	Enhanced electrical properties of Li-salts doped mesoporous TiO2 in perovskite solar cells. Joule, 2021, 5, 659-672.	11.7	127
959	Tin Oxide Electronâ€Selective Layers for Efficient, Stable, and Scalable Perovskite Solar Cells. Advanced Materials, 2021, 33, e2005504.	11.1	196
960	Co²⁺-Tuned Tin Oxide Interfaces for Enhanced Stability of Organic Solar Cells. Langmuir, 2021, 37, 3173-3179.	1.6	7
961	Perspective on Predominant Metal Oxide Charge Transporting Materials for High-Performance Perovskite Solar Cells. Frontiers in Materials, 2021, 8, .	1.2	9

#	Article	IF	Citations
962	Bi-Directional functionalization of urea-complexed SnO2 for efficient planar perovskite solar cells. Applied Surface Science, 2021, 546, 148711.	3.1	21
963	High-Efficiency, Low-Hysteresis Planar Perovskite Solar Cells by Inserting the NaBr Interlayer. ACS Applied Materials & Interfaces, 2021, 13, 20251-20259.	4.0	15
964	Interfacial Engineering via Selfâ€Assembled Thiol Silane for High Efficiency and Stability Perovskite Solar Cells. Solar Rrl, 2021, 5, 2100128.	3.1	24
965	Highly Efficient 1D/3D Ferroelectric Perovskite Solar Cell. Advanced Functional Materials, 2021, 31, 2100205.	7.8	24
966	Molecular Engineering of Polymeric Hole-Transporting Materials for Efficient and Stable Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 3526-3534.	2.5	5
967	cPCN-Regulated SnO2 Composites Enables Perovskite Solar Cell with Efficiency Beyond 23%. Nano-Micro Letters, 2021, 13, 101.	14.4	31
968	Fabrication and Characterization of an Efficient Inverted Perovskite Solar Cells with POSS Passivating Hole Transport Layer. Nanomaterials, 2021, 11, 974.	1.9	10
969	Electronic structure and optical properties of SnO2/HC(NH2)2PbI3 interfaces from first-principles calculations. Surfaces and Interfaces, 2021, 23, 100913.	1.5	3
970	Suppressing the Trapping Process by Interfacial Charge Extraction in Antimony Selenide Heterojunctions. ACS Energy Letters, 2021, 6, 1740-1748.	8.8	33
971	SnO2/2D-Bi2O2Se new hybrid electron transporting layer for efficient and stable perovskite solar cells. Chemical Engineering Journal, 2021, 410, 128436.	6.6	32
972	Passivation functionalized phenothiazine-based hole transport material for highly efficient perovskite solar cell with efficiency exceeding 22%. Chemical Engineering Journal, 2021, 410, 128328.	6.6	83
973	Preparation of Low Grain Boundary Perovskite Crystals with Excellent Performance: The Inhibition of Ammonium Iodide. ACS Omega, 2021, 6, 12858-12865.	1.6	5
974	Laser-Scribing Optimization for Sprayed SnO₂-Based Perovskite Solar Modules on Flexible Plastic Substrates. ACS Applied Energy Materials, 2021, 4, 4507-4518.	2.5	31
975	Cobalt Chloride Hexahydrate Assisted in Reducing Energy Loss in Perovskite Solar Cells with Record Open-Circuit Voltage of 1.20 V. ACS Energy Letters, 2021, 6, 2121-2128.	8.8	117
976	Perovskite Solar Cells: Current Trends in Grapheneâ€Based Materials for Transparent Conductive Electrodes, Active Layers, Charge Transport Layers, and Encapsulation Layers. Advanced Energy and Sustainability Research, 2021, 2, 2100050.	2.8	12
977	Impacts of MAPbBr3 Additive on Crystallization Kinetics of FAPbI3 Perovskite for High Performance Solar Cells. Coatings, 2021, 11, 545.	1.2	5
978	Effective carrier transport tuning of CuOx quantum dots hole interfacial layer for high-performance inverted perovskite solar cell. Applied Surface Science, 2021, 547, 149117.	3.1	19
979	Allâ€Inorganic Halide Perovskite Nanocrystals: Future Prospects and Challenges to Go Lead Free. Physica Status Solidi (A) Applications and Materials Science, 2021, 218, 2100185.	0.8	1

#	Article	IF	Citations
980	Fabrication and Characterization of FA_xCs_{1â^'x}PbI₃ Polycrystal Perovskite Solar Cells. Solar Rrl, 2021, 5, 2100166.	3.1	8
981	Structural, Electronic, Magnetic, and Hyperfine Properties of V-doped SnO₂ (Sn_{1â€“x}V_xO₂, x: 0, 0.042, 0.084, and 0.125). A DFT-Based Study. Journal of Physical Chemistry C, 2021, 125, 11702-11713.	1.5	3
982	A combined chrome oxide and titanium oxide based electron-transport layer for high-performance perovskite solar cells. Chemical Physics Letters, 2021, 771, 138496.	1.2	6
983	Water Stable Haloplumbate Modulation for Efficient and Stable Hybrid Perovskite Photovoltaics. Advanced Energy Materials, 2021, 11, 2101082.	10.2	21
984	Comparative Study on TiO2 and C60 Electron Transport Layers for Efficient Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 5543-5553.	2.5	4
985	Charge transporting materials for perovskite solar cells. Rare Metals, 2021, 40, 2690-2711.	3.6	23
986	Enhanced Charge Transport and Interface Passivation in Efficient Perovskite Solar Cells Using Sulfurâ€Doped Graphite Carbon Nitrideâ€Modified SnO 2 â€Based Electron Transport Layers. Solar Rrl, 2021, 5, 2100058.	3.1	10
987	Effect of SnO2 Colloidal Dispersion Solution Concentration on the Quality of Perovskite Layer of Solar Cells. Coatings, 2021, 11, 591.	1.2	5
988	Synergistic Engineering of Conduction Band, Conductivity, and Interface of Bilayered Electron Transport Layers with Scalable TiO₂ and SnO₂ Nanoparticles for High-Efficiency Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 23606-23615.	4.0	17
989	Interfacial toughening with self-assembled monolayers enhances perovskite solar cell reliability. Science, 2021, 372, 618-622.	6.0	313
990	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
991	Analysis of tin and tin oxide by x-ray photoelectron spectroscopy. Surface Science Spectra, 2021, 28, .	0.3	3
992	Symmetrical Conjugated Molecular Additive for Defect Passivation and Charge Transfer Bridge in Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 5935-5943.	2.5	14
993	Lead halideâ€templated crystallization of methylamine-free perovskite for efficient photovoltaic modules. Science, 2021, 372, 1327-1332.	6.0	351
994	Bifunctional SnO₂ Colloid Offers No Annealing Effect Compact Layer and Mesoporous Scaffold for Efficient Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2103949.	7.8	16
995	Samariumâ€Doped Nickel Oxide for Superior Inverted Perovskite Solar Cells: Insight into Doping Effect for Electronic Applications. Advanced Functional Materials, 2021, 31, 2102452.	7.8	41
996	Interface engineering of high performance all-inorganic perovskite solar cells via low-temperature processed TiO2 nanopillar arrays. Nano Research, 2021, 14, 3431-3438.	5.8	22
997	Dip coated SnO2 film as electron transport layer for low temperature processed planar perovskite solar cells. Applied Surface Science Advances, 2021, 4, 100066.	2.9	13

#	Article	IF	Citations
998	Reduced Defects and Enhanced Performance of (FAPbI₃)_{0.97}(MAPbBr₃)_{0.03}-Based Perovskite Solar Cells by Trimesic Acid Additives. ACS Omega, 2021, 6, 16151-16158.	1.6	7
999	Impact of carbon-based charge transporting layer on the performance of perovskite solar cells. Solar Energy, 2021, 221, 254-274.	2.9	7
1000	Improving UV stability of perovskite solar cells without sacrificing efficiency through light trapping regulated spectral modification. Science Bulletin, 2021, 66, 2362-2368.	4.3	14
1001	Modification of the SnO2 Electron Transporting Layer by Using Perylene Diimide Derivative for Efficient Organic Solar Cells. Frontiers in Chemistry, 2021, 9, 703561.	1.8	15
1002	Transparent Electrodes with Enhanced Infrared Transmittance for Semitransparent and Four-Terminal Tandem Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 30497-30503.	4.0	11
1003	Facilitating the formation of SnO2 film via hydroxyl groups for efficient perovskite solar cells. Applied Surface Science, 2021, 552, 149459.	3.1	22
1004	Tailored Key Parameters of Perovskite for High-Performance Photovoltaics. Accounts of Materials Research, 2021, 2, 447-457.	5.9	5
1005	Recent Progress on Formamidiumâ€Dominated Perovskite Photovoltaics. Advanced Energy Materials, 2022, 12, 2100690.	10.2	45
1006	Current Development toward Commercialization of Metalâ€Halide Perovskite Photovoltaics. Advanced Optical Materials, 2021, 9, 2100390.	3.6	15
1007	In situ synthesis of g-C3N4 by glass-assisted annealing route to boost the efficiency of perovskite solar cells. Journal of Colloid and Interface Science, 2021, 591, 326-333.	5.0	17
1008	Highly Efficient and Thickness Insensitive Inverted Triple-Cation Perovskite Solar Cells Fabricated by Gas Pumping Method. Journal of Physical Chemistry Letters, 2021, 12, 5580-5586.	2.1	6
1009	Ternary Twoâ€Step Sequential Deposition Induced Perovskite Orientational Crystallization for Highâ€Performance Photovoltaic Devices. Advanced Energy Materials, 2021, 11, 2101538.	10.2	35
1010	Green antisolvent additive engineering to improve the performance of perovskite solar cells. Journal of Energy Chemistry, 2022, 66, 1-8.	7.1	42
1011	A Versatile Organic Salt Modified SnO 2 Electron Transport Layer for Highâ€Performance Perovskite Solar Cells. Advanced Materials Interfaces, 2021, 8, 2100582.	1.9	11
1012	Importance of methylammonium iodide partial pressure and evaporation onset for the growth of co-evaporated methylammonium lead iodide absorbers. Scientific Reports, 2021, 11, 15299.	1.6	15
1013	Up-Scalable Fabrication of SnO2 with Multifunctional Interface for High Performance Perovskite Solar Modules. Nano-Micro Letters, 2021, 13, 155.	14.4	40
1014	Bias-Dependent Dynamics of Degradation and Recovery in Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 6562-6573.	2.5	11
1015	Inorganic top electron transport layer for high performance inverted perovskite solar cells. EcoMat, 2021, 3, e12127.	6.8	26

#	Article	IF	Citations
1016	Carrier management makes perovskite solar cells approaching Shockley-Queisser limit. Science Bulletin, 2021, 66, 1372-1374.	4.3	12
1017	High Shunt Resistance SnO₂â€PbO Electron Transport Layer for Perovskite Solar Cells Used in Low Lighting Applications. Advanced Sustainable Systems, 2021, 5, 2100120.	2.7	36
1018	Interfacial Molecular Doping and Energy Level Alignment Regulation for Perovskite Solar Cells with Efficiency Exceeding 23%. ACS Energy Letters, 2021, 6, 2690-2696.	8.8	96
1019	Controlling the Defect Density of Perovskite Films by MXene/SnO₂ Hybrid Electron Transport Layers for Efficient and Stable Photovoltaics. Journal of Physical Chemistry C, 2021, 125, 15210-15222.	1.5	34
1020	A Sodium Chloride Modification of SnO₂ Electron Transport Layers to Enhance the Performance of Perovskite Solar Cells. ACS Omega, 2021, 6, 17880-17889.	1.6	29
1021	Room-temperature sputtered-SnO2 modified anode toward efficient TiO2-based planar perovskite solar cells. Science China Technological Sciences, 2021, 64, 1995-2002.	2.0	6
1022	Low temperature open-air plasma deposition of amorphous tin oxide for perovskite solar cells. Thin Solid Films, 2021, 730, 138708.	0.8	6
1023	1Dâ€2D Synergistic MXeneâ€Nanotubes Hybrids for Efficient Perovskite Solar Cells. Small, 2021, 17, e2101925.	5.2	34
1024	Mechanism of Enhancement in Perovskite Solar Cells by Organosulfur Amine Constructed 2D/3D Heterojunctions. Journal of Physical Chemistry C, 2021, 125, 16428-16434.	1.5	23
1025	Influence of the Curing and Annealing Temperatures on the Properties of Solution Processed Tin Oxide Thin Films. Crystals, 2021, 11, 851.	1.0	1
1026	Grain Size and Interface Modification via Cesium Carbonate Post-Treatment for Efficient SnO₂-Based Planar Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 7002-7011.	2.5	32
1027	An asymmetrically substituted dithieno[3,2-b:2â€²,3â€²-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
1028	Tailoring of a Phenothiazine Core for Electrical Conductivity and Thermal Stability: Hole-Selective Layers in Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 33311-33320.	4.0	20
1029	Decisive Role of Elevated Mobility in X55 and X60 Hole Transport Layers for High-Performance Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 7681-7690.	2.5	2
1030	Perspective on the band structure engineering and doping control of transparent conducting materials. Applied Physics Letters, 2021, 119, .	1.5	9
1031	Highly Crystallized Tin Dioxide Microwires toward Ultraviolet Photodetector and Humidity Sensor with High Performances. Advanced Electronic Materials, 2021, 7, 2100706.	2.6	16
1032	Recent Progress on Metal Halide Perovskite Solar Minimodules. Solar Rrl, 2022, 6, 2100458.	3.1	21
1033	Recent progress of flexible perovskite solar cells. Nano Today, 2021, 39, 101155.	6.2	61

