Enhancing stability and efficiency of perovskite solar ce
silane-functionalized and doped fullerene

Nature Communications

7, 12806

DOI: 10.1038/ncomms12806

#	Article	IF	Citations
1	Synergy of ammonium chloride and moisture on perovskite crystallization for efficient printable mesoscopic solar cells. Nature Communications, 2017, 8, 14555.	5.8	270
2	The Functions of Fullerenes in Hybrid Perovskite Solar Cells. ACS Energy Letters, 2017, 2, 782-794.	8.8	217
3	Effects of Small Polar Molecules (MA⁺ and H₂O) on Degradation Processes of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 14960-14966.	4.0	29
4	Electrical Stress Influences the Efficiency of CH₃NH₃PbI₃ Perovskite Light Emitting Devices. Advanced Materials, 2017, 29, 1605317.	11.1	105
5	A Breakthrough Efficiency of 19.9% Obtained in Inverted Perovskite Solar Cells by Using an Efficient Trap State Passivator Cu(thiourea)I. Journal of the American Chemical Society, 2017, 139, 7504-7512.	6.6	330
6	MgO Nanoparticle Modified Anode for Highly Efficient SnO₂â€Based Planar Perovskite Solar Cells. Advanced Science, 2017, 4, 1700031.	5.6	175
7	Functionalization of transparent conductive oxide electrode for TiO₂-free perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 11882-11893.	5.2	56
8	Matching Charge Extraction Contact for Wideâ€Bandgap Perovskite Solar Cells. Advanced Materials, 2017, 29, 1700607.	11.1	178
9	Relationship between ion migration and interfacial degradation of CH3NH3PbI3 perovskite solar cells under thermal conditions. Scientific Reports, 2017, 7, 1200.	1.6	137
10	Efficient planar perovskite solar cells using solution-processed amorphous WO x /fullerene C 60 as electron extraction layers. Organic Electronics, 2017, 46, 253-262.	1.4	51
11	Controllable deposition of TiO 2 nanopillars at room temperature for high performance perovskite solar cells with suppressed hysteresis. Solar Energy Materials and Solar Cells, 2017, 168, 172-182.	3.0	18
12	All-in-One: Achieving Robust, Strongly Luminescent and Highly Dispersible Hybrid Materials by Combining Ionic and Coordinate Bonds in Molecular Crystals. Journal of the American Chemical Society, 2017, 139, 9281-9290.	6.6	146
13	Nanoscale Mapping of Bromide Segregation on the Cross Sections of Complex Hybrid Perovskite Photovoltaic Films Using Secondary Electron Hyperspectral Imaging in a Scanning Electron Microscope. ACS Omega, 2017, 2, 2126-2133.	1.6	16
14	Diammonium and Monoammonium Mixedâ€Organicâ€Cation Perovskites for High Performance Solar Cells with Improved Stability. Advanced Energy Materials, 2017, 7, 1700444.	10.2	121
15	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
16	Aminosilane as a Molecular Linker between the Electron-Transport Layer and Active Layer for Efficient Inverted Polymer Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 13390-13395.	4.0	28
17	Organicâ€"Inorganic Copper(II)-Based Material: A Low-Toxic, Highly Stable Light Absorber for Photovoltaic Application. Journal of Physical Chemistry Letters, 2017, 8, 1804-1809.	2.1	103
18	Suppression of Hysteresis Effects in Organohalide Perovskite Solar Cells. Advanced Materials Interfaces, 2017, 4, 1700007.	1.9	57

#	Article	IF	Citations
19	Palladiumâ€Catalyzed Asymmetric Allylic Allylation of Racemic Moritaâ€"Baylisâ€"Hillman Adducts. Angewandte Chemie, 2017, 129, 1136-1139.	1.6	14
20	Palladiumâ€Catalyzed Asymmetric Allylic Allylation of Racemic Moritaâ€"Baylisâ€"Hillman Adducts. Angewandte Chemie - International Edition, 2017, 56, 1116-1119.	7.2	66
21	Catechol derivatives as dopants in PEDOT:PSS to improve the performance of pâ€"iâ€"n perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 24275-24281.	5.2	37
22	Efficiency enhancement in inverted planar perovskite solar cells by synergetic effect of sulfated graphene oxide (sGO) and PEDOT:PSS as hole transporting layer. RSC Advances, 2017, 7, 50410-50419.	1.7	21
23	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
24	Pinning Down the Anomalous Light Soaking Effect toward High-Performance and Fast-Response Perovskite Solar Cells: The Ion-Migration-Induced Charge Accumulation. Journal of Physical Chemistry Letters, 2017, 8, 5069-5076.	2.1	60
25	Comparative density functional theoryâ€"density functional tight binding study of fullerene derivatives: effects due to fullerene size, addends, and crystallinity on band structure, charge transport and optical properties. Physical Chemistry Chemical Physics, 2017, 19, 28330-28343.	1.3	23
26	Stabilizing the Ag Electrode and Reducing <i>J</i>â€"<i>V</i> Hysteresis through Suppression of Iodide Migration in Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 36338-36349.	4.0	129
27	Polymer-modified halide perovskite films for efficient and stable planar heterojunction solar cells. Science Advances, 2017, 3, e1700106.	4.7	588
28	Allâ€Inorganic Halide Perovskites for Optoelectronics: Progress and Prospects. Solar Rrl, 2017, 1, 1700086.	3.1	167
29	Fluorinated fused nonacyclic interfacial materials for efficient and stable perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 21414-21421.	5.2	59
30	The Renaissance of fullerenes with perovskite solar cells. Nano Energy, 2017, 41, 84-100.	8.2	104
31	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
32	Impact of H₂O on organicâ€"inorganic hybrid perovskite solar cells. Energy and Environmental Science, 2017, 10, 2284-2311.	15.6	345
33	Halide anionâ€"fullerene Ï€ noncovalent interactions: n-doping and a halide anion migration mechanism in pâ€"iâ€"n perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 20720-20728.	5.2	49
34	Carbon Nanotube Based Inverted Flexible Perovskite Solar Cells with Allâ€Inorganic Charge Contacts. Advanced Functional Materials, 2017, 27, 1703068.	7.8	132
35	18% High-Efficiency Air-Processed Perovskite Solar Cells Made in a Humid Atmosphere of 70% RH. Solar Rrl, 2017, 1, 1700097.	3.1	97
36	Updating the road map to metal-halide perovskites for photovoltaics. Journal of Materials Chemistry A, 2017, 5, 17135-17150.	5.2	33

