

Defect passivation in hybrid perovskite solar cells using anions and cations

Nature Energy

2,

DOI: [10.1038/nenergy.2017.102](https://doi.org/10.1038/nenergy.2017.102)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Fluorinated fused nonacyclic interfacial materials for efficient and stable perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 21414-21421.	5.2	59
2	Tuning the A-site cation composition of FA perovskites for efficient and stable NiO-based p-n perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 21858-21865.	5.2	39
3	Towards Extending Solar Cell Lifetimes: Addition of a Fluorous Cation to Triple Cation-Based Perovskite Films. <i>ChemSusChem</i> , 2017, 10, 3846-3853.	3.6	49
4	Sodium bromide additive improved film morphology and performance in perovskite light-emitting diodes. <i>Applied Physics Letters</i> , 2017, 111, .	1.5	19
5	Inverted Planar Perovskite Solar Cells with a High Fill Factor and Negligible Hysteresis by the Dual Effect of NaCl-Doped PEDOT:PSS. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 43902-43909.	4.0	149
6	Strained hybrid perovskite thin films and their impact on the intrinsic stability of perovskite solar cells. <i>Science Advances</i> , 2017, 3, eaao5616.	4.7	635
7	Additive-Enhanced Crystallization of Solution Process for Planar Perovskite Solar Cells with Efficiency Exceeding 19%. <i>Chemistry - A European Journal</i> , 2017, 23, 18140-18145.	1.7	33
8	Hole-Transporting Materials for Printable Perovskite Solar Cells. <i>Materials</i> , 2017, 10, 1087.	1.3	94
9	Anti-Solvent Crystallization Strategies for Highly Efficient Perovskite Solar Cells. <i>Crystals</i> , 2017, 7, 291.	1.0	144
10	Progress in fullerene-based hybrid perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2018, 6, 2635-2651.	2.7	114
11	Efficient and Stable Perovskite Solar Cells via Dual Functionalization of Dopamine Semiquinone Radical with Improved Trap Passivation Capabilities. <i>Advanced Functional Materials</i> , 2018, 28, 1707444.	7.8	94
12	Post-treatment of perovskite film with phenylalkylammonium iodide for hysteresis-less perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2018, 179, 57-65.	3.0	81
13	A ternary organic electron transport layer for efficient and photostable perovskite solar cells under full spectrum illumination. <i>Journal of Materials Chemistry A</i> , 2018, 6, 5566-5573.	5.2	35
14	Unveil the Full Potential of Integrated-Back-Contact Perovskite Solar Cells Using Numerical Simulation. <i>ACS Applied Energy Materials</i> , 2018, 1, 970-975.	2.5	29
15	Quantitative analysis of the transient photoluminescence of CH ₃ NH ₃ Pb ₃ /PC ₆₁ BM heterojunctions by numerical simulations. <i>Sustainable Energy and Fuels</i> , 2018, 2, 1027-1034.	2.5	103
16	Exploring Inorganic Binary Alkaline Halide to Passivate Defects in Low-Temperature-Processed Planar-Structure Hybrid Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2018, 8, 1800138.	10.2	186
17	Continuous Grain-Boundary Functionalization for High-Efficiency Perovskite Solar Cells with Exceptional Stability. <i>CheM</i> , 2018, 4, 1404-1415.	5.8	165
18	Perovskite seeding growth of formamidinium-lead-iodide-based perovskites for efficient and stable solar cells. <i>Nature Communications</i> , 2018, 9, 1607.	5.8	309

#	ARTICLE	IF	CITATIONS
19	Defects in metal triiodide perovskite materials towards high-performance solar cells: origin, impact, characterization, and engineering. <i>Chemical Society Reviews</i> , 2018, 47, 4581-4610.	18.7	455
20	Molecular doping enabled scalable blading of efficient hole-transport-layer-free perovskite solar cells. <i>Nature Communications</i> , 2018, 9, 1625.	5.8	314
21	Black phosphorus quantum dots as dual-functional electron-selective materials for efficient plastic perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2018, 6, 8886-8894.	5.2	80
22	Interfacial benzenethiol modification facilitates charge transfer and improves stability of cm-sized metal halide perovskite solar cells with up to 20% efficiency. <i>Energy and Environmental Science</i> , 2018, 11, 1880-1889.	15.6	148
23	Controlled surface decomposition derived passivation and energy-level alignment behaviors for high performance perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2018, 6, 9397-9401.	5.2	20
24	Efficient Passivation of Hybrid Perovskite Solar Cells Using Organic Dyes with -COOH Functional Group. <i>Advanced Energy Materials</i> , 2018, 8, 1800715.	10.2	187
25	Improving the Performance of Perovskite Solar Cells Through Solvent Vapor Annealing-based Morphology Control of the Hole-Transport Layer. <i>Energy Technology</i> , 2018, 6, 1283-1289.	1.8	9
26	Electronic implications of organic nitrogen lone pairs in lead iodide perovskites. <i>Journal of Materials Chemistry C</i> , 2018, 6, 4765-4768.	2.7	1
27	Efficient and Stable Inverted Planar Perovskite Solar Cells Using a Triphenylamine Hole-Transporting Material. <i>ChemSusChem</i> , 2018, 11, 1467-1473.	3.6	45
28	A non-equilibrium Ti^{4+} doping strategy for an efficient hematite electron transport layer in perovskite solar cells. <i>Dalton Transactions</i> , 2018, 47, 6404-6411.	1.6	9
29	A Semitransparent Inorganic Perovskite Film for Overcoming Ultraviolet Light Instability of Organic Solar Cells and Achieving 14.03% Efficiency. <i>Advanced Materials</i> , 2018, 30, e1800855.	11.1	243
30	Interfacial Passivation of the $\text{p}^{\text{-}}$ Doped Hole-Transporting Layer Using General Insulating Polymers for High-Performance Inverted Perovskite Solar Cells. <i>Small</i> , 2018, 14, e1704007.	5.2	105
31	Eliminating J-V hysteresis in perovskite solar cells via defect controlling. <i>Organic Electronics</i> , 2018, 58, 283-289.	1.4	29
32	Improving the Performance of Inverted Formamidinium Tin Iodide Perovskite Solar Cells by Reducing the Energy-Level Mismatch. <i>ACS Energy Letters</i> , 2018, 3, 1116-1121.	8.8	105
33	Extremely low trap-state energy level perovskite solar cells passivated using NH_2 -POSS with improved efficiency and stability. <i>Journal of Materials Chemistry A</i> , 2018, 6, 6806-6814.	5.2	45
34	Efficient and stable inverted planar perovskite solar cells using dopant-free CuPc as hole transport layer. <i>Electrochimica Acta</i> , 2018, 273, 273-281.	2.6	38
35	One-step roll-to-roll air processed high efficiency perovskite solar cells. <i>Nano Energy</i> , 2018, 46, 185-192.	8.2	271
36	Oxygen doping in nickel oxide for highly efficient planar perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2018, 6, 4721-4728.	5.2	57

#	ARTICLE	IF	CITATIONS
37	Bifunctional Hydroxylamine Hydrochloride Incorporated Perovskite Films for Efficient and Stable Planar Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2018, 1, 900-909.	2.5	81
38	Suppressed Ion Migration along the In-Plane Direction in Layered Perovskites. <i>ACS Energy Letters</i> , 2018, 3, 684-688.	8.8	240
39	Facile surface modification of CH ₃ NH ₃ Pb ₃ films leading to simultaneously improved efficiency and stability of inverted perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2018, 6, 6255-6264.	5.2	34
40	Largely enhanced <i>v_{OC}</i> and stability in perovskite solar cells with modified energy match by coupled 2D interlayers. <i>Journal of Materials Chemistry A</i> , 2018, 6, 4860-4867.	5.2	61
41	Improved Performance of Printable Perovskite Solar Cells with Bifunctional Conjugated Organic Molecule. <i>Advanced Materials</i> , 2018, 30, 1705786.	11.1	209
42	In Situ Growth of 2D Perovskite Capping Layer for Stable and Efficient Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2018, 28, 1706923.	7.8	543
43	Compositional Engineering for Efficient Wide Band Gap Perovskites with Improved Stability to Photoinduced Phase Segregation. <i>ACS Energy Letters</i> , 2018, 3, 428-435.	8.8	344
44	3D-2D Interface Profiling for Record Efficiency All-Inorganic CsPbBr ₂ Perovskite Solar Cells with Superior Stability. <i>Advanced Energy Materials</i> , 2018, 8, 1703246.	10.2	301
45	Grain Boundary Modification via F4TCNQ To Reduce Defects of Perovskite Solar Cells with Excellent Device Performance. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 1909-1916.	4.0	115
46	Analysis of Ion-Diffusion-Induced Interface Degradation in Inverted Perovskite Solar Cells via Restoration of the Ag Electrode. <i>Advanced Energy Materials</i> , 2018, 8, 1702197.	10.2	55
47	Impact of Ultrathin C ₆₀ on Perovskite Photovoltaic Devices. <i>ACS Nano</i> , 2018, 12, 876-883.	7.3	80
48	Voltage Losses in Organic Solar Cells: Understanding the Contributions of Intramolecular Vibrations to Nonradiative Recombinations. <i>Advanced Energy Materials</i> , 2018, 8, 1702227.	10.2	47
49	Molecular engineering of conjugated polymers for efficient hole transport and defect passivation in perovskite solar cells. <i>Nano Energy</i> , 2018, 45, 28-36.	8.2	241
50	Post-healing of defects: an alternative way for passivation of carbon-based mesoscopic perovskite solar cells <i>via</i> hydrophobic ligand coordination. <i>Journal of Materials Chemistry A</i> , 2018, 6, 2449-2455.	5.2	66
51	Argon Plasma Treatment to Tune Perovskite Surface Composition for High Efficiency Solar Cells and Fast Photodetectors. <i>Advanced Materials</i> , 2018, 30, 1705176.	11.1	81
52	Progress in hole-transporting materials for perovskite solar cells. <i>Journal of Energy Chemistry</i> , 2018, 27, 650-672.	7.1	90
53	A Lewis Base-Assisted Passivation Strategy Towards Highly Efficient and Stable Perovskite Solar Cells. <i>Solar Rrl</i> , 2018, 2, 1800055.	3.1	83
54	Structural and Chemical Changes to CH ₃ NH ₃ Pb ₃ Induced by Electron and Gallium Ion Beams. <i>Advanced Materials</i> , 2018, 30, e1800629.	11.1	120

#	ARTICLE	IF	CITATIONS
55	Hybrid perovskite films approaching the radiative limit with over 90% photoluminescence quantum efficiency. <i>Nature Photonics</i> , 2018, 12, 355-361.	15.6	408
56	Pt-decorated SnO ₂ nanotubes prepared directly on a conducting substrate and their application in solar energy conversion using a solid polymer electrolyte. <i>Applied Surface Science</i> , 2018, 450, 9-20.	3.1	6
57	Highly Crystalline Methylammonium Lead Tribromide Perovskite Films for Efficient Photovoltaic Devices. <i>ACS Energy Letters</i> , 2018, 3, 1233-1240.	8.8	54
58	The effect of Sr ₂ substitution on perovskite film formation and its photovoltaic properties via two different deposition methods. <i>Inorganic Chemistry Frontiers</i> , 2018, 5, 1354-1364.	3.0	15
59	Molecule-Doped Nickel Oxide: Verified Charge Transfer and Planar Inverted Mixed Cation Perovskite Solar Cell. <i>Advanced Materials</i> , 2018, 30, e1800515.	11.1	287
60	Natural Random Nanotexturing of the Au Interface for Light Backscattering Enhanced Performance in Perovskite Solar Cells. <i>ACS Photonics</i> , 2018, 5, 2243-2250.	3.2	39
61	Interstitial Mn ²⁺ -Driven High-Aspect-Ratio Grain Growth for Low-Trap-Density Microcrystalline Films for Record Efficiency CsPb ₂ Br Solar Cells. <i>ACS Energy Letters</i> , 2018, 3, 970-978.	8.8	356
62	Excess iodine as the interface recombination center limiting the open-circuit voltage of CuI-based perovskite planar solar cell. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 8838-8846.	1.1	9
63	Surface Chemistry of All Inorganic Halide Perovskite Nanocrystals: Passivation Mechanism and Stability. <i>Advanced Materials Interfaces</i> , 2018, 5, 1701662.	1.9	230
64	Heterojunction Engineering for High Efficiency Cesium Formamidinium Double-Cation Lead Halide Perovskite Solar Cells. <i>ChemSusChem</i> , 2018, 11, 837-842.	3.6	61
65	Molecular design with silicon core: toward commercially available hole transport materials for high-performance planar perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2018, 6, 404-413.	5.2	60
66	Interface Engineering for Highly Efficient and Stable Planar Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2018, 8, 1701883.	10.2	338
67	Reduced interface losses in inverted perovskite solar cells by using a simple dual-functional phenanthroline derivative. <i>Nano Energy</i> , 2018, 43, 72-80.	8.2	43
68	The 3D Structure of Twisted Benzo[ghi]perylene-Triimide Dimer as a Non-Fullerene Acceptor for Inverted Perovskite Solar Cells. <i>ChemSusChem</i> , 2018, 11, 415-423.	3.6	27
69	Incorporating deep electron traps into perovskite devices: towards high efficiency solar cells and fast photodetectors. <i>Journal of Materials Chemistry A</i> , 2018, 6, 21039-21046.	5.2	8
70	One plus one greater than two: high-performance inverted planar perovskite solar cells based on a composite CuI/CuSCN hole-transporting layer. <i>Journal of Materials Chemistry A</i> , 2018, 6, 21435-21444.	5.2	64
71	Highly efficient planar perovskite solar cells achieved by simultaneous defect engineering and formation kinetic control. <i>Journal of Materials Chemistry A</i> , 2018, 6, 23865-23874.	5.2	37
72	Suppressing defects through the synergistic effect of a Lewis base and a Lewis acid for highly efficient and stable perovskite solar cells. <i>Energy and Environmental Science</i> , 2018, 11, 3480-3490.	15.6	274

#	ARTICLE	IF	CITATIONS
73	Tailoring a dynamic crystalline process during the conversion of lead-halide perovskite layer to achieve high performance solar cells. <i>Journal of Materials Chemistry A</i> , 2018, 6, 24793-24804.	5.2	24
74	General Nondestructive Passivation by 4-Fluoroaniline for Perovskite Solar Cells with Improved Performance and Stability. <i>Small</i> , 2018, 14, e1803350.	5.2	82
75	Improving the Bulk Emission Properties of $\text{CH}_3\text{NH}_3\text{PbBr}_3$ by Modifying the Halide-Related Defect Structure. <i>Journal of Physical Chemistry C</i> , 2018, 122, 27250-27255.	1.5	4
76	$\text{TiO}_2/\text{SnO}_2$ Nanocomposites as Electron Transporting Layer for Efficiency Enhancement in Planar $\text{CH}_3\text{NH}_3\text{PbI}_3$ -Based Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2018, 1, 6936-6944.	2.5	18
77	Tailored Phase Conversion under Conjugated Polymer Enables Thermally Stable Perovskite Solar Cells with Efficiency Exceeding 21%. <i>Journal of the American Chemical Society</i> , 2018, 140, 17255-17262.	6.6	235
78	Excess charge-carrier induced instability of hybrid perovskites. <i>Nature Communications</i> , 2018, 9, 4981.	5.8	159
79	Efficient two-terminal all-perovskite tandem solar cells enabled by high-quality low-bandgap absorber layers. <i>Nature Energy</i> , 2018, 3, 1093-1100.	19.8	422
80	Thin-film solar cells exceeding 22% solar cell efficiency: An overview on CdTe-, Cu(In,Ga)Se ₂ - and perovskite-based materials. <i>Applied Physics Reviews</i> , 2018, 5, .	5.5	175
81	An Ultra-Low Concentration of Gold Nanoparticles Embedded in the NiO Hole Transport Layer Boosts the Performance of p-i-n Perovskite Solar Cells. <i>Solar Rrl</i> , 2019, 3, 1800278.	3.1	38
82	Highly Efficient and Stable Inverted Perovskite Solar Cell Obtained via Treatment by Semiconducting Chemical Additive. <i>Advanced Materials</i> , 2019, 31, e1805554.	11.1	134
83	The Role of Charge Selective Contacts in Perovskite Solar Cell Stability. <i>Advanced Energy Materials</i> , 2019, 9, 1803140.	10.2	120
84	Wet-Chemical Synthesis of Surface-Passivated Halide Perovskite Microwires for Improved Optoelectronic Performance and Stability. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 43850-43856.	4.0	20
85	Diboron-Assisted Interfacial Defect Control Strategy for Highly Efficient Planar Perovskite Solar Cells. <i>Advanced Materials</i> , 2018, 30, e1805085.	11.1	128
86	Addition Effect of Pyreneammonium Iodide to Methylammonium Lead Halide Perovskite 2D/3D Heterostructured Perovskite with Enhanced Stability. <i>Advanced Functional Materials</i> , 2018, 28, 1804856.	7.8	48
87	Direct Observation of Perovskite Photodetector Performance Enhancement by Atomically Thin Interface Engineering. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 36493-36504.	4.0	25
88	Fullerene derivative anchored SnO_2 for high-performance perovskite solar cells. <i>Energy and Environmental Science</i> , 2018, 11, 3463-3471.	15.6	205
89	SiO_2 -Improved stability of Mn-doped $\text{CsPbBr}_{0.5}\text{I}_{2.5}$ NC and their application for white LED. <i>Journal of the American Ceramic Society</i> , 2019, 102, 930-935.	1.9	15
90	Recent insights for achieving mixed halide perovskites without halide segregation. <i>Current Opinion in Electrochemistry</i> , 2018, 11, 84-90.	2.5	33

#	ARTICLE	IF	CITATIONS
91	Impact of Surfaces on Photoinduced Halide Segregation in Mixed-Halide Perovskites. ACS Energy Letters, 2018, 3, 2694-2700.	8.8	184
92	Naphthodiperylenetetraimide-Based Polymer as Electron-Transporting Material for Efficient Inverted Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 36549-36555.	4.0	24
93	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
94	Multifunctional molecular modulators for perovskite solar cells with over 20% efficiency and high operational stability. Nature Communications, 2018, 9, 4482.	5.8	266
95	Defect Passivation of CsPbI ₂ Perovskites for High-Performance Solar Cells with Large Open-Circuit Voltage of 1.28 V. ACS Applied Energy Materials, 2018, 1, 5872-5878.	2.5	62
96	Impact of iodine antisite (IPb) defects on the electronic properties of the (110) CH ₃ NH ₃ PbI ₃ surface. Journal of Chemical Physics, 2018, 149, 164704.	1.2	17
97	Design of an Inorganic Mesoporous Hole-Transporting Layer for Highly Efficient and Stable Inverted Perovskite Solar Cells. Advanced Materials, 2018, 30, e1805660.	11.1	179
98	Understanding the Role of Lithium Doping in Reducing Nonradiative Loss in Lead Halide Perovskites. Advanced Science, 2018, 5, 1800736.	5.6	59
99	Highly Efficient Perovskite Solar Cells via Nickel Passivation. Advanced Functional Materials, 2018, 28, 1804286.	7.8	100
100	Dual Functions of Crystallization Control and Defect Passivation Enabled by Sulfonic Zwitterions for Stable and Efficient Perovskite Solar Cells. Advanced Materials, 2018, 30, e1803428.	11.1	296
101	Iodine-Optimized Interface for Inorganic CsPb ₂ Br Perovskite Solar Cell to Attain High Stabilized Efficiency Exceeding 14%. Advanced Science, 2018, 5, 1801123.	5.6	90
102	Research Update: Recombination and open-circuit voltage in lead-halide perovskites. APL Materials, 2018, 6, .	2.2	56
103	Perovskite Solar Cells Employing Copper Phthalocyanine Hole-Transport Material with an Efficiency over 20% and Excellent Thermal Stability. ACS Energy Letters, 2018, 3, 2441-2448.	8.8	90
104	Dependence of hysteresis on the perovskite film thickness: inverse behavior between TiO ₂ and PCBM in a normal planar structure. Journal of Materials Chemistry A, 2018, 6, 18206-18215.	5.2	37
105	In-situ cross-linking strategy for efficient and operationally stable methylammonium lead iodide solar cells. Nature Communications, 2018, 9, 3806.	5.8	227
106	Challenges for commercializing perovskite solar cells. Science, 2018, 361, .	6.0	1,327
107	Interface Engineering in n-i-p Metal Halide Perovskite Solar Cells. Solar Rrl, 2018, 2, 1800177.	3.1	53
108	High-performance perovskite/Cu(In,Ga)Se ₂ monolithic tandem solar cells. Science, 2018, 361, 904-908.	6.0	314

#	ARTICLE	IF	CITATIONS
109	Surface passivation of perovskite layers using heterocyclic halides: Improved photovoltaic properties and intrinsic stability. <i>Nano Energy</i> , 2018, 50, 220-228.	8.2	79
110	Perovskite Solar Cells with Inorganic Electron and Hole Transport Layers Exhibiting Long-Term (~ 500) Tj EQ ₁ 1 0.784314 e1801010.	11.1	174
111	Interface Engineering of Solution-Processed Hybrid Organohalide Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 21681-21687.	4.0	89
112	Surfactant-controlled ink drying enables high-speed deposition of perovskite films for efficient photovoltaic modules. <i>Nature Energy</i> , 2018, 3, 560-566.	19.8	585
113	Elucidating the Origins of Subgap Tail States and Open-Circuit Voltage in Methylammonium Lead Triiodide Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2018, 28, 1801808.	7.8	78
114	Ionic liquid modified SnO ₂ nanocrystals as a robust electron transporting layer for efficient planar perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2018, 6, 22086-22095.	5.2	66
115	Colloidal Quantum Dot Tandem Solar Cells Using Chemical Vapor Deposited Graphene as an Atomically Thin Intermediate Recombination Layer. <i>ACS Energy Letters</i> , 2018, 3, 1753-1759.	8.8	33
116	Efficient Perovskite Solar Cells with Reduced Photocurrent Hysteresis through Tuned Crystallinity of Hybrid Perovskite Thin Films. <i>ACS Omega</i> , 2018, 3, 7069-7076.	1.6	8
117	Enhanced photovoltage for inverted planar heterojunction perovskite solar cells. <i>Science</i> , 2018, 360, 1442-1446.	6.0	1,221
118	Ion Migration Inhibition by the Cation-I Interaction in Perovskite Materials for Efficient and Stable Perovskite Solar Cells. <i>Advanced Materials</i> , 2018, 30, e1707583.	11.1	248
119	Magnesium-Doped MAPbI ₃ Perovskite Layers for Enhanced Photovoltaic Performance in Humid Air Atmosphere. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 24543-24548.	4.0	79
120	High-Performance Multilayer Encapsulation for Perovskite Photovoltaics. <i>Advanced Energy Materials</i> , 2018, 8, 1801234.	10.2	68
121	Ionic Additive Engineering Toward High-Efficiency Perovskite Solar Cells with Reduced Grain Boundaries and Trap Density. <i>Advanced Functional Materials</i> , 2018, 28, 1801985.	7.8	130
122	Visualization and suppression of interfacial recombination for high-efficiency large-area pin perovskite solar cells. <i>Nature Energy</i> , 2018, 3, 847-854.	19.8	721
123	New thiophene-based C ₆₀ fullerene derivatives as efficient electron transporting materials for perovskite solar cells. <i>New Journal of Chemistry</i> , 2018, 42, 14551-14558.	1.4	34
124	Achieving High Open-Circuit Voltage for p-i-n Perovskite Solar Cells Via Anode Contact Engineering. <i>Solar Rrl</i> , 2018, 2, 1800151.	3.1	14
125	Defect Engineering toward Highly Efficient and Stable Perovskite Solar Cells. <i>Advanced Materials Interfaces</i> , 2018, 5, 1800326.	1.9	40
126	All that glitters is not gold: Recent progress of alternative counter electrodes for perovskite solar cells. <i>Nano Energy</i> , 2018, 52, 211-238.	8.2	85

#	ARTICLE	IF	CITATIONS
127	Enhanced efficiency and stability of fully air-processed TiO ₂ nanorods array based perovskite solar cell using commercial available CuSCN and carbon. <i>Solar Energy</i> , 2018, 173, 7-16.	2.9	22
128	Efficient $\text{I}^{\pm}\text{-CsPbI}_3$ Photovoltaics with Surface Terminated Organic Cations. <i>Joule</i> , 2018, 2, 2065-2075.	11.7	280
129	Zinc as a New Dopant for NiO _x -Based Planar Perovskite Solar Cells with Stable Efficiency near 20%. <i>ACS Applied Energy Materials</i> , 2018, 1, 3947-3954.	2.5	87
130	Lead-less mesoscopic perovskite solar cells with enhanced photovoltaic performance by strontium chloride substitution. <i>Ceramics International</i> , 2018, 44, 18863-18870.	2.3	19
131	Rear-Surface Passivation by Melaminium Iodide Additive for Stable and Hysteresis-less Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 25372-25383.	4.0	72
132	Achieving high-performance thick-film perovskite solar cells with electron transporting Bingel fullerenes. <i>Journal of Materials Chemistry A</i> , 2018, 6, 15495-15503.	5.2	32
133	Elucidation of Chemical Species and Reactivity at Methylammonium Lead Iodide and Cesium Tin Bromide Perovskite Surfaces via Orthogonal Reaction Chemistry. <i>Journal of Physical Chemistry C</i> , 2018, 122, 17882-17894.	1.5	16
134	Lattice Modulation of Alkali Metal Cations Doped Cs _{1-x} R _x PbBr ₃ Halides for Inorganic Perovskite Solar Cells. <i>Solar Rrl</i> , 2018, 2, 1800164.	3.1	154
135	Double-edged sword effects of cation rotation and additive passivation on perovskite solar cell performance: an ab initio investigation. <i>Solar Energy Materials and Solar Cells</i> , 2018, 186, 349-355.	3.0	29
136	Inorganic CsPb _{1-x} Sn _x I ₂ for Efficient Wide-Bandgap Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2018, 8, 1800525.	10.2	192
137	Toward Industrial-Scale Production of Perovskite Solar Cells: Screen Printing, Slot-Die Coating, and Emerging Techniques. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 2707-2713.	2.1	124
138	Enhanced stability and optoelectronic properties of MAPbI ₃ films by a cationic surface-active agent for perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2018, 6, 10825-10834.	5.2	81
139	Overcoming the Photovoltage Plateau in Large Bandgap Perovskite Photovoltaics. <i>Nano Letters</i> , 2018, 18, 3985-3993.	4.5	97
140	Hydrophobic Polystyrene Passivation Layer for Simultaneously Improved Efficiency and Stability in Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 18787-18795.	4.0	107
141	Graded Bandgap CsPbI ₂ +Br _{1-x} Perovskite Solar Cells with a Stabilized Efficiency of 14.4%. <i>Joule</i> , 2018, 2, 1500-1510.	11.7	307
142	State-of-the-Art Electron-Selective Contacts in Perovskite Solar Cells. <i>Advanced Materials Interfaces</i> , 2018, 5, 1800408.	1.9	38
143	High efficiency planar-type perovskite solar cells with negligible hysteresis using EDTA-complexed SnO ₂ . <i>Nature Communications</i> , 2018, 9, 3239.	5.8	1,017
144	Efficient Perovskite Solar Cells Fabricated Through CsCl-Enhanced PbI ₂ Precursor via Sequential Deposition. <i>Advanced Materials</i> , 2018, 30, e1803095.	11.1	109

#	ARTICLE	IF	CITATIONS
145	FA _{0.88} Cs _{0.12} PbI ₃ (PF ₆) _x (PF ₆) _x Interlayer Formed by Ion Exchange Reaction between Perovskite and Hole Transporting Layer for Improving Photovoltaic Performance and Stability. <i>Advanced Materials</i> , 2018, 30, e1801948.	11.1	214
146	Preparation of perovskite-embedded monodisperse copolymer particles and their application for high purity down-conversion LEDs. <i>Materials Horizons</i> , 2018, 5, 1120-1129.	6.4	12
147	Polymer Assisted Small Molecule Hole Transport Layers Toward Highly Efficient Inverted Perovskite Solar Cells. <i>Solar Rrl</i> , 2018, 2, 1800173.	3.1	30
148	Regulating the electron transporting properties of indacenodithiophene derivatives for perovskite solar cells with PCEs up to 19.51%. <i>Journal of Materials Chemistry A</i> , 2018, 6, 18044-18049.	5.2	26
149	Solution-Processed Cu ₉ S ₅ as a Hole Transport Layer for Efficient and Stable Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 31535-31540.	4.0	28
150	Defects engineering for high-performance perovskite solar cells. <i>Npj Flexible Electronics</i> , 2018, 2, .	5.1	334
151	Two-Dimensional Perovskite Solar Cells with 14.1% Power Conversion Efficiency and 0.68% External Radiative Efficiency. <i>ACS Energy Letters</i> , 2018, 3, 2086-2093.	8.8	224
152	Minimizing Current and Voltage Losses to Reach 25% Efficient Monolithic Two-Terminal Perovskite-Silicon Tandem Solar Cells. <i>ACS Energy Letters</i> , 2018, 3, 2173-2180.	8.8	194
153	Efficient Grain Boundary Suture by Low-Cost Tetra-ammonium Zinc Phthalocyanine for Stable Perovskite Solar Cells with Expanded Photoresponse. <i>Journal of the American Chemical Society</i> , 2018, 140, 11577-11580.	6.6	95
154	Thermally stable, planar hybrid perovskite solar cells with high efficiency. <i>Energy and Environmental Science</i> , 2018, 11, 3238-3247.	15.6	348
155	Grain Boundary Patches by In Situ Conversion to Enhance Perovskite Solar Cells Stability. <i>Advanced Materials</i> , 2018, 30, e1800544.	11.1	224
156	8-Hydroquinolitolithium as a Highly Effective Solution-Processable Cathode Interfacial Material in Inverted Perovskite Solar Cells with an Efficiency Over 19%. <i>Solar Rrl</i> , 2018, 2, 1800084.	3.1	6
157	Stability of organometal halide perovskite solar cells and role of HTMs: recent developments and future directions. <i>RSC Advances</i> , 2018, 8, 20952-20967.	1.7	21
158	Influence of Bulky Organoammonium Halide Additive Choice on the Flexibility and Efficiency of Perovskite Light-Emitting Devices. <i>Advanced Functional Materials</i> , 2018, 28, 1802060.	7.8	76
159	Outlook and Challenges of Perovskite Solar Cells toward Terawatt-Scale Photovoltaic Module Technology. <i>Joule</i> , 2018, 2, 1437-1451.	11.7	162
160	Solvent-controlled growth of inorganic perovskite films in dry environment for efficient and stable solar cells. <i>Nature Communications</i> , 2018, 9, 2225.	5.8	526
161	Ultrathin Hole Extraction Layer for Efficient Inverted Perovskite Solar Cells. <i>ACS Omega</i> , 2018, 3, 6339-6345.	1.6	5
162	Surfactants for smoother films. <i>Nature Energy</i> , 2018, 3, 545-546.	19.8	4