#	Article	IF	Citations
1034	Significant performance enhancement of allâ€inorganic CsPbBr₃ perovskite solar cells enabled by Nbâ€doped SnO₂ as effective electron transport layer. Energy and Environmental Materials, 2021, 4, 671-680.	7.3	14
1035	Efficient Hole Transfer via CsPbBr₃ Quantum Dots Doping toward Highâ€Performance Organic Solar Cells. Solar Rrl, 2021, 5, 2100499.	3.1	3
1036	Photo-assisted Cl doping of SnO2 electron transport layer for hysteresis-less perovskite solar cells with enhanced efficiency. Rare Metals, 2022, 41, 361-367.	3.6	10
1037	In Situ Resolving the Atomic Reconstruction of SnO₂ (110) Surface. Nano Letters, 2021, 21, 7309-7316.	4.5	13
1038	Stabilization of formamidinium lead iodide perovskite precursor solution for blade-coating efficient carbon electrode perovskite solar cells*. Chinese Physics B, 2021, 30, 088803.	0.7	6
1039	Enhancing efficiency and stability of inverted structure perovskite solar cells with fullerene C60 doped PC61BM electron transport layer. Carbon, 2021, 180, 226-236.	5.4	19
1040	Multifunctional Molecule Engineered SnO₂ for Perovskite Solar Cells with High Efficiency and Reduced Lead Leakage. Solar Rrl, 2021, 5, 2100464.	3.1	26
1041	Incorporating EA+ into PbI2 film for stable multiple cations perovskite solar cells with negligible hysteresis. Solar Energy, 2021, 224, 868-874.	2.9	6
1042	Highly efficient wide-band-gap perovskite solar cells fabricated by sequential deposition method. Nano Energy, 2021, 86, 106114.	8.2	34
1043	Hole-Transport-Underlayer-Induced Crystallization Management of Two-Dimensional Perovskites for High-Performance Inverted Solar Cells. ACS Applied Energy Materials, 2021, 4, 10574-10583.	2.5	9
1044	Cesium Iodide Incorporation in Tin Oxide Electron Transport Layer for Defect Passivation and Efficiency Enhancement in Double Cation Absorberâ€Based Planar Perovskite Solar Cells. Energy Technology, 2021, 9, 2100492.	1.8	5
1045	Polycyclic Arenes Dihydrodinaphthopentaceneâ€based Holeâ€Transporting Materials for Perovskite Solar Cells Application. Chemistry - an Asian Journal, 2021, 16, 3719-3728.	1.7	6
1046	Defect reduction by anthraquinone-modified graphdiyne quantum dots for efficient perovskite solar cells. 2D Materials, 2021, 8, 044010.	2.0	6
1047	Perovskite Metalâ€“Oxideâ€“Semiconductor Structures for Interface Characterization. Advanced Materials Interfaces, 2021, 8, 2101004.	1.9	1
1048	Ï€â€Conjugated Small Molecules Modified SnO₂ Layer for Perovskite Solar Cells with over 23% Efficiency. Advanced Energy Materials, 2021, 11, 2101416.	10.2	84
1049	Mechanism of bifunctional p-amino benzenesulfonic acid modified interface in perovskite solar cells. Chemical Engineering Journal, 2021, 420, 129579.	6.6	44
1050	Boosting interfacial charge transfer by constructing rare earthâ€“doped WOx nanorods/SnO2 hybrid electron transport layer for efficient perovskite solar cells. Materials Today Energy, 2021, 21, 100724.	2.5	8
1051	Simple Method of Dual Passivation with Efficiency Beyond 20% for Fabricating Perovskite Solar Cells in the Full Ambient Air. ACS Sustainable Chemistry and Engineering, 2021, 9, 13010-13020.	3.2	9

#	Article	IF	Citations
1052	Amino-capped zinc oxide modified tin oxide electron transport layer for efficient perovskite solar cells. Cell Reports Physical Science, 2021, 2, 100590.	2.8	15
1053	Perovskite/Si tandem solar cells: Fundamentals, advances, challenges, and novel applications. SusMat, 2021, 1, 324-344.	7.8	70
1054	Design of Superhydrophobic Surfaces for Stable Perovskite Solar Cells with Reducing Lead Leakage. Advanced Energy Materials, 2021, 11, 2102281.	10.2	58
1055	Double-layered hole transport material of CuInS2/Spiro for highly efficient and stable perovskite solar cells. Organic Electronics, 2021, 96, 106249.	1.4	12
1056	Multiple-Function Surface Engineering of SnO₂ Nanoparticles to Achieve Efficient Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2021, 12, 9142-9148.	2.1	19
1057	MOFs based on the application and challenges of perovskite solar cells. IScience, 2021, 24, 103069.	1.9	27
1058	Organicâ€inorganic Perovskite Films and Efficient Planar Heterojunction Solar Cells by Magnetron Sputtering. Advanced Science, 2021, 8, e2102081.	5.6	19
1059	Analysis of Hybrid Hetero-Homo Junction Lead-Free Perovskite Solar Cells by SCAPS Simulator. Energies, 2021, 14, 5741.	1.6	33
1060	Simultaneous Improvement of the Power Conversion Efficiency and Stability of Perovskite Solar Cells by Doping PMMA Polymer in Spiroâ€OMeTADâ€Based Holeâ€Transporting Layer. Solar Rrl, 2021, 5, 2100408.	3.1	14
1061	Simultaneous Passivation of the SnO₂/Perovskite Interface and Perovskite Absorber Layer in Perovskite Solar Cells Using KF Surface Treatment. ACS Applied Energy Materials, 2021, 4, 10921-10930.	2.5	35
1062	Planar heterojunction boosts solar-driven photocatalytic performance and stability of halide perovskite solar photocatalyst cell. Applied Catalysis B: Environmental, 2022, 301, 120760.	10.8	33
1063	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
1064	A review on perovskite solar cells (PSCs), materials and applications. Journal of Materiomics, 2021, 7, 940-956.	2.8	111
1065	Interfacial-engineering enhanced performance and stability of ZnO nanowire-based perovskite solar cells. Nanotechnology, 2021, 32, 475204.	1.3	18
1066	Synergistic Effect of NiO and Spiro-OMeTAD for Hole Transfer in Perovskite Solar Cells. Journal of Electronic Materials, 2021, 50, 6512-6517.	1.0	5
1067	Hydrolysis-Regulated Chemical Bath Deposition of Tin-Oxide-Based Electron Transport Layers for Efficient Perovskite Solar Cells with a Reduced Potential Loss. Chemistry of Materials, 2021, 33, 8194-8204.	3.2	22
1068	Radical Form of PbI₂: A New Defect Passivator for Efficient Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 46627-46633.	4.0	7
1069	Advances in perovskite solar cells: Film morphology control and interface engineering. Journal of Cleaner Production, 2021, 317, 128368.	4.6	10

#	Article	IF	Citations
1070	Use of local density approximation within range separated hybrid exchangeâ€“correlation functional to investigate Pb doped SnO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e1360" altimg="si94.svg"><mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:math>. Physica B: Condensed Matter, 2021, 619, 413236.	1.3	2
1071	Outstanding performance of electron-transport-layer-free perovskite solar cells using a novel small-molecule interlayer modified FTO substrate. Chemical Engineering Journal, 2021, 422, 130001.	6.6	22
1072	Composite electrode based on single-atom Ni doped graphene for planar carbon-based perovskite solar cells. Materials and Design, 2021, 209, 109972.	3.3	21
1073	Additive effect of bromides and chlorides on the performance of perovskite solar cells fabricated via sequential deposition. Journal of Power Sources, 2021, 513, 230528.	4.0	4
1074	Organic nanocrystals induced surface passivation towards high-efficiency and stable perovskite solar cells. Nano Energy, 2021, 89, 106445.	8.2	19
1075	Controllable perovskite crystallization via platelet-like PbI2 films from water processing for efficient perovskite solar cells. Journal of Alloys and Compounds, 2021, 885, 160900.	2.8	5
1076	Quest for robust electron transporting materials towards efficient, hysteresis-free and stable perovskite solar cells. Renewable and Sustainable Energy Reviews, 2021, 152, 111689.	8.2	12
1077	Photostable electron-transport-layer-free flexible graphene quantum dots/perovskite solar cells by employing bathocuproine interlayer. Journal of Alloys and Compounds, 2021, 886, 161355.	2.8	10
1078	Over 23% power conversion efficiency of planar perovskite solar cells via bulk heterojunction design. Chemical Engineering Journal, 2021, 426, 131838.	6.6	18
1079	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
1080	Optimized crystallization and defect passivation with Yttrium (III) doped MAPbBr3 film for highly efficient and stable hole-transport-layer-free carbon-based perovskite solar cells. Journal of Alloys and Compounds, 2022, 890, 161909.	2.8	5
1081	Enlarging grain sizes for efficient perovskite solar cells by methylamine chloride assisted recrystallization. Journal of Energy Chemistry, 2022, 65, 55-61.	7.1	15
1082	Synergy of mesoporous SnO2 and RbF modification for high-efficiency and stable perovskite solar cells. Journal of Energy Chemistry, 2022, 66, 250-259.	7.1	29
1083	A strategic review on processing routes towards scalable fabrication of perovskite solar cells. Journal of Energy Chemistry, 2022, 64, 538-560.	7.1	33
1085	Operando structure degradation study of PbS quantum dot solar cells. Energy and Environmental Science, 2021, 14, 3420-3429.	15.6	17
1086	The effect of storage cycle on improvement in the photovoltaic parameters of planar triple cation perovskite solar cells. Materials Advances, 2021, 2, 5396-5405.	2.6	7
1087	Metal Oxides for Perovskite Solar Cells. , 2021, , 197-233.		3
1088	Amorphous inorganic semiconductors for the development of solar cell, photoelectrocatalytic and photocatalytic applications. Chemical Society Reviews, 2021, 50, 6914-6949.	18.7	91