#	Article	IF	Citations
37	Dual functions of interface passivation and n-doping using 2,6-dimethoxypyridine for enhanced reproducibility and performance of planar perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 17632-17639.	5.2	25
38	Highly Efficient Porphyrinâ€Based OPV/Perovskite Hybrid Solar Cells with Extended Photoresponse and High Fill Factor. Advanced Materials, 2017, 29, 1703980.	11.1	176
39	Surface engineering of perovskite films for efficient solar cells. Scientific Reports, 2017, 7, 14478.	1.6	50
40	Perovskite solar cells: Stability lies at interfaces. Nature Energy, 2017, 2, .	19.8	117
41	Mobile-Ion-Induced Degradation of Organic Hole-Selective Layers in Perovskite Solar Cells. Journal of Physical Chemistry C, 2017, 121, 14517-14523.	1.5	117
42	Effect of Cs-Incorporated NiO_{<i>x</i>} on the Performance of Perovskite Solar Cells. ACS Omega, 2017, 2, 9074-9079.	1.6	43
43	Ruthenium acetylacetonate in interface engineering for high performance planar hybrid perovskite solar cells. Optics Express, 2017, 25, A253.	1.7	16
44	Interfacial Kinetics of Efficient Perovskite Solar Cells. Crystals, 2017, 7, 252.	1.0	24
45	Progress in fullerene-based hybrid perovskite solar cells. Journal of Materials Chemistry C, 2018, 6, 2635-2651.	2.7	114
46	Adsorption of molecular additive onto lead halide perovskite surfaces: A computational study on Lewis base thiophene additive passivation. Applied Surface Science, 2018, 443, 176-183.	3.1	43
47	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
48	Reduction of moisture sensitivity of PbS quantum dot solar cells by incorporation of reduced graphene oxide. Solar Energy Materials and Solar Cells, 2018, 183, 1-7.	3.0	68
49	Performance Enhancement of Perovskite Solar Cells Induced by Lead Acetate as an Additive. Solar Rrl, 2018, 2, 1800066.	3.1	94
50	Self-assembly monolayers boosting organicâ€“inorganic halide perovskite solar cell performance. Journal of Materials Research, 2018, 33, 387-400.	1.2	38
51	Co-Solvent Effect in the Processing of the Perovskite:Fullerene Blend Films for Electron Transport Layer-Free Solar Cells. Journal of Physical Chemistry C, 2018, 122, 2512-2520.	1.5	19
52	A chemical sensor for CBr₄ based on quasi-2D and 3D hybrid organicâ€“inorganic perovskites immobilized on TiO₂ films. Materials Chemistry Frontiers, 2018, 2, 730-740.	3.2	12
53	Extending the Continuous Operating Lifetime of Perovskite Solar Cells with a Molybdenum Disulfide Hole Extraction Interlayer. Advanced Energy Materials, 2018, 8, 1702287.	10.2	121
54	Progress and Perspective in Lowâ€Dimensional Metal Halide Perovskites for Optoelectronic Applications. Solar Rrl, 2018, 2, 1700186.	3.1	98

#	Article	IF	Citations
55	Selfâ€Assembled Quasiâ€3D Nanocomposite: A Novel pâ€Type Hole Transport Layer for High Performance Inverted Organic Solar Cells. Advanced Functional Materials, 2018, 28, 1706403.	7.8	39
56	Spatial Atmospheric Pressure Atomic Layer Deposition of Tin Oxide as an Impermeable Electron Extraction Layer for Perovskite Solar Cells with Enhanced Thermal Stability. ACS Applied Materials & Interfaces, 2018, 10, 6006-6013.	4.0	65
57	Synergistic Hematiteâ€Fullerene Electronâ€Extracting Layers for Improved Efficiency and Stability in Perovskite Solar Cells. ChemElectroChem, 2018, 5, 726-731.	1.7	72
58	The stable perovskite solar cell prepared by rapidly annealing perovskite film with water additive in ambient air. Solar Energy Materials and Solar Cells, 2018, 176, 280-287.	3.0	22
59	A Ga-doped SnO₂ mesoporous contact for UV stable highly efficient perovskite solar cells. Journal of Materials Chemistry A, 2018, 6, 1850-1857.	5.2	129
60	Argon Plasma Treatment to Tune Perovskite Surface Composition for High Efficiency Solar Cells and Fast Photodetectors. Advanced Materials, 2018, 30, 1705176.	11.1	81
61	Functional graded fullerene derivatives for improving the fill factor and device stability of inverted-type perovskite solar cells. Nanotechnology, 2018, 29, 305701.	1.3	18
62	Highlyâ€Stable Organoâ€Lead Halide Perovskites Synthesized Through Green Selfâ€Assembly Process. Solar Rrl, 2018, 2, 1800052.	3.1	56
63	Fullereneâ€Based Materials as Holeâ€Transporting/Electronâ€Blocking Layers: Applications in Perovskite Solar Cells. Chemistry - A European Journal, 2018, 24, 8524-8529.	1.7	25
64	Perowskitâ€Solarzellen: atomare Ebene, SchichtqualitÃt und LeistungsfÃhigkeit der Zellen. Angewandte Chemie, 2018, 130, 2582-2598.	1.6	37
65	Perovskite Solar Cells: From the Atomic Level to Film Quality and Device Performance. Angewandte Chemie - International Edition, 2018, 57, 2554-2569.	7.2	413
66	Molecular Interlayers in Hybrid Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1701544.	10.2	80
67	Manufacturing Techniques of Perovskite Solar Cells. Energy, Environment, and Sustainability, 2018, , 341-364.	0.6	14
68	Highly Efficient and Stable Perovskite Solar Cells Enabled by All-Crosslinked Charge-Transporting Layers. Joule, 2018, 2, 168-183.	11.7	105
69	Fullereneâ€Based Materials for Photovoltaic Applications: Toward Efficient, Hysteresisâ€Free, and Stable Perovskite Solar Cells. Advanced Electronic Materials, 2018, 4, 1700435.	2.6	101
70	Cation engineering on lead iodide perovskites for stable and high-performance photovoltaic applications. Journal of Energy Chemistry, 2018, 27, 1017-1039.	7.1	37
71	Interface Engineering for Highly Efficient and Stable Planar pâ€iâ€n Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1701883.	10.2	338
72	Interactions between molecules and perovskites in halide perovskite solar cells. Solar Energy Materials and Solar Cells, 2018, 175, 1-19.	3.0	66