#	ARTICLE	IF	CITATIONS
163	Efficient and UV-stable perovskite solar cells enabled by side chain-engineered polymeric hole-transporting layers. <i>Journal of Materials Chemistry A</i> , 2018, 6, 12999-13004.	5.2	43
164	Slow surface passivation and crystal relaxation with additives to improve device performance and durability for tin-based perovskite solar cells. <i>Energy and Environmental Science</i> , 2018, 11, 2353-2362.	15.6	390
165	Realizing high photovoltage for inverted planar heterojunction perovskite solar cells. <i>Science China Chemistry</i> , 2019, 62, 1-2.	4.2	19
166	Enhanced Performance and Stability of Planar Perovskite Solar Cells by Interfacial Engineering using Fluorinated Aliphatic Amines. <i>ACS Applied Energy Materials</i> , 2019, 2, 6230-6236.	2.5	18
167	Thermodynamically stabilized $\text{I}^2\text{-CsPbI}_3$ -based perovskite solar cells with efficiencies >18%. <i>Science</i> , 2019, 365, 591-595.	6.0	963
168	Simultaneous Bottom-Up Interfacial and Bulk Defect Passivation in Highly Efficient Planar Perovskite Solar Cells using Nonconjugated Small-Molecule Electrolytes. <i>Advanced Materials</i> , 2019, 31, e1903239.	11.1	89
169	Pyrrolidinium containing perovskites with thermal stability and water resistance for photovoltaics. <i>Journal of Materials Chemistry C</i> , 2019, 7, 11104-11108.	2.7	19
170	A facile route to surface passivation of both the positive and negative defects in perovskite solar cells via a self-organized passivation layer from fullerene. <i>Solar Energy</i> , 2019, 190, 264-271.	2.9	9
171	A polar-hydrophobic ionic liquid induces grain growth and stabilization in halide perovskites. <i>Chemical Communications</i> , 2019, 55, 11059-11062.	2.2	35
172	An effective surface modification strategy with high reproducibility for simultaneously improving efficiency and stability of inverted MA-free perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 21476-21487.	5.2	18
173	Stable lead-free Te-based double perovskites with tunable band gaps: a first-principles study. <i>New Journal of Chemistry</i> , 2019, 43, 14892-14897.	1.4	32
174	Charge Transfer and Diffusion at the Perovskite/PCBM Interface Probed by Transient Absorption and Reflection. <i>Journal of Physical Chemistry C</i> , 2019, 123, 22095-22103.	1.5	26
175	A "Cocktail" Approach to Effective Surface Passivation of Multiple Surface Defects of Metal Halide Perovskites Using a Combination of Ligands. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 5055-5063.	2.1	26
176	A New Organic Interlayer Spacer for Stable and Efficient 2D Ruddlesden-Popper Perovskite Solar Cells. <i>Nano Letters</i> , 2019, 19, 5237-5245.	4.5	76
177	Stabilizing halide perovskite surfaces for solar cell operation with wide-bandgap lead oxysalts. <i>Science</i> , 2019, 365, 473-478.	6.0	723
178	Interfacial charge-transfer doping of metal halide perovskites for high performance photovoltaics. <i>Energy and Environmental Science</i> , 2019, 12, 3063-3073.	15.6	111
179	A Butterfly-Inspired Hierarchical Light-Trapping Structure towards a High-Performance Polarization-Sensitive Perovskite Photodetector. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 16456-16462.	7.2	67
180	Defect passivation by alcohol-soluble small molecules for efficient planar perovskite solar cells with high open-circuit voltage. <i>Journal of Materials Chemistry A</i> , 2019, 7, 21140-21148.	5.2	58

#	ARTICLE	IF	CITATIONS
181	Sulfur-annulated perylene-diimide as an interfacial material enabling inverted perovskite solar cells with over 20% efficiency and high fill factors exceeding 83%. <i>Journal of Materials Chemistry A</i> , 2019, 7, 21176-21181.	5.2	15
182	p-Doping of organic hole transport layers in perovskite solar cells: correlating open-circuit voltage and photoluminescence quenching. <i>Journal of Materials Chemistry A</i> , 2019, 7, 18971-18979.	5.2	55
183	Preparation of perovskite microfibers by lead bromide self-assembly in aqueous solution assisted methylamine bromide vapor deposition. <i>Chemical Physics</i> , 2019, 527, 110457.	0.9	1
184	Sulfur Position in Pyrene-Based PTTIs Plays a Key Role To Determine the Performance of Perovskite Solar Cells When PTTIs Were Employed as Electron Transport Layers. <i>ACS Applied Energy Materials</i> , 2019, 2, 5716-5723.	2.5	13
185	Influence of Thiazole-Modified Carbon Nitride Nanosheets with Feasible Electronic Properties on Inverted Perovskite Solar Cells. <i>Journal of the American Chemical Society</i> , 2019, 141, 12322-12328.	6.6	61
186	Atomic-level passivation mechanism of ammonium salts enabling highly efficient perovskite solar cells. <i>Nature Communications</i> , 2019, 10, 3008.	5.8	268
187	The impact of energy alignment and interfacial recombination on the internal and external open-circuit voltage of perovskite solar cells. <i>Energy and Environmental Science</i> , 2019, 12, 2778-2788.	15.6	570
188	Improved Performance of Planar Perovskite Solar Cells Using an Amino-Terminated Multifunctional Fullerene Derivative as the Passivation Layer. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 27145-27152.	4.0	28
189	Hybrid light emitting diodes based on stable, high brightness all-inorganic CsPbI ₃ perovskite nanocrystals and InGaN. <i>Nanoscale</i> , 2019, 11, 13450-13457.	2.8	29
190	High open-circuit voltages in lead-halide perovskite solar cells: experiment, theory and open questions. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2019, 377, 20180286.	1.6	28
191	Dopant-Free Small-Molecule Hole-Transporting Material for Inverted Perovskite Solar Cells with Efficiency Exceeding 21%. <i>Advanced Materials</i> , 2019, 31, e1902781.	11.1	268
192	Investigation of Electrode Electrochemical Reactions in CH ₃ NH ₃ PbBr ₃ Perovskite Single-Crystal Field-Effect Transistors. <i>Advanced Materials</i> , 2019, 31, e1902618.	11.1	74
193	Heterogeneous electron transporting layer for reproducible, efficient and stable planar perovskite solar cells. <i>Journal of Power Sources</i> , 2019, 437, 226907.	4.0	7
194	Potassium ions as a kinetic controller in ionic double layers for hysteresis-free perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 18807-18815.	5.2	54
195	On the Relation between the Open-Circuit Voltage and Quasi-Fermi Level Splitting in Efficient Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2019, 9, 1901631.	10.2	275
196	High Versatility and Stability of Mechanochemically Synthesized Halide Perovskite Powders for Optoelectronic Devices. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 30259-30268.	4.0	47
197	Light trapping nano structures with over 30% enhancement in perovskite solar cells. <i>Organic Electronics</i> , 2019, 75, 105385.	1.4	14
198	A High Mobility Conjugated Polymer Enables Air and Thermally Stable CsPb ₂ Br Perovskite Solar Cells with an Efficiency Exceeding 15%. <i>Advanced Materials Technologies</i> , 2019, 4, 1900311.	3.0	59

#	ARTICLE	IF	CITATIONS
199	Side-Chain Engineering on Dopant-Free Hole-Transporting Polymers toward Highly Efficient Perovskite Solar Cells (20.19%). <i>Advanced Functional Materials</i> , 2019, 29, 1904856.	7.8	69
200	Recent Progress in High-efficiency Planar-structure Perovskite Solar Cells. <i>Energy and Environmental Materials</i> , 2019, 2, 93-106.	7.3	45
201	Additional Organic-Solvent-Rinsing Process to Enhance Perovskite Photovoltaic Performance. <i>Advanced Electronic Materials</i> , 2019, 5, 1900244.	2.6	10
202	Synergistic effects of multiple functional ionic liquid-treated PEDOT:PSS and less-ion-defects S-acetylthiocholine chloride-passivated perovskite surface enabling stable and hysteresis-free inverted perovskite solar cells with conversion efficiency over 20%. <i>Nano Energy</i> , 2019, 63, 103866.	8.2	60
203	Adduct phases induced controlled crystallization for mixed-cation perovskite solar cells with efficiency over 21%. <i>Nano Energy</i> , 2019, 63, 103867.	8.2	48
204	High Power UV-Light Irradiation as a New Method for Defect Passivation in Degraded Perovskite Solar Cells to Recover and Enhance the Performance. <i>Scientific Reports</i> , 2019, 9, 9448.	1.6	21
205	Synergistic Effect of Elevated Device Temperature and Excess Charge Carriers on the Rapid Light-Induced Degradation of Perovskite Solar Cells. <i>Advanced Materials</i> , 2019, 31, e1902413.	11.1	90
206	Quantum Dots Supply Bulk- and Surface-Passivation Agents for Efficient and Stable Perovskite Solar Cells. <i>Joule</i> , 2019, 3, 1963-1976.	11.7	222
207	Nonradiative Recombination in Perovskite Solar Cells: The Role of Interfaces. <i>Advanced Materials</i> , 2019, 31, e1902762.	11.1	422
208	Efficient and Stable Inverted Perovskite Solar Cells Incorporating Secondary Amines. <i>Advanced Materials</i> , 2019, 31, e1903559.	11.1	128
209	A Dopant-Free Polymeric Hole-Transporting Material Enabled High Fill Factor Over 81% for Highly Efficient Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2019, 9, 1902600.	10.2	89
210	Enhanced Lifetime and Photostability with Low-Temperature Mesoporous ZnTiO ₃ /Compact SnO ₂ Electrodes in Perovskite Solar Cells. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 18460-18465.	7.2	33
211	Goethite Quantum Dots as Multifunctional Additives for Highly Efficient and Stable Perovskite Solar Cells. <i>Small</i> , 2019, 15, e1904372.	5.2	32
212	Interfacial-Tunneling-Effect-Enhanced CsPbBr ₃ Photodetectors Featuring High Detectivity and Stability. <i>Advanced Functional Materials</i> , 2019, 29, 1904461.	7.8	70
213	Efficient Perovskite Solar Cell Modules with High Stability Enabled by Iodide Diffusion Barriers. <i>Joule</i> , 2019, 3, 2748-2760.	11.7	167
214	Molecular engineering of a conjugated polymer as a hole transporting layer for versatile perovskite solar cells. <i>Materials Today Energy</i> , 2019, 14, 100341.	2.5	12
215	Efficient Perovskite Solar Cells through Suppressed Nonradiative Charge Carrier Recombination by a Processing Additive. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 40163-40171.	4.0	17
216	Amide Additives Induced a Fermi Level Shift To Improve the Performance of Hole-Conductor-Free, Printable Mesoscopic Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 6865-6872.	2.1	62

#	ARTICLE	IF	CITATIONS
217	Hole Localization Inhibits Charge Recombination in Tin-Lead Mixed Perovskites: Time-Domain ab Initio Analysis. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 6604-6612.	2.1	21
218	Self-Powered Perovskite/CdS Heterostructure Photodetectors. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 40204-40213.	4.0	65
219	Investigation of Oxygen Passivation for High-Performance All-Inorganic Perovskite Solar Cells. <i>Journal of the American Chemical Society</i> , 2019, 141, 18075-18082.	6.6	120
221	Applied Trace Alkali Metal Elements for Semiconductor Property Modulation of Perovskite Thin Films. <i>Molecules</i> , 2019, 24, 4039.	1.7	6
222	Halogen Engineering for Operationally Stable Perovskite Solar Cells via Sequential Deposition. <i>Advanced Energy Materials</i> , 2019, 9, 1902239.	10.2	41
223	Vacuum-Deposited 2D/3D Perovskite Heterojunctions. <i>ACS Energy Letters</i> , 2019, 4, 2893-2901.	8.8	77
224	Advanced Modification of Perovskite Surfaces for Defect Passivation and Efficient Charge Extraction in Air-Stable CsPbBr ₃ Perovskite Solar Cells. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 19286-19294.	3.2	51
225	Structures and Properties of Higher-Degree Aggregates of Methylammonium Iodide toward Halide Perovskite Solar Cells. <i>Russian Journal of Physical Chemistry A</i> , 2019, 93, 2250-2255.	0.1	1
226	Enhanced Nucleation of Atomic Layer Deposited Contacts Improves Operational Stability of Perovskite Solar Cells in Air. <i>Advanced Energy Materials</i> , 2019, 9, 1902353.	10.2	47
227	Defect Passivation in Hybrid Perovskite Solar Cells by Tailoring the Electron Density Distribution in Passivation Molecules. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 44233-44240.	4.0	68
228	Template-Assisted Formation of High-Quality $\text{HC}(\text{NH}_2)_2\text{PbI}_3$ Perovskite Solar Cells. <i>Advanced Science</i> , 2019, 6, 1901591.	5.6	29
229	Incorporating CsF into the PbI_2 Film for Stable Mixed Cation-Halide Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2019, 9, 1901726.	10.2	46
230	Enhanced Lifetime and Photostability with Low-Temperature Mesoporous ZnTiO_3 /Compact SnO_2 Electrodes in Perovskite Solar Cells. <i>Angewandte Chemie</i> , 2019, 131, 18631-18636.	1.6	13
231	High-Performance Inverted Planar Perovskite Solar Cells Enhanced by Thickness Tuning of New Dopant-Free Hole Transporting Layer. <i>Small</i> , 2019, 15, e1904715.	5.2	47
232	Highly Sensitive, Fast Response Perovskite Photodetectors Demonstrated in Weak Light Detection Circuit and Visible Light Communication System. <i>Small</i> , 2019, 15, e1903599.	5.2	101
233	Targeted Therapy for Interfacial Engineering Toward Stable and Efficient Perovskite Solar Cells. <i>Advanced Materials</i> , 2019, 31, e1903691.	11.1	125
234	Improved Moisture Stability of Perovskite Solar Cells Using N719 Dye Molecules. <i>Solar Rrl</i> , 2019, 3, 1900345.	3.1	30
235	General Mild Reaction Creates Highly Luminescent Organic-Ligand-Lacking Halide Perovskite Nanocrystals for Efficient Light-Emitting Diodes. <i>Journal of the American Chemical Society</i> , 2019, 141, 15423-15432.	6.6	121

#	ARTICLE	IF	CITATIONS
236	Sulfur-fused perylene diimide electron transport layers allow >400 h operational lifetime of methylammonium lead iodide photovoltaics. <i>Journal of Materials Chemistry C</i> , 2019, 7, 11126-11133.	2.7	6
237	Spontaneous Interface Ion Exchange: Passivating Surface Defects of Perovskite Solar Cells with Enhanced Photovoltage. <i>Advanced Energy Materials</i> , 2019, 9, 1902142.	10.2	63
238	A Butterfly-Inspired Hierarchical Light-Trapping Structure towards a High-Performance Polarization-Sensitive Perovskite Photodetector. <i>Angewandte Chemie</i> , 2019, 131, 16608-16614.	1.6	26
239	Electric dipole moment-assisted charge extraction and effective defect passivation in perovskite solar cells by depositing a PCBM:TIPD blend film on a CH ₃ NH ₃ PbI ₃ layer. <i>Journal of Materials Chemistry C</i> , 2019, 7, 11559-11568.	2.7	13
240	Novel approaches and scalability prospects of copper based hole transporting materials for planar perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2019, 7, 13680-13708.	2.7	50
241	Eliminating Charge Accumulation via Interfacial Dipole for Efficient and Stable Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 34964-34972.	4.0	48
242	High-Efficiency and Stable Perovskite Solar Cells Prepared Using Chlorobenzene/Acetonitrile Antisolvent. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 34989-34996.	4.0	38
243	Inverted planar perovskite solar cells based on CsI-doped PEDOT:PSS with efficiency beyond 20% and small energy loss. <i>Journal of Materials Chemistry A</i> , 2019, 7, 21662-21667.	5.2	77
244	Ionic selective contact controls the charge accumulation for efficient and intrinsic stable planar homo-junction perovskite solar cells. <i>Nano Energy</i> , 2019, 66, 104098.	8.2	31
245	Polyethyleneimine-functionalized carbon nanotubes as an interlayer to bridge perovskite/carbon for all inorganic carbon-based perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 22005-22011.	5.2	47
246	Control of aggregation and dissolution of small molecule hole transport layers via a doping strategy for highly efficient perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2019, 7, 11932-11942.	2.7	8
247	Enhancing electron diffusion length in narrow-bandgap perovskites for efficient monolithic perovskite tandem solar cells. <i>Nature Communications</i> , 2019, 10, 4498.	5.8	234
248	Graphite-N Doped Graphene Quantum Dots as Semiconductor Additive in Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 37796-37803.	4.0	61
249	A graphene/ZnO electron transfer layer together with perovskite passivation enables highly efficient and stable perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 679-686.	5.2	145
250	Advances in modelling and simulation of halide perovskites for solar cell applications. <i>JPhys Energy</i> , 2019, 1, 022001.	2.3	53
251	Perfection of Perovskite Grain Boundary Passivation by Eu-Porphyrin Complex for Overall Stable Perovskite Solar Cells. <i>Advanced Science</i> , 2019, 6, 1802040.	5.6	65
252	Potassium-intercalated rubrene as a dual-functional passivation agent for high efficiency perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 1824-1834.	5.2	59
253	Surface & grain boundary co-passivation by fluorocarbon based bifunctional molecules for perovskite solar cells with efficiency over 21%. <i>Journal of Materials Chemistry A</i> , 2019, 7, 2497-2506.	5.2	141

#	ARTICLE	IF	CITATIONS
254	Atomic layer deposition for efficient and stable perovskite solar cells. <i>Chemical Communications</i> , 2019, 55, 2403-2416.	2.2	76
255	Moisture-tolerant supermolecule for the stability enhancement of organic-inorganic perovskite solar cells in ambient air. <i>Nanoscale</i> , 2019, 11, 1228-1235.	2.8	46
256	Flower-like MoS ₂ nanocrystals: a powerful sorbent of Li ⁺ in the Spiro-OMeTAD layer for highly efficient and stable perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 3655-3663.	5.2	70
257	Thermally evaporated two-dimensional SnS as an efficient and stable electron collection interlayer for inverted planar perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 4759-4765.	5.2	20
258	Improvement of Cs _{0.85} (FAPbI ₃) _{0.15} (MAPbBr ₃) _{0.15} Quality Via DMSO-Molecule Control to Increase the Efficiency and Boost the Long-Term Stability of 1.8 cm ² Sized Planar Perovskite Solar Cells. <i>Solar Rrl</i> , 2019, 3, 1800338.	3.1	21
259	Highly efficient polymer solar cells based on low-temperature processed ZnO: application of a bifunctional Au@CNTs nanocomposite. <i>Journal of Materials Chemistry C</i> , 2019, 7, 2676-2685.	2.7	9
260	Fast Growth of Thin MAPbI ₃ Crystal Wafers on Aqueous Solution Surface for Efficient Lateral Structure Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2019, 29, 1807707.	7.8	62
261	Electronic Traps and Their Correlations to Perovskite Solar Cell Performance via Compositional and Thermal Annealing Controls. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 6907-6917.	4.0	63
262	Bright perovskite light-emitting diodes with improved film morphology and reduced trap density via surface passivation using quaternary ammonium salts. <i>Organic Electronics</i> , 2019, 67, 187-193.	1.4	28
263	Critical roles of potassium in charge-carrier balance and diffusion induced defect passivation for efficient inverted perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 5666-5676.	5.2	62
264	Spontaneous grain polymerization for efficient and stable perovskite solar cells. <i>Nano Energy</i> , 2019, 58, 825-833.	8.2	64
265	Effect of density of surface defects on photoluminescence properties in MAPbI ₃ perovskite films. <i>Journal of Materials Chemistry C</i> , 2019, 7, 5285-5292.	2.7	57
266	Scalable and efficient perovskite solar cells prepared by grooved roller coating. <i>Journal of Materials Chemistry A</i> , 2019, 7, 1870-1877.	5.2	9
267	Enhancing electron transport <i>via</i> graphene quantum dot/SnO ₂ composites for efficient and durable flexible perovskite photovoltaics. <i>Journal of Materials Chemistry A</i> , 2019, 7, 1878-1888.	5.2	67
268	Effects of substrate temperature on the crystallization process and properties of mixed-ion perovskite layers. <i>Journal of Materials Chemistry A</i> , 2019, 7, 2804-2811.	5.2	24
269	Kinetic Stabilization of the Sol-Gel State in Perovskites Enables Facile Processing of High-Efficiency Solar Cells. <i>Advanced Materials</i> , 2019, 31, e1808357.	11.1	76
270	Amphiphilic Fullerenes Employed to Improve the Quality of Perovskite Films and the Stability of Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 24782-24788.	4.0	55
271	An interface stabilized perovskite solar cell with high stabilized efficiency and low voltage loss. <i>Energy and Environmental Science</i> , 2019, 12, 2192-2199.	15.6	542

#	ARTICLE	IF	CITATIONS
272	Perovskite solar cells. , 2019, , 417-446.		9
273	Perovskite Bifunctional Device with Improved Electroluminescent and Photovoltaic Performance through Interfacial Energy Band Engineering. <i>Advanced Materials</i> , 2019, 31, e1902543.	11.1	62
274	Bifunctional Dye Molecule in All-Inorganic CsPbI ₂ Perovskite Solar Cells with Efficiency Exceeding 10%. <i>Solar Rrl</i> , 2019, 3, 1900212.	3.1	64
275	Enhanced efficiency and thermal stability of perovskite solar cells using poly(9-vinylcarbazole) modified perovskite/PCBM interface. <i>Electrochimica Acta</i> , 2019, 318, 384-391.	2.6	29
276	Understanding substitution effects on dye structures and optoelectronic properties of molecular halide perovskite Cs ₄ MX ₆ (M=Pb, Sn, Ge; X= Br, I, Cl). <i>Journal of Molecular Graphics and Modelling</i> , 2019, 91, 172-179.	1.3	7
277	Enhancing Efficiency and Stability of Hot Casting <i>Perovskite Solar Cell</i> via Dipolar Ion Passivation. <i>ACS Applied Energy Materials</i> , 2019, 2, 4821-4832.	2.5	49
278	Solution-Processed Visible-Blind Ultraviolet Photodetectors with Nanosecond Response Time and High Detectivity. <i>Advanced Optical Materials</i> , 2019, 7, 1900506.	3.6	60
279	Wide-bandgap, low-bandgap, and tandem perovskite solar cells. <i>Semiconductor Science and Technology</i> , 2019, 34, 093001.	1.0	89
280	Benefits of the Hydrophobic Surface for CH ₃ NH ₃ PbI ₃ Crystalline Growth towards Highly Efficient Inverted Perovskite Solar Cells. <i>Molecules</i> , 2019, 24, 2027.	1.7	16
281	Coagulated SnO ₂ Colloids for High-Performance Planar Perovskite Solar Cells with Negligible Hysteresis and Improved Stability. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 11497-11504.	7.2	159
282	Coagulated SnO ₂ Colloids for High-Performance Planar Perovskite Solar Cells with Negligible Hysteresis and Improved Stability. <i>Angewandte Chemie</i> , 2019, 131, 11621-11628.	1.6	52
283	Enhanced Uniformity and Stability of Pb-Sn Perovskite Solar Cells via Me ₄ NBr Passivation. <i>Advanced Materials Interfaces</i> , 2019, 6, 1900413.	1.9	33
284	Soldering Grain Boundaries Yields Inverted Perovskite Solar Cells with Enhanced Open-Circuit Voltages. <i>Advanced Materials Interfaces</i> , 2019, 6, 1900474.	1.9	17
285	Enhanced stability and photovoltage for inverted perovskite solar cells <i>via precursor engineering</i> . <i>Journal of Materials Chemistry A</i> , 2019, 7, 15880-15886.	5.2	22
286	Aryl-Perfluoroaryl Interaction in Two-Dimensional Organic-Inorganic Hybrid Perovskites Boosts Stability and Photovoltaic Efficiency. , 2019, 1, 171-176.		63
287	Imperfections and their passivation in halide perovskite solar cells. <i>Chemical Society Reviews</i> , 2019, 48, 3842-3867.	18.7	1,257
288	Photostability of MAPbI ₃ Perovskite Solar Cells by Incorporating Black Phosphorus. <i>Solar Rrl</i> , 2019, 3, 1900197.	3.1	53
289	Nanomechanical Approach for Flexibility of Organic-Inorganic Hybrid Perovskite Solar Cells. <i>Nano Letters</i> , 2019, 19, 3707-3715.	4.5	42

#	ARTICLE	IF	CITATIONS
290	Triarylphosphine Oxide as Cathode Interfacial Material for Inverted Perovskite Solar Cells. <i>Advanced Materials Interfaces</i> , 2019, 6, 1900434.	1.9	16
291	Analysis of light-induced degradation in inverted perovskite solar cells under short-circuited conditions. <i>Organic Electronics</i> , 2019, 71, 123-130.	1.4	22
292	Defect Passivation by Fullerene Derivative in Perovskite Solar Cells with Aluminum-Doped Zinc Oxide as Electron Transporting Layer. <i>Chemistry of Materials</i> , 2019, 31, 6833-6840.	3.2	50
293	Highly efficient and stable inverted perovskite solar cells using down-shifting quantum dots as a light management layer and moisture-assisted film growth. <i>Journal of Materials Chemistry A</i> , 2019, 7, 14753-14760.	5.2	67
294	Defect and Contact Passivation for Perovskite Solar Cells. <i>Advanced Materials</i> , 2019, 31, e1900428.	11.1	445
295	An Analytical Approach to CH ₃ NH ₃ PbI ₃ Perovskite Solar Cells Based on Different Hole Transport Materials. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2019, 216, 1900087.	0.8	5
296	Oligomeric Silica-Wrapped Perovskites Enable Synchronous Defect Passivation and Grain Stabilization for Efficient and Stable Perovskite Photovoltaics. <i>ACS Energy Letters</i> , 2019, 4, 1231-1240.	8.8	111
297	Self-template Synthesis of Metal Halide Perovskite Nanotubes as Functional Cavities for Tailored Optoelectronic Devices. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 21100-21108.	4.0	6
298	Cation and anion immobilization through chemical bonding enhancement with fluorides for stable halide perovskite solar cells. <i>Nature Energy</i> , 2019, 4, 408-415.	19.8	831
299	Star-shaped molecule with planar triazine core and perylene diimide branches as an n-type additive for bulk-heterojunction perovskite solar cells. <i>Dyes and Pigments</i> , 2019, 170, 107562.	2.0	18
300	Efficient and Stable CsPbI ₃ Solar Cells via Regulating Lattice Distortion with Surface Organic Terminal Groups. <i>Advanced Materials</i> , 2019, 31, e1900605.	11.1	209
301	Carrier lifetimes of $>1 \mu\text{s}$ in Sn-Pb perovskites enable efficient all-perovskite tandem solar cells. <i>Science</i> , 2019, 364, 475-479.	6.0	781
302	Achieving a high open-circuit voltage in inverted wide-bandgap perovskite solar cells with a graded perovskite homojunction. <i>Nano Energy</i> , 2019, 61, 141-147.	8.2	152
303	Single-Particle Organolead Halide Perovskite Photoluminescence as a Probe for Surface Reaction Kinetics. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 18034-18043.	4.0	19
304	Self-Seeding Growth for Perovskite Solar Cells with Enhanced Stability. <i>Joule</i> , 2019, 3, 1452-1463.	11.7	120
305	Liquid Crystal Molecule as π -Binding Agent Enables Superior Stable Perovskite Solar Cells with High Fill Factor. <i>Solar Rrl</i> , 2019, 3, 1900125.	3.1	10
306	Heteroepitaxial passivation of Cs ₂ AgBiBr ₆ wafers with suppressed ionic migration for X-ray imaging. <i>Nature Communications</i> , 2019, 10, 1989.	5.8	252
307	Conjugated Polymer-Assisted Grain Boundary Passivation for Efficient Inverted Planar Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2019, 29, 1808855.	7.8	133

#	ARTICLE	IF	CITATIONS
308	Black Phosphorus Quantum Dots Induced High-Quality Perovskite Film for Efficient and Thermally Stable Planar Perovskite Solar Cells. <i>Solar Rrl</i> , 2019, 3, 1900132.	3.1	49
309	Sealing the domain boundaries and defects passivation by Poly(acrylic acid) for scalable blading of efficient perovskite solar cells. <i>Journal of Power Sources</i> , 2019, 426, 188-196.	4.0	29
310	A facile method to evaluate the influence of trap densities on perovskite solar cell performance. <i>Journal of Materials Chemistry C</i> , 2019, 7, 5646-5651.	2.7	32
311	Bismuth-Based Perovskite-Inspired Solar Cells: In Situ Diagnostics Reveal Similarities and Differences in the Film Formation of Bismuth- and Lead-Based Films. <i>Solar Rrl</i> , 2019, 3, 1800305.	3.1	41
312	Nickel phthalocyanine as an excellent hole-transport material in inverted planar perovskite solar cells. <i>Chemical Communications</i> , 2019, 55, 5343-5346.	2.2	25
313	Conjugated Polyelectrolytes as Multifunctional Passivating and Hole-Transporting Layers for Efficient Perovskite Light-Emitting Diodes. <i>Advanced Materials</i> , 2019, 31, e1900067.	11.1	44
314	Caffeine Improves the Performance and Thermal Stability of Perovskite Solar Cells. <i>Joule</i> , 2019, 3, 1464-1477.	11.7	448
315	Soluble tetra-methoxytriphenylamine substituted zinc phthalocyanine as dopant-free hole transporting materials for perovskite solar cells. <i>Organic Electronics</i> , 2019, 69, 248-254.	1.4	22
316	High-Detectivity Perovskite Light Detectors Printed in Air from Benign Solvents. <i>CheM</i> , 2019, 5, 868-880.	5.8	25
317	Tailoring Passivation Molecular Structures for Extremely Small Open-Circuit Voltage Loss in Perovskite Solar Cells. <i>Journal of the American Chemical Society</i> , 2019, 141, 5781-5787.	6.6	585
318	Simultaneous Cationic and Anionic Ligand Exchange For Colloidally Stable CsPbBr ₃ Nanocrystals. <i>ACS Energy Letters</i> , 2019, 4, 819-824.	8.8	173
319	Efficient Defect Passivation for Perovskite Solar Cells by Controlling the Electron Density Distribution of Donor-Acceptor Molecules. <i>Advanced Energy Materials</i> , 2019, 9, 1803766.	10.2	280
320	Halide lead perovskites for ionizing radiation detection. <i>Nature Communications</i> , 2019, 10, 1066.	5.8	568
321	Bilateral alkylamine for suppressing charge recombination and improving stability in blade-coated perovskite solar cells. <i>Science Advances</i> , 2019, 5, eaav8925.	4.7	388
322	III-VI van der Waals heterostructures for sustainable energy related applications. <i>Nanoscale</i> , 2019, 11, 6431-6444.	2.8	88
324	Alkali Chlorides for the Suppression of the Interfacial Recombination in Inverted Planar Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2019, 9, 1803872.	10.2	236
325	Rational molecular passivation for high-performance perovskite light-emitting diodes. <i>Nature Photonics</i> , 2019, 13, 418-424.	15.6	970
326	Impedance Spectroscopy for Emerging Photovoltaics. <i>Journal of Physical Chemistry C</i> , 2019, 123, 11329-11346.	1.5	248