#	Article	IF	Citations
1089	Different Degradation Mechanism of CH₃NH₃PbI₃Based Perovskite Solar Cells under Ultraviolet and Visible Light Illumination. Acta Chimica Sinica, 2021, 79, 344.	0.5	1
1090	Ligand-bridged charge extraction and enhanced quantum efficiency enable efficient nâ€“iâ€“p perovskite/silicon tandem solar cells. Energy and Environmental Science, 2021, 14, 4377-4390.	15.6	79
1091	Fabrication of anode and cathode layers for back-contact solar cells by microsphere lithography. Materials Today: Proceedings, 2021, , .	0.9	0
1092	Exploring the film growth in perovskite solar cells. Journal of Materials Chemistry A, 2021, 9, 6029-6049.	5.2	20
1093	Electron-transport-layer-free two-dimensional perovskite solar cells based on a flexible poly(3,4-ethylenedioxythiophene):poly(styrenesulfonate) cathode. Sustainable Energy and Fuels, 2021, 5, 2595-2601.	2.5	2
1094	A penetrated 2D/3D hybrid heterojunction for high-performance perovskite solar cells. Journal of Materials Chemistry A, 2021, 9, 23019-23027.	5.2	23
1095	Study of charge transfer mechanism and dielectric relaxation of all-inorganic perovskite CsSnCl₃. RSC Advances, 2021, 11, 21767-21780.	1.7	28
1096	A Nanomesh Electrode for Self-Driven Perovskite Photodetectors with Tunable Asymmetric Schottky Junctions. Nanoscale, 2021, 13, 17147-17155.	2.8	3
1097	A synergistic Cs₂CO₃ETL treatment to incorporate Cs cation into perovskite solar cellsviatwo-step scalable fabrication. Journal of Materials Chemistry C, 2021, 9, 4367-4377.	2.7	17
1098	Morphology control of SnO2 layer by solvent engineering for efficient perovskite solar cells. Solar Energy, 2021, 214, 280-287.	2.9	29
1099	Toward Perovskite Solar Cell Commercialization: A Perspective and Research Roadmap Based on Interfacial Engineering. Advanced Materials, 2018, 30, e1800455.	11.1	332
1100	Tailored Amphiphilic Molecular Mitigators for Stable Perovskite Solar Cells with 23.5% Efficiency. Advanced Materials, 2020, 32, e1907757.	11.1	303
1101	Electronâ€Beamâ€Evaporated Nickel Oxide Hole Transport Layers for Perovskiteâ€Based Photovoltaics. Advanced Energy Materials, 2019, 9, 1802995.	10.2	122
1102	Soft Templateâ€Controlled Growth of Highâ€Quality CsPbI₃ Films for Efficient and Stable Solar Cells. Advanced Energy Materials, 2020, 10, 1903751.	10.2	82
1103	Selfâ€Aggregationâ€Controlled Rapid Chemical Bath Deposition of SnO₂ Layers and Stable Dark Depolarization Process for Highly Efficient Planar Perovskite Solar Cells. ChemSusChem, 2020, 13, 4051-4063.	3.6	17
1104	Doped Bilayer Tin(IV) Oxide Electron Transport Layer for High Openâ€Circuit Voltage Planar Perovskite Solar Cells with Reduced Hysteresis. Small, 2021, 17, e2005671.	5.2	34
1105	Perovskiteâ€Based Nanocrystals: Synthesis and Applications beyond Solar Cells. Small Methods, 2018, 2, 1700380.	4.6	140
1106	All-Inorganic Perovskite Quantum Dots: Ligand Modification, Surface Treatment and Other Strategies for Enhanced Stability and Durability. Springer Series in Materials Science, 2020, , 51-106.	0.4	2

#	Article	IF	Citations
1107	Low-Temperature Growing Anatase TiO2/SnO2 Multi-dimensional Heterojunctions at MXene Conductive Network for High-Efficient Perovskite Solar Cells. Nano-Micro Letters, 2020, 12, 44.	14.4	76
1108	Enhanced photoluminescence quantum efficiency and stability of water assisted CsPbBr3 perovskite nanocrystals. Journal of Industrial and Engineering Chemistry, 2020, 88, 84-89.	2.9	20
1109	2D-Quasi-2D-3D Hierarchy Structure for Tin Perovskite Solar Cells with Enhanced Efficiency and Stability. Joule, 2018, 2, 2732-2743.	11.7	343
1110	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
1111	HI-assisted fabrication of Sn-doping TiO2 electron transfer layer for air-processed perovskite solar cells with high efficiency and stability. Solar Energy Materials and Solar Cells, 2020, 215, 110594.	3.0	17
1112	Planar pâ€“n homojunction perovskite solar cells with efficiency exceeding 21.3%. Nature Energy, 2019, 4, 150-159.	19.8	383
1113	Hysteresis-less and stable perovskite solar cells with a self-assembled monolayer. Communications Materials, 2020, 1, .	2.9	91
1114	Flexible and highly efficient perovskite solar cells with a large active area incorporating cobalt-doped poly(3-hexylthiophene) for enhanced open-circuit voltage. Journal of Materials Chemistry A, 2017, 5, 12158-12167.	5.2	54
1115	Enhanced charge collection with passivation of the tin oxide layer in planar perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 12729-12734.	5.2	103
1116	Effect of guanidinium chloride in eliminating O₂^{â”} electron extraction barrier on a SnO₂ surface to enhance the efficiency of perovskite solar cells. RSC Advances, 2020, 10, 19513-19520.	1.7	14
1117	Room-temperature processed high-quality SnO₂ films by oxygen plasma activated e-beam evaporation. Nanotechnology, 2021, 32, 025606.	1.3	6
1118	A 9% efficiency of flexible Mo-foil-based Cu₂ZnSn(S, Se)₄ solar cells by improving CdS buffer layer and heterojunction interface*. Chinese Physics B, 2020, 29, 128801.	0.7	11
1119	Synthesis of Sb(V) Complexes with Pyridyl Cations and Application for Lead-free Perovskite Solar Cells. Chemistry Letters, 2020, 49, 944-946.	0.7	1
1120	TiO₂/Mg-SnO₂ nanoparticle composite compact layer for enhancing the performance of perovskite solar cells. Optical Materials Express, 2020, 10, 157.	1.6	14
1121	Flexible transparent electrodes based on metallic microâ€“nano architectures for perovskite solar cells. Journal of Materials Chemistry C, 2022, 10, 2349-2363.	2.7	4
1122	Antimony trifluoride-incorporated SnO₂ for high-efficiency planar perovskite solar cells. Journal of Materials Chemistry C, 2021, 9, 15428-15434.	2.7	11
1123	Machine learning-guided search for high-efficiency perovskite solar cells with doped electron transport layers. Journal of Materials Chemistry A, 2021, 9, 25168-25177.	5.2	22
1124	Multifunctional Polymer Framework Modified SnO₂ Enabling a Photostable Î±-FAPbI₃ Perovskite Solar Cell with Efficiency Exceeding 23%. ACS Energy Letters, 2021, 6, 3824-3830.	8.8	93

#	Article	IF	Citations
1125	Alkali Metal Fluoride-Modified Tin Oxide for nâ€“iâ€“p Planar Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 50083-50092.	4.0	12
1126	Perovskite solar cells with atomically coherent interlayers on SnO2 electrodes. Nature, 2021, 598, 444-450.	13.7	2,065
1127	Emerging Perovskite Solar Cell Technology: Remedial Actions for the Foremost Challenges. Advanced Energy Materials, 2021, 11, .	10.2	40
1128	Room-Temperature-Grown amorphous Indium-Tin-Silicon-Oxide thin film as a new electron transporting layer for perovskite solar cells. Applied Surface Science, 2022, 581, 151570.	3.1	2
1129	Processing and Preparation Method for High-Quality Opto-Electronic Perovskite Film. Frontiers in Materials, 2021, 8, .	1.2	10
1130	Humidityâ€Induced Defectâ€Healing of Formamidiniumâ€Based Perovskite Films. Small, 2021, 17, e2104165.	5.2	10
1131	Li-Doped Chemical Bath Deposited SnO₂ Enables Efficient Perovskite Photovoltaics. ACS Applied Energy Materials, 2022, 5, 5340-5347.	2.5	9
1132	Stable perovskite solar cells with efficiency of 22.6% via quinoxaline-based polymeric hole transport material. Science China Chemistry, 2021, 64, 2035-2044.	4.2	28
1133	Degradation mechanisms of perovskite solar cells under vacuum and one atmosphere of nitrogen. Nature Energy, 2021, 6, 977-986.	19.8	103
1134	Light Intensity Analysis of Photovoltaic Parameters for Perovskite Solar Cells. Advanced Materials, 2022, 34, e2105920.	11.1	83
1135	Progress in flexible perovskite solar cells with improved efficiency. Journal of Semiconductors, 2021, 42, 101605.	2.0	16
1136	Photovoltaic green application of waste toner carbon on fully printable mesoscopic perovskite solar cells. Solar Energy, 2021, 228, 439-446.	2.9	5
1137	Performance enhancement through optimization of metal oxide electron transport layer in hybrid solar cell. Optik, 2021, 248, 168102.	1.4	3
1138	Efficient and Stable of Perovskite Optoelectronic Devices. , 2018, , .		0
1139	Progress in Pb-free and less-Pb organic-inorganic hybrid perovskite solar cells. Wuli Xuebao/Acta Physica Sinica, 2018, 67, 028801.	0.2	4
1140	Comparative Performance Study of Perovskite Solar Cell for Different Electron Transport Materials. Dhaka University Journal of Science, 2018, 66, 109-114.	0.1	1
1141	Impact of Electron Transport Layers (ETLs) and Hole Transport Layer (HTLs) on Perovskite Solar Cells Performance. , 2019, , 227-246.		1
1142	Perovskite light-emitting diodes based on n-type nanocrystalline silicon oxide electron injection layer. Wuli Xuebao/Acta Physica Sinica, 2019, 68, 128103.	0.2	0

#	Article	IF	Citations
1143	Efficient perovskite solar cells by using combustion SnO2 as electron transporting layer in low temperature. , 2019, , .		0
1144	Non-Epitaxial GaAs Heterojunction Nanowire Solar Cells (PVSC). , 2019, , .		1
1145	Alkali Metal Chlorideâ€Doped Waterâ€Based TiO₂ for Efficient and Stable Planar Perovskite Photovoltaics Exceeding 23% Efficiency. Small Methods, 2021, 5, e2100856.	4.6	19
1146	Performance Improvement of Perovskite Solar Cells by Using Ionic Liquid BMIMPF₆ as an Interface Modifier. ACS Applied Energy Materials, 2021, 4, 12421-12428.	2.5	16
1147	Phthalide and 1â€Iodooctadecane Synergistic Optimization for Highly Efficient and Stable Perovskite Solar Cells. Small, 2021, 17, e2103336.	5.2	23
1148	Highly efficient electron transport based on double-layered PC61BM in inverted perovskite solar cells. Organic Electronics, 2022, 100, 106391.	1.4	4
1149	Photon-Responsive Nanomaterials for Solar Cells. Springer Series in Materials Science, 2020, , 1-63.	0.4	0
1150	Optimization of SnO₂ electron transport layer for efficient planar perovskite solar cells with very low hysteresis. Materials Advances, 2022, 3, 456-466.	2.6	20
1151	Few-layer fluorine-functionalized graphene hole-selective contacts for efficient inverted perovskite solar cells. Chemical Engineering Journal, 2022, 430, 132831.	6.6	13
1152	Perovskite Self-Passivation with PCBM for Small Open-Circuit Voltage Loss. Energy and Power Engineering, 2020, 12, 257-272.	0.5	5
1153	Ion Migration in Metal Halide Perovskites Solar Cells. , 2020, , 1-32.		2
1154	Optimization of a SnO₂-Based Electron Transport Layer Using Zirconium Acetylacetonate for Efficient and Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 54579-54588.	4.0	11
1155	Rear Interface Engineering to Suppress Migration of Iodide Ions for Efficient Perovskite Solar Cells with Minimized Hysteresis. Advanced Functional Materials, 2022, 32, 2107823.	7.8	57
1156	High efficiency planar perovskite solar cell by surface disorder removal on mesoporous tin oxide. Surfaces and Interfaces, 2022, 28, 101584.	1.5	2
1157	Morphology controlled (CH3NH3)3Bi2Cl9 thin film for lead free perovskite solar cell. Physica B: Condensed Matter, 2022, 625, 413536.	1.3	8
1158	Dispersed SnO2 colloids using sodium dodecyl benzene sulfonate for high-performance planar perovskite solar cells. Solar Energy, 2021, 230, 747-753.	2.9	7
1159	Interface charge accumulation dynamics in 3D and quasi-2D perovskite solar cells. Journal Physics D: Applied Physics, 2021, 54, 014004.	1.3	1
1160	Heterostructure of CsPbBr3-CdS perovskite quantum dots for enhanced stability and charge transfer. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2022, 275, 115513.	1.7	12