#	Article	IF	Citations
73	Spectroscopic and first principles investigation on 4-[(4-pyridinylmethylene)amino]-benzoic acid bearing pyridyl and carboxyl anchoring groups. Journal of Molecular Structure, 2018, 1155, 389-393.	1.8	5
74	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
75	Aqueousâ€Containing Precursor Solutions for Efficient Perovskite Solar Cells. Advanced Science, 2018, 5, 1700484.	5.6	66
76	General Nondestructive Passivation by 4â€Fluoroaniline for Perovskite Solar Cells with Improved Performance and Stability. Small, 2018, 14, e1803350.	5.2	82
77	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
78	Excess charge-carrier induced instability of hybrid perovskites. Nature Communications, 2018, 9, 4981.	5.8	159
79	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
80	Highâ€Performance Flexible Perovskite Solar Cells with Effective Interfacial Optimization Processed at Low Temperatures. ChemSusChem, 2018, 11, 4131-4138.	3.6	21
81	Chemical Decoration of Perovskites by Nickel Oxide Doping for Efficient and Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 36841-36850.	4.0	11
82	3D/2D multidimensional perovskites: Balance of high performance and stability for perovskite solar cells. Current Opinion in Electrochemistry, 2018, 11, 105-113.	2.5	59
83	Significant Stability Enhancement of Perovskite Solar Cells by Facile Adhesive Encapsulation. Journal of Physical Chemistry C, 2018, 122, 25260-25267.	1.5	31
84	Nitrogen substitution improves the mobility and stability of electron transport materials for inverted perovskite solar cells. Nanoscale, 2018, 10, 17873-17883.	2.8	24
85	Challenges for commercializing perovskite solar cells. Science, 2018, 361, .	6.0	1,327
86	Perovskite Solar Cells with Inorganic Electronâ€•and Holeâ€Transport Layers Exhibiting Longâ€Term (â‰ˆ500) Tj ETQq1 1 0.784314 rgB e1801010.	11.1	174
87	Effect of the Type and Number of Organic Addends on Fullerene Acceptors for nâ€Type Electronic Devices: Redox Properties and Energy Levels. ChemistrySelect, 2018, 3, 5778-5785.	0.7	4
88	Physicochemical Phenomena and Application in Solar Cells of Perovskite:Fullerene Films. Journal of Physical Chemistry Letters, 2018, 9, 2893-2902.	2.1	37
89	An Overview of Hybrid Organicâ€"Inorganic Metal Halide Perovskite Solar Cells. , 2018, , 233-254.		19
90	Dimensional stability and hygroscopic properties of waterlogged archaeological wood treated with alkoxysilanes. International Biodeterioration and Biodegradation, 2018, 133, 34-41.	1.9	23

#	Article	IF	Citations
91	Low-Temperature Atomic Layer Deposition of Metal Oxide Layers for Perovskite Solar Cells with High Efficiency and Stability under Harsh Environmental Conditions. ACS Applied Materials & Interfaces, 2018, 10, 23928-23937.	4.0	84
92	Evolution of Perovskite Solar Cells. , 2018, , 43-88.		18
93	Fullerenes: the stars of photovoltaics. Sustainable Energy and Fuels, 2018, 2, 2480-2493.	2.5	99
94	High Current Density and Low Hysteresis Effect of Planar Perovskite Solar Cells via PCBM-doping and Interfacial Improvement. ACS Applied Materials & Interfaces, 2018, 10, 29954-29964.	4.0	35
95	Low toxicity antisolvent synthesis of composition-tunable luminescent all-inorganic perovskite nanocrystals. Ceramics International, 2018, 44, 18123-18128.	2.3	14
96	Bulk heterojunction polymer solar cell and perovskite solar cell: Concepts, materials, current status, and opto-electronic properties. Solar Energy, 2018, 173, 407-424.	2.9	56
97	Electronâ€Transport Materials in Perovskite Solar Cells. Small Methods, 2018, 2, 1800082.	4.6	136
98	The critical role of metal oxide electron transport layer for perovskite solar cell. Applied Nanoscience (Switzerland), 2018, 8, 1515-1522.	1.6	9
99	Progress in tailoring perovskite based solar cells through compositional engineering: Materials properties, photovoltaic performance and critical issues. Materials Today Energy, 2018, 9, 440-486.	2.5	58
100	Analysing the Prospects of Perovskite Solar Cells within the Purview of Recent Scientific Advancements. Crystals, 2018, 8, 242.	1.0	13
101	Efficient nâ€Dopants and Their Roles in Organic Electronics. Advanced Optical Materials, 2018, 6, 1800536.	3.6	41
102	Recent Advance in Solutionâ€Processed Organic Interlayers for Highâ€Performance Planar Perovskite Solar Cells. Advanced Science, 2018, 5, 1800159.	5.6	84
103	Stateâ€ofâ€theâ€Art Electronâ€Selective Contacts in Perovskite Solar Cells. Advanced Materials Interfaces, 2018, 5, 1800408.	1.9	38
104	Efficient and Stable Nonfullereneâ€Graded Heterojunction Inverted Perovskite Solar Cells with Inorganic Ga₂O₃ Tunneling Protective Nanolayer. Advanced Functional Materials, 2018, 28, 1804128.	7.8	76
105	Interfacial engineering enables high efficiency with a high open-circuit voltage above 1.23ÂV in 2D perovskite solar cells. Journal of Materials Chemistry A, 2018, 6, 18010-18017.	5.2	39
106	Interfacial Engineering of Metal Oxides for Highly Stable Halide Perovskite Solar Cells. Advanced Materials Interfaces, 2018, 5, 1800367.	1.9	39
107	Anchoring Fullerene onto Perovskite Film via Grafting Pyridine toward Enhanced Electron Transport in High-Efficiency Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 32471-32482.	4.0	73
108	From Exceptional Properties to Stability Challenges of Perovskite Solar Cells. Small, 2018, 14, e1802385.	5.2	58

#	Article	IF	Citations
109	Efficient Perovskite Solar Cells with Titanium Cathode Interlayer. Solar Rrl, 2018, 2, 1800167.	3.1	16
110	Tailoring the Open-Circuit Voltage Deficit of Wide-Band-Gap Perovskite Solar Cells Using Alkyl Chain-Substituted Fullerene Derivatives. ACS Applied Materials & Interfaces, 2018, 10, 22074-22082.	4.0	57
111	A review on morphology engineering for highly efficient and stable hybrid perovskite solar cells. Journal of Materials Chemistry A, 2018, 6, 12842-12875.	5.2	168
112	Efficient and UV-stable perovskite solar cells enabled by side chain-engineered polymeric hole-transporting layers. Journal of Materials Chemistry A, 2018, 6, 12999-13004.	5.2	43
113	Enhanced moisture stability of metal halide perovskite solar cells based on sulfurâ€“oleylamine surface modification. Nanoscale Horizons, 2019, 4, 208-213.	4.1	45
114	Importance of Functional Groups in Cross-Linking Methoxysilane Additives for High-Efficiency and Stable Perovskite Solar Cells. ACS Energy Letters, 2019, 4, 2192-2200.	8.8	157
115	An effective surface modification strategy with high reproducibility for simultaneously improving efficiency and stability of inverted MA-free perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 21476-21487.	5.2	18
116	Understanding Hydrogen Bonding Interactions in Crosslinked Methylammonium Lead Iodide Crystals: Towards Reducing Moisture and Light Degradation Pathways. Angewandte Chemie, 2019, 131, 14050-14059.	1.6	5
117	Unravelling fullereneâ€“perovskite interactions introduces advanced blend films for performance-improved solar cells. Sustainable Energy and Fuels, 2019, 3, 2779-2787.	2.5	16
118	Understanding Hydrogen Bonding Interactions in Crosslinked Methylammonium Lead Iodide Crystals: Towards Reducing Moisture and Light Degradation Pathways. Angewandte Chemie - International Edition, 2019, 58, 13912-13921.	7.2	43
119	Quantum Dots Supply Bulk- and Surface-Passivation Agents for Efficient and Stable Perovskite Solar Cells. Joule, 2019, 3, 1963-1976.	11.7	222
120	Simultaneous Cesium and Acetate Coalloying Improves Efficiency and Stability of FA_{0.85}MA_{0.15}PbI₃ Perovskite Solar Cell with an Efficiency of 21.95%. Solar Rrl, 2019, 3, 1900220.	3.1	74
121	Targeted Therapy for Interfacial Engineering Toward Stable and Efficient Perovskite Solar Cells. Advanced Materials, 2019, 31, e1903691.	11.1	125
122	Pathways toward high-performance inorganic perovskite solar cells: challenges and strategies. Journal of Materials Chemistry A, 2019, 7, 20494-20518.	5.2	62
123	Enhancing the Phase Stability of Inorganic Î±-CsPbI₃ by the Bication-Conjugated Organic Molecule for Efficient Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 37720-37725.	4.0	49
124	Design of High-Performance Mixed-Dimensional Perovskite by Incorporating Different Halogenated Cesium Sources. ACS Sustainable Chemistry and Engineering, 2019, 7, 17507-17514.	3.2	6
125	Atomic layer deposition for efficient and stable perovskite solar cells. Chemical Communications, 2019, 55, 2403-2416.	2.2	76
126	Moisture-tolerant supermolecule for the stability enhancement of organicâ€“inorganic perovskite solar cells in ambient air. Nanoscale, 2019, 11, 1228-1235.	2.8	46