#	ARTICLE	IF	CITATIONS
327	Mechanistic Insights from Functional Group Exchange Surface Passivation: A Combined Theoretical and Experimental Study. ACS Applied Energy Materials, 2019, 2, 2723-2733.	2.5	11
328	Understanding structures and properties of phosphorene/perovskite heterojunction toward perovskite solar cell applications. Journal of Molecular Graphics and Modelling, 2019, 89, 96-101.	1.3	5
329	Monoammonium Porphyrin for Blade-Coating Stable Large-Area Perovskite Solar Cells with >18% Efficiency. Journal of the American Chemical Society, 2019, 141, 6345-6351.	6.6	149
330	Solution-Processable Perovskite Solar Cells toward Commercialization: Progress and Challenges. Advanced Functional Materials, 2019, 29, 1807661.	7.8	149
331	Supramolecular Coordination of Pb ²⁺ Defects in Hybrid Lead Halide Perovskite Films Using Truxene Derivatives as Lewis Base Interlayers. ChemPhysChem, 2019, 20, 2702-2711.	1.0	10
332	Understanding adsorption of nucleobases on CH ₃ NH ₃ PbI ₃ surfaces toward biological applications of halide perovskite materials. Applied Surface Science, 2019, 483, 1052-1057.	3.1	6
333	Multi-dimensional anatase TiO ₂ materials: Synthesis and their application as efficient charge transporter in perovskite solar cells. Solar Energy, 2019, 184, 323-330.	2.9	35
334	Enhanced Electronic Quality of Perovskite via a Novel C ₆₀ -o-Quinodimethane Bisadducts toward Efficient and Stable Perovskite Solar Cells. ACS Sustainable Chemistry and Engineering, 2019, 7, 8579-8586.	3.2	12
335	Enhanced performance of perovskite solar cells by the incorporation of the luminescent small molecule DBP: perovskite absorption spectrum modification and interface engineering. Journal of Materials Chemistry C, 2019, 7, 5686-5694.	2.7	28
336	Solution-Processed 2D Nb ₂ O ₅ (001) Nanosheets for Inverted CsPbI ₂ Br Perovskite Solar Cells: Interfacial and Diffusion Engineering. Solar Rrl, 2019, 3, 1900091.	3.1	42
337	Research progress in lead-less or lead-free three-dimensional perovskite absorber materials for solar cells. International Journal of Minerals, Metallurgy and Materials, 2019, 26, 387-403.	2.4	17
338	Novel Surface Passivation for Stable FA _{0.85} MA _{0.15} PbI ₃ Perovskite Solar Cells with 21.6% Efficiency. Solar Rrl, 2019, 3, 1900072.	3.1	64
339	Improving Performance and Stability of Planar Perovskite Solar Cells through Grain Boundary Passivation with Block Copolymers. Solar Rrl, 2019, 3, 1900078.	3.1	40
340	Thermally stable methylammonium-free inverted perovskite solar cells with Zn ²⁺ doped CuGaO ₂ as efficient mesoporous hole-transporting layer. Nano Energy, 2019, 61, 148-157.	8.2	90
341	Room-Temperature Molten Salt for Facile Fabrication of Efficient and Stable Perovskite Solar Cells in Ambient Air. Chem, 2019, 5, 995-1006.	5.8	245
342	Surface passivation of perovskite film for efficient solar cells. Nature Photonics, 2019, 13, 460-466.	15.6	3,458
343	30% Enhancement of Efficiency in Layered 2D Perovskites Absorbers by Employing Homo-Tandem Structures. Solar Rrl, 2019, 3, 1900083.	3.1	10
344	Improved Performance of Perovskite Light-Emitting Diodes by Dual Passivation with an Ionic Additive. ACS Applied Energy Materials, 2019, 2, 3336-3342.	2.5	21

#	ARTICLE	IF	CITATIONS
345	High-Performance Perovskite Solar Cells with a Non-doped Small Molecule Hole Transporting Layer. ACS Applied Energy Materials, 2019, 2, 1634-1641.	2.5	25
346	Interface and Defect Engineering for Metal Halide Perovskite Optoelectronic Devices. Advanced Materials, 2019, 31, e1803515.	11.1	315
347	Perovskite Photovoltaics: The Significant Role of Ligands in Film Formation, Passivation, and Stability. Advanced Materials, 2019, 31, e1805702.	11.1	192
348	Combustion Synthesized Zinc Oxide Electron Transport Layers for Efficient and Stable Perovskite Solar Cells. Advanced Functional Materials, 2019, 29, 1900265.	7.8	121
349	Causes and Solutions of Recombination in Perovskite Solar Cells. Advanced Materials, 2019, 31, e1803019.	11.1	422
350	Review of Novel Passivation Techniques for Efficient and Stable Perovskite Solar Cells. Solar Rrl, 2019, 3, 1800302.	3.1	139
351	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
352	Constructing CsPbBr ₃ Cluster Passivated Triple Cation Perovskite for Highly Efficient and Operationally Stable Solar Cells. Advanced Functional Materials, 2019, 29, 1809180.	7.8	64
353	Formamidinium Incorporation into Compact Lead Iodide for Low Band Gap Perovskite Solar Cells with Open-Circuit Voltage Approaching the Radiative Limit. ACS Applied Materials & Interfaces, 2019, 11, 9083-9092.	4.0	9
354	Recent progress toward perovskite light-emitting diodes with enhanced spectral and operational stability. Materials Today Nano, 2019, 5, 100028.	2.3	86
355	The Positive Function of Incorporation of Small Molecules into Perovskite Materials for High Efficient Stable Solar Cells. Solar Rrl, 2019, 3, 1800327.	3.1	16
356	Passivation of Grain Boundary by Squaraine Zwitterions for Defect Passivation and Efficient Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 10012-10020.	4.0	70
357	Kelvin probe force microscopy for perovskite solar cells. Science China Materials, 2019, 62, 776-789.	3.5	93
358	Surface modification via self-assembling large cations for improved performance and modulated hysteresis of perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 6793-6800.	5.2	48
359	A Review of Perovskites Solar Cell Stability. Advanced Functional Materials, 2019, 29, 1808843.	7.8	835
360	Hybrid perovskites for device applications. , 2019, , 211-256.		13
361	Bi-functional additive engineering for high-performance perovskite solar cells with reduced trap density. Journal of Materials Chemistry A, 2019, 7, 6450-6458.	5.2	143
362	Efficient and Stable Chemical Passivation on Perovskite Surface via Bidentate Anchoring. Advanced Energy Materials, 2019, 9, 1803573.	10.2	232

#	ARTICLE	IF	CITATIONS
363	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
364	Stabilizing lead halide perovskites with quaternary ammonium cations: the case of tetramethylammonium lead iodide. Physical Chemistry Chemical Physics, 2019, 21, 24768-24777.	1.3	20
365	Constructive molecular configurations for surface-defect passivation of perovskite photovoltaics. Science, 2019, 366, 1509-1513.	6.0	846
366	High Photovoltage Inverted Planar Heterojunction Perovskite Solar Cells with All-Inorganic Selective Contact Layers. ACS Applied Materials & Interfaces, 2019, 11, 46894-46901.	4.0	20
367	Tailoring solvent coordination for high-speed, room-temperature blading of perovskite photovoltaic films. Science Advances, 2019, 5, eaax7537.	4.7	312
368	Reconfiguration of interfacial energy band structure for high-performance inverted structure perovskite solar cells. Nature Communications, 2019, 10, 4593.	5.8	214
369	Improved Moisture Stability of Perovskite Solar Cells Using N719 Dye Molecules. Solar Rrl, 2019, 3, 1970115.	3.1	1
370	Conformal monolayer contacts with lossless interfaces for perovskite single junction and monolithic tandem solar cells. Energy and Environmental Science, 2019, 12, 3356-3369.	15.6	519
371	Effect of anti-solvent mixture on the performance of perovskite solar cells and suppression hysteresis behavior. Organic Electronics, 2019, 65, 266-274.	1.4	18
372	Enhancing the Performance of Inverted Perovskite Solar Cells via Grain Boundary Passivation with Carbon Quantum Dots. ACS Applied Materials & Interfaces, 2019, 11, 3044-3052.	4.0	147
373	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
374	HxMoO ₃ nanobelts: an excellent alternative to carbon electrodes for high performance mesoscopic perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 1499-1508.	5.2	8
375	Understanding macroscale functionality of metal halide perovskites in terms of nanoscale heterogeneities. JPhys Energy, 2019, 1, 011002.	2.3	3
376	Facet-Dependent Control of PbI ₂ Colloids for over 20% Efficient Perovskite Solar Cells. ACS Energy Letters, 2019, 4, 358-367.	8.8	46
377	Integrating Properties Modification in the Synthesis of Metal Halide Perovskites. Advanced Materials Technologies, 2019, 4, 1800321.	3.0	5
378	Chemical sintering reduced grain boundary defects for stable planar perovskite solar cells. Nano Energy, 2019, 56, 741-750.	8.2	65
379	Phenanthrene-based hole transport material for efficient dopant-free perovskite solar cells. Organic Electronics, 2019, 65, 135-140.	1.4	18
380	Outstanding Indoor Performance of Perovskite Photovoltaic Cells – Effect of Device Architectures and Interlayers. Solar Rrl, 2019, 3, 1800207.	3.1	63

#	ARTICLE	IF	CITATIONS
381	SnO ₂ -based electron transporting layer materials for perovskite solar cells: A review of recent progress. <i>Journal of Energy Chemistry</i> , 2019, 35, 144-167.	7.1	129
382	Double-Side Passivated Perovskite Solar Cells with Ultra-low Potential Loss. <i>Solar Rrl</i> , 2019, 3, 1800296.	3.1	89
383	Tetraammonium Zinc Phthalocyanine to Construct a Graded 2D-3D Perovskite Interface for Efficient and Stable Solar Cells. <i>Chinese Journal of Chemistry</i> , 2019, 37, 30-34.	2.6	16
384	Efficient Charge Collection Promoted by Interface Passivation Using Amino Acid Toward High Performance Perovskite Solar Cells. <i>Physica Status Solidi - Rapid Research Letters</i> , 2019, 13, 1800505.	1.2	12
385	Precise Control of Crystal Growth for Highly Efficient CsPbI ₂ Br Perovskite Solar Cells. <i>Joule</i> , 2019, 3, 191-204.	11.7	398
386	Influence of Cl Incorporation in Perovskite Precursor on the Crystal Growth and Storage Stability of Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 6022-6030.	4.0	48
387	A Three-Terminal Monolithic Perovskite/Si Tandem Solar Cell Characterization Platform. <i>Joule</i> , 2019, 3, 807-818.	11.7	78
388	Progress and challenges in perovskite photovoltaics from single- to multi-junction cells. <i>Materials Today Energy</i> , 2019, 12, 70-94.	2.5	67
389	Auto-passivation of crystal defects in hybrid imidazolium/methylammonium lead iodide films by fumigation with methylamine affords high efficiency perovskite solar cells. <i>Nano Energy</i> , 2019, 58, 105-111.	8.2	78
390	Grain Engineering for Perovskite/Silicon Monolithic Tandem Solar Cells with Efficiency of 25.4%. <i>Joule</i> , 2019, 3, 177-190.	11.7	329
391	Inorganic CsPb ₂ Br Perovskite Solar Cells: The Progress and Perspective. <i>Solar Rrl</i> , 2019, 3, 1800239.	3.1	217
392	An overview on enhancing the stability of lead halide perovskite quantum dots and their applications in phosphor-converted LEDs. <i>Chemical Society Reviews</i> , 2019, 48, 310-350.	18.7	845
393	Tellurium-Based Double Perovskites A ₂ TeX ₆ with Tunable Band Gap and Long Carrier Diffusion Length for Optoelectronic Applications. <i>ACS Energy Letters</i> , 2019, 4, 228-234.	8.8	58
394	Hole-transporting layer based on a conjugated polyelectrolyte with organic cations enables efficient inverted perovskite solar cells. <i>Nano Energy</i> , 2019, 57, 248-255.	8.2	52
395	An ionic compensation strategy for high-performance mesoporous perovskite solar cells: healing defects with tri-iodide ions in a solvent vapor annealing process. <i>Journal of Materials Chemistry A</i> , 2019, 7, 353-362.	5.2	28
396	Low-Cost Counter-Electrode Materials for Dye-Sensitized and Perovskite Solar Cells. <i>Advanced Materials</i> , 2020, 32, e1806478.	11.1	99
397	Optical Design in Perovskite Solar Cells. <i>Small Methods</i> , 2020, 4, 1900150.	4.6	32
398	A Review on Additives for Halide Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2020, 10, 1902492.	10.2	240

#	ARTICLE	IF	CITATIONS
399	Recent Progresses on Defect Passivation toward Efficient Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2020, 10, 1902650.	10.2	516
400	Progress of Surface Science Studies on ABX ₃ -Based Metal Halide Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2020, 10, 1902726.	10.2	87
401	Highly Efficient (110) Orientated FA _{1-x} MA Mixed Cation Perovskite Solar Cells via Functionalized Carbon Nanotube and Methylammonium Chloride Additive. <i>Small Methods</i> , 2020, 4, 1900511.	4.6	25
402	NH ₄ Cl-Modified ZnO for High-Performance CsPbI ₂ Perovskite Solar Cells via Low-Temperature Process. <i>Solar Rrl</i> , 2020, 4, 1900363.	3.1	186
403	Ammonium Fluoride Interface Modification for High-Performance and Long-Term Stable Perovskite Solar Cells. <i>Energy Technology</i> , 2020, 8, 1901017.	1.8	12
404	Synergistic interactions between N3 dye and perovskite CH ₃ NH ₃ PbI ₃ for aqueous-based photoresponsiveness under visible light. <i>Dyes and Pigments</i> , 2020, 173, 107925.	2.0	9
405	Surface modification induced by perovskite quantum dots for triple-cation perovskite solar cells. <i>Nano Energy</i> , 2020, 67, 104189.	8.2	81
406	Verringerung schädlicher Defekte für leistungsstarke Metallhalogenid-Perowskit-Solarzellen. <i>Angewandte Chemie</i> , 2020, 132, 6740-6764.	1.6	16
407	Pb-Site Doping of Lead Halide Perovskites for Efficient Solar Cells. <i>Solar Rrl</i> , 2020, 4, 1900227.	3.1	8
408	Progress in Multifunctional Molecules for Perovskite Solar Cells. <i>Solar Rrl</i> , 2020, 4, 1900248.	3.1	13
409	Review on Practical Interface Engineering of Perovskite Solar Cells: From Efficiency to Stability. <i>Solar Rrl</i> , 2020, 4, 1900257.	3.1	119
410	Growth of Amorphous Passivation Layer Using Phenethylammonium Iodide for High-Performance Inverted Perovskite Solar Cells. <i>Solar Rrl</i> , 2020, 4, 1900243.	3.1	43
411	A Short Review on Interface Engineering of Perovskite Solar Cells: A Self-Assembled Monolayer and Its Roles. <i>Solar Rrl</i> , 2020, 4, 1900251.	3.1	75
412	Reducing Detrimental Defects for High-Performance Metal Halide Perovskite Solar Cells. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 6676-6698.	7.2	334
413	Material and Interface Engineering for High-Performance Perovskite Solar Cells: A Personal Journey and Perspective. <i>Chemical Record</i> , 2020, 20, 209-229.	2.9	9
414	Modified HTL-induced efficiency enhancement for inverted perovskite solar cells. <i>Organic Electronics</i> , 2020, 78, 105557.	1.4	13
415	Additive Engineering for Efficient and Stable Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2020, 10, 1902579.	10.2	477
416	A-Site Management for Highly Crystalline Perovskites. <i>Advanced Materials</i> , 2020, 32, e1904702.	11.1	62

#	ARTICLE	IF	CITATIONS
417	Reducing Photovoltage Loss in Inverted Perovskite Solar Cells by Quantum Dots Alloying Modification at Cathode Contact. <i>Solar Rrl</i> , 2020, 4, 1900468.	3.1	19
418	Mechanically tuning spin-orbit coupling effects in organic-inorganic hybrid perovskites. <i>Nano Energy</i> , 2020, 67, 104285.	8.2	6
419	Atomistic understanding on molecular halide perovskite/organic/TiO ₂ interface with bifunctional interfacial modifier: A case study on halogen bond and carboxylic acid group. <i>Applied Surface Science</i> , 2020, 502, 144274.	3.1	11
420	Electron Transporting Bilayer of SnO ₂ and TiO ₂ Nanocolloid Enables Highly Efficient Planar Perovskite Solar Cells. <i>Solar Rrl</i> , 2020, 4, 1900331.	3.1	46
421	Dye-sensitization enhances photoelectrochemical performance of halide perovskite CH ₃ NH ₃ PbI ₃ photoanode in aqueous solution. <i>Dyes and Pigments</i> , 2020, 173, 108006.	2.0	7
422	Electron Transporting Bilayer of SnO ₂ and TiO ₂ Nanocolloid Enables Highly Efficient Planar Perovskite Solar Cells. <i>Solar Rrl</i> , 2020, 4, 2070014.	3.1	3
423	Defect Passivation Using Organic Dyes for Enhanced Efficiency and Stability of Perovskite Solar Cells. <i>Solar Rrl</i> , 2020, 4, 1900529.	3.1	40
424	Highly efficient all-inorganic perovskite solar cells with suppressed non-radiative recombination by a Lewis base. <i>Nature Communications</i> , 2020, 11, 177.	5.8	360
425	Double peak emission in lead halide perovskites by self-absorption. <i>Journal of Materials Chemistry C</i> , 2020, 8, 2289-2300.	2.7	72
426	Band-bending induced passivation: high performance and stable perovskite solar cells using a perhydropoly(silazane) precursor. <i>Energy and Environmental Science</i> , 2020, 13, 1222-1230.	15.6	114
427	Defects Healing in Two-Step Deposited Perovskite Solar Cells via Formamidinium Iodide Compensation. <i>ACS Applied Energy Materials</i> , 2020, 3, 3318-3327.	2.5	32
428	Pre-crystallisation applied in sequential deposition approaches to improve the photovoltaic performance of perovskite solar cells. <i>Journal of Alloys and Compounds</i> , 2020, 832, 153616.	2.8	4
429	Multifunctional inorganic nanomaterials for energy applications. <i>Nanoscale</i> , 2020, 12, 14-42.	2.8	89
430	Stabilizing n-type hetero-junctions for NiO _x based inverted planar perovskite solar cells with an efficiency of 21.6%. <i>Journal of Materials Chemistry A</i> , 2020, 8, 1865-1874.	5.2	40
431	Surface passivation of perovskite thin films by phosphonium halides for efficient and stable solar cells. <i>Journal of Materials Chemistry A</i> , 2020, 8, 2039-2046.	5.2	58
432	Conjugated Polymers as Hole Transporting Materials for Solar Cells. <i>Chinese Journal of Polymer Science (English Edition)</i> , 2020, 38, 449-458.	2.0	9
433	Strontium Chloride-Passivated Perovskite Thin Films for Efficient Solar Cells with Power Conversion Efficiency over 21% and Superior Stability. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 3661-3669.	4.0	19
434	Synergistic Coassembly of Highly Wettable and Uniform Hole Extraction Monolayers for Scaling Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2020, 30, 1909509.	7.8	41

#	ARTICLE	IF	CITATIONS
435	New Strategies for Defect Passivation in High-Efficiency Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2020, 10, 1903090.	10.2	237
436	Novel inorganic electron transport layers for planar perovskite solar cells: Progress and prospective. <i>Nano Energy</i> , 2020, 68, 104289.	8.2	83
437	Single Crystal Perovskite Solar Cells: Development and Perspectives. <i>Advanced Functional Materials</i> , 2020, 30, 1905021.	7.8	171
438	Consistently High V_{oc} Values in p-i-n Type Perovskite Solar Cells Using Ni ³⁺ -Doped NiO Nanomesh as the Hole Transporting Layer. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 11467-11478.	4.0	48
439	Interfacial Contact Passivation for Efficient and Stable Cesium-Formamidinium Double-Cation Lead Halide Perovskite Solar Cells. <i>IScience</i> , 2020, 23, 100762.	1.9	37
440	Perfluorinated Self-Assembled Monolayers Enhance the Stability and Efficiency of Inverted Perovskite Solar Cells. <i>ACS Nano</i> , 2020, 14, 1445-1456.	7.3	115
441	Gradient Energy Alignment Engineering for Planar Perovskite Solar Cells with Efficiency Over 23%. <i>Advanced Materials</i> , 2020, 32, e1905766.	11.1	172
442	Origin of Open-Circuit Voltage Enhancements in Planar Perovskite Solar Cells Induced by Addition of Bulky Organic Cations. <i>Advanced Functional Materials</i> , 2020, 30, 1906763.	7.8	47
443	Passivating Detrimental DX Centers in CH ₃ NH ₃ PbI ₃ for Reducing Nonradiative Recombination and Elongating Carrier Lifetime. <i>Advanced Materials</i> , 2020, 32, e1906115.	11.1	53
444	Double-Sided Surface Passivation of 3D Perovskite Film for High-Efficiency Mixed-Dimensional Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2020, 30, 1907962.	7.8	130
445	In Situ Defect Passivation with Silica Oligomer for Enhanced Performance and Stability of Perovskite Solar Cells. <i>Advanced Materials Interfaces</i> , 2020, 7, 1901716.	1.9	15
446	Wide-Bandgap Perovskite/Gallium Arsenide Tandem Solar Cells. <i>Advanced Energy Materials</i> , 2020, 10, 1903085.	10.2	49
447	Facile Formation of 2D-3D Heterojunctions on Perovskite Thin Film Surfaces for Efficient Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 1159-1168.	4.0	55
448	Efficient and stable tin-based perovskite solar cells by introducing π -conjugated Lewis base. <i>Science China Chemistry</i> , 2020, 63, 107-115.	4.2	160
449	The balance between efficiency, stability and environmental impacts in perovskite solar cells: a review. <i>JPhys Energy</i> , 2020, 2, 022001.	2.3	76
450	N-type conjugated polymer as efficient electron transport layer for planar inverted perovskite solar cells with power conversion efficiency of 20.86%. <i>Nano Energy</i> , 2020, 68, 104363.	8.2	58
451	Hexylammonium Iodide Derived Two-Dimensional Perovskite as Interfacial Passivation Layer in Efficient Two-Dimensional/Three-Dimensional Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 698-705.	4.0	36
452	Elucidating the Role of a Tetrafluoroborate-Based Ionic Liquid at the n-Type Oxide/Perovskite Interface. <i>Advanced Energy Materials</i> , 2020, 10, 1903231.	10.2	81

#	ARTICLE	IF	CITATIONS
453	Interface Engineering in Hybrid Iodide CH ₃ NH ₃ PbI ₃ Perovskites Using Lewis Base and Graphene toward High-Performance Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 1858-1866.	4.0	25
454	Incorporation of Nickel Ions to Enhance Integrity and Stability of Perovskite Crystal Lattice for High-Performance Planar Heterojunction Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 904-913.	4.0	13
455	Simultaneous Contact and Grain-Boundary Passivation in Planar Perovskite Solar Cells Using SnO ₂ -KCl Composite Electron Transport Layer. Advanced Energy Materials, 2020, 10, 1903083.	10.2	323
456	Universal defects elimination for high performance thermally evaporated CsPbBr ₃ perovskite solar cells. Solar Energy Materials and Solar Cells, 2020, 206, 110317.	3.0	41
457	Dual-passivation of ionic defects for highly crystalline perovskite. Nano Energy, 2020, 68, 104320.	8.2	55
458	Minimizing non-radiative recombination losses in perovskite solar cells. Nature Reviews Materials, 2020, 5, 44-60.	23.3	754
459	Bifunctional Ytterbium (III) Chloride Driven Low-Temperature Synthesis of Stable δ -CsPbI ₃ for High-Efficiency Inorganic Perovskite Solar Cells. Small Methods, 2020, 4, 1900652.	4.6	35
460	π -Conjugated small molecules enable efficient perovskite growth and charge-extraction for high-performance photovoltaic devices. Journal of Power Sources, 2020, 448, 227420.	4.0	18
461	Reconfiguration of Interfacial and Bulk Energy Band Structure for High-Performance Organic and Thermal-Stability Enhanced Perovskite Solar Cells. Solar Rrl, 2020, 4, 1900482.	3.1	16
462	Stabilization of Inorganic CsPb _{0.5} Sn _{0.5} I ₂ Br Perovskite Compounds by Antioxidant Tea Polyphenol. Solar Rrl, 2020, 4, 1900457.	3.1	43
463	Enhancing photovoltaic performance of inverted perovskite solar cells via imidazole and benzoimidazole doping of PC61BM electron transport layer. Organic Electronics, 2020, 78, 105573.	1.4	13
464	Processing-Performance Evolution of Perovskite Solar Cells: From Large Grain Polycrystalline Films to Single Crystals. Advanced Energy Materials, 2020, 10, 1902762.	10.2	50
465	Stabilizing the MAPbI ₃ perovskite via the in-situ formed lead sulfide layer for efficient and robust solar cells. Journal of Energy Chemistry, 2020, 47, 62-65.	7.1	30
466	Additives in metal halide perovskite films and their applications in solar cells. Journal of Energy Chemistry, 2020, 46, 215-228.	7.1	64
467	Boost the performance of inverted perovskite solar cells with PEDOT:PSS/Graphene quantum dots composite hole transporting layer. Organic Electronics, 2020, 78, 105575.	1.4	28
468	Ion Migration: A "Double-Edged Sword" for Halide-Perovskite-Based Electronic Devices. Small Methods, 2020, 4, 1900552.	4.6	127
469	Defect passivation through electrostatic interaction for high performance flexible perovskite solar cells. Journal of Energy Chemistry, 2020, 46, 173-177.	7.1	45
470	Shallow Iodine Defects Accelerate the Degradation of δ -Phase Formamidinium Perovskite. Joule, 2020, 4, 2426-2442.	11.7	173

#	ARTICLE	IF	CITATIONS
471	Interfacial 2-hydroxybenzophenone passivation for highly efficient and stable perovskite solar cells. <i>Journal of Power Sources</i> , 2020, 475, 228665.	4.0	2
472	Charge behavior modulation by titanium-carbide quantum dots and nanosheets for efficient perovskite solar cells. <i>Materials Today Energy</i> , 2020, 18, 100562.	2.5	17
473	Multiple Passivation of Electronic Defects for Efficient and Stable Perovskite Solar Cells. <i>Solar Rrl</i> , 2020, 4, 2000481.	3.1	20
474	A data review on certified perovskite solar cells efficiency and I-V metrics: Insights into materials selection and process scaling up. <i>Solar Energy</i> , 2020, 209, 21-29.	2.9	5
475	Minimized surface deficiency on wide-bandgap perovskite for efficient indoor photovoltaics. <i>Nano Energy</i> , 2020, 78, 105377.	8.2	68
476	Paradoxical Approach with a Hydrophilic Passivation Layer for Moisture-Stable, 23% Efficient Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2020, 5, 3268-3275.	8.8	110
477	A solvent-based surface cleaning and passivation technique for suppressing ionic defects in high-mobility perovskite field-effect transistors. <i>Nature Electronics</i> , 2020, 3, 694-703.	13.1	99
478	Recent Progress of Inverted Perovskite Solar Cells with a Modified PEDOT:PSS Hole Transport Layer. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 49297-49322.	4.0	88
479	Rechargeable Battery Electrolytes Capable of Operating over Wide Temperature Windows and Delivering High Safety. <i>Advanced Energy Materials</i> , 2020, 10, 2001235.	10.2	75
480	HClO ₄ -assisted fabrication of SnO ₂ /C ₆₀ bilayer electron-transport materials for all air-processed efficient and stable inverted planar perovskite solar cells. <i>Journal of Power Sources</i> , 2020, 476, 228648.	4.0	23
481	Zwitterionic-Surfactant-Assisted Room-Temperature Coating of Efficient Perovskite Solar Cells. <i>Joule</i> , 2020, 4, 2404-2425.	11.7	137
482	Bifunctional Chlorosilane Modification for Defect Passivation and Stability Enhancement of High-Efficiency Perovskite Solar Cells. <i>Journal of Physical Chemistry C</i> , 2020, 124, 22903-22913.	1.5	8
483	Morphology Evolution of a High-Efficiency PSC by Modulating the Vapor Process. <i>Small</i> , 2020, 16, e2003582.	5.2	15
484	Insight into the Origins of Figures of Merit and Design Strategies for Organic/Inorganic Lead-Halide Perovskite Solar Cells. <i>Solar Rrl</i> , 2020, 4, 2000452.	3.1	14
485	Defect and interface engineering of highly efficient La ₂ NiMnO ₆ planar perovskite solar cell: A theoretical study. <i>Optical Materials</i> , 2020, 108, 110453.	1.7	13
486	Colloidal Bi-Doped Cs ₂ Ag _{1-x} Na _x InCl ₆ Nanocrystals: Undercoordinated Surface Cl Ions Limit their Light Emission Efficiency. , 2020, 2, 1442-1449.		41
487	Interfacial defect passivation by chenodeoxycholic acid for efficient and stable perovskite solar cells. <i>Journal of Power Sources</i> , 2020, 472, 228502.	4.0	21
488	Simplified interconnection structure based on C ₆₀ /SnO _{2-x} for all-perovskite tandem solar cells. <i>Nature Energy</i> , 2020, 5, 657-665.	19.8	186