#	Article	IF	Citations
1161	Exploring the growth of MAPbI₃ under different preparation methods for mesoporous perovskite solar cells. Functional Materials Letters, 2022, 15, .	0.7	1
1162	Updated Progresses in Perovskite Solar Cells. Chinese Physics Letters, 2021, 38, 107801.	1.3	11
1163	Significant phonon anharmonicity drives phase transitions in CsPbI3. Applied Physics Letters, 2021, 119, .	1.5	9
1164	Lead-free B-site bimetallic perovskite photocatalyst for efficient benzylic Câ€“H bond activation. Cell Reports Physical Science, 2021, 2, 100656.	2.8	32
1165	Monolithic Perovskite/Silicon-Heterojunction Tandem Solar Cells with Nanocrystalline Si/SiOx Tunnel Junction. Energies, 2021, 14, 7684.	1.6	7
1166	Phenethylamineâ€Based Interfacial Dipole Engineering for High V_{oc} Tripleâ€Cation Perovskite Solar Cells. Advanced Energy Materials, 2022, 12, 2102856.	10.2	25
1167	Quantum Dot Passivation of Halide Perovskite Films with Reduced Defects, Suppressed Phase Segregation, and Enhanced Stability. Advanced Science, 2022, 9, e2102258.	5.6	35
1168	Practical Demonstration of Deep-Ultraviolet Detection with Wearable and Self-Powered Halide Perovskite-Based Photodetector. ACS Applied Materials & Interfaces, 2021, 13, 57609-57618.	4.0	28
1169	Insight into the Interface Engineering of a SnO₂/FAPbI₃ Perovskite Using Lead Halide as an Interlayer: A First-Principles Study. Journal of Physical Chemistry Letters, 2021, 12, 11330-11338.	2.1	8
1170	Efficiency Improvement of Flexible Cu₂ZnSn(S,Se)₄ Solar Cells by Window Layer Interface Engineering. ACS Applied Energy Materials, 2021, 4, 14467-14475.	2.5	14
1171	Lowâ€Temperature Atomic Layer Deposited Electron Transport Layers for Coâ€Evaporated Perovskite Solar Cells. Solar Rrl, 2022, 6, 2100842.	3.1	16
1172	Corannulene-based hole-transporting material for efficient and stable perovskite solar cells. Cell Reports Physical Science, 2021, 2, 100662.	2.8	13
1173	3,5-Difluorophenylboronic acid-modified SnO2 as ETLs for perovskite solar cells: PCEÂ>Â22.3%, T82Â>Â3000Âh. Chemical Engineering Journal, 2022, 433, 133744.	6.6	22
1174	Hole transporting materials in inorganic CsPbI3â"Br solar cells: Fundamentals, criteria and opportunities. Materials Today, 2022, 52, 250-268.	8.3	20
1175	Unlocking Voltage Potentials of Mixedâ€Halide Perovskite Solar Cells via Phase Segregation Suppression. Advanced Functional Materials, 2022, 32, 2110698.	7.8	30
1176	Room-temperature multiple ligands-tailored SnO2 quantum dots endow in situ dual-interface binding for upscaling efficient perovskite photovoltaics with high VOC. Light: Science and Applications, 2021, 10, 239.	7.7	40
1177	Role of topological surface states and mirror symmetry in topological crystalline insulator SnTe as an efficient electrocatalyst. Nanoscale, 2021, 13, 18160-18172.	2.8	14
1178	The Role of Carbon Allotrope-Based Charge Transport Layers in Enhancing the Performance of Perovskite Solar Cells. , 2021, , 1-38.		0

#	Article	IF	Citations
1179	Effective surface passivation with 4-bromo-benzonitrile to enhance the performance of perovskite solar cells. Journal of Materials Chemistry C, 2021, 9, 17089-17098.	2.7	7
1180	A Compact Electron Transport Layer Using a Heated Tinâ€Oxide Colloidal Solution for Efficient Perovskite Solar Cells. Solar Rrl, 0, , 2100794.	3.1	2
1181	Size-tunable MoS₂nanosheets for controlling the crystal morphology and residual stress in sequentially deposited perovskite solar cells with over 22.5% efficiency. Journal of Materials Chemistry A, 2022, 10, 3605-3617.	5.2	15
1182	Characterization of Ti/SnO2 Interface by X-ray Photoelectron Spectroscopy. Nanomaterials, 2022, 12, 202.	1.9	1
1183	Properties of TiO2 Film Prepared by Anodization as Electron Transport Layer for Perovskite Solar Cells. International Journal of Electrochemical Science, 0, , ArticleID:220223.	0.5	0
1184	Effect of the substitution position and extending the conjugation in naphthalene-triphenylamine hole transport materials for perovskite solar cells. Synthetic Metals, 2022, 284, 116990.	2.1	4
1185	A tale of two organic small molecular hole transporting materials: Showing same extended shelf-life but very different efficiency of inverted MAPbI3 perovskite solar cells. Organic Electronics, 2022, 102, 106428.	1.4	3
1186	Recent progress in perovskite solar cells: challenges from efficiency to stability. Materials Today Chemistry, 2022, 23, 100686.	1.7	26
1187	Annealing free tin oxide electron transport layers for flexible perovskite solar cells. Nano Energy, 2022, 94, 106919.	8.2	29
1188	Artificial neural network modeling for potential performance enhancement of a planar perovskite solar cell with a novel TiO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e2458" altimg="si198.svg"><mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:math>/SnO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e2466" altimg="si198.svg"><mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:math>	2.5	5
1189	Structural correlations for increased FOM in Pb doped Zn2SnO4 nanostructured films for applications as transparent electrode. Journal of Alloys and Compounds, 2022, 900, 163531.	2.8	5
1190	An Excess Polymer-Assisted Crystal Growth Method for High Performance Perovskite Photodetector. SSRN Electronic Journal, 0, , .	0.4	0
1191	The effect of mechanically milled lead iodide powder on perovskite film morphology. Applied Physics A: Materials Science and Processing, 2022, 128, .	1.1	7
1192	Progress and Challenges of SnO₂ Electron Transport Layer for Perovskite Solar Cells: A Critical Review. Solar Rrl, 2022, 6, .	3.1	44
1193	Constructing Monolithic Perovskite/Organic Tandem Solar Cell with Efficiency of 22.0% via Reduced Openâ€Circuit Voltage Loss and Broadened Absorption Spectra. Advanced Materials, 2022, 34, e2108829.	11.1	56
1194	Leverage of Pyridine Isomer on Phenothiazine Core: Organic Semiconductors as Selective Layers in Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 5729-5739.	4.0	7
1195	1,8â€Octanediamine Dihydroiodideâ€Mediated Grain Boundary and Interface Passivation in Twoâ€Stepâ€Processed Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	6
1196	Simple strategies deployed for developing efficient and stable solution processed quantum dot solar cells. Materials Advances, 2022, 3, 2249-2267.	2.6	3

#	Article	IF	Citations
1197	Alleviating Interfacial Recombination of Heterojunction Electron Transport Layer via Oxygen Vacancy Engineering for Efficient Perovskite Solar Cells Over 23%. Energy and Environmental Materials, 2023, 6, .	7.3	4
1198	Effects of temperature-dependent burn-in decay on the performance of triple cation mixed halide perovskite solar cells. AIP Advances, 2022, 12, 015122.	0.6	6
1199	In Situ Formation of Î´-FAPbI₃ at the Perovskite/Carbon Interface for Enhanced Photovoltage of Printable Mesoscopic Perovskite Solar Cells. Chemistry of Materials, 2022, 34, 728-735.	3.2	24
1200	Eliminating Hysteresis of Perovskite Solar Cells with Hollow TiO2 Mesoporous Electron Transport Layer. Chemical Research in Chinese Universities, 2022, 38, 117-122.	1.3	10
1201	Tunable engineering of photo- and electro-induced carrier dynamics in perovskite photoelectronic devices. Science China Materials, 2022, 65, 855-875.	3.5	9
1202	5â€Chloroindole as Interface Modifier to Improve the Efficiency and Stability of Planar Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	9
1203	Conformal quantum dotâ€“SnO ₂ layers as electron transporters for efficient perovskite solar cells. Science, 2022, 375, 302-306.	6.0	872
1204	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
1205	Multifunctional Compoundâ€Regulated SnO₂ for Highâ€Efficiency and Stable Perovskite Solar Cells under Ambient Air. ChemElectroChem, 2022, 9, .	1.7	6
1206	Amplified Spontaneous Emission with a Low Threshold from Quasiâ€2D Perovskite Films via Phase Engineering and Surface Passivation. Advanced Optical Materials, 2022, 10, .	3.6	15
1207	Effects of potassium treatment on SnO2 electron transport layers for improvements of perovskite solar cells. Solar Energy, 2022, 233, 353-362.	2.9	18
1208	Grainâ€Boundariesâ€Engineering via Laser Manufactured Laâ€Doped BaSnO₃ Nanocrystals with Tailored Surface States Enabling Perovskite Solar Cells with Efficiency of 23.74%. Advanced Functional Materials, 2022, 32, 2112388.	7.8	16
1209	Harnessing chemical functions of ionic liquids for perovskite solar cells. Journal of Energy Chemistry, 2022, 68, 797-810.	7.1	17
1210	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
1211	Solution-processed Cu-doped SnO2 as an effective electron transporting layer for High-Performance planar perovskite solar cells. Applied Surface Science, 2022, 584, 152651.	3.1	15
1212	Self-boosting non-hydrolytic synthesis of Cl-passivated SnO2 nanocrystals for universal electron transport material of next-generation solar cells. Chemical Engineering Journal, 2022, 435, 134635.	6.6	5
1213	Bulky ammonium iodide and in-situ formed 2D Ruddlesden-Popper layer enhances the stability and efficiency of perovskite solar cells. Journal of Colloid and Interface Science, 2022, 614, 247-255.	5.0	12
1214	High-Performance Planar Perovskite Solar Cells with a Reduced Energy Barrier and Enhanced Charge Extraction via a Na₂WO₄-Modified SnO₂ Electron Transport Layer. ACS Applied Materials & Interfaces, 2022, 14, 7962-7971.	4.0	17

#	Article	IF	Citations
1215	Collaborative strengthening by multi-functional molecule 3-thiophenboric acid for efficient and stable planar perovskite solar cells. Chemical Engineering Journal, 2022, 436, 135134.	6.6	13
1216	Highâ€Polarizability Organic Ferroelectric Materials Doping for Enhancing the Builtâ€In Electric Field of Perovskite Solar Cells Realizing Efficiency over 24%. Advanced Materials, 2022, 34, e2110482.	11.1	65
1217	Self-assembled interlayer aiming at the stability of NiO based perovskite solar cells. Journal of Energy Chemistry, 2022, 69, 211-220.	7.1	20
1218	Review of Twoâ€Step Method for Lead Halide Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	44
1219	Synergetic effect of organic metal compound modified SnO2 in high performance perovskite solar cells. Solar Energy, 2022, 234, 170-178.	2.9	8
1220	Photoconductive NiOx hole transport layer for efficient perovskite solar cells. Chemical Engineering Journal, 2022, 435, 135140.	6.6	17
1221	Development of SnO2 Composites as Electron Transport Layer in Unencapsulated CH3NH3PbI3 Solar Cells. Solids, 2021, 2, 407-419.	1.1	4
1222	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
1223	A bilayer conducting polymer structure for planar perovskite solar cells with over 1,400â€‰hours operational stability at elevated temperatures. Nature Energy, 2022, 7, 144-152.	19.8	123
1224	All Green Solvent Engineering of Organic-Inorganic Hybrid Perovskite Layer for High-Performance Solar Cells. SSRN Electronic Journal, 0, , .	0.4	0
1225	Gradient Bandgap Design for Highly Efficient Electron Transport Layer-Free Perovskite Solar Cells. SSRN Electronic Journal, 0, , .	0.4	0
1226	Optoelectronic Modeling of All-Perovskite Tandem Solar Cells with Design Rules to Achieve >30% Efficiency. SSRN Electronic Journal, 0, , .	0.4	0
1227	Luminescence enhancement effects on nanostructured perovskite thin films for Er/Yb-doped solar cells. Nanoscale Advances, 2022, 4, 1786-1792.	2.2	2
1228	Improved efficiency of inverted planar perovskite solar cells with an ultrahigh work function doped polymer as an alternative hole transport layer. Journal of Materials Chemistry C, 2022, 10, 4411-4423.	2.7	2
1229	Potassium nitrilotriacetate as a multifunctional modifier of the buried interface for hysteresis-reduced perovskite solar cells. Chemical Communications, 2022, 58, 5638-5641.	2.2	7
1230	In Situ Growth of Bifunctional Modification Material for Highly Efficient Electron-Transport-Layer-Free Perovskite Solar Cells. SSRN Electronic Journal, 0, , .	0.4	0
1231	Exploring EDTA/SnO₂ Double-Layer Composite Electron Transport Layer for Perovskite Solar Cells. Wuli Xuebao/Acta Physica Sinica, 2022, .	0.2	0
1232	Selection of the ultimate perovskite solar cell materials and fabrication processes towards its industrialization: A review. Energy Science and Engineering, 2022, 10, 1478-1525.	1.9	9