#	Article	IF	Citations
127	Semiconductor self-assembled monolayers as selective contacts for efficient PiN perovskite solar cells. Energy and Environmental Science, 2019, 12, 230-237.	15.6	110
128	Nondestructive purification process for inorganic perovskite quantum dot solar cells. Journal of Nanoparticle Research, 2019, 21, 1.	0.8	11
129	Enhanced efficiency and thermal stability of perovskite solar cells using poly(9-vinylcarbazole) modified perovskite/PCBM interface. Electrochimica Acta, 2019, 318, 384-391.	2.6	29
130	Surface Chlorination of ZnO for Perovskite Solar Cells with Enhanced Efficiency and Stability. Solar Rrl, 2019, 3, 1900154.	3.1	37
131	An efficient TeO₂/Ag transparent top electrode for 20%-efficiency bifacial perovskite solar cells with a bifaciality factor exceeding 80%. Journal of Materials Chemistry A, 2019, 7, 15156-15163.	5.2	37
132	Introducing pyridyl into electron transport materials plays a key role in improving electron mobility and interface properties for inverted perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 16304-16312.	5.2	9
133	Triarylphosphine Oxide as Cathode Interfacial Material for Inverted Perovskite Solar Cells. Advanced Materials Interfaces, 2019, 6, 1900434.	1.9	16
134	Impact of surface dipole in NiOx on the crystallization and photovoltaic performance of organometal halide perovskite solar cells. Nano Energy, 2019, 61, 496-504.	8.2	92
135	Recent Progress in Organic Electron Transport Materials in Inverted Perovskite Solar Cells. Small, 2019, 15, e1900854.	5.2	205
136	Origin of Performance Enhancement in TiO₂â€Carbon Nanotube Composite Perovskite Solar Cells. Small Methods, 2019, 3, 1900164.	4.6	45
137	Design, Synthesis, and Postvapor Treatment of Neutral Fulleropyrrolidine Electron-Collecting Interlayers for High-Efficiency Inverted Polymer Solar Cells. ACS Applied Electronic Materials, 2019, 1, 854-861.	2.0	18
138	Oligomeric Silica-Wrapped Perovskites Enable Synchronous Defect Passivation and Grain Stabilization for Efficient and Stable Perovskite Photovoltaics. ACS Energy Letters, 2019, 4, 1231-1240.	8.8	111
139	Reaction Temperature and Partial Pressure Induced Etching of Methylammonium Lead Iodide Perovskite by Trimethylaluminum. Langmuir, 2019, 35, 6522-6531.	1.6	12
140	Self-Seeding Growth for Perovskite Solar Cells with Enhanced Stability. Joule, 2019, 3, 1452-1463.	11.7	120
141	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
142	Doping amino-functionalized ionic liquid in perovskite crystal for enhancing performances of hole-conductor free solar cells with carbon electrode. Chemical Engineering Journal, 2019, 372, 46-52.	6.6	41
143	Guanidinium induced phase separated perovskite layer for efficient and highly stable solar cells. Journal of Materials Chemistry A, 2019, 7, 9486-9496.	5.2	85
144	Highly efficient and stable 2Dâ€“3D perovskite solar cells fabricated by interfacial modification. Nanotechnology, 2019, 30, 275202.	1.3	40

#	Article	IF	Citations
145	Solution-processed electron transport layer of n-doped fullerene for efficient and stable all carbon based perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 7710-7716.	5.2	29
146	Bilateral alkylamine for suppressing charge recombination and improving stability in blade-coated perovskite solar cells. Science Advances, 2019, 5, eaav8925.	4.7	388
147	Detrimental effect of silver doping in spiro-MeOTAD on the device performance of perovskite solar cells. Organic Electronics, 2019, 69, 343-347.	1.4	12
148	Finely Interpenetrating Bulk Heterojunction Structure for Lead Sulfide Colloidal Quantum Dot Solar Cells by Convective Assembly. ACS Energy Letters, 2019, 4, 960-967.	8.8	30
149	Interface and Defect Engineering for Metal Halide Perovskite Optoelectronic Devices. Advanced Materials, 2019, 31, e1803515.	11.1	315
150	The multiple effects of polyaniline additive to improve the efficiency and stability of perovskite solar cells. Journal of Materials Chemistry C, 2019, 7, 4441-4448.	2.7	47
151	Hybrid perovskites for device applications. , 2019, , 211-256.		13
152	Structures and Properties of Methylammonium Iodide Precursors of Halide Perovskites and Implications for Solar Cells: an Ab-Initio Investigation. Russian Journal of Physical Chemistry A, 2019, 93, 2694-2698.	0.1	1
153	Amplified Spontaneous Emission Threshold Reduction and Operational Stability Improvement in CsPbBr3 Nanocrystals Films by Hydrophobic Functionalization of the Substrate. Scientific Reports, 2019, 9, 17964.	1.6	46
154	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
155	Improved Moisture Stability of Perovskite Solar Cells with a Surfaceâ€Treated PCBM Layer. Solar Rrl, 2019, 3, 1800289.	3.1	20
156	Low-Temperature Stable Î±-Phase Inorganic Perovskite Compounds via Crystal Cross-Linking. Journal of Physical Chemistry Letters, 2019, 10, 200-205.	2.1	57
157	Developing 1D Sbâ€Embedded Carbon Nanorods to Improve Efficiency and Stability of Inverted Planar Perovskite Solar Cells. Small, 2019, 15, e1804692.	5.2	21
158	Understanding Degradation Mechanisms and Improving Stability of Perovskite Photovoltaics. Chemical Reviews, 2019, 119, 3418-3451.	23.0	1,131
159	Doubleâ€Sideâ€Passivated Perovskite Solar Cells with Ultraâ€Low Potential Loss. Solar Rrl, 2019, 3, 1800296.	3.1	89
160	New-type highly stable 2D/3D perovskite materials: the effect of introducing ammonium cation on performance of perovskite solar cells. Science China Materials, 2019, 62, 508-518.	3.5	31
161	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
162	Enhanced stability and solar cell performance via Ï€-conjugated Lewis base passivation of organic inorganic lead halide perovskites. Organic Electronics, 2020, 77, 105519.	1.4	17