#	ARTICLE	IF	CITATIONS
489	A Dendrite-Structured RbX (X=Br, I) Interlayer for CsPbI ₂ Br Perovskite Solar Cells with Over 15% Stabilized Efficiency. <i>ChemSusChem</i> , 2020, 13, 5443-5448.	3.6	4
490	Light-induced improvement of dopant-free PTAA on performance of inverted perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2020, 215, 110606.	3.0	36
491	Improving Efficiency and Stability of Perovskite Solar Cells Enabled by A Near-Infrared-Absorbing Moisture Barrier. <i>Joule</i> , 2020, 4, 1575-1593.	11.7	88
492	Arylammonium-Assisted Reduction of the Open-Circuit Voltage Deficit in Wide-Bandgap Perovskite Solar Cells: The Role of Suppressed Ion Migration. <i>ACS Energy Letters</i> , 2020, 5, 2560-2568.	8.8	131
493	Defect/Interface Recombination Limited Quasi-Fermi Level Splitting and Open-Circuit Voltage in Mono- and Triple-Cation Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 37647-37656.	4.0	28
494	Diethylammonium Iodide Assisted Grain Growth with Sub-Grain Cluster to Passivate Grain Boundary for CH ₃ NH ₃ PbI ₃ Perovskite Solar Cells. <i>Energy Technology</i> , 2020, 8, 2000412.	1.8	11
495	Gradient band structure: high performance perovskite solar cells using poly(bisphenol A) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 502 Td (a	5.2	14
496	Naphthalene Diimide-Based Molecules for Efficient and Stable Perovskite Solar Cells. <i>European Journal of Organic Chemistry</i> , 2020, 2020, 5329-5339.	1.2	10
497	Advances in perovskite photodetectors. <i>Informa-Materi</i> , 2020, 2, 1247-1256.	8.5	107
498	A brief review on the moisture stability for perovskite solar cells. <i>IOP Conference Series: Earth and Environmental Science</i> , 2020, 585, 012027.	0.2	15
499	Voltage bias stress effects in metal halide perovskites are strongly dependent on morphology and ion migration pathways. <i>Journal of Materials Chemistry A</i> , 2020, 8, 25109-25119.	5.2	11
500	External Field-Tunable Internal Orbital Interaction in Flexible Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 10323-10328.	2.1	2
501	Understanding the Mechanism between Antisolvent Dripping and Additive Doping Strategies on the Passivation Effects in Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 56151-56160.	4.0	35
502	Origin and Suppression of External Quantum Efficiency Roll-Off in Quasi-Two-Dimensional Metal Halide Perovskite Light-Emitting Diodes. <i>Journal of Physical Chemistry C</i> , 2020, 124, 27422-27428.	1.5	11
503	Nicotinamide as Additive for Microcrystalline and Defect Passivated Perovskite Solar Cells with 21.7% Efficiency. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 52500-52508.	4.0	67
504	Sodium Dodecylbenzene Sulfonate Interface Modification of Methylammonium Lead Iodide for Surface Passivation of Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 52643-52651.	4.0	25
505	Nanoparticle Wetting Agent for Gas Stream-Assisted Blade-Coated Inverted Perovskite Solar Cells and Modules. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 52678-52690.	4.0	22
506	MXene-Modulated Electrode/SnO ₂ Interface Boosting Charge Transport in Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 53973-53983.	4.0	71

#	ARTICLE	IF	CITATIONS
507	Regulating Surface Termination for Efficient Inverted Perovskite Solar Cells with Greater Than 23% Efficiency. <i>Journal of the American Chemical Society</i> , 2020, 142, 20134-20142.	6.6	414
508	Perovskite Tandem Solar Cells: From Fundamentals to Commercial Deployment. <i>Chemical Reviews</i> , 2020, 120, 9835-9950.	23.0	248
509	Alkali-cation-enhanced benzylammonium passivation for efficient and stable perovskite solar cells fabricated through sequential deposition. <i>Journal of Materials Chemistry A</i> , 2020, 8, 19357-19366.	5.2	13
510	Multifunctional molecules of surfactant to support enhanced efficiency and stability for perovskite solar cells. <i>Journal of Materials Science</i> , 2020, 55, 14761-14772.	1.7	15
511	Molecular Ferroelectricsâ€Driven Highâ€Performance Perovskite Solar Cells. <i>Angewandte Chemie</i> , 2020, 132, 20149-20157.	1.6	16
512	Molecular Ferroelectricsâ€Driven Highâ€Performance Perovskite Solar Cells. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 19974-19982.	7.2	71
513	Inverted planar perovskite solar cells with efficient and stability via optimized cathode-interfacial layer. <i>Solar Energy</i> , 2020, 207, 1165-1171.	2.9	5
514	Toward Efficient and Stable Perovskite Solar Cells: Choosing Appropriate Passivator to Specific Defects. <i>Solar Rrl</i> , 2020, 4, 2000308.	3.1	31
515	High-Efficiency Perovskite Solar Cells. <i>Chemical Reviews</i> , 2020, 120, 7867-7918.	23.0	1,480
516	A Multi-functional Molecular Modifier Enabling Efficient Large-Area Perovskite Light-Emitting Diodes. <i>Joule</i> , 2020, 4, 1977-1987.	11.7	111
517	Low-temperature processed rare-earth doped brookite TiO ₂ scaffold for UV stable, hysteresis-free and high-performance perovskite solar cells. <i>Nano Energy</i> , 2020, 77, 105183.	8.2	58
518	The surface of halide perovskites from nano to bulk. <i>Nature Reviews Materials</i> , 2020, 5, 809-827.	23.3	224
519	Enhanced Charge Transfer in Atomâ€Thick 2Hâ€WS ₂ Nanosheetsâ€™ Electron Transport Layers of Perovskite Solar Cells. <i>Solar Rrl</i> , 2020, 4, 2000260.	3.1	26
520	Reduced bilateral recombination by functional molecular interface engineering for efficient inverted perovskite solar cells. <i>Nano Energy</i> , 2020, 78, 105249.	8.2	45
521	Realization of Moisture-Resistive Perovskite Films for Highly Efficient Solar Cells Using Molecule Incorporation. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 39063-39073.	4.0	11
522	A bilateral interfacial passivation strategy promoting efficiency and stability of perovskite quantum dot light-emitting diodes. <i>Nature Communications</i> , 2020, 11, 3902.	5.8	204
523	Roll-transferred graphene encapsulant for robust perovskite solar cells. <i>Nano Energy</i> , 2020, 77, 105182.	8.2	24
524	Materials and Methods for Interface Engineering toward Stable and Efficient Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2020, 5, 2742-2786.	8.8	307

#	ARTICLE	IF	CITATIONS
525	Single-crystal perovskite detectors: development and perspectives. <i>Journal of Materials Chemistry C</i> , 2020, 8, 11664-11674.	2.7	35
526	Eradication of non-capacitive effects with potassium incorporation in perovskite solar cells. <i>Journal of Applied Physics</i> , 2020, 128, 055501.	1.1	2
527	Full Defects Passivation Enables 21% Efficiency Perovskite Solar Cells Operating in Air. <i>Advanced Energy Materials</i> , 2020, 10, 2001958.	10.2	117
528	Efficient CsPbI ₂ Br ₂ Perovskite Solar Cells: Precise Control of Film Growth through the Application of Organic Iodized Salt and Anti-solvent. <i>Energy & Fuels</i> , 2020, 34, 11472-11478.	2.5	14
529	Efficient Bifacial Passivation Enables Printable Mesoscopic Perovskite Solar Cells with Improved Photovoltage and Fill Factor. <i>Solar Rrl</i> , 2020, 4, 2000288.	3.1	10
530	Defect-Passivating Organic/Inorganic Bicomponent Hole-Transport Layer for High Efficiency Metal-Halide Perovskite Device. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 40310-40317.	4.0	29
531	Toward Greener Solution Processing of Perovskite Solar Cells. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 13126-13138.	3.2	41
532	Defects chemistry in high-efficiency and stable perovskite solar cells. <i>Journal of Applied Physics</i> , 2020, 128, .	1.1	91
533	Defects and Their Passivation in Hybrid Halide Perovskites toward Solar Cell Applications. <i>Solar Rrl</i> , 2020, 4, 2000505.	3.1	47
534	Additive engineering of 4,4'-Bis (N-carbazolyl)-1,1'-biphenyl (CBP) molecules for defects passivation and moisture stability of hybrid perovskite layer. <i>Solar Energy</i> , 2020, 211, 1084-1091.	2.9	6
535	A Type I Heterointerface between Amorphous PbI ₂ Overlayers on Crystalline CsPbI ₃ . <i>ACS Applied Energy Materials</i> , 2020, 3, 10328-10332.	2.5	4
536	Rising from the Ashes: Gaseous Therapy for Robust and Large-Area Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 49648-49658.	4.0	11
537	High-Performance Inverted Perovskite Solar Cells with Operational Stability via n-Type Small Molecule Additive-Assisted Defect Passivation. <i>Advanced Energy Materials</i> , 2020, 10, 2001920.	10.2	45
538	Effect of energetic distribution of trap states on fill factor in perovskite solar cells. <i>Journal of Power Sources</i> , 2020, 479, 229077.	4.0	10
539	Near-Infrared-Transparent Perovskite Solar Cells and Perovskite-Based Tandem Photovoltaics. <i>Small Methods</i> , 2020, 4, 2000395.	4.6	63
540	Sensitive and Stable 2D Perovskite Single-Crystal X-ray Detectors Enabled by a Supramolecular Anchor. <i>Advanced Materials</i> , 2020, 32, e2003790.	11.1	159
541	Mechanochemistry as a Green Route: Synthesis, Thermal Stability, and Postsynthetic Reversible Phase Transformation of Highly-Luminescent Cesium Copper Halides. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 7723-7729.	2.1	55
542	Triphenylamine-Polystyrene Blends for Perovskite Solar Cells with Simultaneous Energy Loss Suppression and Stability Improvement. <i>Solar Rrl</i> , 2020, 4, 2000490.	3.1	6

#	ARTICLE	IF	CITATIONS
543	High-Efficiency Silicon Heterojunction Solar Cells: Materials, Devices and Applications. <i>Materials Science and Engineering Reports</i> , 2020, 142, 100579.	14.8	139
544	Passivation of defects in perovskite solar cell: From a chemistry point of view. <i>Nano Energy</i> , 2020, 77, 105237.	8.2	92
545	Chemical vapor deposited polymer layer for efficient passivation of planar perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2020, 8, 20122-20132.	5.2	27
546	Growth and optimization of hybrid perovskite single crystals for optoelectronics/electronics and sensing. <i>Journal of Materials Chemistry C</i> , 2020, 8, 13918-13952.	2.7	17
547	Grain Boundary Defect Passivation of Triple Cation Mixed Halide Perovskite with Hydrazine-Based Aromatic Iodide for Efficiency Improvement. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 41312-41322.	4.0	45
548	Gradient Engineered Light Absorption Layer for Enhanced Carrier Separation Efficiency in Perovskite Solar Cells. <i>Nanoscale Research Letters</i> , 2020, 15, 127.	3.1	2
549	Phenethylammonium Functionalization Enhances Near-Surface Carrier Diffusion in Hybrid Perovskites. <i>Journal of the American Chemical Society</i> , 2020, 142, 16254-16264.	6.6	42
550	Double-Halide Composition-Engineered SnO ₂ -Triple Cation Perovskite Solar Cells Demonstrating Outstanding Performance and Stability. <i>ACS Applied Energy Materials</i> , 2020, 3, 8595-8605.	2.5	17
551	Rational design of Al ₂ O ₃ /2D perovskite heterostructure dielectric for high performance MoS ₂ phototransistors. <i>Nature Communications</i> , 2020, 11, 4266.	5.8	59
552	A multifunctional additive of scandium trifluoromethanesulfonate to achieve efficient inverted perovskite solar cells with a high fill factor of 83.80%. <i>Journal of Materials Chemistry A</i> , 2020, 8, 19555-19560.	5.2	23
553	Realizing Reduced Imperfections via Quantum Dots Interdiffusion in High Efficiency Perovskite Solar Cells. <i>Advanced Materials</i> , 2020, 32, e2003296.	11.1	50
554	Interface passivation strategy improves the efficiency and stability of organic-inorganic hybrid metal halide perovskite solar cells. <i>Journal of Materials Research</i> , 2020, 35, 2166-2189.	1.2	4
555	Defect Tolerance and Intolerance in Metal-Halide Perovskites. <i>Advanced Energy Materials</i> , 2020, 10, 2001959.	10.2	85
556	Efficiency progress of inverted perovskite solar cells. <i>Energy and Environmental Science</i> , 2020, 13, 3823-3847.	15.6	210
557	Enhanced Device Performances of MA ₂ FACsPb(I _x Br _{1-x}) Perovskite Solar Cells with Dual-Functional 2-Chloroethyl Acrylate Additives. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 46846-46853.	4.0	17
558	Defect passivation strategies in perovskites for an enhanced photovoltaic performance. <i>Energy and Environmental Science</i> , 2020, 13, 4017-4056.	15.6	235
559	3D/2D Bilayered Perovskite Solar Cells with an Enhanced Stability and Performance. <i>Materials</i> , 2020, 13, 3868.	1.3	25
560	Extraction technique of trap states based on transient photo-voltage measurement. <i>Scientific Reports</i> , 2020, 10, 12888.	1.6	13

#	ARTICLE	IF	CITATIONS
561	Recent Progress in Metal Halide Perovskite-Based Tandem Solar Cells. <i>Advanced Materials</i> , 2020, 32, e2002228.	11.1	39
562	Towards commercialization: the operational stability of perovskite solar cells. <i>Chemical Society Reviews</i> , 2020, 49, 8235-8286.	18.7	371
563	Air-Processed Perovskite Films with Inner-to-Outside Passivation for High-Efficiency Solar Cells. <i>Solar Rrl</i> , 2020, 4, 2000410.	3.1	5
564	Poly(Ethylene Glycol) Diacrylate as the Passivation Layer for High-Performance Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 45045-45055.	4.0	24
565	Interface Modification of a Perovskite/Hole Transport Layer with Tetraphenyldibenzoperiflanthene for Highly Efficient and Stable Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 45073-45082.	4.0	12
566	New Extraction Technique of In-Gap Electronic-State Spectrum Based on Time-Resolved Charge Extraction. <i>ACS Omega</i> , 2020, 5, 21762-21767.	1.6	8
567	Efficient Naphthalene Imide-Based Interface Engineering Materials for Enhancing Perovskite Photovoltaic Performance and Stability. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 42348-42356.	4.0	16
568	Impacts of carrier trapping and ion migration on charge transport of perovskite solar cells with TiO _x electron transport layer. <i>RSC Advances</i> , 2020, 10, 28083-28089.	1.7	4
569	Synergistic engineering of bromine and cetyltrimethylammonium chloride molecules enabling efficient and stable flexible perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2020, 8, 19425-19433.	5.2	9
570	Photocorrosion at Irradiated Perovskite/Electrolyte Interfaces. <i>Journal of the American Chemical Society</i> , 2020, 142, 21595-21614.	6.6	32
571	Critical Role of Functional Groups in Defect Passivation and Energy Band Modulation in Efficient and Stable Inverted Perovskite Solar Cells Exceeding 21% Efficiency. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 57165-57173.	4.0	24
572	Introducing ammonium salt into hole transporting materials for perovskite solar cells. <i>Chemical Communications</i> , 2020, 56, 14471-14474.	2.2	14
573	Recent Progress in 2D/3D Multidimensional Metal Halide Perovskites Solar Cells. <i>Frontiers in Materials</i> , 2020, 7, .	1.2	33
574	Perovskite quantum dot solar cells: Mapping interfacial energetics for improving charge separation. <i>Nano Energy</i> , 2020, 78, 105319.	8.2	31
575	Crown Ether Modulation Enables over 23% Efficient Formamidinium-Based Perovskite Solar Cells. <i>Journal of the American Chemical Society</i> , 2020, 142, 19980-19991.	6.6	145
576	Methylamine-assisted growth of uniaxial-oriented perovskite thin films with millimeter-sized grains. <i>Nature Communications</i> , 2020, 11, 5402.	5.8	71
577	Deep insights into interface engineering by buffer layer for efficient perovskite solar cells: a first-principles study. <i>Science China Materials</i> , 2020, 63, 1588-1596.	3.5	10
578	Defect passivation and lattice distortion enhance solid-state photoluminescence of two-dimensional perovskites. <i>2D Materials</i> , 2020, 7, 031008.	2.0	6

#	ARTICLE	IF	CITATIONS
579	Benign ferroelastic twin boundaries in halide perovskites for charge carrier transport and recombination. <i>Nature Communications</i> , 2020, 11, 2215.	5.8	47
580	Crystal Site Feature Embedding Enables Exploration of Large Chemical Spaces. <i>Matter</i> , 2020, 3, 433-448.	5.0	33
581	Toward Easy-to-Assemble, Large-Area Smart Windows: All-in-One Cross-Linked Electrochromic Material and Device. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 27526-27536.	4.0	44
582	Vertical Phase Separated Cesium Fluoride Doping Organic Electron Transport Layer: A Facile and Efficient σ -Bridge-Linked Heterojunction for Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2020, 30, 2001418.	7.8	44
583	Passivation Mechanism Exploiting Surface Dipoles Affords High-Performance Perovskite Solar Cells. <i>Journal of the American Chemical Society</i> , 2020, 142, 11428-11433.	6.6	107
584	Enhanced thermal stability of inverted perovskite solar cells by interface modification and additive strategy. <i>RSC Advances</i> , 2020, 10, 18400-18406.	1.7	15
585	Identifying, understanding and controlling defects and traps in halide perovskites for optoelectronic devices: a review. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 373001.	1.3	20
586	A Realistic Methodology for 30% Efficient Perovskite Solar Cells. <i>CheM</i> , 2020, 6, 1254-1264.	5.8	160
587	Side-chain engineering of PEDOT derivatives as dopant-free hole-transporting materials for efficient and stable $n-i-p$ structured perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2020, 8, 9236-9242.	2.7	14
588	Engineering of Electron Extraction and Defect Passivation via Anion-Doped Conductive Fullerene Derivatives as Interlayers for Efficient Invert Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 24747-24755.	4.0	31
589	Passivation of defects in inverted perovskite solar cells using an imidazolium-based ionic liquid. <i>Sustainable Energy and Fuels</i> , 2020, 4, 3971-3978.	2.5	37
590	Solution-processed perovskite solar cells. <i>Journal of Central South University</i> , 2020, 27, 1104-1133.	1.2	34
591	Defect suppression and passivation for perovskite solar cells: from the birth to the lifetime operation. <i>EnergyChem</i> , 2020, 2, 100032.	10.1	22
592	Modulation of Defects and Interfaces through Alkylammonium Interlayer for Efficient Inverted Perovskite Solar Cells. <i>Joule</i> , 2020, 4, 1248-1262.	11.7	260
593	Efficient Surface Passivation and Electron Transport Enable Low Temperature-Processed Inverted Perovskite Solar Cells with Efficiency over 20%. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 8848-8856.	3.2	9
594	Unravelling the Mechanism of Ionic Fullerene Passivation for Efficient and Stable Methylammonium-Free Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2020, 5, 2015-2022.	8.8	38
595	Lewis-base containing spiro type hole transporting materials for high-performance perovskite solar cells with efficiency approaching 20%. <i>Nanoscale</i> , 2020, 12, 13157-13164.	2.8	30
596	Lewis acid/base approach for efficacious defect passivation in perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2020, 8, 12201-12225.	5.2	149

#	ARTICLE	IF	CITATIONS
597	Double Barriers for Moisture Degradation: Assembly of Hydrolysable Hydrophobic Molecules for Stable Perovskite Solar Cells with High Open-Circuit Voltage. <i>Advanced Functional Materials</i> , 2020, 30, 2002639.	7.8	61
598	Blading Phase-Pure Formamidinium-Alloyed Perovskites for High-Efficiency Solar Cells with Low Photovoltage Deficit and Improved Stability. <i>Advanced Materials</i> , 2020, 32, e2000995.	11.1	125
599	Research progress on hybrid organic-inorganic perovskites for photo-applications. <i>Chinese Chemical Letters</i> , 2020, 31, 3055-3064.	4.8	52
600	Identifying the functional groups effect on passivating perovskite solar cells. <i>Science Bulletin</i> , 2020, 65, 1726-1734.	4.3	52
601	Multiply Charged Conjugated Polyelectrolytes as a Multifunctional Interlayer for Efficient and Scalable Perovskite Solar Cells. <i>Advanced Materials</i> , 2020, 32, e2002333.	11.1	48
602	Interface Engineering Driven Stabilization of Halide Perovskites against Moisture, Heat, and Light for Optoelectronic Applications. <i>Advanced Energy Materials</i> , 2020, 10, 2000768.	10.2	62
603	Perovskite semiconductors for direct X-ray detection and imaging. <i>Journal of Semiconductors</i> , 2020, 41, 051204.	2.0	68
604	Layered perovskite materials: key solutions for highly efficient and stable perovskite solar cells. <i>Reports on Progress in Physics</i> , 2020, 83, 086502.	8.1	48
605	Black phosphorus quantum dots as an effective perovskite interfacial modification layer for efficient low-temperature processed all-inorganic CsPbI ₂ Br perovskite solar cells. <i>Solar Energy</i> , 2020, 206, 793-798.	2.9	14
606	Molecular materials as interfacial layers and additives in perovskite solar cells. <i>Chemical Society Reviews</i> , 2020, 49, 4496-4526.	18.7	130
607	On the Origin of the Ideality Factor in Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2020, 10, 2000502.	10.2	175
608	Efficiency enhancement of perovskite solar cells based on graphene-CuInS ₂ quantum dots composite: The roles for fast electron injection and light harvests. <i>Applied Surface Science</i> , 2020, 528, 146560.	3.1	15
609	Interaction engineering in organic-inorganic hybrid perovskite solar cells. <i>Materials Horizons</i> , 2020, 7, 2208-2236.	6.4	35
610	A Review on Solution-Processable Dopant-Free Small Molecules as Hole-Transporting Materials for Efficient Perovskite Solar Cells. <i>Small Methods</i> , 2020, 4, 2000254.	4.6	64
611	Efficient and Stable Tin Perovskite Solar Cells Enabled by Graded Heterostructure of Light-Absorbing Layer. <i>Solar Rrl</i> , 2020, 4, 2000240.	3.1	53
612	Ion migration of MAPbBr ₃ single crystal devices with coplanar and sandwich electrode structures. <i>Physica B: Condensed Matter</i> , 2020, 593, 412310.	1.3	5
613	Influence of Hole Transport Layers/Perovskite Interfaces on the Hysteresis Behavior of Inverted Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2020, 3, 6391-6399.	2.5	9
614	Coordination modulated crystallization and defect passivation in high quality perovskite film for efficient solar cells. <i>Coordination Chemistry Reviews</i> , 2020, 420, 213408.	9.5	51

#	ARTICLE	IF	CITATIONS
615	Tinâ€‘Lead Alloying for Efficient and Stable All-Inorganic Perovskite Solar Cells. Chemistry of Materials, 2020, 32, 2782-2794.	3.2	58
616	Dimension-Controlled Growth of Antimony-Based Perovskite-like Halides for Lead-Free and Semitransparent Photovoltaics. ACS Applied Materials & Interfaces, 2020, 12, 17062-17069.	4.0	71
617	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
618	Toward perovskite nanocrystalline solar cells: progress and potential. Journal of Materials Chemistry C, 2020, 8, 5321-5334.	2.7	22
619	Simple Processing Additive-Driven 20% Efficiency for Inverted Planar Heterojunction Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 18431-18436.	4.0	12
620	Highly-improved performance of inverted planar perovskite solar cells by glucose modification. Journal of Materials Chemistry C, 2020, 8, 5894-5903.	2.7	19
621	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
622	A Polymerizationâ€‘Assisted Grain Growth Strategy for Efficient and Stable Perovskite Solar Cells. Advanced Materials, 2020, 32, e1907769.	11.1	161
623	Hybrid Perovskiteâ€‘Organic Flexible Tandem Solar Cell Enabling Highly Efficient Electrocatalysis Overall Water Splitting. Advanced Energy Materials, 2020, 10, 2000361.	10.2	79
624	Regulating strain in perovskite thin films through charge-transport layers. Nature Communications, 2020, 11, 1514.	5.8	346
625	Modification of NiOx hole transport layer for acceleration of charge extraction in inverted perovskite solar cells. RSC Advances, 2020, 10, 12289-12296.	1.7	22
626	Microscopic investigations on the surface-state dependent moisture stability of a hybrid perovskite. Nanoscale, 2020, 12, 7759-7765.	2.8	12
627	Efficient Perovskite Solar Cells Based on CdSe/ZnS Quantum Dots Electron Transporting Layer with Superior UV Stability. Physica Status Solidi - Rapid Research Letters, 2020, 14, 2000062.	1.2	11
628	Highly Reproducible and Efficient FASn ₃ Perovskite Solar Cells Fabricated with Volatilizable Reducing Solvent. Journal of Physical Chemistry Letters, 2020, 11, 2965-2971.	2.1	115
629	A Twoâ€‘Dimensional Mesoporous Polypyrroleâ€‘Graphene Oxide Heterostructure as a Dualâ€‘Functional Ion Redistributor for Dendriteâ€‘Free Lithium Metal Anodes. Angewandte Chemie, 2020, 132, 12245-12251.	1.6	21
630	A Twoâ€‘Dimensional Mesoporous Polypyrroleâ€‘Graphene Oxide Heterostructure as a Dualâ€‘Functional Ion Redistributor for Dendriteâ€‘Free Lithium Metal Anodes. Angewandte Chemie - International Edition, 2020, 59, 12147-12153.	7.2	115
631	Shallow and Deep Trap State Passivation for Low-Temperature Processed Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 1396-1403.	8.8	75
632	Efficient perovskite solar cells via surface passivation by a multifunctional small organic ionic compound. Journal of Materials Chemistry A, 2020, 8, 8313-8322.	5.2	68

#	ARTICLE	IF	CITATIONS
633	Choline Chloride-Modified SnO ₂ Achieving High Output Voltage in MAPbI ₃ Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 3504-3511.	2.5	57
634	Compositional Engineering for Compact Perovskite Absorber Fabrication Toward Efficient Photovoltaics. IEEE Journal of Photovoltaics, 2020, 10, 765-770.	1.5	1
635	Surface Passivation of Perovskite Film by Sodium Toluenesulfonate for Highly Efficient Solar Cells. Solar Rrl, 2020, 4, 2000113.	3.1	33
636	Reducing photovoltage loss at the anode contact of methylammonium-free inverted perovskite solar cells by conjugated polyelectrolyte doping. Journal of Materials Chemistry A, 2020, 8, 7309-7316.	5.2	28
637	Halide perovskite nanotube toward energy applications: A first-principles investigation. International Journal of Energy Research, 2020, 44, 5412-5424.	2.2	5
638	Aryl Diammonium Iodide Passivation for Efficient and Stable Hybrid Organic-Inorganic Perovskite Solar Cells. Advanced Functional Materials, 2020, 30, 2002366.	7.8	52
639	Improving the efficiency of perovskite solar cells by additive engineering with ditetrabutylammonium dichromate. Organic Electronics, 2020, 85, 105845.	1.4	5
640	Antisolvent Additive Engineering Containing Dual-Function Additive for Triple-Cation Perovskite Solar Cells with over 20% PCE. ACS Energy Letters, 2020, 5, 2535-2545.	8.8	96
641	Defect Passivation in Perovskite Solar Cells by Cyano-Based Conjugated Molecules for Improved Performance and Stability. Advanced Functional Materials, 2020, 30, 2002861.	7.8	87
642	Beyond the Polysulfide Shuttle and Lithium Dendrite Formation: Addressing the Sluggish Sulfur Redox Kinetics for Practical High-Energy Li Batteries. Angewandte Chemie - International Edition, 2020, 59, 17634-17640.	7.2	67
643	Correlated Electrical and Chemical Nanoscale Properties in Potassium-Passivated, Triple-Cation Perovskite Solar Cells. Advanced Materials Interfaces, 2020, 7, 2000515.	1.9	4
644	Beyond the Polysulfide Shuttle and Lithium Dendrite Formation: Addressing the Sluggish Sulfur Redox Kinetics for Practical High-Energy Li Batteries. Angewandte Chemie, 2020, 132, 17787-17793.	1.6	10
645	Interfacial Molecular Doping of Metal Halide Perovskites for Highly Efficient Solar Cells. Advanced Materials, 2020, 32, e2001581.	11.1	139
646	Light-induced degradation and self-healing inside CH ₃ NH ₃ PbI ₃ -based solar cells. Applied Physics Letters, 2020, 116, .	1.5	12
647	Efficient Bidentate Molecules Passivation Strategy for High-Performance and Stable Inorganic CsPbI ₂ Br Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000268.	3.1	21
648	Gaining Insight into the Effect of Organic Interface Layer on Suppressing Ion Migration Induced Interfacial Degradation in Perovskite Solar Cells. Advanced Functional Materials, 2020, 30, 2000837.	7.8	29
649	In-situ fabrication of P3HT passivating layer with hole extraction ability for enhanced performance of perovskite solar cell. Chemical Engineering Journal, 2020, 402, 126152.	6.6	35
650	Organic N-type Molecule: Managing the Electronic States of Bulk Perovskite for High-Performance Photovoltaics. Advanced Functional Materials, 2020, 30, 2001788.	7.8	49

#	ARTICLE	IF	CITATIONS
651	Reducing Surface Halide Deficiency for Efficient and Stable Iodide-Based Perovskite Solar Cells. <i>Journal of the American Chemical Society</i> , 2020, 142, 3989-3996.	6.6	236
652	Combining Efficiency and Stability in Mixed Tin-Lead Perovskite Solar Cells by Capping Grains with an Ultrathin 2D Layer. <i>Advanced Materials</i> , 2020, 32, e1907058.	11.1	148
653	Shallow defects levels and extract detrapped charges to stabilize highly efficient and hysteresis-free perovskite photovoltaic devices. <i>Nano Energy</i> , 2020, 71, 104556.	8.2	51
654	Inverted devices are catching up. <i>Nature Energy</i> , 2020, 5, 123-124.	19.8	14
655	Deep-Eutectic-Solvent-Based Self-Healing Polymer Electrolyte for Safe and Long-Life Lithium-Metal Batteries. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 9134-9142.	7.2	292
656	A hysteresis-free perovskite transistor with exceptional stability through molecular cross-linking and amine-based surface passivation. <i>Nanoscale</i> , 2020, 12, 7641-7650.	2.8	40
657	Modifying Mesoporous TiO ₂ by Ammonium Sulfonate Boosts Performance of Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 12696-12705.	4.0	32
658	Deep-Eutectic-Solvent-Based Self-Healing Polymer Electrolyte for Safe and Long-Life Lithium-Metal Batteries. <i>Angewandte Chemie</i> , 2020, 132, 9219-9227.	1.6	42
659	Boosting the efficiency and stability of perovskite solar cells through facile molecular engineering approaches. <i>Solar Energy</i> , 2020, 199, 136-142.	2.9	33
660	Enhanced performance and stability of ambient-processed CH ₃ NH ₃ PbI _{3-x} (SCN) _x planar perovskite solar cells by introducing ammonium salts. <i>Applied Surface Science</i> , 2020, 513, 145790.	3.1	14
661	Highly stable inverted methylammonium lead tri-iodide perovskite solar cells achieved by surface re-crystallization. <i>Energy and Environmental Science</i> , 2020, 13, 840-847.	15.6	44
662	Advances in two-dimensional organic-inorganic hybrid perovskites. <i>Energy and Environmental Science</i> , 2020, 13, 1154-1186.	15.6	420
663	Efficient Perovskite Solar Cells by Reducing Interface-Mediated Recombination: a Bulky Amine Approach. <i>Advanced Energy Materials</i> , 2020, 10, 2000197.	10.2	198
664	Non-Preheating Processed Quasi-2D Perovskites for Efficient and Stable Solar Cells. <i>Small</i> , 2020, 16, e1906997.	5.2	24
665	Functional additives for high-performance inverted planar perovskite solar cells with exceeding 20% efficiency: Selective complexation of organic cations in precursors. <i>Nano Energy</i> , 2020, 71, 104639.	8.2	109
666	Enhanced self-powered photoresponse in perovskite films with in situ induced p-n homojunction by Ar ⁺ bombardment. <i>Optical Materials</i> , 2020, 100, 109687.	1.7	5
667	High-Performance CsPbI _{3-x} Br _{3x} All-Inorganic Perovskite Solar Cells with Efficiency over 18% via Spontaneous Interfacial Manipulation. <i>Advanced Functional Materials</i> , 2020, 30, 2000457.	7.8	118
669	Comparative studies of optoelectrical properties of prominent PV materials: Halide perovskite, CdTe, and GaAs. <i>Materials Today</i> , 2020, 36, 18-29.	8.3	33