#	Article	IF	Citations
1233	Semiâ€Planar Nonâ€Fullerene Molecules Enhance the Durability of Flexible Perovskite Solar Cells. Advanced Science, 2022, 9, e2105739.	5.6	31
1234	Molecularly Engineered Low-Cost Organic Hole-Transporting Materials for Perovskite Solar Cells: The Substituent Effect on Non-fused Three-Dimensional Systems. ACS Applied Energy Materials, 2022, 5, 3156-3165.	2.5	2
1235	Black Phosphorus Quantum Dot-Engineered Tin Oxide Electron Transport Layer for Highly Stable Perovskite Solar Cells with Negligible Hysteresis. ACS Applied Materials & Interfaces, 2022, 14, 11264-11272.	4.0	15
1236	Passivating the interface between halide perovskite and SnO2 by capsaicin to accelerate charge transfer and retard recombination. Applied Physics Letters, 2022, 120, .	1.5	4
1237	Effect of Steric Hindrance of Butylammonium Iodide as Interface Modification Materials on the Performance of Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	10
1238	Highly Efficient Large-Area Flexible Perovskite Solar Cells Containing Tin Oxide Vertical Nanopillars without Oxygen Vacancies. ACS Applied Energy Materials, 2022, 5, 3568-3577.	2.5	13
1239	Recent Advances on Tin Oxide Electron Transport Layer for High-Performance Perovskite Solar Cells. Ceramist, 2022, 25, 31-51.	0.0	0
1240	Room Temperature Fabrication of SnO₂ Electrodes Enabling Barrierâ€Free Electron Extraction for Efficient Flexible Perovskite Photovoltaics. Advanced Functional Materials, 2022, 32, .	7.8	42
1241	Lowâ€Temperatureâ€Processed Stable Perovskite Solar Cells and Modules: A Comprehensive Review. Advanced Energy Materials, 2022, 12, .	10.2	38
1242	Adenosine Triphosphate Disodium Modified Hole Transport Layer for Efficient Inverted Perovskite Solar Cells. ChemNanoMat, 2022, 8, .	1.5	2
1243	Yttriumâ€doped <scp>Sn₃O₄ twoâ€dimensional</scp> electron transport material for perovskite solar cells with efficiency over 23%. EcoMat, 2022, 4, .	6.8	16
1244	Hybrid Organicâ€“Inorganic Perovskite Halide Materials for Photovoltaics towards Their Commercialization. Polymers, 2022, 14, 1059.	2.0	18
1245	Nitrogenâ€doped tin oxide electron transport layer for stable perovskite solar cells with efficiency over 23%. , 2022, 1, 309-315.		47
1246	Delineation and Passivation of Grainâ€Boundary Channels in Metal Halide Perovskite Thin Films for Solar Cells. Advanced Materials Interfaces, 2022, 9, .	1.9	4
1247	Suppressing charge recombination in planar perovskite solar cells by using SnO2/TiO2 nanocomposite as electron transfer layer. Applied Physics Letters, 2022, 120, .	1.5	6
1248	Flexible Perovskite Solar Cells: From Materials and Device Architectures to Applications. ACS Energy Letters, 2022, 7, 1412-1445.	8.8	54
1249	Ultrathin SnO₂ Buffer Layer Aids in Interface and Band Engineering for Sb₂(S,Se)₃ Solar Cells with over 8% Efficiency. ACS Applied Energy Materials, 2022, 5, 3022-3033.	2.5	13
1250	Interface Modification with CuCrO₂ Nanocrystals for Highly Efficient and Stable Planar Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 13352-13360.	4.0	15

#	Article	IF	Citations
1251	Pressure-Assisted Space-Confinement Strategy to Eliminate PbI₂ in Perovskite Layers toward Improved Operational Stability. ACS Applied Materials & Interfaces, 2022, 14, 12442-12449.	4.0	6
1252	SnO₂ Quantum Dot-Modified Mesoporous TiO₂ Electron Transport Layer for Efficient and Stable Perovskite Solar Cells. ACS Applied Energy Materials, 2022, 5, 3052-3063.	2.5	18
1253	Advances in SnO₂ for Efficient and Stable nâ€“iâ€“p Perovskite Solar Cells. Advanced Materials, 2022, 34, e2110438.	11.1	186
1254	Differentiated Functions of Potassium Interface Passivation and Doping on Charge-Carrier Dynamics in Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2022, 13, 3188-3196.	2.1	17
1255	Highly efficient and stable perovskite solar cells induced by novel bulk organosulfur ammonium. Materials Today Energy, 2022, 26, 101004.	2.5	7
1256	Multifunctional zwitterion modified SnO2 nanoparticles for efficient and stable planar perovskite solar cells. Organic Electronics, 2022, 106, 106519.	1.4	5
1257	Evaluation of the resistance of halide perovskite solar cells to high energy proton irradiation for space applications. Solar Energy Materials and Solar Cells, 2022, 238, 111644.	3.0	9
1258	Multifunctional nanostructured host-guest POM@MOF with lead sequestration capability induced stable and efficient perovskite solar cells. Nano Energy, 2022, 97, 107184.	8.2	37
1259	All green solvent engineering of organicâ€“inorganic hybrid perovskite layer for high-performance solar cells. Chemical Engineering Journal, 2022, 437, 135458.	6.6	28
1260	Stronger binding force improving surface passivation of perovskites for High-Performance inverted solar cells. Chemical Engineering Journal, 2022, 440, 135974.	6.6	18
1261	Modification of SnO2 electron transport Layer: Brilliant strategies to make perovskite solar cells stronger. Chemical Engineering Journal, 2022, 439, 135687.	6.6	40
1262	Inkjet-Printed Electron Transport Layers for Perovskite Solar Cells. Materials, 2021, 14, 7525.	1.3	4
1263	Roomâ€Temperature Spray Deposition of Largeâ€Area SnO₂ Electron Transport Layer for High Performance, Stable FAPbI₃â€Based Perovskite Solar Cells. Small Methods, 2022, 6, e2101127.	4.6	22
1264	Understanding the Origin of the Hysteresis of High-Performance Solution Processed Polycrystalline SnO2 Thin-Film Transistors and Applications to Circuits. Membranes, 2022, 12, 7.	1.4	8
1265	Modification of SnO₂ with Phosphorusâ€Containing Lewis Acid for Highâ€Performance Planar Perovskite Solar Cells with Negligible Hysteresis. Solar Rrl, 2022, 6, .	3.1	17
1266	Perovskite Bifunctional Diode with High Photovoltaic and Electroluminescent Performance by Holistic Defect Passivation. Small, 2022, 18, e2105196.	5.2	9
1267	Evolution of defects during the degradation of metal halide perovskite solar cells under reverse bias and illumination. Nature Energy, 2022, 7, 65-73.	19.8	158
1268	Efficient FAPbI3 perovskite solar cells using PMACl additives in two-step deposition method. , 2021, , .		0

#	Article	IF	Citations
1269	Enhanced charge dynamics via V-doped SnO2 combined with interface functionalization for perovskite solar cells. Applied Physics Letters, 2021, 119, .	1.5	1
1270	Mode-locking operation of an Er-doped fiber laser with (PEA)₂(CsPbBr₃)_{nâ^'1}PbBr₄ perovskite saturable absorbers. Journal of Materials Chemistry C, 2022, 10, 7504-7510.	2.7	6
1271	Solvent-assisted preparation of low-temperature SnO₂ electron transport layers for efficient and stable perovskite solar cells made in ambient conditions. New Journal of Chemistry, 2022, 46, 9841-9850.	1.4	5
1272	Recordâ€Efficiency Flexible Perovskite Solar Cells Enabled by Multifunctional Organic Ions Interface Passivation. Advanced Materials, 2022, 34, e2201681.	11.1	186
1273	Synthesis of Cu-doped ZnO for bulk heterojunction hybrid solar cells. Chemical Papers, 2022, 76, 4743-4748.	1.0	1
1274	Enhanced hydrothermal heterogeneous deposition with surfactant additives for efficient Sb2S3 solar cells. Chemical Engineering Journal, 2022, 446, 136474.	6.6	18
1275	Buried Interface Modification in Perovskite Solar Cells: A Materials Perspective. Advanced Energy Materials, 2022, 12, .	10.2	87
1276	Managing interfacial properties of planar perovskite solar cells using Y3N@C80 endohedral metallofullerene. Science China Materials, 2022, 65, 2325-2334.	3.5	5
1277	Sputtered SnO₂ as an interlayer for efficient semitransparent perovskite solar cells. Chinese Physics B, 2022, 31, 118801.	0.7	3
1278	Environmentally Friendly AgBiS₂ Nanocrystal Inks for Efficient Solar Cells Employing Green Solvent Processing. Advanced Energy Materials, 2022, 12, .	10.2	13
1280	Exploring dopant effects in stannic oxide nanoparticles for CO2 electro-reduction to formate. Nature Communications, 2022, 13, 2205.	5.8	61
1281	Single-crystalline TiO2 nanoparticles for stable and efficient perovskite modules. Nature Nanotechnology, 2022, 17, 598-605.	15.6	121
1282	Photovoltaic properties and microstructures of polysilane-added perovskite solar cells. , 0, , .		2
1283	A facile strategy to adjust SnO₂/perovskite interfacial properties for high-efficiency perovskite solar cells. Journal of Materials Chemistry C, 2022, 10, 8414-8421.	2.7	11
1284	Tailoring the Interface in High Performance Planar Perovskite Solar Cell by ZnOS Thin Film. ACS Applied Energy Materials, 2022, 5, 5680-5690.	2.5	9
1285	Stress and Defect Effects on Electron Transport Properties at SnO₂/Perovskite Interfaces: A First-Principles Insight. ACS Omega, 2022, 7, 16187-16196.	1.6	4
1286	Recent Progress of Electrode Materials for Flexible Perovskite Solar Cells. Nano-Micro Letters, 2022, 14, 117.	14.4	68
1287	Organicâ€"Inorganic Hybrid Electron Transport Layer for Rigid or Flexible Perovskite Solar Cells under Ambient Conditions. ACS Sustainable Chemistry and Engineering, 2022, 10, 6826-6834.	3.2	5