#	Article	IF	Citations
163	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
164	Organicâ€Inorganic Halide Perovskites: From Crystallization of Polycrystalline Films to Solar Cell Applications. Solar Rrl, 2020, 4, 1900200.	3.1	43
165	Reducing Photovoltage Loss in Inverted Perovskite Solar Cells by Quantum Dots Alloying Modification at Cathode Contact. Solar Rrl, 2020, 4, 1900468.	3.1	19
166	Efficiency Improvement of Planar Inverted Perovskite Solar Cells by Introducing Poly 9,9â€Dioctylfluoreneâ€<i>co</i>â€benzothiazole into Polytriarylamine as Mixed Holeâ€Transport Layer. Energy Technology, 2020, 8, 1901042.	1.8	17
167	Influence of Surface Ligands on Energetics at FASnI₃/C₆₀ Interfaces and Their Impact on Photovoltaic Performance. ACS Applied Materials & Interfaces, 2020, 12, 5209-5218.	4.0	28
168	The Role of the Interfaces in Perovskite Solar Cells. Advanced Materials Interfaces, 2020, 7, 1901469.	1.9	239
169	Enhancement of Openâ€Circuit Voltage of Perovskite Solar Cells by Interfacial Modification with <i>p</i>â€Aminobenzoic Acid. Advanced Materials Interfaces, 2020, 7, 1901584.	1.9	21
170	Incorporating a Polar Molecule to Passivate Defects for Perovskite Solar Cells. Solar Rrl, 2020, 4, 1900489.	3.1	16
171	Perfluorinated Self-Assembled Monolayers Enhance the Stability and Efficiency of Inverted Perovskite Solar Cells. ACS Nano, 2020, 14, 1445-1456.	7.3	115
172	Passivated Metal Oxide n-Type Contacts for Efficient and Stable Organic Solar Cells. ACS Applied Energy Materials, 2020, 3, 1111-1118.	2.5	26
173	Stable Efficient Methylammonium Lead Iodide Thin Film Photodetectors with Highly Oriented Millimeter-Sized Crystal Grains. ACS Photonics, 2020, 7, 57-67.	3.2	9
174	Machine learning for halide perovskite materials. Nano Energy, 2020, 78, 105380.	8.2	65
175	Bifunctional Chlorosilane Modification for Defect Passivation and Stability Enhancement of High-Efficiency Perovskite Solar Cells. Journal of Physical Chemistry C, 2020, 124, 22903-22913.	1.5	8
176	Simplified interconnection structure based on C60/SnO2-x for all-perovskite tandem solar cells. Nature Energy, 2020, 5, 657-665.	19.8	186
177	Applications of Selfâ€Assembled Monolayers for Perovskite Solar Cells Interface Engineering to Address Efficiency and Stability. Advanced Energy Materials, 2020, 10, 2002989.	10.2	117
178	Broad-Band Photodetectors Based on Copper Indium Diselenide Quantum Dots in a Methylammonium Lead Iodide Perovskite Matrix. ACS Applied Materials & Interfaces, 2020, 12, 35201-35210.	4.0	21
179	Barrier Designs in Perovskite Solar Cells for Longâ€Term Stability. Advanced Energy Materials, 2020, 10, 2001610.	10.2	84
180	Efficient carrier utilization induced by conductive polypyrrole additives in organic-inorganic halide perovskite solar cells. Solar Energy, 2020, 207, 1300-1307.	2.9	15

#	Article	IF	Citations
181	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
182	CIGS and perovskite solar cells â€" an overview. Emerging Materials Research, 2020, 9, 812-824.	0.4	9
183	Photoelectrochemical and first-principles investigation on halide perovskite/TiO2 film improved by dicyano dye. Optical Materials, 2020, 109, 110350.	1.7	5
184	Doping strategies of organic n-type materials in perovskite solar cells: a chemical perspective. Sustainable Energy and Fuels, 2020, 4, 3264-3281.	2.5	10
185	Effect of Interfacial Layers on the Device Lifetime of Perovskite Solar Cells. Small Methods, 2020, 4, 2000065.	4.6	22
186	Decoupling Contributions of Chargeâ€Transport Interlayers to Lightâ€Induced Degradation of pâ€iâ€n Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000191.	3.1	18
187	Improved Interface Contact for Highly Stable All-Inorganic CsPbI₂Br Planar Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 5173-5181.	2.5	16
188	Solution-processed perovskite solar cells. Journal of Central South University, 2020, 27, 1104-1133.	1.2	34
189	Defect suppression and passivation for perovskite solar cells: from the birth to the lifetime operation. EnergyChem, 2020, 2, 100032.	10.1	22
190	Double Barriers for Moisture Degradation: Assembly of Hydrolysable Hydrophobic Molecules for Stable Perovskite Solar Cells with High Openâ€Circuit Voltage. Advanced Functional Materials, 2020, 30, 2002639.	7.8	61
191	Critical review of recent progress of flexible perovskite solar cells. Materials Today, 2020, 39, 66-88.	8.3	169
192	Functionalization of fullerene materials toward applications in perovskite solar cells. Materials Chemistry Frontiers, 2020, 4, 2256-2282.	3.2	91
193	Molecular materials as interfacial layers and additives in perovskite solar cells. Chemical Society Reviews, 2020, 49, 4496-4526.	18.7	130
194	Interaction engineering in organicâ€"inorganic hybrid perovskite solar cells. Materials Horizons, 2020, 7, 2208-2236.	6.4	35
195	Efficient carbon-based planar CsPbBr3 perovskite solar cells with Li-doped amorphous Nb2O5 layer. Journal of Alloys and Compounds, 2020, 842, 155984.	2.8	21
196	Bifunctional Effects of Trichloro(octyl)silane Modification on the Performance and Stability of a Perovskite Solar Cell via Microscopic Characterization Techniques. ACS Applied Energy Materials, 2020, 3, 3302-3309.	2.5	11
197	The role of carbon-based materials in enhancing the stability of perovskite solar cells. Energy and Environmental Science, 2020, 13, 1377-1407.	15.6	149
198	Optimization of Spin Coated TiO2 Layer for Hole-Free Perovskite Solar Cell. IOP Conference Series: Materials Science and Engineering, 2020, 762, 012003.	0.3	6