#	ARTICLE	IF	CITATIONS
670	Chlorine Vacancy Passivation in Mixed Halide Perovskite Quantum Dots by Organic Pseudohalides Enables Efficient Rec. 2020 Blue Light-Emitting Diodes. ACS Energy Letters, 2020, 5, 793-798.	8.8	208
671	Tin and Mixed Lead–Tin Halide Perovskite Solar Cells: Progress and their Application in Tandem Solar Cells. Advanced Materials, 2020, 32, e1907392.	11.1	203
672	A review on perovskite solar cells: Evolution of architecture, fabrication techniques, commercialization issues and status. Solar Energy, 2020, 198, 665-688.	2.9	321
673	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
674	Interfacial and structural modifications in perovskite solar cells. Nanoscale, 2020, 12, 5719-5745.	2.8	39
675	Defect Passivation via the Incorporation of Tetrapropylammonium Cation Leading to Stability Enhancement in Lead Halide Perovskite. Advanced Functional Materials, 2020, 30, 1909737.	7.8	50
676	Tailoring Perovskite Adjacent Interfaces by Conjugated Polyelectrolyte for Stable and Efficient Solar Cells. Solar Rrl, 2020, 4, 2000060.	3.1	23
677	Blade-Coated Perovskites on Textured Silicon for 26%-Efficient Monolithic Perovskite/Silicon Tandem Solar Cells. Joule, 2020, 4, 850-864.	11.7	281
678	Grain Enlargement and Defect Passivation with Melamine Additives for High Efficiency and Stable CsPbBr ₃ Perovskite Solar Cells. ChemSusChem, 2020, 13, 1834-1843.	3.6	62
679	Precise control of PbI ₂ excess into grain boundary for efficacious charge extraction in off-stoichiometric perovskite solar cells. Electrochimica Acta, 2020, 338, 135697.	2.6	25
680	Recent progress in flexible–wearable solar cells for self-powered electronic devices. Energy and Environmental Science, 2020, 13, 685-743.	15.6	340
681	Facile synthesis of durable perovskite quantum dots film with near unity photoluminescence quantum yield for efficient perovskite light emitting diode. Applied Surface Science, 2020, 510, 145513.	3.1	13
682	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
683	Low-Temperature Crystallization Enables 21.9% Efficient Single-Crystal MAPb ₃ Inverted Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 657-662.	8.8	171
684	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
685	Recycled Utilization of a Nanoporous Au Electrode for Reduced Fabrication Cost of Perovskite Solar Cells. Advanced Science, 2020, 7, 1902474.	5.6	26
686	Room–Temperature Partial Conversion of FAPbI_3 Perovskite Phase via PbI_2 Solvation Enables High–Performance Solar Cells. Advanced Functional Materials, 2020, 30, 1907442.	7.8	41
687	Novel approach toward hole-transporting layer doped by hydrophobic Lewis acid through infiltrated diffusion doping for perovskite solar cells. Nano Energy, 2020, 70, 104509.	8.2	67

#	ARTICLE	IF	CITATIONS
688	Managing grains and interfaces via ligand anchoring enables 22.3%-efficiency inverted perovskite solar cells. <i>Nature Energy</i> , 2020, 5, 131-140.	19.8	894
689	Boosting Photovoltaic Performance and Stability of Super-Halogen-Substituted Perovskite Solar Cells by Simultaneous Methylammonium Immobilization and Vacancy Compensation. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 8249-8259.	4.0	19
690	Introduction of Multifunctional Triphenylamino Derivatives at the Perovskite/HTL Interface To Promote Efficiency and Stability of Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 9300-9306.	4.0	53
691	Performance of Perovskite CsPbBr ₃ Single Crystal Detector for Gamma-Ray Detection. <i>IEEE Transactions on Nuclear Science</i> , 2020, 67, 443-449.	1.2	50
692	Dual Passivation of Perovskite Defects for Light-Emitting Diodes with External Quantum Efficiency Exceeding 20%. <i>Advanced Functional Materials</i> , 2020, 30, 1909754.	7.8	212
693	Auger Effect Assisted Perovskite Electroluminescence Modulated by Interfacial Minority Carriers. <i>Advanced Functional Materials</i> , 2020, 30, 1909222.	7.8	27
694	Fluoroaromatic Cation-Assisted Planar Junction Perovskite Solar Cells with Improved V_{OC} and Stability: The Role of Fluorination Position. <i>Solar Rrl</i> , 2020, 4, 2000107.	3.1	68
695	Promoting Thermodynamic and Kinetic Stabilities of FA-based Perovskite by an in Situ Bilayer Structure. <i>Nano Letters</i> , 2020, 20, 3864-3871.	4.5	49
696	Critical role of interface contact modulation in realizing low-temperature fabrication of efficient and stable CsPbI ₂ Br ₂ perovskite solar cells. <i>Chemical Engineering Journal</i> , 2020, 394, 124903.	6.6	97
697	Phenylhydrazinium Iodide for Surface Passivation and Defects Suppression in Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2020, 30, 2000778.	7.8	103
698	Low-Temperature Aging Provides 22% Efficient Bromine-Free and Passivation Layer-Free Planar Perovskite Solar Cells. <i>Nano-Micro Letters</i> , 2020, 12, 84.	14.4	33
699	Highly Efficient Thermally Co-evaporated Perovskite Solar Cells and Mini-modules. <i>Joule</i> , 2020, 4, 1035-1053.	11.7	257
700	Perovskite solar cells based on the synergy between carbon electrodes and polyethylene glycol additive with excellent stability. <i>Organic Electronics</i> , 2020, 83, 105734.	1.4	16
701	Carbazole-Terminated Isomeric Hole-Transporting Materials for Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 19710-19717.	4.0	28
702	Prolonged Lifetime of Perovskite Solar Cells Using a Moisture-Blocked and Temperature-Controlled Encapsulation System Comprising a Phase Change Material as a Cooling Agent. <i>ACS Omega</i> , 2020, 5, 7106-7114.	1.6	29
703	Conjugated polyelectrolyte with potassium cations enables inverted perovskite solar cells with an efficiency over 20%. <i>Journal of Materials Chemistry A</i> , 2020, 8, 8238-8243.	5.2	33
704	A reaction-and-assembly approach using monoamine zinc porphyrin for highly stable large-area perovskite solar cells. <i>Science China Chemistry</i> , 2020, 63, 777-784.	4.2	19
705	Recent Progress on Interface Engineering for High-Performance, Stable Perovskites Solar Cells. <i>Advanced Materials Interfaces</i> , 2020, 7, 2000118.	1.9	34

#	ARTICLE	IF	CITATIONS
706	Star-like hexakis[di(ethoxycarbonyl)methano]-C60 with higher electron mobility: An unexpected electron extractor interfaced in photovoltaic perovskites. <i>Nano Energy</i> , 2020, 74, 104859.	8.2	20
707	China's progress of perovskite solar cells in 2019. <i>Science Bulletin</i> , 2020, 65, 1306-1315.	4.3	12
708	A New Strategy for Increasing the Efficiency of Inverted Perovskite Solar Cells to More than 21%: High-Humidity Induced Self-Passivation of Perovskite Films. <i>Solar Rrl</i> , 2020, 4, 2000149.	3.1	17
709	CoCl ₂ as film morphology controller for efficient planar CsPbI ₃ perovskite solar cells. <i>Electrochimica Acta</i> , 2020, 349, 136162.	2.6	15
710	The diverse passivation effects of fullerene derivative on hysteresis behavior for normal and inverted perovskite solar cells. <i>Journal of Power Sources</i> , 2020, 461, 228156.	4.0	4
711	Embedding of WO ₃ nanocrystals with rich oxygen-vacancies in solution processed perovskite film for improved photovoltaic performance. <i>Journal of Power Sources</i> , 2020, 461, 228175.	4.0	17
712	Amphoteric imidazole doping induced large-grained perovskite with reduced defect density for high performance inverted solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2020, 212, 110553.	3.0	25
713	High-Performance Perovskite-Based Light-Emitting Diodes from the Conversion of Amorphous Spin-Coated Lead Bromide with Phenethylamine Doping. <i>ACS Omega</i> , 2020, 5, 8697-8706.	1.6	4
714	Zwitterion-Stabilizing Scalable Bladed δ -Phase Cs _{0.1} FA _{0.9} PbI ₃ Films for Efficient Inverted Planar Perovskite Solar Cells. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 7020-7030.	3.2	27
715	Enhancing the operational stability of unencapsulated perovskite solar cells through Cu-Ag bilayer electrode incorporation. <i>Journal of Materials Chemistry A</i> , 2020, 8, 8684-8691.	5.2	34
716	Evaluating the role of phenethylamine iodide as a novel anti-solvent for enhancing performance of inverted planar perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2020, 8, 7143-7148.	2.7	10
717	Moisture-tolerant and high-quality δ -CsPbI ₃ films for efficient and stable perovskite solar modules. <i>Journal of Materials Chemistry A</i> , 2020, 8, 9597-9606.	5.2	62
718	Surface passivation using pyridinium iodide for highly efficient planar perovskite solar cells. <i>Journal of Energy Chemistry</i> , 2021, 52, 84-91.	7.1	95
719	Biopolymer passivation for high-performance perovskite solar cells by blade coating. <i>Journal of Energy Chemistry</i> , 2021, 54, 45-52.	7.1	29
720	Interphases, Interfaces, and Surfaces of Active Materials in Rechargeable Batteries and Perovskite Solar Cells. <i>Advanced Materials</i> , 2021, 33, e1905245.	11.1	30
721	Defect passivation by nontoxic biomaterial yields 21% efficiency perovskite solar cells. <i>Journal of Energy Chemistry</i> , 2021, 55, 265-271.	7.1	50
722	Evaporated potassium chloride for double-sided interfacial passivation in inverted planar perovskite solar cells. <i>Journal of Energy Chemistry</i> , 2021, 54, 493-500.	7.1	28
723	Enhanced efficiency and stability in Sn-based perovskite solar cells with secondary crystallization growth. <i>Journal of Energy Chemistry</i> , 2021, 54, 414-421.	7.1	49

#	ARTICLE	IF	CITATIONS
724	Multifunctional Enhancement for Highly Stable and Efficient Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2021, 31, 2005776.	7.8	273
725	Natural passivation of the perovskite layer by oxygen in ambient air to improve the efficiency and stability of perovskite solar cells simultaneously. <i>Organic Electronics</i> , 2021, 88, 106007.	1.4	11
726	Crystallization Kinetics Modulation of FASnI_3 Films with Pre-nucleation Clusters for Efficient Lead-Free Perovskite Solar Cells. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 3693-3698.	7.2	80
727	Multiple methoxy-substituted hole transporter for inverted perovskite solar cells. <i>Journal of Energy Chemistry</i> , 2021, 56, 127-131.	7.1	4
728	Advanced Strategies of Passivating Perovskite Defects for High-Performance Solar Cells. <i>Energy and Environmental Materials</i> , 2021, 4, 293-301.	7.3	15
729	Minimizing Voltage Losses in Perovskite Solar Cells. <i>Small Structures</i> , 2021, 2, 2000050.	6.9	43
730	Interfacial interactions and properties of lead oxysalts passivated MAPbI_3 perovskites from first-principles calculations. <i>Computational Materials Science</i> , 2021, 187, 110081.	1.4	9
731	Simultaneously enhanced moisture tolerance and defect passivation of perovskite solar cells with cross-linked grain encapsulation. <i>Journal of Energy Chemistry</i> , 2021, 56, 455-462.	7.1	31
732	Surface charge-transfer doping for highly efficient perovskite solar cells. <i>Nano Energy</i> , 2021, 79, 105505.	8.2	52
733	Highly Efficient and Stable Perovskite Solar Cells Enabled by Low-Cost Industrial Organic Pigment Coating. <i>Angewandte Chemie</i> , 2021, 133, 2515-2522.	1.6	11
734	Highly Efficient and Stable Perovskite Solar Cells Enabled by Low-Cost Industrial Organic Pigment Coating. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 2485-2492.	7.2	66
735	All-Vacuum Processing for Fabrication of Efficient, Large-Scale, and Flexible Inverted Perovskite Solar Cells. <i>Physica Status Solidi - Rapid Research Letters</i> , 2021, 15, 2000449.	1.2	20
736	Bidentate Lewis bases are preferred for passivation of MAPbI_3 surfaces: A time-domain ab initio analysis. <i>Nano Energy</i> , 2021, 79, 105491.	8.2	33
737	Defect Suppression in Oriented 2D Perovskite Solar Cells with Efficiency over 18% via Rerouting Crystallization Pathway. <i>Advanced Energy Materials</i> , 2021, 11, .	10.2	66
738	Donor-Acceptor Type Porphyrin Derivatives Assisted Defect Passivation for Efficient Hybrid Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2021, 31, 2007762.	7.8	106
739	Crystallization Kinetics Modulation of FASnI_3 Films with Pre-nucleation Clusters for Efficient Lead-Free Perovskite Solar Cells. <i>Angewandte Chemie</i> , 2021, 133, 3737-3742.	1.6	20
740	The dual-defect passivation role of lithium bromide doping in reducing the nonradiative loss in CsPbX_3 (X = Br and I) quantum dots. <i>Inorganic Chemistry Frontiers</i> , 2021, 8, 658-668.	3.0	15
741	Poly(<i>N,N</i> -bis(4-butylphenyl) <i>N,N</i> -bisphenyl)benzidine-Based Interfacial Passivation Strategy Promoting Efficiency and Operational Stability of Perovskite Solar Cells in Regular Architecture. <i>Advanced Materials</i> , 2021, 33, e2006087.	11.1	128

#	ARTICLE	IF	CITATIONS
742	Device Performance of Emerging Photovoltaic Materials (Version 1). <i>Advanced Energy Materials</i> , 2021, 11, 2002774.	10.2	93
743	Light Stability Enhancement of Perovskite Solar Cells Using $\text{Perfluorooctyltriethoxysilane}$ Passivation. <i>Solar Rrl</i> , 2021, 5, 2000650.	3.1	7
744	A more accurate calculation method of trap state distribution based on transient photo-voltage measurement. <i>Chemical Physics</i> , 2021, 542, 111070.	0.9	6
745	Roles of MACl in Sequentially Deposited Bromine-free Perovskite Absorbers for Efficient Solar Cells. <i>Advanced Materials</i> , 2021, 33, e2007126.	11.1	112
746	Modeling Grain Boundaries in Polycrystalline Halide Perovskite Solar Cells. <i>Annual Review of Condensed Matter Physics</i> , 2021, 12, 95-109.	5.2	25
747	A modeling study on utilizing ultra-thin inorganic HTLs in inverted p-n homojunction perovskite solar cells. <i>Solar Energy</i> , 2021, 213, 1-12.	2.9	30
748	Effects of A site doping on the crystallization of perovskite films. <i>Journal of Materials Chemistry A</i> , 2021, 9, 1372-1394.	5.2	43
749	High-efficiency Tin Halide Perovskite Solar Cells: The Chemistry of Tin (II) Compounds and Their Interaction with Lewis Base Additives during Perovskite Film Formation. <i>Solar Rrl</i> , 2021, 5, .	3.1	50
750	Low-temperature processed bipolar metal oxide charge transporting layers for highly efficient perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2021, 221, 110870.	3.0	12
751	Dual Defect-passivation Using Phthalocyanine for Enhanced Efficiency and Stability of Perovskite Solar Cells. <i>Small</i> , 2021, 17, e2005216.	5.2	40
752	Highly electroluminescent and stable inorganic CsPbI_2Br perovskite solar cell enabled by balanced charge transfer. <i>Chemical Engineering Journal</i> , 2021, 417, 128053.	6.6	24
753	Conjugated polyelectrolyte doped perovskite films with enhanced photovoltaic performance and stability. <i>Chemical Engineering Journal</i> , 2021, 417, 128068.	6.6	8
754	Review and perspective of materials for flexible solar cells. <i>Materials Reports Energy</i> , 2021, 1, 100001.	1.7	54
755	Bifunctional Interfacial Modification Engineering with Biomimetic Perfluoro-Copolymer-Enabled High-Efficiency and Moisture-Resistant Perovskite Solar Cells. <i>ACS Applied Electronic Materials</i> , 2021, 3, 238-247.	2.0	6
756	Deep surface passivation for efficient and hydrophobic perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2021, 9, 2919-2927.	5.2	74
757	Understanding the Synergistic Effect of Device Architecture Design toward Efficient Perovskite Light-emitting Diodes Using Interfacial Layer Engineering. <i>Advanced Materials Interfaces</i> , 2021, 8, 2001712.	1.9	29
758	Defect mitigation using d -penicillamine for efficient methylammonium-free perovskite solar cells with high operational stability. <i>Chemical Science</i> , 2021, 12, 2050-2059.	3.7	88
759	Efficient, Hysteresis-free, and Flexible Inverted Perovskite Solar Cells Using All -vacuum Processing. <i>Solar Rrl</i> , 2021, 5, .	3.1	33

#	ARTICLE	IF	CITATIONS
760	A synchronous defect passivation strategy for constructing high-performance and stable planar perovskite solar cells. <i>Chemical Engineering Journal</i> , 2021, 413, 127387.	6.6	40
761	Reducing Open-Circuit Voltage Deficit in Perovskite Solar Cells via Surface Passivation with Phenylhydroxylammonium Halide Salts. <i>Small Methods</i> , 2021, 5, e2000441.	4.6	15
762	An overview of rare earth coupled lead halide perovskite and its application in photovoltaics and light emitting devices. <i>Progress in Materials Science</i> , 2021, 120, 100737.	16.0	35
763	Stability of the CsPbI ₃ perovskite: from fundamentals to improvements. <i>Journal of Materials Chemistry A</i> , 2021, 9, 11124-11144.	5.2	78
764	Preparation and Properties of Films of Organic-Inorganic Perovskites MAPbX ₃ (MA = CH ₃ NH ₃ ; X = Cl, I). <i>Journal of Materials Chemistry C</i> , 2021, 9, 100000.	0.2	5
765	Perovskite Single-Crystal Solar Cells: Going Forward. <i>ACS Energy Letters</i> , 2021, 6, 631-642.	8.8	74
766	Overcoming photovoltage deficit via natural amino acid passivation for efficient perovskite solar cells and modules. <i>Journal of Materials Chemistry A</i> , 2021, 9, 5857-5865.	5.2	43
767	Two birds with one stone: dual grain-boundary and interface passivation enables >22% efficient inverted methylammonium-free perovskite solar cells. <i>Energy and Environmental Science</i> , 2021, 14, 5875-5893.	15.6	180
768	Enhancing Efficiency and Ambient Stability of Perovskite Solar Cells via Multifunctional Trap Passivation Molecule. <i>Journal of Materials Chemistry C</i> , 2021, 9, 100000.	2.7	8
769	Revealing defective nanostructured surfaces and their impact on the intrinsic stability of hybrid perovskites. <i>Energy and Environmental Science</i> , 2021, 14, 1563-1572.	15.6	55
770	Efficient and Stable Perovskite-Based Photocathode for Photoelectrochemical Hydrogen Production. <i>Advanced Functional Materials</i> , 2021, 31, 2008277.	7.8	36
771	Metal Halide Perovskites for X-Ray Detection and Imaging. <i>Matter</i> , 2021, 4, 144-163.	5.0	222
772	Passivation of triple cation perovskites using guanidinium iodide in inverted solar cells for improved open-circuit voltage and stability. <i>Sustainable Energy and Fuels</i> , 2021, 5, 2486-2493.	2.5	5
773	Recent progress on defect passivation in perovskites for solar cell application. <i>Materials Science for Energy Technologies</i> , 2021, 4, 282-289.	1.0	8
774	Efficient Passivation Strategy on Sn Related Defects for High Performance All-Inorganic CsSnI ₃ Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2021, 31, 2007447.	7.8	128
775	Organic-inorganic hybrid and inorganic halide perovskites: structural and chemical engineering, interfaces and optoelectronic properties. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 133002.	1.3	27
776	High-Sensitivity Flexible X-Ray Detectors based on Printed Perovskite Inks. <i>Advanced Functional Materials</i> , 2021, 31, 2009072.	7.8	55
777	Suppressed ion migration in powder-based perovskite thick films using an ionic liquid. <i>Journal of Materials Chemistry C</i> , 2021, 9, 11827-11837.	2.7	5

#	ARTICLE	IF	CITATIONS
778	The dual effect of inorganic fullerene- Mo_{132} doped with SnO_2 for efficient perovskite-based photodetectors. <i>Materials Chemistry Frontiers</i> , 2021, 5, 6931-6940.	3.2	5
779	Passivation and process engineering approaches of halide perovskite films for high efficiency and stability perovskite solar cells. <i>Energy and Environmental Science</i> , 2021, 14, 2906-2953.	15.6	170
780	Influence of the MACI additive on grain boundaries, trap-state properties, and charge dynamics in perovskite solar cells. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 6162-6170.	1.3	18
781	Bi-functional interfaces by poly(ionic liquid) treatment in efficient pin and nip perovskite solar cells. <i>Energy and Environmental Science</i> , 2021, 14, 4508-4522.	15.6	76
782	Photo-energy conversion efficiency of $\text{CH}_3\text{NH}_3\text{PbI}_3/\text{C}_6\text{O}$ heterojunction perovskite solar cells from first-principles. <i>Materials Advances</i> , 2021, 2, 1665-1675.	2.6	2
783	An ultrafast-response and high-detectivity self-powered perovskite photodetector based on a triazine-derived star-shaped small molecule as a dopant-free hole transporting layer. <i>Journal of Materials Chemistry C</i> , 2021, 9, 7632-7642.	2.7	15
784	Drastic Change of Surface Morphology of Cesium-Formamidinium Perovskite Solar Cells by Antisolvent Processing. <i>ACS Applied Energy Materials</i> , 2021, 4, 1069-1077.	2.5	4
785	On the Investigation of Interface Defects of Solar Cells: Lead-Based vs Lead-Free Perovskite. <i>IEEE Access</i> , 2021, 9, 130221-130232.	2.6	46
786	Selective Defect Passivation and Topographical Control of 4-Dimethylaminopyridine at Grain Boundary for Efficient and Stable Planar Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2021, 11, 2003382.	10.2	82
787	Interfacial Design and Assembly for Flexible Energy Electrodes with Highly Efficient Energy Harvesting, Conversion, and Storage. <i>Advanced Energy Materials</i> , 2021, 11, 2002969.	10.2	16
788	Inorganic hole transport layers in inverted perovskite solar cells: A review. <i>Nano Select</i> , 2021, 2, 1081-1116.	1.9	65
789	A Lab-to-Fab Study toward Roll-to-Roll Fabrication of Reproducible Perovskite Solar Cells under Ambient Room Conditions. <i>Cell Reports Physical Science</i> , 2021, 2, 100293.	2.8	39
790	Buried Interfaces in Halide Perovskite Photovoltaics. <i>Advanced Materials</i> , 2021, 33, e2006435.	11.1	214
791	Passivation of <i>L</i> -3-(4-Pyridyl)-alanine on Interfacial Defects of Perovskite Solar Cell. <i>Wuji Cailiao Xuebao/Journal of Inorganic Materials</i> , 2021, 36, 629.	0.6	6
792	Understanding liquefaction in halide perovskites upon methylamine gas exposure. <i>RSC Advances</i> , 2021, 11, 20423-20428.	1.7	1
793	Comparison of surface-passivation ability of the BAI salt and its induced 2D perovskite for high-performance inverted perovskite solar cells. <i>RSC Advances</i> , 2021, 11, 23249-23258.	1.7	11
794	Highly stable and efficient cathode-buffer-layer-free inverted perovskite solar cells. <i>Nanoscale</i> , 2021, 13, 5652-5659.	2.8	7
795	Interfacial passivation of wide-bandgap perovskite solar cells and tandem solar cells. <i>Journal of Materials Chemistry A</i> , 2021, 9, 21939-21947.	5.2	19

#	ARTICLE	IF	CITATIONS
796	Self-assembled carbon dot-wrapped perovskites enable light trapping and defect passivation for efficient and stable perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2021, 9, 7508-7521.	5.2	21
797	Using steric hindrance to manipulate and stabilize metal halide perovskites for optoelectronics. <i>Chemical Science</i> , 2021, 12, 7231-7247.	3.7	31
798	Constructing an n/n ⁺ homojunction in a monolithic perovskite film for boosting charge collection in inverted perovskite photovoltaics. <i>Energy and Environmental Science</i> , 2021, 14, 4048-4058.	15.6	87
799	Tuning the Interfacial Dipole Moment of Spacer Cations for Charge Extraction in Efficient and Ultrastable Perovskite Solar Cells. <i>Journal of Physical Chemistry C</i> , 2021, 125, 1256-1268.	1.5	56
800	Research Progress of Composition and Structure Design in Perovskites for High Performance Light-emitting Diodes. <i>Acta Chimica Sinica</i> , 2021, 79, 223.	0.5	4
801	Performance and stability improvements in metal halide perovskite with intralayer incorporation of organic additives. <i>Journal of Materials Chemistry A</i> , 2021, 9, 16281-16338.	5.2	28
802	Correlations between Electrochemical Ion Migration and Anomalous Device Behaviors in Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2021, 6, 1003-1014.	8.8	39
803	Merocyanine with Hole-Transporting Ability and Efficient Defect Passivation Effect for Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2021, 6, 869-876.	8.8	64
804	Polyhydroxy Ester Stabilized Perovskite for Low Noise and Large Linear Dynamic Range of Self-Powered Photodetectors. <i>Nano Letters</i> , 2021, 21, 1500-1507.	4.5	33
805	Antisolvent engineering on low-temperature processed CsPbI ₃ inorganic perovskites for improved performances of solar cells. <i>Nanotechnology</i> , 2021, 32, 185402.	1.3	11
806	Grain Boundary Defect Passivation in Quadruple Cation Wide-Bandgap Perovskite Solar Cells. <i>Solar Rrl</i> , 2021, 5, 2000740.	3.1	19
807	Simple and Efficient Perovskite Solar Cells with Multi-Functional Mixed Interfacial Layers. <i>Advanced Materials Interfaces</i> , 2021, 8, 2002007.	1.9	3
808	Tautomeric Molecule Acts as a "Sunscren" for Metal Halide Perovskite Solar Cells. <i>Angewandte Chemie</i> , 2021, 133, 8755-8759.	1.6	7
809	Tautomeric Molecule Acts as a "Sunscren" for Metal Halide Perovskite Solar Cells. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 8673-8677.	7.2	67
810	Electroluminescence Principle and Performance Improvement of Metal Halide Perovskite Light-Emitting Diodes. <i>Advanced Optical Materials</i> , 2021, 9, 2002167.	3.6	49
811	Controlled Crystallization of CsRb-Based Multi-Cation Perovskite Using a Blended Sequential Process for High-Performance Solar Cells. <i>Solar Rrl</i> , 2021, 5, 2100050.	3.1	10
812	CdS Induced Passivation toward High Efficiency and Stable Planar Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 9771-9780.	4.0	17
813	Advances in Metal Halide Perovskite Film Preparation: The Role of Anti-Solvent Treatment. <i>Small Methods</i> , 2021, 5, e2100046.	4.6	39

#	ARTICLE	IF	CITATIONS
814	A Rapid and Robust Light-and-Solution-Triggered In Situ Crafting of Organic Passivating Membrane over Metal Halide Perovskites for Markedly Improved Stability and Photocatalysis. <i>Nano Letters</i> , 2021, 21, 1643-1650.	4.5	40
815	Investigation of Defect-Tolerant Perovskite Solar Cells with Long-Term Stability via Controlling the Self-Doping Effect. <i>Advanced Energy Materials</i> , 2021, 11, 2100555.	10.2	38
816	2D materials for conducting holes from grain boundaries in perovskite solar cells. <i>Light: Science and Applications</i> , 2021, 10, 68.	7.7	59
817	Strain in perovskite solar cells: origins, impacts and regulation. <i>National Science Review</i> , 2021, 8, nwab047.	4.6	127
818	Robust Cycling of Ultrathin Li Metal Enabled by Nitrate-Preplanted Li Powder Composite. <i>Advanced Energy Materials</i> , 2021, 11, 2003769.	10.2	48
819	Efficient and Stable Mesoscopic Perovskite Solar Cells Using a Dopant-Free A Copolymer Hole-Transporting Layer. <i>Solar Rrl</i> , 2021, 5, 2000801.	3.1	7
820	Trifluoromethylphenylacetic Acid as In Situ Accelerant of Ostwald Ripening for Stable and Efficient Perovskite Solar Cells. <i>Solar Rrl</i> , 2021, 5, 2100040.	3.1	11
821	An Electron Acceptor Analogue for Lowering Trap Density in Organic Solar Cells. <i>Advanced Materials</i> , 2021, 33, e2008134.	11.1	91
822	Impact of Photoluminescence Reabsorption in Metal-Halide Perovskite Solar Cells. <i>Solar Rrl</i> , 2021, 5, 2100029.	3.1	9
823	Controllable Transient Photocurrent in Photodetectors Based on Perovskite Nanocrystals via Doping and Interfacial Engineering. <i>Journal of Physical Chemistry C</i> , 2021, 125, 5475-5484.	1.5	15
824	Organic Ammonium Halide Modulators as Effective Strategy for Enhanced Perovskite Photovoltaic Performance. <i>Advanced Science</i> , 2021, 8, 2004593.	5.6	57
825	Surface lattice engineering through three-dimensional lead iodide perovskitoid for high-performance perovskite solar cells. <i>CheM</i> , 2021, 7, 774-785.	5.8	37
826	2D Phase Purity Determines Charge-Transfer Yield at 3D/2D Lead Halide Perovskite Heterojunctions. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 3312-3320.	2.1	13
827	Highly Efficient Halide Perovskite Light-Emitting Diodes via Molecular Passivation. <i>Angewandte Chemie</i> , 2021, 133, 8418-8424.	1.6	9
828	Highly Efficient Halide Perovskite Light-Emitting Diodes via Molecular Passivation. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 8337-8343.	7.2	47
829	Origin of Efficiency and Stability Enhancement in High-Performing Mixed Dimensional 2D-3D Perovskite Solar Cells: A Review. <i>Advanced Functional Materials</i> , 2022, 32, 2009164.	7.8	96
830	Acid Dissociation Constant: A Criterion for Selecting Passivation Agents in Perovskite Solar Cells. <i>ACS Energy Letters</i> , 0, , 1612-1621.	8.8	99
831	Universal Passivation Strategy for the Hole Transport Layer/Perovskite Interface via an Alkali Treatment for High-Efficiency Perovskite Solar Cells. <i>Solar Rrl</i> , 2021, 5, 2000793.	3.1	14