#	Article	IF	Citations
1288	Highly-Crystalline SnO₂ Thin Films for Efficient Planar Perovskite Solar Cells. ACS Applied Energy Materials, 2022, 5, 5704-5710.	2.5	3
1289	Selective band amplification in ultra-broadband superimposed quantum dot reflective semiconductor optical amplifiers. Applied Optics, 2022, 61, 4509.	0.9	3
1290	Ambient air processed highly oriented perovskite solar cells with efficiency exceeding 23% via amorphous intermediate. Chemical Engineering Journal, 2022, 446, 136968.	6.6	22
1291	A Novel 4,4â€™-Bipiperidine-Based Organic Salt for Efficient and Stable 2D-3D Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 22324-22331.	4.0	6
1292	Systematic Study of Perovskite Layers if Doped with Strong Oxidants. Solar Rrl, 0, , 2200159.	3.1	1
1293	Flexible perovskite solar cells: Material selection and structure design. Applied Physics Reviews, 2022, 9, .	5.5	19
1294	Optoelectronic modeling of all-perovskite tandem solar cells with design rules to achieve >30% efficiency. Solar Energy Materials and Solar Cells, 2022, 242, 111780.	3.0	13
1295	An efficient and stable lead-free organicâ€“inorganic tin iodide perovskite for photovoltaic device: Progress and challenges. Energy Reports, 2022, 8, 5753-5763.	2.5	14
1296	Ionic Liquid Engineering in Perovskite Photovoltaics. Energy and Environmental Materials, 2023, 6, .	7.3	18
1297	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
1298	Embedding SnO₂ Thin Shell Protected Ag Nanowires in SnO₂ ETL to Enhance the Performance of Perovskite Solar Cells. Langmuir, 2022, 38, 6752-6760.	1.6	8
1299	A Perspective on Perovskite Solar Cells: Emergence, Progress, and Commercialization. Frontiers in Chemistry, 2022, 10, 802890.	1.8	14
1300	In Situ Growth of Bifunctional Modification Material for Highly Efficient Electron-Transport-Layer-Free Perovskite Solar Cells. New Journal of Chemistry, 0, , .	1.4	0
1301	A dielectric study of Br-doped lead-free methylammonium bismuth chloride (CH3NH3)3Bi2BrxCl9â^'x. Applied Physics A: Materials Science and Processing, 2022, 128, .	1.1	1
1302	Toward Efficient Perovskite Solar Cells: Progress, Strategies, and Perspectives. ACS Energy Letters, 2022, 7, 2084-2091.	8.8	68
1303	Crackâ€Free Monolayer Graphene Interlayer for Improving Perovskite Crystallinity and Energy Level Alignment in Efficient Inverted Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	4
1304	Covalent Organic Framework Nanoplates Enable Solution-Processed Crystalline Nanofilms for Photoelectrochemical Hydrogen Evolution. Journal of the American Chemical Society, 2022, 144, 10291-10300.	6.6	33
1305	Plasmonic Local Electric Field-Enhanced Interface toward High-Efficiency Cu₂ZnSn(S,Se)₄ Thin-Film Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 26690-26698.	4.0	4

#	Article	IF	Citations
1306	Ionic liquid-mediated reconstruction of perovskite surface for highly efficient photovoltaics. Chemical Engineering Journal, 2022, 446, 137351.	6.6	5
1307	Metal oxide sol annealing on perovskite MAPbI3 film with thermal stability enhanced by caffeine additive and PMMA interlayer. Journal of Materials Science, 2022, 57, 10242-10259.	1.7	1
1308	Recent Progress in AC-Driven Organic and Perovskite Electroluminescent Devices. ACS Photonics, 2022, 9, 1852-1874.	3.2	9
1309	Solution-Processed Cu:SnO₂ as an Efficient Electron Transport Layer for Fabrication of Low-Temperature Planar Perovskite Solar Cell Under Ambient Conditions. IEEE Journal of Photovoltaics, 2022, 12, 1162-1169.	1.5	1
1310	Organic ammonium chloride salt incorporated SnO₂ electron transport layers for improving the performance of perovskite solar cells. Sustainable Energy and Fuels, 0, , .	2.5	2
1311	High-performance Ruddlesdenâ€“Popper two-dimensional perovskite solar cells via solution processed inorganic charge transport layers. Physical Chemistry Chemical Physics, 2022, 24, 15912-15919.	1.3	6
1312	Dual Effect of Superhalogen Ionic Liquids Ensures Efficient Carrier Transport for Highly Efficient and Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 28826-28833.	4.0	9
1313	Evolution of the Electronic Traps in Perovskite Photovoltaics during 1000 h at 85 Â°C. ACS Applied Energy Materials, 2022, 5, 7192-7198.	2.5	13
1314	Zwitterionâ€Functionalized SnO₂ Substrate Induced Sequential Deposition of Blackâ€Phase FAPbI₃ with Rearranged PbI₂ Residue. Advanced Materials, 2022, 34, .	11.1	75
1315	Dual-quantum-dots heterostructure with confined active interface for promoted photocatalytic NO abatement. Journal of Hazardous Materials, 2022, 438, 129463.	6.5	10
1316	Toward <scp>allâ€inorganic</scp> perovskite solar cells: Materials, performance, and stability. International Journal of Energy Research, 2022, 46, 14659-14695.	2.2	8
1320	Lowâ€Temperature, Scalable, Reactive Deposition of Tin Oxide for Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	3
1321	TowardÂup-scaling the four-terminal all-perovskite tandem solar modules on flexible substrates. Materials Today Energy, 2022, 28, 101073.	2.5	5
1322	Ni-Doped SnO₂ as an Electron Transport Layer by a Low-Temperature Process in Planar Perovskite Solar Cells. ACS Omega, 2022, 7, 22256-22262.	1.6	5
1323	In-situ peptization of WO3 in alkaline SnO2 colloid for stable perovskite solar cells with record fill-factor approaching the shockleyâ€“queisser limit. Nano Energy, 2022, 100, 107468.	8.2	29
1324	Perovskite Quantum Dots for Emerging Displays: Recent Progress and Perspectives. Nanomaterials, 2022, 12, 2243.	1.9	30
1325	SnO2 modified mesoporous ZrO2 as efficient electron-transport layer for carbon-electrode based, low-temperature mesoscopic perovskite solar cells. Applied Physics Letters, 2022, 120, .	1.5	6
1326	Electron transport mechanism in colloidal SnO₂ nanoparticle films and its implications for quantum-dot light-emitting diodes. Journal Physics D: Applied Physics, 2022, 55, 374004.	1.3	8

#	Article	IF	Citations
1327	Frequency and temperature-dependent dielectric characteristics of lead-free Br doped perovskites (CH3NH3)3Bi2Cl9 and (CH3NH3)3Bi2BrxCl9-x. Materials Today: Proceedings, 2022, 66, 3302-3306.	0.9	0
1328	Preparation of <scp> CuCr _{1â^'} </scp> _x <scp>Ga</scp> _x <scp> O ₂ </scp> (0 â‰ x â‰â€‰1) nanocrystals for inorganic hole conductor of inverted. Bulletin of the Korean Chemical Society, 0, , .	1.0	2
1329	Stability of perovskite materials and devices. Materials Today, 2022, 58, 275-296.	8.3	35
1330	Polarized Molecule 4-(Aminomethyl) Benzonitrile Hydrochloride for Efficient and Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 33383-33391.	4.0	7
1331	A biomineralization-inspired strategy of self-encapsulation for perovskite solar cells. Nano Energy, 2022, 101, 107575.	8.2	10
1332	Multifunctional molecule of potassium nonafluoro-1-butanesulfonate for high-efficient perovskite solar cells. Chemical Engineering Journal, 2022, 449, 137851.	6.6	24
1333	All-Back-Contact Perovskite Solar Cells Using Cracked Film Lithography. ACS Applied Energy Materials, 2022, 5, 9273-9279.	2.5	5
1334	Titanium Dioxide (TiO2) Sensitized Zinc Oxide (ZnO)/Conducting Polymer Nanocomposites for Improving Performance of Hybrid Flexible Solar Cells. Journal of Electronic Materials, 2022, 51, 5986-6001.	1.0	5
1335	9.3% Efficient Flexible Cu₂ZnSn(S,Se)₄ Solar Cells with Highâ€Quality Interfaces via Ultrathin CdS and Zn_{0.8}Sn_{0.2}O Buffer Layers. Energy Technology, 2022, 10, .	1.8	5
1336	Inactive (PbI ₂) ₂ RbCl stabilizes perovskite films for efficient solar cells. Science, 2022, 377, 531-534.	6.0	623
1337	24.8%-efficient planar perovskite solar cells via ligand-engineered TiO2 deposition. Joule, 2022, 6, 2186-2202.	11.7	44
1338	Multifunctional Crystal Regulation Enables Efficient and Stable Skyâ€Blue Perovskite Lightâ€Emitting Diodes. Advanced Functional Materials, 2022, 32, .	7.8	51
1339	Ultravioletâ€Assisted Perovskite Crystallization for Highâ€Performance Solar Cells. Solar Rrl, 2022, 6, .	3.1	3
1340	Enhanced Efficiency and Stability of nâ€iâ€p Perovskite Solar Cells by Incorporation of Fluorinated Graphene in the Spiroâ€OMeTAD Hole Transport Layer. Advanced Energy Materials, 2022, 12, .	10.2	41
1341	Dipâ€Coated SnO ₂ Electron Transport Layer for Efficient and Stable PbS Quantum Dot Photovoltaics. Solar Rrl, 0, , 2200488.	3.1	2
1342	Progress of Solution-Processed Metal Oxides as Charge Transport Layers towards Efficient and Stable Perovskite Solar Cells and Modules. Materials Today Nano, 2022, , 100252.	2.3	2
1343	Thermodynamic Factor for Facilitating Homogeneous Dendrite Growth in Alkali Metal Batteries. Advanced Energy Materials, 2022, 12, .	10.2	12
1344	Electron Transport Layer-Free Ruddlesdenâ€“Popper Two-Dimensional Perovskite Solar Cells Enabled by Tuning the Work Function of Fluorine-Doped Tin Oxide Electrodes. Crystals, 2022, 12, 1090.	1.0	0

#	Article	IF	Citations
1345	Thermally induced failure mechanisms in double and triple cations perovskite solar cells. AIP Advances, 2022, 12, .	0.6	2
1346	Back-contact perovskite solar cell fabrication via microsphere lithography. Nano Energy, 2022, 102, 107695.	8.2	1
1347	Electrospun Networks of ZnO-SnO2 Composite Nanowires as Electron Transport Materials for Perovskite Solar Cells. Journal of Nanomaterials, 2022, 2022, 1-13.	1.5	3
1348	Multi-functional L-histidine self-assembled monolayers on SnO2 electron transport layer to boost photovoltaic performance of perovskite solar cells. Electrochimica Acta, 2022, 428, 140930.	2.6	5
1349	Gadolinium-doped SnO2 electron transfer layer for highly efficient planar perovskite solar cells. Journal of Power Sources, 2022, 544, 231870.	4.0	17
1350	3-Chloroperoxybenzoic acid doping spiroOMeTAD for improving the performance of perovskite solar cells. Chemical Engineering Journal, 2022, 450, 138313.	6.6	29
1351	A General Large-Scale Fabrication of Tin Oxide with Interfacial Engineering via Trichloropropylsilane for Hysteresis-Free MAPbI3 Perovskite Solar Cells Exceeding 20% PCE. Bulletin of the Chemical Society of Japan, 2022, 95, 1506-1514.	2.0	2
1352	Effect of Fullerene Derivatives on the Lifetime Characteristics and the Stability of Inverted Perovskite Solar Cells. Materials Transactions, 2022, 63, 1484-1488.	0.4	0
1353	The influence of top electrode work function on the performance of methylammonium lead iodide based perovskite solar cells having various electron transport layers. Chemical Physics Letters, 2022, 806, 140009.	1.2	8
1354	Artificial neural network for predicting annual output energy of building-integrated photovoltaics based on the 2-terminal perovskite/silicon tandem cells under realistic conditions. Energy Reports, 2022, 8, 10819-10832.	2.5	5
1355	A full range of defect passivation strategy targeting efficient and stable planar perovskite solar cells. Chemical Engineering Journal, 2023, 451, 138800.	6.6	13
1356	CsPbBr3 seeds improve crystallization and energy level alignment for highly efficient CsPbI3 perovskite solar cells. Chemical Engineering Journal, 2023, 452, 139292.	6.6	18
1357	2, 3, 4, 5, 6-Pentafluorophenylammonium bromide-based double-sided interface engineering for efficient planar heterojunction perovskite solar cells. Chemical Engineering Journal, 2023, 452, 139308.	6.6	13
1358	Hole transport free carbon-based high thermal stability CsPbI_{1.2}Br_{1.8} solar cells with an amorphous InGaZnO₄ electron transport layer. Physical Chemistry Chemical Physics, 2022, 24, 18896-18904.	1.3	2
1359	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
1360	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
1361	Unveiling the Dimensional Effects of Sno2 Electron Conductor on the Interfacial Properties of Perovskite Solar Cells. SSRN Electronic Journal, 0, , .	0.4	0
1362	Metal oxide charge transporting layers for stable high-performance perovskite solar cells. CrystEngComm, 2022, 24, 7229-7249.	1.3	2