#	Article	IF	Citations
199	Interfacial engineering for organic and perovskite solar cells using molecular materials. Journal Physics D: Applied Physics, 2020, 53, 263001.	1.3	6
200	Synergistic Reinforcement of Builtâ€in Electric Fields for Highly Efficient and Stable Perovskite Photovoltaics. Advanced Functional Materials, 2020, 30, 1909755.	7.8	47
201	2D Perovskite Seeding Layer for Efficient Airâ€Processable and Stable Planar Perovskite Solar Cells. Advanced Functional Materials, 2020, 30, 2003081.	7.8	48
202	Improved photoemission and stability of 2D organic-inorganic lead iodide perovskite films by polymer passivation. Nanotechnology, 2020, 31, 42LT01.	1.3	14
203	A Crossâ€Linkable Electronâ€Transport Layer Based on a Fullereneâˆ'Benzoxazine Derivative for Inverted Polymer Solar Cells. ChemPlusChem, 2020, 85, 1534-1541.	1.3	1
204	Hydrogen halide-free synthesis of organohalides for organometal trihalide perovskite solar cells. Journal of Industrial and Engineering Chemistry, 2020, 89, 375-382.	2.9	5
205	Lowâ€Dimensional Dionâ€“Jacobsonâ€Phase Leadâ€Free Perovskites for Highâ€Performance Photovoltaics with Improved Stability. Angewandte Chemie - International Edition, 2020, 59, 6909-6914.	7.2	123
206	Improving electron extraction ability and suppressing recombination of planar perovskite solar cells with the triple cascade electron transporting layer. Solar Energy Materials and Solar Cells, 2020, 208, 110419.	3.0	5
207	Lowâ€Dimensional Dionâ€“Jacobsonâ€Phase Leadâ€Free Perovskites for Highâ€Performance Photovoltaics with Improved Stability. Angewandte Chemie, 2020, 132, 6976-6981.	1.6	26
208	Advances in two-dimensional organicâ€“inorganic hybrid perovskites. Energy and Environmental Science, 2020, 13, 1154-1186.	15.6	420
209	Interfacing Lowâ€Temperature Atomic Layer Deposited TiO₂ Electron Transport Layers with Metal Electrodes. Advanced Materials Interfaces, 2020, 7, 1902054.	1.9	6
210	Solution-Processed Mixed-Dimensional Hybrid Perovskite/Carbon Nanotube Electronics. ACS Nano, 2020, 14, 3969-3979.	7.3	30
212	Quasi-2D organic cation-doped formamidinium lead bromide (FAPbBr3) perovskite light-emitting diodes by long alkyl chain. Organic Electronics, 2020, 79, 105626.	1.4	11
213	Steering the electron transport properties of pyridine-functionalized fullerene derivatives in inverted perovskite solar cells: the nitrogen site matters. Journal of Materials Chemistry A, 2020, 8, 3872-3881.	5.2	25
214	Recent advances in defect passivation of perovskite active layer via additive engineering: a review. Journal Physics D: Applied Physics, 2020, 53, 183002.	1.3	15
215	Efficient Interconnection in Perovskite Tandem Solar Cells. Small Methods, 2020, 4, 2000093.	4.6	43
216	Application of carbon nanomaterials in the electronic industry. , 2020, , 421-450.		5
217	Perovskite Passivation Strategies for Efficient and Stable Solar Cells. Solar Rrl, 2021, 5, .	3.1	23

#	Article	IF	Citations
218	Minimizing Voltage Losses in Perovskite Solar Cells. Small Structures, 2021, 2, 2000050.	6.9	43
219	Toward Efficient and Stable Perovskite Solar Cells by 2D Interface Energy Band Alignment. Advanced Materials Interfaces, 2021, 8, .	1.9	19
220	Two-dimensional halide perovskite-based solar cells: Strategies for performance and stability enhancement. FlatChem, 2021, 25, 100213.	2.8	4
221	Robust Inorganic Hole Transport Materials for Organic and Perovskite Solar Cells: Insights into Materials Electronic Properties and Device Performance. Solar Rrl, 2021, 5, 2000555.	3.1	34
222	A Scalable Integrated Dopantâ€Free Heterostructure to Stabilize Perovskite Solar Cell Modules. Advanced Energy Materials, 2021, 11, 2003301.	10.2	43
223	Highly efficient and stable perovskite solar cells with strong hydrophobic barrier via introducing poly(vinylidene fluoride) additive. Journal of Energy Chemistry, 2021, 57, 593-600.	7.1	30
224	Ambient Fabrication of Organicâ€"Inorganic Hybrid Perovskite Solar Cells. Small Methods, 2021, 5, e2000744.	4.6	63
225	An overview of the mathematical modelling of perovskite solar cells towards achieving highly efficient perovskite devices. International Journal of Energy Research, 2021, 45, 1496-1516.	2.2	14
226	Overcoming photovoltage deficit<i>via</i>natural amino acid passivation for efficient perovskite solar cells and modules. Journal of Materials Chemistry A, 2021, 9, 5857-5865.	5.2	43
227	Role of the spacer cation in the growth and crystal orientation of two-dimensional perovskites. Sustainable Energy and Fuels, 2021, 5, 1255-1279.	2.5	14
228	Printing Highâ€Efficiency Perovskite Solar Cells in Highâ€Humidity Ambient Environmentâ€"An In Situ Guided Investigation. Advanced Science, 2021, 8, 2003359.	5.6	40
229	A Perspective on Perovskite Solar Cells. Energy, Environment, and Sustainability, 2021, , 55-151.	0.6	1
230	The piezoresistive performances of the devices with fullerene-doped MEH-PPV films. Microsystem Technologies, 2021, 27, 2661-2670.	1.2	2
231	Tris(4-(1-phenyl-1<i>H</i>-benzo[<i>d</i>]imidazole)phenyl)phosphine oxide for enhanced mobility and restricted traps in photovoltaic interlayers. Journal of Materials Chemistry C, 2021, 9, 3642-3651.	2.7	2
232	Fullerenes and their applications. , 2021, , 19-158.		2
233	Reducing Energy Disorder of Hole Transport Layer by Charge Transfer Complex for High Performance pâ€"iâ€"n Perovskite Solar Cells. Advanced Materials, 2021, 33, e2006753.	11.1	69
234	2D materials for conducting holes from grain boundaries in perovskite solar cells. Light: Science and Applications, 2021, 10, 68.	7.7	59
235	Natural methionine-passivated MAPbI3 perovskite films for efficient and stable solar devices. Advanced Composites and Hybrid Materials, 2021, 4, 1261-1269.	9.9	27