#	ARTICLE	IF	CITATIONS
832	Near-ideal van der Waals rectifiers based on all-two-dimensional Schottky junctions. <i>Nature Communications</i> , 2021, 12, 1522.	5.8	103
833	Chemically tailored molecular surface modifiers for efficient and stable perovskite photovoltaics. <i>SmartMat</i> , 2021, 2, 33-37.	6.4	47
834	Origin, Influence, and Countermeasures of Defects in Perovskite Solar Cells. <i>Small</i> , 2021, 17, e2005495.	5.2	61
835	Dual-function surfactant strategy for two-dimensional organic semiconductor crystals towards high-performance organic field-effect transistors. <i>Science China Chemistry</i> , 2021, 64, 1057-1062.	4.2	12
836	Ambient Stable and Efficient Monolithic Tandem Perovskite/PbS Quantum Dots Solar Cells via Surface Passivation and Light Management Strategies. <i>Advanced Functional Materials</i> , 2021, 31, 2010623.	7.8	44
837	Perovskite Light-Emitting Diodes with External Quantum Efficiency Exceeding 22% via Small-Molecule Passivation. <i>Advanced Materials</i> , 2021, 33, e2007169.	11.1	211
838	The poly(styrene-co-acrylonitrile) polymer assisted preparation of high-performance inverted perovskite solar cells with efficiency exceeding 22%. <i>Nano Energy</i> , 2021, 82, 105731.	8.2	79
839	Efficient and Stable Perovskite Solar Cells with a Superhydrophobic Two-Dimensional Capping Layer. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 4052-4058.	2.1	16
840	Mechanically Robust and Flexible Perovskite Solar Cells via a Printable and Gelatinous Interface. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 19959-19969.	4.0	39
841	Thymine as a Biocompatible Surface Passivator for a Highly Efficient and Stable Planar Perovskite Solar Cell. <i>ACS Applied Energy Materials</i> , 2021, 4, 3310-3316.	2.5	6
842	Dielectric screening in perovskite photovoltaics. <i>Nature Communications</i> , 2021, 12, 2479.	5.8	88
843	Synergistic Effect of Temperature and Electrolyte Concentration on Solid-State Interphase for High-Performance Lithium Metal Batteries. <i>Advanced Energy and Sustainability Research</i> , 2021, 2, 2100010.	2.8	2
844	Fully Inorganic CsSn ₃ Mesoporous Perovskite Solar Cells with High Efficiency and Stability via Coadditive Engineering. <i>Solar Rrl</i> , 2021, 5, 2100069.	3.1	29
845	Guanidinium tin halide perovskites: structural, electronic, and thermodynamic properties by quantum chemical study. <i>Applied Physics A: Materials Science and Processing</i> , 2021, 127, 1.	1.1	5
846	Effects of Choline Chloride in Lead Bromide Layer and Methylammonium Bromide Precursor on Perovskite Conversion and Optoelectronic Properties of Perovskite-Based Light-Emitting Diodes. <i>ACS Applied Electronic Materials</i> , 2021, 3, 2035-2043.	2.0	4
847	Fabricating Efficient and Stable Quasi-3D and 3D/2D Perovskite Solar Cells with 2D-Sheets Connected by Inorganic Type Ionic-Bond. <i>Nanotechnology</i> , 2021, 32, .	1.3	3
848	Dual-Functional-Polymer Dopant-Passivant Boosted Electron Transport Layer for High-Performance Inverted Perovskite Solar Cells. <i>Solar Rrl</i> , 2021, 5, 2100236.	3.1	5
849	Durable Defect Passivation of the Grain Surface in Perovskite Solar Cells with $\ddot{\text{N}}$ -Conjugated Sulfamic Acid Additives. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 26013-26022.	4.0	35

#	ARTICLE	IF	CITATIONS
850	Temperature-Gradient-Controlled Method Enabling Shape Control of 2D Perovskite Single Crystals for Photodetection. <i>Physica Status Solidi - Rapid Research Letters</i> , 0, , 2100099.	1.2	3
851	Metal-Halide Perovskite Crystallization Kinetics: A Review of Experimental and Theoretical Studies. <i>Advanced Energy Materials</i> , 2021, 11, 2100784.	10.2	35
852	Highly Efficient Sky-Blue Perovskite Light-Emitting Diode Via Suppressing Nonradiative Energy Loss. <i>Chemistry of Materials</i> , 2021, 33, 4154-4162.	3.2	46
853	Synergistic Defect Passivation for Highly Efficient and Stable Perovskite Solar Cells Using Sodium Dodecyl Benzene Sulfonate. <i>ACS Applied Energy Materials</i> , 2021, 4, 4910-4918.	2.5	14
854	Impacts of MAPbBr ₃ Additive on Crystallization Kinetics of FAPbI ₃ Perovskite for High Performance Solar Cells. <i>Coatings</i> , 2021, 11, 545.	1.2	5
855	Perovskite solar cells with embedded homojunction via nonuniform metal ion doping. <i>Cell Reports Physical Science</i> , 2021, 2, 100415.	2.8	10
856	Ultrafast Charging and Stable Cycling Dual-Ion Batteries Enabled via an Artificial Cathode-Electrolyte Interface. <i>Advanced Functional Materials</i> , 2021, 31, 2102360.	7.8	42
857	Solvent-Additive Engineering-Assisted Improvement of Interface Contact for Producing Highly Efficient Inverted Perovskite Solar Cells. <i>Solar Rrl</i> , 2021, 5, 2100190.	3.1	13
858	40.1% Record Low-Light Solar Cell Efficiency by Holistic Trap-Passivation using Micrometer-Thick Perovskite Film. <i>Advanced Materials</i> , 2021, 33, e2100770.	11.1	110
859	Nonhalide Materials for Efficient and Stable Perovskite Solar Cells. <i>Small Methods</i> , 2021, 5, e2100311.	4.6	21
860	Multifunctional brominated graphene oxide boosted charge extraction for high-efficiency and stable all-inorganic CsPbBr ₃ perovskite solar cells. <i>Chemical Engineering Journal</i> , 2021, 412, 128727.	6.6	28
861	Improved stability and efficiency of perovskite via a simple solid diffusion method. <i>Materials Today Physics</i> , 2021, 18, 100374.	2.9	19
862	Enhanced Near-Infrared Perovskite Light-Emitting Devices by Introducing Choline Chloride Layer. <i>Advanced Optical Materials</i> , 2021, 9, 2100636.	3.6	12
863	Numerical Simulation: Design of High-Efficiency Planar p-n Homojunction Perovskite Solar Cells. <i>IEEE Transactions on Electron Devices</i> , 2021, 68, 2360-2364.	1.6	31
864	In situ growth of Z-scheme CuS/CuSCN heterojunction to passivate surface defects and enhance charge transport. <i>Journal of Colloid and Interface Science</i> , 2021, 590, 407-414.	5.0	16
865	In-situ fluorinated 2D/3D invert perovskite film solar cell with enhanced ambient stability. <i>Solar Energy</i> , 2021, 221, 583-590.	2.9	7
866	Hydrophobic Organic Ammonium Halide Modification toward Highly Efficient and Stable CsPbI _{2.25} Br _{0.75} Solar Cell. <i>Solar Rrl</i> , 2021, 5, 2100178.	3.1	8
867	Efficient carrier transport via dual-function interfacial engineering using cesium iodide for high-performance perovskite solar cells based on NiOx hole transporting materials. <i>Nano Research</i> , 2021, 14, 3864-3872.	5.8	14

#	ARTICLE	IF	CITATIONS
868	Robust Molecular Dipole-Enabled Defect Passivation and Control of Energy Level Alignment for High-Efficiency Perovskite Solar Cells. <i>Angewandte Chemie</i> , 2021, 133, 17805-17811.	1.6	22
869	Research progress of absorber film of inorganic perovskite solar cells: Fabrication techniques and additive engineering in defect passivation. <i>Materials Science in Semiconductor Processing</i> , 2021, 127, 105666.	1.9	24
870	Robust Molecular Dipole-Enabled Defect Passivation and Control of Energy Level Alignment for High-Efficiency Perovskite Solar Cells. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 17664-17670.	7.2	69
871	Two-dimensional perovskites for photovoltaics. <i>Materials Today Nano</i> , 2021, 14, 100117.	2.3	27
872	High-Performance ITO-Free Perovskite Solar Cells Enabled by Single-Walled Carbon Nanotube Films. <i>Advanced Functional Materials</i> , 2021, 31, 2104396.	7.8	30
873	Carbon-Based Stable CsPbI ₂ Br ₂ Solar Cells with Efficiency of over 10% from Bifunctional Quinoline Sulfate Modification. <i>ACS Applied Energy Materials</i> , 2021, 4, 5747-5755.	2.5	13
874	Interfacial Defect Passivation and Stress Release via Multi-Active-Site Ligand Anchoring Enables Efficient and Stable Methylammonium-Free Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2021, 6, 2526-2538.	8.8	170
875	Cross-linked hole transport layers for high-efficiency perovskite tandem solar cells. <i>Science China Chemistry</i> , 2021, 64, 2025-2034.	4.2	23
876	Exploring Transport Behavior in Hybrid Perovskites Solar Cells via Machine Learning Analysis of Environmental-Dependent Impedance Spectroscopy. <i>Advanced Science</i> , 2021, 8, e2002510.	5.6	23
877	Zn-Doped SnO ₂ Compact Layer for Enhancing Performance of Perovskite Solar Cells. <i>International Journal of Photoenergy</i> , 2021, 2021, 1-10.	1.4	1
878	Recent advances on interface engineering of perovskite solar cells. <i>Nano Research</i> , 2022, 15, 85-103.	5.8	59
879	Sustainable Lithium-Metal Battery Achieved by a Safe Electrolyte Based on Recyclable and Low-Cost Molecular Sieve. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 15572-15581.	7.2	43
880	Tailored Key Parameters of Perovskite for High-Performance Photovoltaics. <i>Accounts of Materials Research</i> , 2021, 2, 447-457.	5.9	5
881	Multifunctional passivation strategy based on tetraoctylammonium bromide for efficient inverted perovskite solar cells. <i>Nano Energy</i> , 2021, 84, 105882.	8.2	46
882	Electron-Beam Irradiation Induced Regulation of Surface Defects in Lead Halide Perovskite Thin Films. <i>Research</i> , 2021, 2021, 9797058.	2.8	9
883	Access to Ultrafast Surface and Interface Carrier Dynamics Simultaneously in Space and Time. <i>Journal of Physical Chemistry C</i> , 2021, 125, 14495-14516.	1.5	6
884	Synergistic Interface Layer Optimization and Surface Passivation with Fluorocarbon Molecules toward Efficient and Stable Inverted Planar Perovskite Solar Cells. <i>Research</i> , 2021, 2021, 9836752.	2.8	27
885	Sustainable Lithium-Metal Battery Achieved by a Safe Electrolyte Based on Recyclable and Low-Cost Molecular Sieve. <i>Angewandte Chemie</i> , 2021, 133, 15700-15709.	1.6	2

#	ARTICLE	IF	CITATIONS
886	Current Development toward Commercialization of Metal-Halide Perovskite Photovoltaics. <i>Advanced Optical Materials</i> , 2021, 9, 2100390.	3.6	15
887	Recent Progress on Perovskite Surfaces and Interfaces in Optoelectronic Devices. <i>Advanced Materials</i> , 2021, 33, e2006004.	11.1	86
888	Stable High-Performance Perovskite Solar Cells via Passivation of the Grain Boundary and Interface. <i>ACS Applied Energy Materials</i> , 2021, 4, 6883-6891.	2.5	18
889	Mitigating ion migration in perovskite solar cells. <i>Trends in Chemistry</i> , 2021, 3, 575-588.	4.4	81
890	Aerosol Assisted Solvent Treatment: A Universal Method for Performance and Stability Enhancements in Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2021, 11, 2101420.	10.2	21
891	Mesoporous Au@Cu ₂ S Core-Shell Nanoparticles with Double Localized Surface Plasmon Resonance and Ligand Modulation for Hole-Selective Passivation in Perovskite Solar Cells. <i>Solar Rrl</i> , 2021, 5, 2100358.	3.1	13
892	Alleviating halide perovskite surface defects. <i>Matter</i> , 2021, 4, 2104-2105.	5.0	4
893	Pathways toward 30% Efficient Single-Junction Perovskite Solar Cells and the Role of Mobile Ions. <i>Solar Rrl</i> , 2021, 5, 2100219.	3.1	48
894	Effect of the hole transporting layers on the inverted perovskite solar cells. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 21579-21589.	1.1	1
895	Ï-Conjugated zwitterion for dual-interfacial modification in high-performance perovskite solar cells. <i>Chemical Engineering Journal</i> , 2021, 416, 129153.	6.6	3
896	Effect of 2D perovskite layer and multivalent defect on the performance of 3D/2D bilayered perovskite solar cells through computational simulation studies. <i>Solar Energy</i> , 2021, 223, 193-201.	2.9	48
897	Electrolyte Design for Lithium Metal Anode-Based Batteries Toward Extreme Temperature Application. <i>Advanced Science</i> , 2021, 8, e2101051.	5.6	95
898	Enhanced Performance of Perovskite Solar Cells Loaded with Iodine-Rich CsPb ₃ Quantum Dots. <i>ACS Applied Energy Materials</i> , 2021, 4, 7535-7543.	2.5	8
899	The Role of Grain Boundaries in Charge Carrier Dynamics in Polycrystalline Metal Halide Perovskites. <i>European Journal of Inorganic Chemistry</i> , 2021, 2021, 3519-3527.	1.0	7
900	ELECTRONIC AND OPTICAL MODIFICATION OF ORGANIC-HYBRID PEROVSKITES. <i>Surface Review and Letters</i> , 2021, 28, 2140010.	0.5	1
901	Controlling the Defect Density of Perovskite Films by MXene/SnO ₂ Hybrid Electron Transport Layers for Efficient and Stable Photovoltaics. <i>Journal of Physical Chemistry C</i> , 2021, 125, 15210-15222.	1.5	34
902	Enhancing charge transport performance of perovskite solar cells by using reduced graphene oxide-cysteine/nanogold hybrid material in the active layer. <i>FlatChem</i> , 2021, 28, 100254.	2.8	12
903	Unraveling the surface state of photovoltaic perovskite thin film. <i>Matter</i> , 2021, 4, 2417-2428.	5.0	22

#	ARTICLE	IF	CITATIONS
904	A Sodium Chloride Modification of SnO ₂ Electron Transport Layers to Enhance the Performance of Perovskite Solar Cells. ACS Omega, 2021, 6, 17880-17889.	1.6	29
905	Defect Passivation of Perovskite Films for Highly Efficient and Stable Solar Cells. Solar Rrl, 2021, 5, 2100295.	3.1	58
906	Conjugated Polyelectrolyte-Passivated Stable Perovskite Solar Cells for Efficiency Beyond 20%. Chemistry of Materials, 2021, 33, 5709-5717.	3.2	33
907	Dipole evoked hole-transporting material p-doping by utilizing organic salt for perovskite solar cells. Nano Energy, 2021, 85, 106018.	8.2	32
908	Simultaneous passivation of bulk and interface defects through synergistic effect of anion and cation toward efficient and stable planar perovskite solar cells. Journal of Energy Chemistry, 2021, 63, 452-460.	7.1	105
909	Layered metal halide perovskite solar cells: A review from structureâ€‘properties perspective towards maximization of their performance and stability. EcoMat, 2021, 3, e12124.	6.8	27
910	1,10-Phenanthroline as an Efficient Bifunctional Passivating Agent for MAPbI ₃ Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 32894-32905.	4.0	13
911	Incorporation of Two-Dimensional WSe ₂ into MAPbI ₃ Perovskite for Efficient and Stable Photovoltaics. Journal of Physical Chemistry Letters, 2021, 12, 6883-6888.	2.1	12
912	An in-situ defect passivation through a green anti-solvent approach for high-efficiency and stable perovskite solar cells. Science Bulletin, 2021, 66, 1419-1428.	4.3	29
913	Synergistical Dipoleâ€‘Dipole Interaction Induced Selfâ€‘Assembly of Phenoxazineâ€‘Based Holeâ€‘Transporting Materials for Efficient and Stable Inverted Perovskite Solar Cells. Angewandte Chemie, 2021, 133, 20600-20605.	1.6	11
914	Selfâ€‘Induced Typeâ€‘I Band Alignment at Surface Grain Boundaries for Highly Efficient and Stable Perovskite Solar Cells. Advanced Materials, 2021, 33, e2103231.	11.1	71
915	Synergistic Effects of Euâ€‘MOF on Perovskite Solar Cells with Improved Stability. Advanced Materials, 2021, 33, e2102947.	11.1	104
916	Efficient and stable planar MAPbI ₃ perovskite solar cells based on a small molecule passivator. Surfaces and Interfaces, 2021, 25, 101213.	1.5	3
917	Passivation of the Buried Interface via Preferential Crystallization of 2D Perovskite on Metal Oxide Transport Layers. Advanced Materials, 2021, 33, e2103394.	11.1	99
918	Simultaneously Enhancing Efficiency and Stability of Perovskite Solar Cells Through Crystal Crossâ€‘Linking Using Fluorophenylboronic Acid. Small, 2021, 17, e2102090.	5.2	15
919	Unveiling the additive-assisted oriented growth of perovskite crystallite for high performance light-emitting diodes. Nature Communications, 2021, 12, 5081.	5.8	178
920	Advance Optical Properties and Emerging Applications of 2D Materials. Frontiers in Materials, 2021, 8, .	1.2	22
921	Antisolvent Engineering to Optimize Grain Crystallinity and Holeâ€‘Blocking Capability of Perovskite Films for Highâ€‘Performance Photovoltaics. Advanced Materials, 2021, 33, e2102816.	11.1	61

#	ARTICLE	IF	CITATIONS
922	Incorporating EA+ into Pbl2 film for stable multiple cations perovskite solar cells with negligible hysteresis. <i>Solar Energy</i> , 2021, 224, 868-874.	2.9	6
923	A Special Additive Enables All Cations and Anions Passivation for Stable Perovskite Solar Cells with Efficiency over 23%. <i>Nano-Micro Letters</i> , 2021, 13, 169.	14.4	86
924	Surface modulation of halide perovskite films for efficient and stable solar cells. <i>Chinese Physics B</i> , 2022, 31, 037303.	0.7	3
925	Synergistical Dipole–Dipole Interaction Induced Self-Assembly of Phenoxazine-Based Hole-Transporting Materials for Efficient and Stable Inverted Perovskite Solar Cells. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 20437-20442.	7.2	66
926	Chlorides, other Halides, and Pseudo-Halides as Additives for the Fabrication of Efficient and Stable Perovskite Solar Cells. <i>ChemSusChem</i> , 2021, 14, 3665-3692.	3.6	14
927	Robust Unencapsulated Perovskite Solar Cells Protected by a Fluorinated Fullerene Electron Transporting Layer. <i>ACS Energy Letters</i> , 2021, 6, 3376-3385.	8.8	27
928	Bulky organic cations engineered lead-halide perovskites: a review on dimensionality and optoelectronic applications. <i>Materials Today Energy</i> , 2021, 21, 100759.	2.5	24
929	Grain Boundary Defects Passivated with <i>tert</i> -Butyl Methacrylate for High-Efficiency Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2021, 4, 11298-11305.	2.5	8
930	Polycyclic Arenes Dihydrodinaphthopentacene-Based Hole-Transporting Materials for Perovskite Solar Cells Application. <i>Chemistry - an Asian Journal</i> , 2021, 16, 3719-3728.	1.7	6
931	Interface passivation engineering for hybrid perovskite solar cells. <i>Materials Reports Energy</i> , 2021, 1, 100060.	1.7	19
932	Efficient and Stable FAPbBr ₃ Perovskite Solar Cells via Interface Modification by a Low-Dimensional Perovskite Layer. <i>ACS Applied Energy Materials</i> , 2021, 4, 9276-9282.	2.5	19
933	Improvement Performance of Planar Perovskite Solar Cells by Bulk and Surface Defect Passivation. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 13001-13009.	3.2	14
934	Interfacial Linkage and Carbon Encapsulation Enable Full Solution-Printed Perovskite Photovoltaics with Prolonged Lifespan. <i>Angewandte Chemie</i> , 2021, 133, 23928.	1.6	7
935	Donor–Acceptor Competition via Halide Vacancy Filling for Oxygen Detection of High Sensitivity and Stability by All-Inorganic Perovskite Films. <i>Small</i> , 2021, 17, 2102733.	5.2	3
936	Carboxyl functional group-assisted defects passivation strategy for efficient air-processed perovskite solar cells with excellent ambient stability. <i>Solar Energy Materials and Solar Cells</i> , 2021, 230, 111242.	3.0	23
937	Molecular passivation of MAPbI ₃ perovskite films follows the Langmuir adsorption rule. <i>Applied Physics Letters</i> , 2021, 119, .	1.5	8
938	Cosensitization-based halide perovskite in aqueous solution: A photoelectrochemical and first-principles investigation. <i>Materials Research Bulletin</i> , 2021, 141, 111358.	2.7	6
939	Polymer additive assisted crystallization of perovskite films for high-performance solar cells. <i>Organic Electronics</i> , 2021, 96, 106258.	1.4	13

#	ARTICLE	IF	CITATIONS
940	Efficient and Spectrally Stable Blue Perovskite Light-Emitting Diodes Employing a Cationic π -Conjugated Polymer. <i>Advanced Materials</i> , 2021, 33, e2103640.	11.1	77
941	Defects in CsPbX ₃ Perovskite: From Understanding to Effective Manipulation for High-Performance Solar Cells. <i>Small Methods</i> , 2021, 5, e2100725.	4.6	37
942	Efficient and Stable 2D/3D Perovskite Solar Cells Based on Dual Optimization of Grain Boundary and Interface. <i>ACS Energy Letters</i> , 2021, 6, 3614-3623.	8.8	113
943	Organic Matrix Assisted Low-temperature Crystallization of Black Phase Inorganic Perovskites. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	3
944	Correlating the Active Layer Structure and Composition with the Device Performance and Lifetime of Amino-Acid-Modified Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 43505-43515.	4.0	17
945	New Carbon Nitride C ₃ N ₃ Additive for Improving Cationic Defects of Perovskite Solar Cells. <i>Energy and Environmental Materials</i> , 2023, 6, .	7.3	12
946	Learning from hole-transporting polymers in regular perovskite solar cells to construct efficient conjugated polyelectrolytes for inverted devices. <i>Chemical Engineering Journal</i> , 2021, 420, 129735.	6.6	8
947	Atomic-scale understanding on the physics and control of intrinsic point defects in lead halide perovskites. <i>Applied Physics Reviews</i> , 2021, 8, .	5.5	36
948	Polymerization stabilized black-phase FAPbI ₃ perovskite solar cells retain 100% of initial efficiency over 1000 days. <i>Chemical Engineering Journal</i> , 2021, 419, 129482.	6.6	21
949	Moisture tolerant solar cells by encapsulating 3D perovskite with long-chain alkylammonium cation-based 2D perovskite. <i>Communications Materials</i> , 2021, 2, .	2.9	19
950	A Highly Tolerant Printing for Scalable and Flexible Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2021, 31, 2107726.	7.8	43
951	Air fabrication of SnO ₂ based planar perovskite solar cells with an efficiency approaching 20%: Synergistic passivation of multi-defects by choline chloride. <i>Ceramics International</i> , 2022, 48, 212-223.	2.3	6
952	Perovskite/Si tandem solar cells: Fundamentals, advances, challenges, and novel applications. <i>SusMat</i> , 2021, 1, 324-344.	7.8	70
953	Design of Superhydrophobic Surfaces for Stable Perovskite Solar Cells with Reducing Lead Leakage. <i>Advanced Energy Materials</i> , 2021, 11, 2102281.	10.2	58
954	Enhanced Performance of Perovskite Solar Cells via Reactive Post-treatment Process Utilizing Guanidine Acetate as Interface Modifier. <i>Solar Rrl</i> , 2021, 5, 2100547.	3.1	16
955	Role of defects in organic-inorganic metal halide perovskite: detection and remediation for solar cell applications. <i>Emergent Materials</i> , 2022, 5, 987-1020.	3.2	10
956	Analysis of Hybrid Hetero-Homo Junction Lead-Free Perovskite Solar Cells by SCAPS Simulator. <i>Energies</i> , 2021, 14, 5741.	1.6	33
957	Interfacial Linkage and Carbon Encapsulation Enable Full Solution-Printed Perovskite Photovoltaics with Prolonged Lifespan. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 23735-23742.	7.2	56

#	ARTICLE	IF	CITATIONS
958	Stable Perovskite Solar Cells with Bulk-Mixed Electron Transport Layer by Multifunctional Defect Passivation. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 44401-44408.	4.0	11
959	Defect Passivation for Perovskite Solar Cells: from Molecule Design to Device Performance. <i>ChemSusChem</i> , 2021, 14, 4354-4376.	3.6	43
960	Surface Passivation with a Fluorocarbon-Based Pyridine Derivative for High-Crystallinity Perovskite Solar Cells with Efficiency Over 20% and Good Humidity Stability. <i>ACS Applied Energy Materials</i> , 2021, 4, 10484-10492.	2.5	14
961	Binary Additive Engineering Enables Efficient Perovskite Solar Cells via Spray-Coating in Air. <i>ACS Applied Energy Materials</i> , 2021, 4, 11496-11504.	2.5	8
962	One-Step Blade Coating of Inverted Double-Cation Perovskite Solar Cells from a Green Precursor Solvent. <i>ACS Applied Energy Materials</i> , 2021, 4, 11700-11710.	2.5	12
963	Enhanced performance of p-i-n perovskite solar cell via defect passivation of nickel oxide/perovskite interface with self-assembled monolayer. <i>Applied Surface Science</i> , 2021, 560, 149973.	3.1	36
964	Carrier Transport Layer-Free Perovskite Solar Cells. <i>ChemSusChem</i> , 2021, 14, 4776-4782.	3.6	8
965	Organic Matrix Assisted Low-temperature Crystallization of Black Phase Inorganic Perovskites. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	32
966	Advances in surface passivation of perovskites using organic halide salts for efficient and stable solar cells. <i>Surfaces and Interfaces</i> , 2021, 26, 101420.	1.5	10
967	Efficient and stable perovskite solar cells via organic surfactant interfacial passivation. <i>Solar Energy</i> , 2021, 227, 438-446.	2.9	2
968	Stability of mixed-halide wide bandgap perovskite solar cells: Strategies and progress. <i>Journal of Energy Chemistry</i> , 2021, 61, 395-415.	7.1	34
969	Guanidinium cation passivated Pb-Cu alloyed perovskite for efficient low-toxicity solar cells. <i>Applied Surface Science</i> , 2021, 567, 150778.	3.1	6
970	Comprehensive passivation strategy for achieving inverted perovskite solar cells with efficiency exceeding 23% by trap passivation and ion constraint. <i>Nano Energy</i> , 2021, 89, 106370.	8.2	63
971	Highly stable air processed perovskite solar cells by interfacial layer engineering. <i>Chemical Engineering Journal</i> , 2021, 423, 130334.	6.6	11
972	Interface modification by ethanolamine interfacial layer for efficient planar structure perovskite solar cells. <i>Journal of Power Sources</i> , 2021, 513, 230549.	4.0	11
973	Additive effect of bromides and chlorides on the performance of perovskite solar cells fabricated via sequential deposition. <i>Journal of Power Sources</i> , 2021, 513, 230528.	4.0	4
974	Decorating hole transport material with -CF ₃ groups for highly efficient and stable perovskite solar cells. <i>Journal of Energy Chemistry</i> , 2021, 62, 523-531.	7.1	15
975	C N-based carbazole-arylamine hole transporting materials for perovskite solar cells: Substitution position matters. <i>Journal of Energy Chemistry</i> , 2021, 62, 563-571.	7.1	25

#	ARTICLE	IF	CITATIONS
976	Organic nanocrystals induced surface passivation towards high-efficiency and stable perovskite solar cells. <i>Nano Energy</i> , 2021, 89, 106445.	8.2	19
977	Introduction of 4-hydroxybenzaldehyde as interface modifier with multidimensional defects passivation effect for high-performance perovskite solar cells. <i>Applied Surface Science</i> , 2021, 570, 151259.	3.1	9
978	Interface regulation enables hysteresis free wide-bandgap perovskite solar cells with low VOC deficit and high stability. <i>Nano Energy</i> , 2021, 90, 106537.	8.2	12
979	Potassium tetrafluoroborate-induced defect tolerance enables efficient wide-bandgap perovskite solar cells. <i>Journal of Colloid and Interface Science</i> , 2022, 605, 710-717.	5.0	20
980	Laser induced anti-solvent carbon quantum dots in defect passivation for effective perovskite solar cells. <i>Journal of Alloys and Compounds</i> , 2021, 889, 161561.	2.8	10
981	Post-treatment by an ionic tetrabutylammonium hexafluorophosphate for improved efficiency and stability of perovskite solar cells. <i>Journal of Energy Chemistry</i> , 2022, 64, 8-15.	7.1	19
982	Defect passivation and interface modification by tetra-n-octadecyl ammonium bromide for efficient and stable inverted perovskite solar cells. <i>Chemical Engineering Journal</i> , 2022, 429, 132426.	6.6	24
983	A design strategy of additive molecule for PSCs: Anchoring intrinsic properties of functional groups by suppressing long-range conjugation effect. <i>Chemical Engineering Journal</i> , 2022, 427, 131676.	6.6	8
984	Graded 2D/3D (CF ₃ -PEA) ₂ FA _{0.85} MA _{0.15} Pb ₂ I ₇ /FA _{0.85} MA _{0.15} PbI ₃ heterojunction for stable perovskite solar cell with an efficiency over 23.0%. <i>Journal of Energy Chemistry</i> , 2022, 65, 480-489.	7.1	34
985	Performance improvement of inverted two-dimensional perovskite solar cells using a non-fullerene acceptor as the trap passivator. <i>Sustainable Energy and Fuels</i> , 2021, 5, 2354-2361.	2.5	3
986	Enhancing efficiency and stability of perovskite solar cells via in situ incorporation of lead sulfide layer. <i>Sustainable Energy and Fuels</i> , 2021, 5, 3700-3704.	2.5	3
988	Recent progress of inorganic hole transport materials for efficient and stable perovskite solar cells. <i>Nano Select</i> , 2021, 2, 1055-1080.	1.9	32
989	Full-scale chemical and field-effect passivation: 21.52% efficiency of stable MAPbI ₃ solar cells via benzenamine modification. <i>Nano Research</i> , 2021, 14, 2783-2789.	5.8	20
990	Wide-bandgap organic-inorganic hybrid and all-inorganic perovskite solar cells and their application in all-perovskite tandem solar cells. <i>Energy and Environmental Science</i> , 2021, 14, 5723-5759.	15.6	114
991	Direct Surface Passivation of Perovskite Film by 4-Fluorophenethylammonium Iodide toward Stable and Efficient Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 2558-2565.	4.0	71
992	Recent advances and challenges of inverted lead-free tin-based perovskite solar cells. <i>Energy and Environmental Science</i> , 0, , .	15.6	62
993	A new molecular material as a dopant-free hole-transporting layer for stable perovskite solar cells. <i>Materials Chemistry Frontiers</i> , 0, , .	3.2	4
994	Halide Ion Migration in Perovskite Nanocrystals and Nanostructures. <i>Accounts of Chemical Research</i> , 2021, 54, 520-531.	7.6	98