#	Article	IF	Citations
1363	Inhibiting lattice distortion of CsPbI₃ perovskite quantum dots for solar cells with efficiency over 16.6%. Energy and Environmental Science, 2022, 15, 4201-4212.	15.6	32
1364	Na2S decorated NiOx as effective hole transport layer for inverted planar perovskite solar cells. Materials Science in Semiconductor Processing, 2023, 153, 107107.	1.9	5
1365	Degradation pathways in perovskite solar cells and how to meet international standards. Communications Materials, 2022, 3, .	2.9	64
1366	Thermal Annealing-Free SnO₂ for Fully Room-Temperature-Processed Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 41037-41044.	4.0	5
1367	Strategy of Enhancing Builtâ€in Field to Promote the Application of Câ€TiO₂/SnO₂ Bilayer Electron Transport Layer in Highâ€Efficiency Perovskite Solar Cells (24.3%). Small, 2022, 18, .	5.2	16
1368	Efficient and Stable Perovskite Solar Cells with a High Openâ€Circuit Voltage Over 1.2ÂV Achieved by a Dualâ€Side Passivation Layer. Advanced Materials, 2022, 34, .	11.1	20
1369	Dualâ€Interfaceâ€Reinforced Flexible Perovskite Solar Cells for Enhanced Performance and Mechanical Reliability. Advanced Materials, 2022, 34, .	11.1	32
1370	F-doping-Enhanced Carrier Transport in the SnO₂/Perovskite Interface for High-Performance Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 42093-42101.	4.0	19
1371	Metal Electrode-Free Halide Perovskite-Based Flexible Ultraviolet-C Photodetector with Large Area. Nanoscale Research Letters, 2022, 17, .	3.1	2
1372	Improved Absorber Phase Stability, Performance, and Lifetime in Inorganic Perovskite Solar Cells with Alkyltrimethoxysilane Strain-Release Layers at the Perovskite/TiO₂ Interface. ACS Energy Letters, 2022, 7, 3531-3538.	8.8	17
1373	Improvement of Openâ€Circuit Voltage Deficit via Preâ€Treated NH₄⁺ Ion Modification of Interface between SnO₂ and Perovskite Solar Cells. Small, 2022, 18, .	5.2	8
1374	Dual Function Modification of Cs2CO3 for Efficient Perovskite Solar Cells. Nanomaterials, 2022, 12, 3144.	1.9	0
1375	Transporting holes stably under iodide invasion in efficient perovskite solar cells. Science, 2022, 377, 1227-1232.	6.0	75
1376	Low-voltage-modulated perovskite/organic dual-band photodetectors for visible and near-infrared imaging. Science Bulletin, 2022, 67, 1982-1990.	4.3	9
1377	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
1378	Scalable Twoâ€Step Production of Highâ€Efficiency Perovskite Solar Cells and Modules. Solar Rrl, 2023, 7, .	3.1	14
1379	Grain Boundary Passivation Using D131 Organic Dye Molecule for Efficient and Thermally Stable Perovskite Solar Cells. ACS Sustainable Chemistry and Engineering, 2022, 10, 13825-13834.	3.2	12
1380	The Design of SnO₂â€Dominated Electron Transport Layer for Highâ€Efficiency Sb₂(S,Se)₃ Solar Cells. Physica Status Solidi (A) Applications and Materials Science, 2022, 219, .	0.8	2

#	Article	IF	Citations
1381	Organic-inorganic hybrid electron transport layer of PVP-doped SnO2 for high-efficiency stable perovskite solar cells. Solar Energy Materials and Solar Cells, 2022, 248, 112032.	3.0	6
1382	Passivation and energy-level change of the SnO2 electron transport layer by reactive titania for perovskite solar cells. Journal of Alloys and Compounds, 2022, 929, 167349.	2.8	9
1383	Performance limitations imposed by the TCO heterojunction in high efficiency perovskite solar cells. Energy and Environmental Science, 2022, 15, 5202-5216.	15.6	7
1384	Chemical reactivity at Sn/CuO interface investigated by X-ray photoelectron spectroscopy. Vacuum, 2023, 207, 111598.	1.6	3
1385	Understanding the Space-Charge Layer in SnO₂ for Enhanced Electron Extraction in Hybrid Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 48229-48239.	4.0	1
1387	Low-Temperature Processed Brookite Interfacial Modification for Perovskite Solar Cells with Improved Performance. Nanomaterials, 2022, 12, 3653.	1.9	1
1388	Manipulating the Migration of Iodine Ions via Reverseâ€Biasing for Boosting Photovoltaic Performance of Perovskite Solar Cells. Advanced Science, 2022, 9, .	5.6	13
1389	Hybrid Block Copolymer/Perovskite Heterointerfaces for Efficient Solar Cells. Advanced Materials, 2023, 35, .	11.1	14
1390	A Thiourea Competitive Crystallization Strategy for FAâ€Based Perovskite Solar Cells. Advanced Functional Materials, 2022, 32, .	7.8	25
1391	Research Progress of Buffer Layer and Encapsulation Layer Prepared by Atomic Layer Deposition to Improve the Stability of Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	5
1392	Photo-dynamics in 2D materials: Processes, tunability and device applications. Physics Reports, 2022, 993, 1-70.	10.3	4
1393	Surface defect-induced electronic structures of lead-free Cs2AgBiBr6 double-perovskite for efficiently solar-driven photocatalytic performance. Applied Surface Science, 2023, 609, 155446.	3.1	15
1394	Sprayed and mechanical-modified graphite layer as transferred electrode for high-efficiency perovskite solar cells. Carbon, 2023, 202, 161-166.	5.4	8
1395	Cuttingâ€Edge Studies Toward Commercialization of Large Area Solutionâ€Processed Perovskite Solar Cells. Advanced Materials Technologies, 2023, 8, .	3.0	4
1396	Cathode Buffer Layer for Energyâ€Level Matching and Interface Passivation. Solar Rrl, 2023, 7, .	3.1	3
1397	Recent progress in perovskite solar cells: from device to commercialization. Science China Chemistry, 2022, 65, 2369-2416.	4.2	53
1398	High-quality all-inorganic CsPbI2Br thin films derived from phase-pure intermediate for efficient wide-bandgap perovskite solar cells. Journal of Solid State Chemistry, 2023, 317, 123728.	1.4	6
1399	Simultaneous Surface Modification and Defect Passivation on Tin Oxideâ€“Perovskite Interfaces using Pseudohalide Salt of Sodium Tetrafluoroborate. Solar Rrl, 2023, 7, .	3.1	6

#	Article	IF	Citations
1400	Defect engineering of metal halide perovskite optoelectronic devices. Progress in Quantum Electronics, 2022, 86, 100438.	3.5	4
1401	Recent progress of scalable perovskite solar cells and modules. , 2022, 1, 100010.		14
1402	Recent review of interfacial engineering for perovskite solar cells: effect of functional groups on the stability and efficiency. Materials Today Chemistry, 2022, 26, 101224.	1.7	8
1403	Room-temperature electrochemically deposited polycrystalline SnO₂ with adjustable work function for high-efficiency perovskite solar cells. Journal of Materials Chemistry A, 2023, 11, 901-913.	5.2	11
1404	Effective defect passivation with a designer ionic molecule for high-efficiency vapour-deposited inorganic phase-pure CsPbBr₃ perovskite solar cells. Journal of Materials Chemistry A, 2022, 11, 408-418.	5.2	10
1405	Over 25% efficiency and stable bromine-free RbCsFAMA-based quadruple cation perovskite solar cells enabled by an aromatic zwitterion. Journal of Materials Chemistry A, 2023, 11, 1170-1179.	5.2	12
1406	Impact of diethylene glycol chains on indolo [3,2-b]indole based small molecule as dopant-free hole transporting materials for efficient and stable inverted perovskite solar cells. Organic Electronics, 2023, 113, 106719.	1.4	1
1407	Stabilizing perovskite solar cells with modified indium oxide electron transport layer. Solar Energy Materials and Solar Cells, 2023, 251, 112115.	3.0	4
1408	Study of molybdenum oxide optimized hole carrier transport in perovskite solar cells. Organic Electronics, 2023, 113, 106697.	1.4	4
1409	Surface Regulation through Dipolar Molecule Boosting the Efficiency of Mixed 2D/3D Perovskite Solar Cell to 24%. Advanced Functional Materials, 2023, 33, .	7.8	24
1410	Identification of Asymmetric Interfacial Recombination in Perovskite Solar Cells through Impedance Spectroscopy. ACS Applied Energy Materials, 2022, 5, 14760-14768.	2.5	1
1411	Buried Interface Regulation by Bioâ€Functional Molecules for Efficient and Stable Planar Perovskite Solar Cells. Chemistry - A European Journal, 2023, 29, .	1.7	4
1412	Phase-Controlled Strategy for High-Quality Single-Source Vapor-Deposited Cs₂AgBiBr₆ Thin Films. ACS Applied Energy Materials, 2022, 5, 15058-15068.	2.5	4
1413	Iodine-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
1414	Investigating the properties of tin-oxide thin film developed by sputtering process for perovskite solar cells. Materials for Renewable and Sustainable Energy, 2023, 12, 31-37.	1.5	5
1415	Modification of SnO2 Electron Transport Layer in Perovskite Solar Cells. Nanomaterials, 2022, 12, 4326.	1.9	4
1416	In-situ organic-inorganic ferroelectric layer growth for efficient perovskite solar cells with high photovoltage. Nano Energy, 2023, 107, 108114.	8.2	10
1417	Recent progress in perovskite solar cells: material science. Science China Chemistry, 2023, 66, 10-64.	4.2	53

#	Article	IF	Citations
1418	Atomic Layer Deposited ZnOâ€“SnO₂ Electron Transport Bilayer for Wideâ€Bandgap Perovskite Solar Cells. Solar Rrl, 2023, 7, .	3.1	2
1419	Surface Functionalization of Indium Tin Oxide Electrodes by Self-assembled Monolayers for Direct Assembly of Pre-synthesized SnO2 Nanocrystals as Electron Transport Layers. Electronic Materials Letters, 2023, 19, 267-277.	1.0	2
1420	Acetylacetoneâ€TiO₂ Promoted Large Area Compatible Cascade Electron Transport Bilayer for Efficient Perovskite Solar Cells. Energy and Environmental Materials, 2024, 7, .	7.3	5
1421	Numerical Study on the Effect of Dual Electron Transport Layer in Improving the Performance of Perovskiteâ€“Perovskite Tandem Solar Cells. Advanced Theory and Simulations, 2023, 6, .	1.3	6
1422	Phthalocyanine and Porphyrin Films on Glass Substratesâ€”Processing, Properties, and Applications. Advances in Material Research and Technology, 2023, , 319-379.	0.3	0
1423	Efficient Quantum-Dot Light-Emitting Diodes Based on Solvent-Annealed SnO₂ Electron-Transport Layers. ACS Applied Electronic Materials, 2023, 5, 537-543.	2.0	3
1424	Enabling a rapid SnO₂ chemical bath deposition process for perovskite solar cells. Sustainable Energy and Fuels, 2023, 7, 1302-1310.	2.5	2
1425	TiO2/SnO2 Bilayer Electron Transport Layer for High Efficiency Perovskite Solar Cells. Nanomaterials, 2023, 13, 249.	1.9	3
1426	Symmetryâ€Breaking Induced Dipole Enhancement for Efficient Spiroâ€Type Hole Transporting Materials: Easy Synthesis with High Stability. Small, 2023, 19, .	5.2	3
1427	Insoluble Organics as Electron-Transporting Materials Enabled by Solvothermal Technology for Solution-Processable Perovskite Solar Cells. Journal of Physical Chemistry C, 2023, 127, 1326-1332.	1.5	0
1428	Cs2AgBiBr6-based perovskite solar cell: A novel combination of ITO/CdS/ Cs2AgBiBr6/ CuAlO2/Pt, with inorganic charge transport layers. Optik, 2023, 274, 170560.	1.4	7
1429	Recycling of halide perovskites. , 2023, , 385-446.		0
1430	3D Printing of Arbitrary Perovskite Nanowire Heterostructures. Advanced Functional Materials, 2023, 33, .	7.8	5
1431	Intrinsic Instability of Perovskite Solar Cells: The Role of a Hole-Blocking Layer. Crystals, 2023, 13, 185.	1.0	2
1432	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
1433	Porous Organic Cage Induced Spontaneous Restructuring of Buried Interface Toward Highâ€Performance Perovskite Photovoltaic. Advanced Functional Materials, 2023, 33, .	7.8	18
1434	Efficient and stable hybrid conjugated polymer/perovskite quantum dot solar cells. Materials Chemistry Frontiers, 2023, 7, 1423-1430.	3.2	5
1435	A conformally bonded molecular interface retarded iodine migration for durable perovskite solar cells. Energy and Environmental Science, 2023, 16, 1597-1609.	15.6	18