#	Article	IF	Citations
236	Design and simulation of high efficiency lead-free heterostructure perovskite solar cell using SCAPS-1D. Optik, 2021, 229, 166258.	1.4	54
237	Surface lattice engineering through three-dimensional lead iodide perovskitoid for high-performance perovskite solar cells. CheM, 2021, 7, 774-785.	5.8	37
238	Ion Movement Explains Huge <i>V</i>_{OC} Increase despite Almost Unchanged Internal Quasiâ€Fermiâ€Level Splitting in Planar Perovskite Solar Cells. Energy Technology, 2021, 9, 2001104.	1.8	18
239	Wide-Bandgap All-Inorganic CsPbIBr2 Top Cells With MoOx/Ag/TeO2 Composite Transparent Anode Towards Efficient Four-Terminal Perovskite/Si Tandem Solar Cells. IEEE Photonics Journal, 2021, 13, 1-8.	1.0	1
240	Fabricating Efficient and Stable Quasi-3D and 3D/2D Perovskite Solar Cells with 2D-Sheets Connected by Inorganic Type Ionic-Bond. Nanotechnology, 2021, 32, .	1.3	3
241	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
242	Effects of HTL/ETL properties on the performance of (FAPbI₃)_{0.85}(MAPbBr₃)_{0.15} perovskite solar cells. Journal Physics D: Applied Physics, 2021, 54, 334001.	1.3	4
243	Crystallization Control and Defect Passivation via a Cross-Linking Additive for High-Performance FAPbBr₃ Perovskite Solar Cells. Journal of Physical Chemistry C, 2021, 125, 12551-12559.	1.5	10
244	Lowâ€dimensional perovskite materials and theirâ€‰optoelectronics. InformaÄnÃ-MateriÃ¡ly, 2021, 3, 1039-1069.	8.5	39
245	Fighting Health Hazards in Lead Halide Perovskite Optoelectronic Devices with Transparent Phosphate Salts. ACS Applied Materials & Interfaces, 2021, 13, 33995-34002.	4.0	30
246	2D Ruddlesdenâ€“Popper Perovskite with Ordered Phase Distribution for Highâ€Performance Selfâ€Powered Photodetectors. Advanced Materials, 2021, 33, e2101714.	11.1	48
247	Colorâ€Stable Deepâ€Blue Perovskite Lightâ€Emitting Diodes Based on Organotrichlorosilane Postâ€Treatment. Advanced Functional Materials, 2021, 31, 2103219.	7.8	34
248	Defect passivation grain boundaries using 3-aminopropyltrimethoxysilane for highly efficient and stable perovskite solar cells. Solar Energy, 2021, 224, 472-479.	2.9	14
249	Immediate and Temporal Enhancement of Power Conversion Efficiency in Surface-Passivated Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 39178-39185.	4.0	10
250	Robust Unencapsulated Perovskite Solar Cells Protected by a Fluorinated Fullerene Electron Transporting Layer. ACS Energy Letters, 2021, 6, 3376-3385.	8.8	27
251	Correlating the Active Layer Structure and Composition with the Device Performance and Lifetime of Amino-Acid-Modified Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 43505-43515.	4.0	17
252	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
253	Interfaces and Interfacial Layers in Inorganic Perovskite Solar Cells. Angewandte Chemie, 2021, 133, 26644-26657.	1.6	14

#	Article	IF	Citations
254	Genetic Manipulation of M13 Bacteriophage for Enhancing the Efficiency of Virusâ€Inoculated Perovskite Solar Cells with a Certified Efficiency of 22.3%. Advanced Energy Materials, 2021, 11, 2101221.	10.2	20
255	A critical review on the moisture stability of halide perovskite films and solar cells. Chemical Engineering Journal, 2022, 430, 132701.	6.6	31
256	Interfaces and Interfacial Layers in Inorganic Perovskite Solar Cells. Angewandte Chemie - International Edition, 2021, 60, 26440-26453.	7.2	69
257	A critical review of materials innovation and interface stabilization for efficient and stable perovskite photovoltaics. Nano Energy, 2021, 87, 106141.	8.2	28
258	Enhanced performance of p-i-n perovskite solar cell via defect passivation of nickel oxide/perovskite interface with self-assembled monolayer. Applied Surface Science, 2021, 560, 149973.	3.1	36
259	Improve the efficiency of perovskite solar cells through the interface modification of g-C3N4 nanosheets. Materials Letters, 2021, 304, 130685.	1.3	8
260	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
261	Passivation agent with dipole moment for surface modification towards efficient and stable perovskite solar cells. Journal of Energy Chemistry, 2022, 64, 55-61.	7.1	17
262	Full-scale chemical and field-effect passivation: 21.52% efficiency of stable MAPbI3 solar cells via benzenamine modification. Nano Research, 2021, 14, 2783-2789.	5.8	20
263	Toward efficient perovskite solar cells by planar imprint for improved perovskite film quality and granted bifunctional barrier. Journal of Materials Chemistry A, 2021, 9, 16178-16186.	5.2	21
264	Toward Perovskite Solar Cell Commercialization: A Perspective and Research Roadmap Based on Interfacial Engineering. Advanced Materials, 2018, 30, e1800455.	11.1	332
265	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
266	Composite Encapsulation Enabled Superior Comprehensive Stability of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 27277-27285.	4.0	54
267	Roadmap on organicâ€"inorganic hybrid perovskite semiconductors and devices. APL Materials, 2021, 9, .	2.2	102
268	Review on methods for improving the thermal and ambient stability of perovskite solar cells. Journal of Photonics for Energy, 2019, 9, 1.	0.8	32
269	Investigation of CsPbBr₃ films with controllable morphology and its influence on the photovoltaic properties for carbon-based planar perovskite solar cells. Applied Optics, 2020, 59, 5481.	0.9	2
270	Emerging electronic applications of fullerene derivatives: an era beyond OPV. Journal of Materials Chemistry C, 2021, 9, 16143-16163.	2.7	21
271	Construction of an Iodine Diffusion Barrier Using Network Structure Silicone Resin for Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 8138-8146.	4.0	11

#	Article	IF	Citations
273	A comprehensive review on defect passivation and gradient energy alignment strategies for highly efficient perovskite solar cells. Journal Physics D: Applied Physics, 2022, 55, 043001.	1.3	9
274	PCBM/Ag interface dipole management in inverted perovskite solar cells. Applied Physics Letters, 2021, 119, .	1.5	10
275	A Light Soaking Free Solution Processable Metal Oxide Cathode Interfacial Layer Enables High Efficiency in Bulk Heterojunction Polymer Solar Cells. ACS Applied Energy Materials, 2021, 4, 11480-11487.	2.5	6
276	Machine learning stability and band gap of lead-free halide double perovskite materials for perovskite solar cells. Solar Energy, 2021, 228, 689-699.	2.9	23
277	Oligomeric Silica-Wrapped Perovskites Enable Synchronous Defect Passivation and Grain Stabilization for Efficient and Stable Perovskite Photovoltaics. SSRN Electronic Journal, 0, , .	0.4	1
278	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
279	Stabilization Techniques of Lead Halide Perovskite for Photovoltaic Applications. Solar Rrl, 2022, 6, .	3.1	8
280	Electron and hole transport in solution-processed fullerenes. Journal of Materials Chemistry C, 2021, 9, 16068-16077.	2.7	3
281	Electrode Engineering in Halide Perovskite Electronics: Plenty of Room at the Interfaces. Advanced Materials, 2022, 34, e2108616.	11.1	55
282	Impact of fluorine substitution in organic functional materials for perovskite solar cell. Dyes and Pigments, 2022, 198, 110029.	2.0	22
283	Suppressed Halide Segregation and Defects in Wide Bandgap Perovskite Solar Cells Enabled by Doping Organic Bromide Salt with Moderate Chain Length. Journal of Physical Chemistry C, 2022, 126, 1711-1720.	1.5	8
284	Lowâ€Temperatureâ€Processed Stable Perovskite Solar Cells and Modules: A Comprehensive Review. Advanced Energy Materials, 2022, 12, .	10.2	38
285	Quick screening stable double perovskite oxides for photovoltaic applications by machine learning. Ceramics International, 2022, 48, 18074-18082.	2.3	10
286	Water-Stable CsPbBr₃/Cs₄PbBr₆ Nanocrystals with a Mixed Fluoropolymer Shell for Optical Temperature Sensing. ACS Applied Nano Materials, 2022, 5, 5025-5034.	2.4	8
287	Targeted Molecular Design of Functionalized Fullerenes for Highâ€Performance and Stable Perovskite Solar Cells. Small Structures, 2022, 3, .	6.9	17
288	Dye-sensitized perovskite/organic semiconductor ternary transistors for artificial synapses. Science China Materials, 2022, 65, 2521-2528.	3.5	18
289	Electron transport interface engineering with pyridine functionalized perylene diimide-based material for inverted perovskite solar cell. Chemical Engineering Journal, 2022, 438, 135410.	6.6	21
290	Homogeneously Miscible Fullerene inducing Vertical Gradient in Perovskite Thinâ€Film toward Highly Efficient Solar Cells. Advanced Energy Materials, 2022, 12, .	10.2	28