#	ARTICLE	IF	CITATIONS
995	Toward efficient perovskite solar cells by planar imprint for improved perovskite film quality and granted bifunctional barrier. <i>Journal of Materials Chemistry A</i> , 2021, 9, 16178-16186.	5.2	21
996	Future perspectives of perovskite solar cells: Metal oxide-based inorganic hole-transporting materials. , 2021, , 181-219.		5
997	Nanocarbons for emerging photovoltaic applications. , 2021, , 49-80.		0
998	The impact of cation and anion pairing in ionic salts on surface defect passivation in cesium lead bromide nanocrystals. <i>Journal of Materials Chemistry C</i> , 2021, 9, 991-999.	2.7	0
999	Zinc ion functional doping for all-inorganic planar CsPbI ₂ Br ₂ perovskite solar cells with efficiency over 10.5%. <i>Journal of Materials Chemistry C</i> , 2021, 9, 2145-2155.	2.7	43
1000	Multifunctional organic ammonium salt-modified SnO ₂ nanoparticles toward efficient and stable planar perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2021, 9, 3940-3951.	5.2	146
1001	Nanoscale interfacial engineering enables highly stable and efficient perovskite photovoltaics. <i>Energy and Environmental Science</i> , 2021, 14, 5552-5562.	15.6	69
1002	Perovskite Single Crystals: Synthesis, Optoelectronic Properties, and Application. <i>Advanced Functional Materials</i> , 2021, 31, 2008684.	7.8	70
1003	Toward Perovskite Solar Cell Commercialization: A Perspective and Research Roadmap Based on Interfacial Engineering. <i>Advanced Materials</i> , 2018, 30, e1800455.	11.1	332
1004	Electron-Beam-Related Studies of Halide Perovskites: Challenges and Opportunities. <i>Advanced Energy Materials</i> , 2020, 10, 1903191.	10.2	53
1005	Highly Efficient Perovskite Solar Cells Enabled by Multiple Ligand Passivation. <i>Advanced Energy Materials</i> , 2020, 10, 1903696.	10.2	205
1006	Simultaneously Passivating Cation and Anion Defects in Metal Halide Perovskite Solar Cells Using a Zwitterionic Amino Acid Additive. <i>Small</i> , 2021, 17, e2005608.	5.2	51
1007	Cesium-Trifluoroacetate Doped MA/FA-Based Perovskite Solar Cells with Inverted Planar Structure. <i>Journal of Electronic Materials</i> , 2020, 49, 7144-7152.	1.0	3
1008	Ionic liquids engineering for high-efficiency and stable perovskite solar cells. <i>Chemical Engineering Journal</i> , 2020, 398, 125594.	6.6	85
1009	HI-assisted fabrication of Sn-doping TiO ₂ electron transfer layer for air-processed perovskite solar cells with high efficiency and stability. <i>Solar Energy Materials and Solar Cells</i> , 2020, 215, 110594.	3.0	17
1010	Discerning the Role of an A-Site Cation and X-Site Anion for Ion Conductivity Tuning in Hybrid Perovskites by Photoelectrochemical Impedance Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2021, 125, 211-222.	1.5	30
1011	Composite Encapsulation Enabled Superior Comprehensive Stability of Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 27277-27285.	4.0	54
1012	Synergistic Engineering of Natural Carnitine Molecules Allowing for Efficient and Stable Inverted Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 8595-8605.	4.0	14

#	ARTICLE	IF	CITATIONS
1013	On the effect of atomic layer deposited Al ₂ O ₃ on the environmental degradation of hybrid perovskite probed by positron annihilation spectroscopy. Journal of Materials Chemistry C, 2019, 7, 5275-5284.	2.7	11
1014	Suppression of surface defects to achieve hysteresis-free inverted perovskite solar cells <i>via</i> quantum dot passivation. Journal of Materials Chemistry A, 2020, 8, 5263-5274.	5.2	67
1015	Defects in halide perovskite semiconductors: impact on photo-physics and solar cell performance. Journal Physics D: Applied Physics, 2020, 53, 503003.	1.3	26
1016	I/P interface modification for stable and efficient perovskite solar cells. Journal of Semiconductors, 2020, 41, 052202.	2.0	5
1017	Enhanced photoluminescence of a CsPbBr ₃ /Al ₂ O ₃ film heterojunction enabled by coupling of gold nanoparticles. Materials Research Express, 2020, 7, 106201.	0.8	3
1018	Impact of strain relaxation on performance of Γ -formamidinium lead iodide perovskite solar cells. Science, 2020, 370, 108-112.	6.0	932
1019	TiO ₂ /Mg-SnO ₂ nanoparticle composite compact layer for enhancing the performance of perovskite solar cells. Optical Materials Express, 2020, 10, 157.	1.6	14
1020	Efficient wide-bandgap perovskite solar cells enabled by doping a bromine-rich molecule. Nanophotonics, 2021, 10, 2059-2068.	2.9	17
1021	Maximizing the external radiative efficiency of hybrid perovskite solar cells. Pure and Applied Chemistry, 2020, 92, 697-706.	0.9	9
1022	Origin of High Efficiency and Long-Term Stability in Ionic Liquid Perovskite Photovoltaic. Research, 2020, 2020, 2616345.	2.8	59
1023	Antimony trifluoride-incorporated SnO ₂ for high-efficiency planar perovskite solar cells. Journal of Materials Chemistry C, 2021, 9, 15428-15434.	2.7	11
1024	Designs from single junctions, heterojunctions to multijunctions for high-performance perovskite solar cells. Chemical Society Reviews, 2021, 50, 13090-13128.	18.7	91
1025	Consistent Interpretation of Electrical and Optical Transients in Halide Perovskite Layers and Solar Cells. Advanced Energy Materials, 2021, 11, 2102290.	10.2	25
1026	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
1027	Bismuth-based halide perovskite and perovskite-inspired light absorbing materials for photovoltaics. Journal Physics D: Applied Physics, 2022, 55, 113002.	1.3	17
1028	Interfacial Engineering of Perovskite Solar Cells with Evaporated Pbl ₂ Ultrathin Layers. ACS Applied Materials & Interfaces, 2021, 13, 53282-53288.	4.0	12
1029	Emerging Perovskite Solar Cell Technology: Remedial Actions for the Foremost Challenges. Advanced Energy Materials, 2021, 11, .	10.2	40
1030	In situ growth of ultra-thin perovskitoid layer to stabilize and passivate MAPbI ₃ for efficient and stable photovoltaics. EScience, 2021, 1, 91-97.	25.0	79

#	ARTICLE	IF	CITATIONS
1031	Allâ€œInorganic CsPbI ₂ Br Perovskite Solar Cells: Recent Developments and Challenges. Energy Technology, 2021, 9, 2100691.	1.8	11
1032	Custom Molecular Design of Ligands for Perovskite Photovoltaics. Accounts of Materials Research, 2021, 2, 1141-1155.	5.9	17
1033	Reformation of thiophene-functionalized phthalocyanine isomers for defect passivation to achieve stable and efficient perovskite solar cells. Journal of Energy Chemistry, 2022, 67, 263-275.	7.1	28
1034	Correlation between Structural Evolution and Device Performance of CH ₃ NH ₃ PbI ₃ Solar Cells under Proton Irradiation. ACS Applied Energy Materials, 0, , .	2.5	12
1035	Defect passivation of perovskites in high efficiency solar cells. JPhys Energy, 2021, 3, 042003.	2.3	13
1036	Numerical modelling: Design and investigation of uniformly and non-uniformly doped absorber layer based PN homojunction perovskite solar cell variants. Solar Energy, 2021, 228, 427-438.	2.9	6
1037	H _x MoO ₃ -Y Nanobelts: An Excellent Alternative to Carbon Electrode for High Performance Mesoscopic Perovskite Solar Cells. SSRN Electronic Journal, 0, , .	0.4	0
1038	Polymer-Passivated Inorganic Cesium Lead Halide Perovskites for High-Voltage and High-Efficiency Solar Cells. SSRN Electronic Journal, 0, , .	0.4	0
1039	Oligomeric Silica-Wrapped Perovskites Enable Synchronous Defect Passivation and Grain Stabilization for Efficient and Stable Perovskite Photovoltaics. SSRN Electronic Journal, 0, , .	0.4	1
1040	Intrinsic stability of organic-inorganic hybrid perovskite. Wuli Xuebao/Acta Physica Sinica, 2019, 68, 158804.	0.2	8
1041	Counter Electrode Materials for Organic-Inorganic Perovskite Solar Cells. , 2019, , 165-225.		2
1043	Recent Development in Perovskite Solar Cell Based on Planar Structures. Lecture Notes in Electrical Engineering, 2020, , 1039-1046.	0.3	2
1044	Combining Efficiency and Stability in Mixed Tin-Lead Perovskite Solar Cells by Capping Grains with an Ultra-thin 2D layer. , 2020, , .		4
1045	Enhancement in Open-Circuit Voltage of Semitransparent MAPbI ₃ -xBr _x perovskite solar cells by methyl amine treatment and optimal Hole Transport Layer. , 2020, , .		1
1046	Trifluoromethylâ€œGroup Bearing, Hydrophobic Bulky Cations as Defect Passivators for Highly Efficient, Stable Perovskite Solar Cells. Solar Rrl, 2021, 5, 2100712.	3.1	11
1047	Dual-functional passivators for highly efficient and hydrophobic FA-based perovskite solar cells. Chemical Engineering Journal, 2022, 433, 133227.	6.6	11
1048	Lead-adsorbing ionogel-based encapsulation for impact-resistant, stable, and lead-safe perovskite modules. Science Advances, 2021, 7, eabi8249.	4.7	71
1049	Surface-tension release in PTAA-based inverted perovskite solar cells. Organic Electronics, 2022, 100, 106378.	1.4	20

#	ARTICLE	IF	CITATIONS
1050	Plasmon-induced trap filling at grain boundaries in perovskite solar cells. <i>Light: Science and Applications</i> , 2021, 10, 219.	7.7	30
1051	Organic Halide PEACl for Surface Passivation and Defects Suppression in Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2021, 4, 12411-12420.	2.5	9
1052	Defect Passivation through Cyclohexylethylamine Post-treatment for High-Performance and Stable Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2021, 4, 12848-12857.	2.5	6
1053	Hole Transport Bilayer for Highly Efficient and Stable Inverted Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2021, 4, 72-80.	2.5	14
1054	Organic Dye Passivation for High-Performance All-Inorganic CsPbI _{1.5} Br _{1.5} Perovskite Solar Cells with Efficiency over 14%. <i>Advanced Energy Materials</i> , 2021, 11, 2003585.	10.2	29
1055	Upconversion Plasmonic Lasing from an Organolead Trihalide Perovskite Nanocrystal with Low Threshold. <i>ACS Photonics</i> , 2021, 8, 335-342.	3.2	26
1056	Single Crystal Hybrid Perovskite Optoelectronics: Progress and Perspectives. , 0, , .		0
1057	In-Situ polymerization of PEDOT in perovskite Thin films for efficient and stable photovoltaics. <i>Chemical Engineering Journal</i> , 2022, 430, 133109.	6.6	7
1058	Research progress of wide bandgap perovskite materials and solar cells. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2020, 69, 207401.	0.2	2
1060	Interface and Grain Boundary Passivation by PEA-SCN Double Ions via One-Step Crystal Engineering for All Air-Processed, Stable Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2021, 4, 12290-12297.	2.5	6
1061	Residual Film Stresses in Perovskite Solar Cells: Origins, Effects, and Mitigation Strategies. <i>ACS Omega</i> , 2021, 6, 30214-30223.	1.6	32
1062	Resonance-Mediated Dynamic Modulation of Perovskite Crystallization for Efficient and Stable Solar Cells. <i>Advanced Materials</i> , 2022, 34, e2107111.	11.1	21
1063	Design and Modelling of Eco-Friendly CH ₃ NH ₃ SnI ₃ -Based Perovskite Solar Cells with Suitable Transport Layers. <i>Energies</i> , 2021, 14, 7200.	1.6	25
1064	Surface Reconstruction and In Situ Formation of 2D Layer for Efficient and Stable 2D/3D Perovskite Solar Cells. <i>Small Methods</i> , 2021, 5, e2101000.	4.6	33
1066	TiO ₂ -intercalated graphite nanosheets increasing power conversion efficiency of MAxFA(1-x)PbI ₃ perovskite solar cells. <i>Journal of Materials Science: Materials in Electronics</i> , 0, , 1.	1.1	0
1067	Homologous Bromides Treatment for Improving the Open-Circuit Voltage of Perovskite Solar Cells. <i>Advanced Materials</i> , 2022, 34, e2106280.	11.1	26
1068	Molecular Bond Engineering and Feature Learning for the Design of Hybrid Organic-Inorganic Perovskite Solar Cells with Strong Noncovalent Halogen-Cation Interactions. <i>Journal of Physical Chemistry C</i> , 2021, 125, 25316-25326.	1.5	6
1069	Dispersed SnO ₂ colloids using sodium dodecyl benzene sulfonate for high-performance planar perovskite solar cells. <i>Solar Energy</i> , 2021, 230, 747-753.	2.9	7

#	ARTICLE	IF	CITATIONS
1070	Effects of C ₄ H ₉ NH ₃ Br additive on properties of CH ₃ NH ₃ PbBr ₃ perovskite thin films. <i>Micro and Nano Letters</i> , 2020, 15, 732-735.	0.6	1
1071	Enhanced photovoltaic performance of SnO ₂ based flexible perovskite solar cells via introducing interfacial dipolar layer and defect passivation. <i>Journal of Power Sources</i> , 2022, 519, 230814.	4.0	8
1072	A review on the emerging applications of 4-cyano-4'-alkylbiphenyl (nCB) liquid crystals beyond display. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2022, 275, 115522.	1.7	9
1073	Reduced defects and enhanced V _{bi} in perovskite absorbers through synergetic passivating effect using 4-methoxyphenylacetic acid. <i>Journal of Power Sources</i> , 2022, 518, 230734.	4.0	11
1074	Updated Progresses in Perovskite Solar Cells. <i>Chinese Physics Letters</i> , 2021, 38, 107801.	1.3	11
1075	Defect Behaviors in Perovskite Light-Emitting Diodes. , 2021, 3, 1702-1728.		27
1076	2D PEA ₂ PbI ₄ â€“3D MAPbI ₃ Composite Perovskite Interfacial Layer for Highly Efficient and Stable Mixed-Ion Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2021, 4, 13482-13491.	2.5	7
1077	Tailoring molecular termination for thermally stable perovskite solar cells. <i>Journal of Semiconductors</i> , 2021, 42, 112201.	2.0	3
1078	High-Performance Perovskite Solar Cells by Doping Didodecyl Dimethyl Ammonium Bromide in the Hole Transport Layer. <i>ACS Applied Energy Materials</i> , 2021, 4, 13471-13481.	2.5	2
1079	Phenethylamineâ€“Based Interfacial Dipole Engineering for High <i>V_{oc}</i> Tripleâ€“Cation Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2022, 12, 2102856.	10.2	25
1080	Improving Contact and Passivation of Buried Interface for Highâ€“Efficiency and Largeâ€“Area Inverted Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2022, 32, 2109968.	7.8	47
1081	Mixed-Phase Low-Dimensional Perovskite-Assisted Interfacial Lead Directional Management for Stable Perovskite Solar Cells with Efficiency over 24%. <i>ACS Energy Letters</i> , 2021, 6, 4395-4404.	8.8	86
1082	Unassisted selective solar hydrogen peroxide production by an oxidised buckypaper-integrated perovskite photocathode. <i>Nature Communications</i> , 2021, 12, 6644.	5.8	23
1083	A Comparison of Charge Carrier Dynamics in Organic and Perovskite Solar Cells. <i>Advanced Materials</i> , 2022, 34, e2101833.	11.1	55
1084	Insight into the Interface Engineering of a SnO ₂ /FAPbI ₃ Perovskite Using Lead Halide as an Interlayer: A First-Principles Study. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 11330-11338.	2.1	8
1085	Aminoâ€“Linked Conjugated Tetrazole Ring Passivation Strategy for Airâ€“Processed Perovskite Cells with Predominant Stability and Efficiency. <i>ChemSusChem</i> , 2022, 15, .	3.6	10
1086	Device Performance of Emerging Photovoltaic Materials (Version 2). <i>Advanced Energy Materials</i> , 2021, 11, .	10.2	66
1087	Multifunctional anionic metal-organic frameworks enhancing stability of perovskite solar cells. <i>Chemical Engineering Journal</i> , 2022, 433, 133587.	6.6	11

#	ARTICLE	IF	CITATIONS
1088	Stabilization Techniques of Lead Halide Perovskite for Photovoltaic Applications. Solar Rrl, 2022, 6, .	3.1	8
1089	CsI Enhanced Buried Interface for Efficient and UV-Robust Perovskite Solar Cells. Advanced Energy Materials, 2022, 12, 2103151.	10.2	91
1090	Simultaneous Interfacial Modification and Crystallization Control by Biguanide Hydrochloride for Stable Perovskite Solar Cells with PCE of 24.4%. Advanced Materials, 2022, 34, e2106118.	11.1	211
1091	Designing New Indene-Fullerene Derivatives as Electron-Transporting Materials for Flexible Perovskite Solar Cells. Journal of Physical Chemistry C, 2021, 125, 27344-27353.	1.5	8
1092	Probing the Origin of the Open Circuit Voltage in Perovskite Quantum Dot Photovoltaics. ACS Nano, 2021, 15, 19334-19344.	7.3	18
1093	Highly Efficient Hole Transport Layer-Free Low Bandgap Mixed Pb-Sn Perovskite Solar Cells Enabled by a Binary Additive System. Advanced Functional Materials, 2022, 32, 2110069.	7.8	30
1094	23.7% Efficient inverted perovskite solar cells by dual interfacial modification. Science Advances, 2021, 7, eabj7930.	4.7	205
1095	Unraveling Passivation Mechanism of Imidazolium-Based Ionic Liquids on Inorganic Perovskite to Achieve Near-Record-Efficiency CsPbI ₂ Br Solar Cells. Nano-Micro Letters, 2022, 14, 7.	14.4	58
1096	Charge Transport Layers in Halide Perovskite Photonic Devices. , 2021, , 1-32.		0
1097	Universal Dynamic Liquid Interface for Healing Perovskite Solar Cells. SSRN Electronic Journal, 0, , .	0.4	0
1098	Crystallization kinetics modulation and defect suppression of all-inorganic CsPbX ₃ perovskite films. Energy and Environmental Science, 2022, 15, 413-438.	15.6	53
1099	Defect passivation of a perovskite film by ZnIn ₂ S ₄ nanosheets for efficient and stable perovskite solar cells. Chemical Communications, 2022, 58, 653-656.	2.2	4
1100	The Effect of Energy Level of Transport Layer on the Performance of Ambient Air Prepared Perovskite Solar Cell: A SCAPS-1D Simulation Study. Crystals, 2022, 12, 68.	1.0	13
1101	Surface Defect Formation and Passivation in Formamidinium Lead Triiodide (FAPbI ₃) Perovskite Solar Cell Absorbers. Journal of Physical Chemistry Letters, 2022, 13, 324-330.	2.1	33
1102	Toward high-efficiency stable 2D/3D perovskite solar cells by incorporating multifunctional CNT:TiO ₂ additives into 3D perovskite layer. EcoMat, 2022, 4, e12166.	6.8	31
1103	Interface modification to achieve high-efficiency and stable perovskite solar cells. Chemical Engineering Journal, 2022, 433, 134613.	6.6	30
1104	Mixing halogens improves the passivation effects of amine halide on perovskite. Electrochimica Acta, 2022, 405, 139782.	2.6	2
1105	Hydrogen Tetrachloroaurate-Modulated PEDOT:PSS film assembled with conductive NPB buffer layer for High-Performance planar perovskite solar cells. Chemical Engineering Journal, 2022, 432, 134358.	6.6	5

#	ARTICLE	IF	CITATIONS
1106	Synergistic stabilization of CsPbI ₃ inorganic perovskite via 1D capping and secondary growth. <i>Journal of Energy Chemistry</i> , 2022, 68, 387-392.	7.1	16
1107	Surface Passivation Toward Efficient and Stable Perovskite Solar Cells. <i>Energy and Environmental Materials</i> , 2023, 6, .	7.3	46
1108	Effects of Defect on Work Function and Energy Alignment of Pbl ₂ : Implications for Solar Cell Applications. <i>Chemistry of Materials</i> , 2022, 34, 1020-1029.	3.2	20
1109	Organic compound passivation for perovskite solar cells with improving stability and photoelectric performance. <i>Solar Energy</i> , 2022, 231, 414-419.	2.9	4
1110	Robust molecular-dipole-induced surface functionalization of inorganic perovskites for efficient solar cells. <i>Journal of Materials Chemistry A</i> , 2022, 10, 1821-1830.	5.2	42
1111	Methylthiophene terminated Dâ€“Iâ€“D molecular semiconductors as multifunctional interfacial materials for high performance perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2022, 10, 1862-1869.	2.7	4
1112	1,8â€“Octanediamine Dihydroiodideâ€“Mediated Grain Boundary and Interface Passivation in Twoâ€“Stepâ€“Processed Perovskite Solar Cells. <i>Solar Rrl</i> , 2022, 6, .	3.1	6
1113	Simultaneously Mitigating Anion and Cation Defects Both in Bulk and Interface for Highâ€“Effective Perovskite Solar Cells. <i>Solar Rrl</i> , 2022, 6, .	3.1	2
1114	Surface Passivation of MAPbBr ₃ Perovskite Single Crystals to Suppress Ion Migration and Enhance Photoelectronic Performance. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 10917-10926.	4.0	39
1115	Synergistic Effects of Multifunctional Lanthanides Doped CsPbBrCl ₂ Quantum Dots for Efficient and Stable MAPbl ₃ Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	53
1116	A review on two-dimensional (2D) perovskite material-based solar cells to enhance the power conversion efficiency. <i>Dalton Transactions</i> , 2022, 51, 797-816.	1.6	20
1117	Ultrasensitive and Robust 120ÂkeV Hard Xâ€“Ray Imaging Detector based on Mixedâ€“Halide Perovskite CsPbBr ₃ Single Crystals. <i>Advanced Materials</i> , 2022, 34, e2106562.	11.1	72
1118	Research progress of atomic layer deposition technology to improve the long-term stability of perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2022, 10, 819-839.	2.7	13
1119	Light-induced halogen defects as dynamic active sites for CO ₂ photoreduction to CO with 100% selectivity. <i>Science Bulletin</i> , 2022, 67, 1137-1144.	4.3	35
1121	Facile Surface Engineering of Composite Electron Transport Layer for Highly Efficient Perovskite Solar Cells with a Fill Factor Exceeding 81%. <i>Advanced Materials Interfaces</i> , 2022, 9, .	1.9	2
1122	Metastable Dion-Jacobson 2D structure enables efficient and stable perovskite solar cells. <i>Science</i> , 2022, 375, 71-76.	6.0	216
1123	Tunable engineering of photo- and electro-induced carrier dynamics in perovskite photoelectronic devices. <i>Science China Materials</i> , 2022, 65, 855-875.	3.5	9
1124	Surface Passivation Using 2D Perovskites toward Efficient and Stable Perovskite Solar Cells. <i>Advanced Materials</i> , 2022, 34, e2105635.	11.1	221

#	ARTICLE	IF	CITATIONS
1125	Defects and passivation in perovskite solar cells. <i>Surface Innovations</i> , 2022, 10, 3-20.	1.4	18
1126	Conjugated polyelectrolytes for stable perovskite solar cells based on methylammonium lead triiodide. <i>Journal of Materials Chemistry A</i> , 2022, 10, 3321-3329.	5.2	1
1127	Potassium Iodide Doping Strategy for High-Efficiency Perovskite Solar Cells Revealed by Ultrafast Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 711-717.	2.1	3
1128	Monolithic All-Perovskite Tandem Solar Cells with Minimized Optical and Energetic Losses. <i>Advanced Materials</i> , 2022, 34, e2110053.	11.1	36
1129	Carrier recombination in $\text{CH}_3\text{NH}_3\text{PbI}_3$: why is it a slow process?. <i>Reports on Progress in Physics</i> , 2022, 85, 024501.	8.1	17
1130	One-pot synthesis of stable and functional hydrophilic CsPbBr_3 perovskite quantum dots for turn-on fluorescence detection of <i>Mycobacterium tuberculosis</i> . <i>Dalton Transactions</i> , 2022, 51, 3581-3589.	1.6	6
1131	Toward stable lead halide perovskite solar cells: A knob on the A/X sites components. <i>IScience</i> , 2022, 25, 103599.	1.9	13
1132	Enhanced Perovskite Solar Cell Performance via 2-Amino-5-iodobenzoic Acid Passivation. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 5414-5424.	4.0	17
1133	A Self-Supporting Covalent Organic Framework Separator with Desolvation Effect for High Energy Density Lithium Metal Batteries. <i>ACS Energy Letters</i> , 2022, 7, 885-896.	8.8	76
1134	Review on efficiency improvement effort of perovskite solar cell. <i>Solar Energy</i> , 2022, 233, 421-434.	2.9	74
1135	Dual Modification Engineering via Lanthanide-Based Halide Quantum Dots and Black Phosphorus Enabled Efficient Perovskite Solar Cells with High Open-Circuit Voltage of 1.235 V. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	22
1136	The Complex Degradation Mechanism of Copper Electrodes on Lead Halide Perovskites. <i>ACS Materials Au</i> , 2022, 2, 301-312.	2.6	8
1137	Silk fibroin induced homeotropic alignment of perovskite crystals toward high efficiency and stability. <i>Nano Energy</i> , 2022, 94, 106936.	8.2	25
1138	Two-dimensional perovskites: Impacts of species, components, and properties of organic spacers on solar cells. <i>Nano Today</i> , 2022, 43, 101394.	6.2	58
1139	Small amines bring big benefits to perovskite-based solar cells and light-emitting diodes. <i>CheM</i> , 2022, 8, 351-383.	5.8	35
1140	Ambient Stable Perovskite Solar Cells through Trifluoro Acetic Acid-Mediated Multifunctional Anchoring. <i>ACS Applied Energy Materials</i> , 2022, 5, 1571-1579.	2.5	9
1141	Multifunctional Heterocyclic-Based Spacer Cation for Efficient and Stable 2D/3D Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 9183-9191.	4.0	12
1142	Post-Treatment Passivation by Quaternary Ammonium Chloride Zwitterion for Efficient and Stable Perovskite Solar Cells. <i>Solar Rrl</i> , 2022, 6, .	3.1	3

#	ARTICLE	IF	CITATIONS
1143	Review of Two-Step Method for Lead Halide Perovskite Solar Cells. <i>Solar Rrl</i> , 2022, 6, .	3.1	44
1144	From Structural Design to Functional Construction: Amine Molecules in High-Performance Formamidinium-Based Perovskite Solar Cells. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	17
1145	From Structural Design to Functional Construction: Amine Molecules in High-Performance Formamidinium-Based Perovskite Solar Cells. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	63
1146	Improving the Performance and Stability of Perovskite Solar Cells through Buried Interface Passivation Using Potassium Hydroxide. <i>ACS Applied Energy Materials</i> , 2022, 5, 1914-1921.	2.5	11
1147	Inverted Perovskite Solar Cells: The Emergence of a Highly Stable and Efficient Architecture. <i>Energy Technology</i> , 2022, 10, .	1.8	11
1148	Photoluminescence Enhancement in Thin Two-Dimensional Ruddlesden-Popper Perovskites by Spiro-OMeTAD. <i>Journal of Physical Chemistry C</i> , 0, , .	1.5	1
1149	Sodium Incorporation for Enhanced Performance of Two-Dimensional Sn-Based Perovskite Transistors. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 9363-9367.	4.0	14
1150	Surface-Anchored Acetylcholine Regulates Band-Edge States and Suppresses Ion Migration in a 21%-Efficient Quadruple-Cation Perovskite Solar Cell. <i>Small</i> , 2022, 18, e2105184.	5.2	30
1151	Surface Engineering Enabled by Bifunctional Guanidinium Tetrafluoroborate Achieving High-Performance Inverted Perovskite Solar Cells. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1152	Metal Halide-Based Adsorption and Substitution at Halide Perovskite Surfaces: Study of CuBr ₂ /CH ₃ NH ₃ PbI ₃ . <i>Russian Journal of Physical Chemistry A</i> , 2022, 96, 190-197.	0.1	1
1153	Surface Treatment of the Perovskite Via Self-Assembled Dipole Layer Enabling All-Round Enhanced Performance for Perovskite Solar Cells. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1154	Efficient MA-free perovskite solar cells with balanced carrier transport achieved using 4-trifluorophenylammonium iodide. <i>Journal of Materials Chemistry A</i> , 2022, 10, 9161-9170.	5.2	8
1155	Realization of Ultra-Flat Perovskite Films with Surprisingly Large-Grain Distribution Using High-Pressure Cooking. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1156	Macroscopic and microscopic defect management in blue/green photodetectors for underwater wireless optical communication. <i>Journal of Materials Chemistry C</i> , 2022, 10, 5970-5980.	2.7	5
1157	More Effective Perovskite Surface Passivation Strategy Via Optimized Functional Groups Enables Efficient P-I-N Perovskite Solar Cells. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1158	Alkali Additives Enable Efficient Large Area (>55 cm ²) Slot-Die Coated Perovskite Solar Modules. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	39
1159	Rethinking the A cation in halide perovskites. <i>Science</i> , 2022, 375, eabj1186.	6.0	207
1160	Recombination Pathways in Perovskite Solar Cells. <i>Advanced Materials Interfaces</i> , 2022, 9, .	1.9	20