#	Article	IF	Citations
1436	Slot-die coating fabrication of perovskite solar cells toward commercialization. Journal of Alloys and Compounds, 2023, 942, 169104.	2.8	7
1437	Strategies for Optimizing the Morphology of CsSnI3 Perovskite Solar Cells. Crystals, 2023, 13, 410.	1.0	2
1438	Polymerâ€Assisted Heterogeneous Lead Iodide in a Twoâ€Step Process: Fabrication of Efficient and Stable Perovskite Solar Cells. Solar Rrl, 2023, 7, .	3.1	1
1439	Multifunctional l-tryptophan derivative induced surface passivation for lateral perovskite photodetectors. Chemical Engineering Journal, 2023, 459, 141602.	6.6	2
1440	Interface Regulation for Efficient and Stable Perovskite Solar Cells through Potassium Citrate Molecules. Chemistry - A European Journal, 2023, 29, .	1.7	1
1441	Inorganic wide-bandgap perovskite subcells with dipole bridge for all-perovskite tandems. Nature Energy, 2023, 8, 610-620.	19.8	63
1442	Alkyl Chain Lengthâ€Dependent Amineâ€Induced Crystallization for Efficient Interface Passivation of Perovskite Solar Cells. Advanced Materials Interfaces, 2023, 10, .	1.9	3
1443	Removing residual PbI2 on the perovskite surface for efficient solar cells. Chemical Engineering Journal, 2023, 464, 142720.	6.6	6
1444	A comprehensive study on RbGeI3 based inorganic perovskite solar cell using green synthesized CuCrO2 as hole conductor. Journal of Photochemistry and Photobiology A: Chemistry, 2023, 439, 114623.	2.0	14
1445	Unveiling the dimensional effects of SnO2 quantum dots and nanoparticles on the interfacial properties of perovskite solar cells. Journal of Power Sources, 2023, 568, 232928.	4.0	4
1446	Round-comb Fe2O3@SnO2 heterostructures enable efficient light harvesting and charge extraction for high-performance all-inorganic perovskite solar cells. Journal of Colloid and Interface Science, 2023, 640, 918-927.	5.0	4
1447	SnO2 electron transport layer modified by F/N-doped graphdiyne and in situ XRD and in situ XAFS exploration on its effect on perovskite active layer. Nano Today, 2023, 50, 101852.	6.2	5
1448	Efficient planar mixed-cation perovskite photovoltaics with low-temperature-processed indium sulfide as electron transport material. Solid-State Electronics, 2023, 204, 108640.	0.8	0
1449	A novel strategy for enhancing NO2 sensitivity of new 1D organicâ€“inorganic metal halide hybrids. Inorganic Chemistry Communication, 2023, 152, 110668.	1.8	0
1450	High photoelectric conversion efficiency and stability of carbon-based perovskite solar cells based on sandwich-structured electronic layers. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2023, 666, 131326.	2.3	0
1451	Fabrication of unique three-dimensional CdS nanosheets/TiO2 nanosheets hierarchical heterostructure as photoelectrode for enhancing photoelectrochemical performance. Journal of Crystal Growth, 2023, 606, 127098.	0.7	3
1452	Advances in Encapsulations for Perovskite Solar Cells: From Materials to Applications. Solar Rrl, 2023, 7, .	3.1	11
1453	Ultrathin SnO2 electron transport layers for perovskite solar cells by combustion method at low temperature. Optical Materials, 2023, 137, 113518.	1.7	2

#	Article	IF	Citations
1454	Constructing a Surface Multi-cationic Heterojunction for CsPbI_{1.5}Br_{1.5} Perovskite Solar Cells with Efficiency beyond 14%. Journal of Physical Chemistry Letters, 2023, 14, 1140-1147.	2.1	3
1455	Intermediate phase assisted sequential deposition of reverseâ€graded quasiâ€<scp>2D</scp> alternating cation perovskites for <scp>MAâ€free</scp> perovskite solar cells. InformaÄnÃ-MateriÃ¡ly, 2023, 5, .	8.5	5
1456	Graphdiyne and Its Derivatives as Efficient Charge Reservoirs and Transporters in Semiconductor Devices. Advanced Materials, 2023, 35, .	11.1	7
1457	Effects of Guanidinium and Cesium Addition to CH3NH3PbI3 Perovskite Photovoltaic Devices. , 0, , .		0
1458	Size-matched dicarboxylic acid for buried interfacial engineering in high-performance perovskite solar cells. Chemical Engineering Journal, 2023, 460, 141705.	6.6	8
1459	Switchable Ultra-Wideband All-Optical Quantum Dot Reflective Semiconductor Optical Amplifier. Nanomaterials, 2023, 13, 685.	1.9	0
1460	Lowâ€Temperature Processing Methods for Tin Oxide as Electron Transporting Layer in Scalable Perovskite Solar Cells. Solar Rrl, 2023, 7, .	3.1	1
1461	Performance Enhancement of Cadmiumâ€Free Quantumâ€Dot Lightâ€Emitting Diodes via Clâ€Passivated Zn_{1â^'}_x_{â^'}_ySn_xMg_yO Nanoparticles as Electron Transport Layers. Laser and Photonics Reviews, 2023, 17, .		
1462	Grapheneâ€Like Monoelemental 2D Materials for Perovskite Solar Cells. Advanced Energy Materials, 2023, 13, .	10.2	13
1463	Regulating the Interplay at the Buried Interface for Efficient and Stable Carbon-Based CsPbI₂Br Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2023, 15, 10897-10906.	4.0	4
1464	Multifunctional anthraquinone-sulfonic potassium salts passivate the buried interface for efficient and stable planar perovskite solar cells. Physical Chemistry Chemical Physics, 2023, 25, 8403-8411.	1.3	3
1465	Enhanced performance of planar perovskite solar cells by doping the SnO2 electron transport layer with guanidinium chloride. Frontiers in Materials, 0, 10, .	1.2	0
1466	Efficient Perovskite Solar Cells with Iodineâ€Doped Spiroâ€OMeTAD Hole Transport Layer via Fast Oxidation. Solar Rrl, 2023, 7, .	3.1	6
1467	Hydrothermal Deposition of UVâ€Absorbing Passivation Layers for Efficient and Stable Perovskite Solar Cells. Advanced Energy and Sustainability Research, 0, , 2200203.	2.8	0
1468	Investigation of the Cobalt-Additive Role in Improving the Performance of Formamidium Lead Triiodide Based Solar Cells. Electronic Materials Letters, 2023, 19, 471-482.	1.0	3
1469	Composition engineering of perovskite absorber assisted efficient textured monolithic perovskite/silicon heterojunction tandem solar cells. RSC Advances, 2023, 13, 7886-7896.	1.7	4
1470	Effect of Oxygen Vacancy on the Crystallinity and Optical Band Gap in Tin Oxide Thin Film. Energies, 2023, 16, 2653.	1.6	7
1471	Chloroformamidine hydrochloride as a molecular linker towards efficient and stable perovskite solar cells. Journal of Materials Chemistry C, 2023, 11, 5039-5044.	2.7	3

#	Article	IF	Citations
1472	Buried-in interface with two-terminal functional groups for perovskite-based photovoltaic solar cells. Advanced Composites and Hybrid Materials, 2023, 6, .	9.9	10
1473	Rethinking the Role of Excess/Residual Lead Iodide in Perovskite Solar Cells. Advanced Functional Materials, 2023, 33, .	7.8	21
1474	Stress compensation based on interfacial nanostructures for stable perovskite solar cells. , 2023, 2, 348-359.		11
1475	Distinguishing Electron Diffusion and Extraction in Methylammonium Lead Iodide. Journal of Physical Chemistry Letters, 2023, 14, 3007-3013.	2.1	1
1476	Crystal Growth Regulation of Î±â€²FAPbI₃ Perovskite Films for Highâ€Efficiency Solar Cells with Longâ€Term Stability. Advanced Functional Materials, 2023, 33, .	7.8	5
1477	Buried Guanidinium Passivator with Favorable Binding Energy for Perovskite Solar Cells. ACS Energy Letters, 2023, 8, 1848-1856.	8.8	16
1478	Antidiabetic and anti-obesity properties of a polyphenol-rich flower extract from Tagetes erecta L. and its effects on Caenorhabditis elegans fat storages. Journal of Physiology and Biochemistry, 2023, 79, 427-440.	1.3	7
1479	An ionic liquid as an interface modulator for highly efficient and stable perovskite solar cells. Sustainable Energy and Fuels, 2023, 7, 1992-2002.	2.5	0
1480	CsPbBr₃ Quantum Dotsâ€Sensitized Mesoporous TiO₂ Electron Transport Layers for Highâ€Efficiency Perovskite Solar Cells. Solar Rrl, 2023, 7, .	3.1	2
1481	Perovskite Materials for Photovoltaics: A Review. EPJ Applied Physics, 0, , .	0.3	0
1482	SnO2:TiO2 hybrid nanocrystals as electron transport layer for high-efficiency and stable planar perovskite solar cells. Organic Electronics, 2023, 120, 106815.	1.4	3
1483	Progress in Surface Modification of SnO₂ Electron Transport Layers for Stable Perovskite Solar Cells. Small Science, 2023, 3, .	5.8	6
1484	Moistureâ€Resilient Perovskite Solar Cells for Enhanced Stability. Advanced Materials, 0, , .	11.1	12
1485	Unraveling Optical and Electrical Gains of Perovskite Solar Cells with an Antireflective and Energetic Cascade Electron Transport Layer. ACS Applied Materials & Interfaces, 2023, 15, 21152-21161.	4.0	3
1486	Multifunctional Metalâ€Organic Frameworks Capsules Modulate Reactivity of Lead Iodide toward Efficient Perovskite Solar Cells with UV Resistance. Advanced Materials, 2023, 35, .	11.1	11
1491	High Performing Inverted Flexible Perovskite Solar Cells via Solution Phase Deposition of Yttrium-Doped SnO₂ Directly on Perovskite. ACS Applied Energy Materials, 2023, 6, 4496-4502.	2.5	3
1494	A Review on Interface Engineering of MXenes for Perovskite Solar Cells. Nano-Micro Letters, 2023, 15, .	14.4	16
1497	Towards cost-efficient and stable perovskite solar cells and modules: utilization of self-assembled monolayers. Materials Chemistry Frontiers, 2023, 7, 3958-3985.	3.2	8

#	Article	IF	Citations
1508	Band-gap engineering of ceramic coatings. , 2023, , 39-88.		0
1513	Recent progress in the development of high-efficiency inverted perovskite solar cells. NPG Asia Materials, 2023, 15, .	3.8	38
1545	Robust electron transport layers of SnO₂ for efficient perovskite solar cells: recent advances and perspectives. Journal of Materials Chemistry C, 2023, 11, 13625-13646.	2.7	0
1546	Can photoluminescence quenching be a predictor for perovskite solar cell efficiencies?. Physical Chemistry Chemical Physics, 2023, 25, 22607-22613.	1.3	3
1547	Incorporation of functional polymers into metal halide perovskite thin-films: from interactions in solution to crystallization. Materials Advances, 2023, 4, 4294-4316.	2.6	1
1567	Modular design of solar-powered photocathodic metal protection device. , 2023, 2, .		0
1595	Tuning Device Interfaces for Improved Open Circuit Voltage in Wide-Bandgap Hybrid Perovskite Photovoltaics. , 2023, , .		0
1600	Electrochemistry and band structure of semiconductors (TiO2, SnO2, ZnO): Avoiding pitfalls and textbook errors. Journal of Solid State Electrochemistry, 2024, 28, 829-845.	1.2	0
1602	Review on Characteristics, Scalable Fabrication, Advancing Strategies, and Recent Enhancements in High-Performance Perovskite Photovoltaic Cells. , 2024, , .		0
1611	Nanocrystals as performance-boosting materials for solar cells. Nanoscale Advances, 2024, 6, 1331-1360.	2.2	0