#	Article	IF	Citations
291	Recent Progress in Ionic Liquids for Stability Engineering of Perovskite Solar Cells. Small Structures, 2022, 3, .	6.9	30
292	Dye-modified halide perovskite materials. Organic Electronics, 2022, , 106545.	1.4	2
293	Photoconductive Charge Transfer Complexes as Charge Transport Layers for High Performance Inverted Perovskite Solar Cells. Advanced Functional Materials, 2022, 32, .	7.8	12
294	Progress toward understanding the fullerene-related chemical interactions in perovskite solar cells. Nano Research, 2022, 15, 7139-7153.	5.8	12
295	Ultrafast Charge Transfer Dynamics and Charge Transport with Pyrediyne (PDY): Revealing the Role of a Novel Carbon-Based Electron Acceptor. Journal of Physical Chemistry C, 0, , .	1.5	1
299	Efficient Perovskite Solar Cells Based on Tin Oxide Nanocrystals with Difunctional Modification. Small, 2022, 18, .	5.2	15
300	Fine CsPbX3@PVDF-HFP/PS electrospun nanofibers with efficient emission and high stability toward multifunctional fluorescent sensor. Chemical Engineering Journal, 2023, 451, 139031.	6.6	9
301	Efficient inverted CsPbI3 perovskite solar cells fabricated in common air. Chemical Engineering Journal, 2023, 452, 139495.	6.6	14
302	Bilayer metal halide perovskite for efficient and stable solar cells and modules. Materials Futures, 2022, 1, 042102.	3.1	19
303	Dimensional stabilization of wood by microporous silica aerogel using in-situ polymerization. Wood Science and Technology, 2022, 56, 1353-1375.	1.4	6
304	Improving the stability of inverted perovskite solar cells towards commercialization. Communications Materials, 2022, 3, .	2.9	29
305	Patterned 2D Perovskite Film with a Preferably Orientated 3D-Like Phase for Efficient Perovskite Solar Cells. Chemistry of Materials, 2022, 34, 8446-8455.	3.2	2
306	A mixed PC61BMâ€CO i 8DFIC based electron transport material for inverted highâ€performance perovskite solar cells. ChemNanoMat, 0, , .	1.5	0
307	Achieving Small Temperature Coefficients in Carbonâ€Based Perovskite Solar Cells by Enhancing Electron Extraction. Advanced Optical Materials, 2022, 10, .	3.6	7
308	Cooperative Adsorption of Metalâ€organic Complexes on CsPbI₂Br Perovskite Surface for Photovoltaic Efficiency Exceeding 17â€‰%. ChemSusChem, 2022, 15, .	3.6	2
309	Simultaneous improvement of efficiency and stability of inverted organic solar cell<i>via</i>composite hole transport layer. Journal of Materials Chemistry A, 2022, 10, 23973-23981.	5.2	13
311	Fullereneâ€Based Inverted Perovskite Solar Cell: A Key to Achieve Promising, Stable, and Efficient Photovoltaics. Advanced Materials Interfaces, 2022, 9, .	1.9	12
312	24.20%â€Efficiency MAâ€Free Perovskite Solar Cells Enabled by Siloxane Derivative Interface Engineering. Small, 2022, 18, .	5.2	11

#	Article	IF	Citations
313	Recent progress in perovskite solar cells: from device to commercialization. Science China Chemistry, 2022, 65, 2369-2416.	4.2	53
315	Recent progress in perovskite solar cells: material science. Science China Chemistry, 2023, 66, 10-64.	4.2	53
316	Enhanced performance of inverted hybrid perovskite solar cells with interfacial passivation filler. Materials Today Sustainability, 2023, 22, 100381.	1.9	0
317	A Polymer Strategy toward Highâ€Performance Multifunctional Perovskite Optoelectronics: From Polymer Matrix to Device Applications. Advanced Optical Materials, 2023, 11, .	3.6	4
318	Green Energy by Hydrogen Production from Water Splitting, Water Oxidation Catalysis and Acceptorless Dehydrogenative Coupling. Inorganics, 2023, 11, 88.	1.2	8
319	Quinoxalineâ€Based Xâ€Shaped Sensitizers as Selfâ€Assembled Monolayer for Tin Perovskite Solar cells. Advanced Functional Materials, 2023, 33, .	7.8	16
320	Lightâ€Emitting Device Based on Amplified Spontaneous Emission. Laser and Photonics Reviews, 2023, 17, .	4.4	3
321	Buried-in interface with two-terminal functional groups for perovskite-based photovoltaic solar cells. Advanced Composites and Hybrid Materials, 2023, 6, .	9.9	10
322	Enantiomerically Pure Fullerenes as a Means to Enhance the Performance of Perovskite Solar Cells. Advanced Energy Materials, 2023, 13, .	10.2	8
323	Highâ€Efficiency Wideâ€Bandgap Perovskite Solar Cells for Laser Energy Transfer Underwater. Energy Technology, 2023, 11, .	1.8	2
324	Soluble Perinone Isomers as Electron Transport Materials for p-i-n Perovskite Solar Cells. Chemical Communications, 0, , .	2.2	1
325	Moistureâ€Resilient Perovskite Solar Cells for Enhanced Stability. Advanced Materials, 0, , .	11.1	12
330	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
333	Cross-linking polymerization boosts the performance of perovskite solar cells: from material design to performance regulation. Energy and Environmental Science, 2023, 16, 4251-4279.	15.6	1
334	The role of organic spacers in 2D/3D hybrid perovskite solar cells. Materials Chemistry Frontiers, 2023, 8, 82-103.	3.2	2
339	Cross-linking strategies for efficient and highly stable perovskite solar cells. Journal of Materials Chemistry C, 0, , .	2.7	0