#	ARTICLE	IF	CITATIONS
1161	Semi-Planar Non-Fullerene Molecules Enhance the Durability of Flexible Perovskite Solar Cells. <i>Advanced Science</i> , 2022, 9, e2105739.	5.6	31
1162	Spatiotemporally Correlated Imaging of Interfacial Defects and Photocurrents in High Efficiency Triple-Cation Mixed-Halide Perovskites. <i>Small</i> , 2022, 18, e2200523.	5.2	5
1163	Acetylammonium chloride as an additive for crystallization control and defect passivation in MAPbI ₃ based perovskite solar cells. <i>Journal Physics D: Applied Physics</i> , 2022, 55, 265501.	1.3	7
1164	Low-Temperature-Processed Stable Perovskite Solar Cells and Modules: A Comprehensive Review. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	38
1165	Multifunctional Additive (L-Fluorophenylalanine) for Efficient and Stable Inverted Perovskite Solar Cells. <i>Solar Rrl</i> , 0, , 2101101.	3.1	3
1166	Interfacial Modification by Low-Temperature Anchoring Surface Uncoordinated Pb for Efficient FAPbI ₃ Perovskite Solar Cells. <i>Advanced Sustainable Systems</i> , 2022, 6, .	2.7	13
1167	Hybrid Organic-Inorganic Perovskite Halide Materials for Photovoltaics towards Their Commercialization. <i>Polymers</i> , 2022, 14, 1059.	2.0	18
1168	Wide-Bandgap Organic-Inorganic Lead Halide Perovskite Solar Cells. <i>Advanced Science</i> , 2022, 9, e2105085.	5.6	60
1169	Using Ligand Engineering to Produce Efficient and Stable Pb-Sn Perovskite Solar Cells with Antioxidative 2D Capping Layers. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 14729-14738.	4.0	8
1170	Delineation and Passivation of Grain-Boundary Channels in Metal Halide Perovskite Thin Films for Solar Cells. <i>Advanced Materials Interfaces</i> , 2022, 9, .	1.9	4
1171	Revealing the Correlation of Light Soaking Effect with Ion Migration in Perovskite Solar Cells. <i>Solar Rrl</i> , 2022, 6, .	3.1	9
1172	Efficient and stable TiO ₂ nanorod array structured perovskite solar cells in air: Co-passivation and synergistic mechanism. <i>Ceramics International</i> , 2022, 48, 17950-17959.	2.3	9
1173	Flexible Perovskite Solar Cells: From Materials and Device Architectures to Applications. <i>ACS Energy Letters</i> , 2022, 7, 1412-1445.	8.8	54
1174	Manipulating Crystallization Kinetics in High-Performance Blade-Coated Perovskite Solar Cells via Cosolvent-Assisted Phase Transition. <i>Advanced Materials</i> , 2022, 34, e2200276.	11.1	64
1175	Understanding the Impacts of Grain Size Variation, Distribution, and Recombination Losses in Halide Perovskites: A Generalized Semi-Analytical Model from Thin-Film to Photovoltaics. <i>Energy Technology</i> , 2022, 10, .	1.8	1
1176	Hysteresis-Free Planar Perovskite Solar Module with 19.1% Efficiency by Interfacial Defects Passivation. <i>Solar Rrl</i> , 2022, 6, .	3.1	9
1177	High-Performance Humidity Sensor Based on CsPdBBr ₃ Nanocrystals for Noncontact Sensing of Hydromechanical Characteristics of Unsaturated Soil. <i>Physica Status Solidi - Rapid Research Letters</i> , 2022, 16, .	1.2	20
1178	High-Efficiency Air-Processed Si-Based Perovskite Light-Emitting Devices via PMMA-BAPP ₆ Co-Doping. <i>Advanced Optical Materials</i> , 2022, 10, .	3.6	9

#	ARTICLE	IF	CITATIONS
1179	Reducing Energy Disorder in Perovskite Solar Cells by Chelation. <i>Journal of the American Chemical Society</i> , 2022, 144, 5400-5410.	6.6	72
1180	Lattice strain suppresses point defect formation in halide perovskites. <i>Nano Research</i> , 2022, 15, 5746-5751.	5.8	21
1181	Selenium: A Unique Member in the Chalcogen Family for Conjugated Materials Used in Perovskite and Organic Solar Cells. <i>Solar Rrl</i> , 2022, 6, .	3.1	19
1182	Crowning Lithium Ions in Hole-Transport Layer toward Stable Perovskite Solar Cells. <i>Advanced Materials</i> , 2022, 34, e2200978.	11.1	39
1183	Solution-processed MAPbI ₃ /Cs ₂ AgBiBr ₆ heterostructure through epitaxial growth for broadband photo-detection. <i>APL Materials</i> , 2022, 10, 041101.	2.2	1
1184	Temperature-Reliable Low-Dimensional Perovskites Passivated Black-Phase CsPbI ₃ toward Stable and Efficient Photovoltaics. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	73
1185	Temperature-Reliable Low-Dimensional Perovskites Passivated Black-Phase CsPbI ₃ toward Stable and Efficient Photovoltaics. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	130
1186	Multi-functional cyclic ammonium chloride additive for efficient and stable air-processed perovskite solar cells. <i>Journal of Power Sources</i> , 2022, 531, 231243.	4.0	10
1187	Facilitate hole transport with thin 2D perovskite capping layer to passivate interface defects of 3D perovskite solar cells using PEABr. <i>Materials Research Bulletin</i> , 2022, 150, 111793.	2.7	17
1188	Enhanced electroluminescence of cesium lead bromide light-emitting diode driven by ion migration via surface passivation with organic halide surfactants. <i>Surfaces and Interfaces</i> , 2022, 30, 101853.	1.5	4
1189	Surface treatment enabled by functional guanidinium tetrafluoroborate achieving high-performance inverted perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2022, 240, 111682.	3.0	12
1190	Unraveling the role of active hydrogen caused by carbonyl groups in surface-defect passivation of perovskite photovoltaics. <i>Nano Energy</i> , 2022, 97, 107200.	8.2	25
1191	Para-halogenated triphenyltriazine induced surface passivation toward efficient and stable perovskite solar cells. <i>Applied Surface Science</i> , 2022, 590, 153051.	3.1	6
1192	Dual Functions of Performance Improvement and Lead Leakage Mitigation of Perovskite Solar Cells Enabled by Phenylbenzimidazole Sulfonic Acid. <i>Small Methods</i> , 2022, 6, e2101257.	4.6	22
1193	Interfacial defect passivation by novel phosphonium salts yields 22% efficiency perovskite solar cells: Experimental and theoretical evidence. <i>EcoMat</i> , 2022, 4, .	6.8	35
1194	3-Ammonium Propionic Acid: A Cation Tailoring Crystal Structure of Hybrid Perovskite for Improving Photovoltaic Performance. <i>ACS Applied Energy Materials</i> , 2021, 4, 14662-14670.	2.5	6
1195	Packing-Shape Effects of Optical Properties in Amplified Spontaneous Emission through Dynamics of Orbit-Orbit Polarization Interaction in Hybrid Perovskite Quantum Dots Based on Self-Assembly. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 11894-11901.	2.1	3
1196	Origin of Defects and Positron Annihilation in Hybrid and All-Inorganic Perovskites. <i>Chemistry of Materials</i> , 2022, 34, 297-306.	3.2	7

#	ARTICLE	IF	CITATIONS
1197	Monolayer CVD Graphene Barrier Enhances the Stability of Planar Organic-Inorganic Metal Halide Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2022, 5, 52-60.	2.5	5
1198	Multifunctional Peryleneimide-Based Cathode Interfacial Materials for High-Performance Inverted Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2021, 4, 13657-13665.	2.5	8
1199	Surface-Passivated CsPbBr ₃ for Developing Efficient and Stable Perovskite Photovoltaics. <i>Crystals</i> , 2021, 11, 1588.	1.0	6
1200	Characterize and Retard the Impact of the Bias-Induced Mobile Ions in CH ₃ NH ₃ PbBr ₃ Perovskite Light-Emitting Diodes. <i>Advanced Optical Materials</i> , 2022, 10, .	3.6	5
1201	Defect Spectroscopy in Halide Perovskites Is Dominated by Ionic Rather than Electronic Defects. <i>ACS Energy Letters</i> , 2022, 7, 140-144.	8.8	20
1202	Defect-Induced Inhomogeneous Phase Transition in 2D Perovskite Single Crystals at Low Temperatures. <i>ACS Omega</i> , 2021, 6, 35427-35432.	1.6	1
1203	Recent Progress of Critical Interface Engineering for Highly Efficient and Stable Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	78
1204	Molecular Engineering of Thienyl Functionalized Ullazines as Hole-Transporting Materials for Perovskite Solar Cells. <i>Solar Rrl</i> , 2022, 6, .	3.1	5
1205	Improving the Efficiency, Stability, and Adhesion of Perovskite Solar Cells Using Nanogel Additive Engineering. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 58640-58651.	4.0	2
1206	Decreased surface defects and non-radiative recombination via the passivation of the halide perovskite film by 2-thiophenecarboxylic acid in triple-cation perovskite solar cells. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 10384-10393.	1.3	13
1207	Solvent-assisted preparation of low-temperature SnO ₂ electron transport layers for efficient and stable perovskite solar cells made in ambient conditions. <i>New Journal of Chemistry</i> , 2022, 46, 9841-9850.	1.4	5
1208	Efficient NIR Perovskite Light-Emitting Diodes Enabled by Incorporating an Anthracene Derivative as a Bifunctional Electron Transport Layer. <i>ACS Applied Electronic Materials</i> , 2022, 4, 1669-1677.	2.0	3
1209	Effective Passivation with Self-Organized Molecules for Perovskite Photovoltaics. <i>Advanced Materials</i> , 2022, 34, e2202100.	11.1	67
1210	Advanced Strategies to Tailor the Nucleation and Crystal Growth in Hybrid Halide Perovskite Thin Films. <i>Frontiers in Chemistry</i> , 2022, 10, 842924.	1.8	8
1211	Subtle side chain modification of triphenylamine-based polymer hole-transport layer materials produces efficient and stable inverted perovskite solar cells. , 2022, 1, 281-293.		34
1212	Manipulating the Water Dissociation Electrocatalytic Sites of Bimetallic Nickel-Based Alloys for Highly Efficient Alkaline Hydrogen Evolution. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	7
1213	Manipulating the Water Dissociation Electrocatalytic Sites of Bimetallic Nickel-Based Alloys for Highly Efficient Alkaline Hydrogen Evolution. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	124
1214	Surface Passivation and Energetic Modification Suppress Nonradiative Recombination in Perovskite Solar Cells. <i>Nano-Micro Letters</i> , 2022, 14, 108.	14.4	34

#	ARTICLE	IF	CITATIONS
1215	Universal Dynamic Liquid Interface for Healing Perovskite Solar Cells. <i>Advanced Materials</i> , 2022, 34, e2202301.	11.1	57
1216	In Situ Polymer Network in Perovskite Solar Cells Enabled Superior Moisture and Thermal Resistance. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 3754-3762.	2.1	14
1217	Rational Design on Chemical Regulation of Interfacial Microstress Engineering by Matching Young's Modulus in a CsPbBr ₃ Perovskite Film with Mechanical Compatibility toward Enhanced Photoelectric Conversion Efficiency. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 20257-20267.	4.0	8
1218	Organometallic-functionalized interfaces for highly efficient inverted perovskite solar cells. <i>Science</i> , 2022, 376, 416-420.	6.0	527
1219	CH ₃ NH ₃ ⁺ and Pb Immobilization Through PbI ₂ Binding by Organic Molecule Doping for Homogeneous Organometal Halide Perovskite Films. <i>Journal of Materials Chemistry A</i> , 0, , .	5.2	1
1220	Interfacial passivation with 4-chlorobenzene sulfonyl chloride for stable and efficient planar perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2022, 10, 9044-9051.	2.7	8
1221	Defect passivation in perovskite solar cells using an amino-functionalized BODIPY fluorophore. <i>Sustainable Energy and Fuels</i> , 2022, 6, 2570-2580.	2.5	7
1222	Surface fluoride management for enhanced stability and efficiency of halide perovskite solar cells via a thermal evaporation method. <i>Journal of Materials Chemistry A</i> , 2022, 10, 12882-12889.	5.2	5
1223	Progress of defect and defect passivation in perovskite solar cells. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2022, 71, 166801.	0.2	1
1224	Efficient and Stable FA-Rich Perovskite Photovoltaics: From Material Properties to Device Optimization. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	16
1225	Recent review on electron transport layers in perovskite solar cells. <i>International Journal of Energy Research</i> , 2022, 46, 21441-21451.	2.2	24
1226	Indigo: A Natural Molecular Passivator for Efficient Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	60
1227	An ammonium-pseudohalide ion pair for synergistic passivating surfaces in FAPbI ₃ perovskite solar cells. <i>Matter</i> , 2022, 5, 2209-2224.	5.0	26
1228	Defect Passivation through (±-Methylguanido)acetic Acid in Perovskite Solar Cell for High Operational Stability. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 20848-20855.	4.0	8
1229	Rear Electrode Materials for Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	49
1230	Effect of Stability of Two-Dimensional (2D) Aminoethyl Methacrylate Perovskite Using Lead-Based Materials for Ammonia Gas Sensor Application. <i>Polymers</i> , 2022, 14, 1853.	2.0	5
1231	Hydrogen Bonds in Precursor Solution: The Origin of the Anomalous J-V Curves in Perovskite Solar Cells. <i>Crystals</i> , 2022, 12, 610.	1.0	1
1232	Progress on Emerging Ferroelectric Materials for Energy Harvesting, Storage and Conversion. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	45

#	ARTICLE	IF	CITATIONS
1233	Perovskite: Scintillators, direct detectors, and X-ray imagers. <i>Materials Today</i> , 2022, 55, 110-136.	8.3	111
1234	Basic understanding of perovskite solar cells and passivation mechanism. <i>AIP Advances</i> , 2022, 12, .	0.6	13
1235	Multifunctional Passivation Strategy of Cationic and Anionic Defects for Efficient and Stable Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2022, 5, 5928-5936.	2.5	6
1236	Solution-processed metal-oxide based hole transport layers for organic and perovskite solar cell: A review. <i>Materials Today Communications</i> , 2022, 31, 103664.	0.9	13
1237	Improving the Stability and Efficiency of Perovskite Solar Cells by a Bidentate Anilinium Salt. <i>Jacs Au</i> , 2022, 2, 1306-1312.	3.6	11
1238	Enhanced Performance of Planar Perovskite Solar Cells Using Thioacetamide-Treated SnS ₂ Electron Transporting Layer Based on Molecular Ink. <i>Energy & Fuels</i> , 2022, 36, 5897-5909.	2.5	7
1239	Co ²⁺ -assembled Monolayers as Hole-Selective Contact for High-Performance Inverted Perovskite Solar Cells with Optimized Recombination Loss and Long-Term Stability. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	4
1240	Co ²⁺ -assembled Monolayers as Hole-Selective Contact for High-Performance Inverted Perovskite Solar Cells with Optimized Recombination Loss and Long-Term Stability. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	66
1241	Designed p-type graphene quantum dots to heal interface charge transfer in Sn-Pb perovskite solar cells. <i>Nano Energy</i> , 2022, 98, 107298.	8.2	25
1242	Perovskite films passivated by a dendrimer toward high efficiency and high stability devices. <i>Journal of Power Sources</i> , 2022, 536, 231518.	4.0	1
1243	Hole transporting layer engineering via a zwitterionic polysquaraine toward efficient inverted perovskite solar cells. <i>Chemical Engineering Journal</i> , 2022, 445, 136760.	6.6	15
1244	Realization of ultra-flat perovskite films with surprisingly large-grain distribution using high-pressure cooking. <i>Chemical Engineering Journal</i> , 2022, 445, 136803.	6.6	8
1245	Halide anions engineered ionic liquids passivation layer for highly stable inverted perovskite solar cells. <i>Journal of Colloid and Interface Science</i> , 2022, 622, 469-480.	5.0	12
1246	Enhanced performance and stability of low-bandgap mixed lead-tin halide perovskite photovoltaic solar cells and photodetectors via defect passivation with UiO-66-NH ₂ metal-organic frameworks and interfacial engineering. <i>Molecular Systems Design and Engineering</i> , 2022, 7, 1073-1084.	1.7	9
1247	In Silico Investigation of the Impact of Hole-Transport Layers on the Performance of CH ₃ NH ₃ SnI ₃ Perovskite Photovoltaic Cells. <i>Crystals</i> , 2022, 12, 699.	1.0	13
1248	Quaternary ammonium halide-containing cellulose derivatives for defect passivation in MAPbI ₃ -based perovskite solar cells. <i>Sustainable Energy and Fuels</i> , 2022, 6, 3349-3362.	2.5	7
1249	High-quality all-inorganic CsPbBr ₃ single crystals prepared by a facile one-step solution growth method. <i>RSC Advances</i> , 2022, 12, 14838-14843.	1.7	5
1250	A Dicationic Organic Dye as a Passivator to Effectively Regulate the Performance of Perovskite Solar Cells. <i>Energy Technology</i> , 2022, 10, .	1.8	2

#	ARTICLE	IF	CITATIONS
1251	Bridging the Interfacial Contact for Improved Stability and Efficiency of Inverted Perovskite Solar Cells. <i>Small</i> , 2022, 18, e2201694.	5.2	16
1252	Terbium-Doped and Dual-Passivated β -CsPb(I _{1-x} Br _x) ₃ Inorganic Perovskite Solar Cells with Improved Air Thermal Stability and High Efficiency. <i>Advanced Materials</i> , 2022, 34, e2203204.	11.1	27
1253	Significant electroluminescence efficiency and stability enhancements in perovskite light-emitting diodes with double additives. <i>Journal of Luminescence</i> , 2022, , 119010.	1.5	1
1254	Soft perovskites stabilized by robust heterojunctions. <i>Joule</i> , 2022, 6, 951-952.	11.7	2
1255	Fast-Charging Electrolyte: A Multiple Additives Strategy with 1,3,2-Dioxathiolane 2,2-Dioxide and Lithium Difluorophosphate for Commercial Graphite/LiFePO ₄ Pouch Battery. <i>ChemistrySelect</i> , 2022, 7, .	0.7	3
1256	Core-twisted tetrachloroperylene diimide additives improve the crystallinity of perovskites to provide efficient perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2022, 243, 111779.	3.0	3
1257	Review of defect engineering in perovskites for photovoltaic application. <i>Materials Advances</i> , 2022, 3, 5234-5247.	2.6	28
1258	Surface Treatment of the Perovskite Via Self-Assembled Dipole Layer Enabling Enhanced Efficiency and Stability for Perovskite Solar Cells. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1259	Perovskite Nanowires as Defect Passivators and Charge Transport Networks for Efficient and Stable Perovskite Solar Cells. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1260	Imaging and quantifying non-radiative losses at 23% efficient inverted perovskite solar cells interfaces. <i>Nature Communications</i> , 2022, 13, .	5.8	58
1261	Efficient molecular ferroelectric photovoltaic device with high photocurrent via lewis acid-base adduct approach. <i>Nanotechnology</i> , 2022, 33, 405402.	1.3	1
1262	Vacuum-Assisted Laminating Preparation for Carbon Film Electrode in Perovskite Solar Cells. <i>Energy Technology</i> , 2022, 10, .	1.8	4
1263	Ionic Liquid-Assisted Crystallization and Defect Passivation for Efficient Perovskite Solar Cells with Enhanced Open-Circuit Voltage. <i>ChemSusChem</i> , 2022, 15, .	3.6	14
1264	Laser Patterned Flexible 4T Perovskite-Cu(In,Ga)Se ₂ Tandem Mini-module with Over 18% Efficiency. <i>Solar Rrl</i> , 2022, 6, .	3.1	6
1265	Simultaneous Bulk and Surface Defect Passivation for Efficient Inverted Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 5116-5122.	2.1	15
1266	Resolve deep-rooted challenges of halide perovskite for sustainable energy development and environmental remediation. <i>Nano Energy</i> , 2022, 99, 107401.	8.2	14
1267	Passivation of perovskite surfaces using 2-hydroxyacetophenone to fabricate solar cells with over 20.7% efficiency under air environment. <i>Applied Surface Science</i> , 2022, 598, 153842.	3.1	7
1268	The high open-circuit voltage of perovskite solar cells: a review. <i>Energy and Environmental Science</i> , 2022, 15, 3171-3222.	15.6	181

#	ARTICLE	IF	CITATIONS
1269	Counter electrodes for perovskite solar cells: materials, interfaces and device stability. <i>Journal of Materials Chemistry C</i> , 2022, 10, 10775-10798.	2.7	10
1270	Field Effect Passivation in Perovskite Solar Cells by a LiF Interlayer. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	53
1271	Manipulation of Crystallization Kinetics for Perovskite Photovoltaics Prepared Using Two-Step Method. <i>Crystals</i> , 2022, 12, 815.	1.0	4
1272	Zwitterionâ€Functionalized SnO ₂ Substrate Induced Sequential Deposition of Blackâ€Phase FAPbI ₃ with Rearranged PbI ₂ Residue. <i>Advanced Materials</i> , 2022, 34, .	11.1	75
1273	Designing Multifunctional Donorâ€Acceptor-Type Molecules to Passivate Surface Defects Efficiently and Enhance Charge Transfer of CsPbI ₂ Br Perovskite for High Power Conversion Efficiency. <i>Inorganic Chemistry</i> , 0, , .	1.9	1
1274	In-situ photoisomerization of azobenzene to inhibit ion-migration for stable high-efficiency perovskite solar cells. <i>Journal of Energy Chemistry</i> , 2022, 73, 556-564.	7.1	7
1275	Tailoring solvent-mediated ligand exchange for CsPbI ₃ perovskite quantum dot solar cells with efficiency exceeding 16.5%. <i>Joule</i> , 2022, 6, 1632-1653.	11.7	54
1276	Robust Interfacial Modifier for Efficient Perovskite Solar Cells: Reconstruction of Energy Alignment at Buried Interface by Selfâ€Diffusion of Dopants. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	26
1277	Improving the Performance of Organic Perovskite Solar Cells by Additive Engineering with 6â€Aminonicotinic Acid. <i>Solar Rrl</i> , 2022, 6, .	3.1	7
1278	Grain Boundary Chemical Anchoring via Bidirectional Active Site Additive Enables Efficient and Stable Perovskite Solar Cells. <i>Advanced Materials Interfaces</i> , 2022, 9, .	1.9	8
1279	Lansoprazole, a cure-four, enables perovskite solar cells efficiency exceeding 24%. <i>Chemical Engineering Journal</i> , 2022, 446, 137416.	6.6	14
1280	Universal Surface Passivation of Organicâ€Inorganic Halide Perovskite Films by Tetraoctylammonium Chloride for High-Performance and Stable Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 28044-28059.	4.0	15
1281	Cucurbit[7]uril-Mediated Supramolecular Bactericidal Nanoparticles: Their Assembly Process, Controlled Release, and Safe Treatment of Intractable Plant Bacterial Diseases. <i>Nano Letters</i> , 2022, 22, 4839-4847.	4.5	6
1282	The effect of thermal annealing on defect states, light intensity and photocurrent of organic solar cells. <i>Optik</i> , 2022, 265, 169488.	1.4	4
1283	Heterogeneous lead iodide obtains perovskite solar cells with efficiency of 24.27%. <i>Chemical Engineering Journal</i> , 2022, 448, 137676.	6.6	29
1284	Physical mechanism of perovskite solar cell based on double electron transport layer. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2022, 71, 208802.	0.2	1
1285	INFLUENCE OF THE SOLVENT AND THE RATIO OF STARTING REAGENTS ON THE PROPERTIES OF ORGANIC-INORGANIC PEROVSKITE MAPbI ₃ . <i>Ukrainian Chemistry Journal</i> , 2022, 88, 79-93.	0.1	0
1286	Molecular design for perovskite solar cells. <i>International Journal of Energy Research</i> , 2022, 46, 14740-14765.	2.2	3

#	ARTICLE	IF	CITATIONS
1287	Self-Organized Small Molecules in Robust MOFs for High-Performance Perovskite Solar Cells with Enhanced Degradation Activation Energy. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	25
1288	Bifunctional Passivation through Fluoride Treatment for Highly Efficient and Stable Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	37
1289	Organic Hole-Transport Layers for Efficient, Stable, and Scalable Inverted Perovskite Solar Cells. <i>Advanced Materials</i> , 2022, 34, .	11.1	107
1290	Monolithic bilayered In ₂ O ₃ as an efficient interfacial material for high-performance perovskite solar cells. , 2022, 1, 526-536.		17
1291	Interfacial Dipole poly(2-ethyl-2-oxazoline) Modification Triggers Simultaneous Band Alignment and Passivation for Air-Stable Perovskite Solar Cells. <i>Polymers</i> , 2022, 14, 2748.	2.0	2
1292	More effective perovskite surface passivation strategy via optimized functional groups enables efficient p-i-n perovskite solar cells. <i>Applied Surface Science</i> , 2022, 602, 154248.	3.1	5
1293	Future Research Directions in Perovskite Solar Cells: Exquisite Photon Management and Thermodynamic Phase Stability. <i>Advanced Materials</i> , 2023, 35, .	11.1	7
1294	Stability of perovskite materials and devices. <i>Materials Today</i> , 2022, 58, 275-296.	8.3	35
1295	Defect Passivation by a Multifunctional Phosphate Additive toward Improvements of Efficiency and Stability of Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 31911-31919.	4.0	6
1296	Back-Contact Ionic Compound Engineering Boosting the Efficiency and Stability of Blade-Coated Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 34040-34048.	4.0	1
1297	Atomistic Mechanism of Surface-Defect Passivation: Toward Stable and Efficient Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 6686-6693.	2.1	12
1298	SnO ₂ electron transport layer modified with gentian violet for perovskite solar cells with enhanced performance. <i>Organic Electronics</i> , 2022, 108, 106600.	1.4	5
1299	Recent defect passivation drifts and role of additive engineering in perovskite photovoltaics. <i>Nano Energy</i> , 2022, 101, 107579.	8.2	46
1300	Stable Yellow Light-Emitting Diodes Based on Quasi-Two-Dimensional Perovskites. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 34918-34925.	4.0	4
1301	Surface treatment of the perovskite via self-assembled dipole layer enabling enhanced efficiency and stability for perovskite solar cells. <i>Applied Surface Science</i> , 2022, 602, 154365.	3.1	5
1302	A universal close-space annealing strategy towards high-quality perovskite absorbers enabling efficient all-perovskite tandem solar cells. <i>Nature Energy</i> , 2022, 7, 744-753.	19.8	96
1303	Inactive (PbI ₂) ₂ RbCl stabilizes perovskite films for efficient solar cells. <i>Science</i> , 2022, 377, 531-534.	6.0	623
1304	Dually-passivated planar SnO ₂ based perovskite solar cells with 2,700h ambient stability: Facile fabrication, high performance and mechanism. <i>Ceramics International</i> , 2022, 48, 33934-33942.	2.3	3

#	ARTICLE	IF	CITATIONS
1305	Influence of the Alkyl Chain Length of (Pentafluorophenylalkyl) Ammonium Salts on Inverted Perovskite Solar Cell Performance. <i>ACS Applied Materials & Interfaces</i> , 0, , .	4.0	3
1306	Enhanced Efficiency and Stability of $\text{CH}_3\text{NH}_3\text{PbBr}_3$ Perovskite Solar Cells by Incorporation of Fluorinated Graphene in the Spiro-OMeTAD Hole Transport Layer. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	41
1307	Stabilized perovskite photovoltaics via Supramolecules composed of carbon/graphene quantum dots and Triiso-Propylsilylethynyl agents. <i>International Journal of Energy Research</i> , 2022, 46, 22832-22844.	2.2	0
1308	Recent Advances in CsPbX_3 Perovskite Solar Cells: Focus on Crystallization Characteristics and Controlling Strategies. <i>Advanced Energy Materials</i> , 2023, 13, .	10.2	27
1309	Overview and Outlook on Graphene and Carbon Nanotubes in Perovskite Photovoltaics from Single-Junction to Tandem Applications. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	14
1310	Correction to "Colloidal Bi-Doped $\text{Cs}_2\text{AgI}_4\text{NaInCl}_6$ Nanocrystals: Undercoordinated Surface Cl Ions Limit Their Light Emission Efficiency", 2022, 4, 1756-1763.		1
1311	Application of Ionic Liquids and Derived Materials to High-Efficiency and Stable Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2022, 4, 1684-1715.		18
1312	Active Buffer Matrix in Nanoparticle-Based Silicon-Rich Silicon Nitride Anodes Enables High Stability and Fast Charging of Lithium-Ion Batteries. <i>Advanced Materials Interfaces</i> , 0, , 2201389.	1.9	1
1313	Intensity modulated photocurrent spectroscopy to investigate hidden kinetics at hybrid perovskite-electrolyte interface. <i>Scientific Reports</i> , 2022, 12, .	1.6	4
1314	Interfacial Embedding for High-Efficiency and Stable Methylammonium-Free Perovskite Solar Cells with Fluoroarene Hydrazine. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	30
1315	Multifunctional Cross-Linked Hole Transporting Interfacial Layer for Efficient and Stable Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2022, 5, 10742-10750.	2.5	4
1316	On-Substrate Grown MAPbBr_3 Single Crystal Diodes for Large-Area and Low-Dark-Current X-Ray Detection. <i>IEEE Transactions on Electron Devices</i> , 2022, 69, 5035-5040.	1.6	1
1317	Improved performance of CsPbBr_3 quantum-dot light-emitting diodes by bottom interface modification. <i>Organic Electronics</i> , 2022, 109, 106620.	1.4	3
1318	Tert-butyl peroxybenzoate-doped spiro-OMeTAD for perovskite solar cells with efficiency over 23%. <i>Electrochimica Acta</i> , 2022, 429, 141038.	2.6	4
1319	Tailoring multifunctional anion modifiers to modulate interfacial chemical interactions for efficient and stable perovskite solar cells. <i>Nano Energy</i> , 2022, 102, 107747.	8.2	73
1320	Efficient surface treatment based on an ionic imidazolium hexafluorophosphate for improving the efficiency and stability of perovskite solar cells. <i>Applied Surface Science</i> , 2022, 604, 154486.	3.1	4
1321	Advances in components engineering in vapor deposited perovskite thin film for photovoltaic application. <i>Materials Today Advances</i> , 2022, 16, 100277.	2.5	10
1322	First-principles exploration of the interface characteristic between CNT and inorganic lead-free perovskites CsSnX_3 ($X = \text{Cl}, \text{Br}, \text{I}$). <i>Materials Today Communications</i> , 2022, 33, 104524.	0.9	1

#	ARTICLE	IF	CITATIONS
1323	Passivation of positively charged cationic defects in perovskite with nitrogen-donor crown ether enabling efficient perovskite solar cells. <i>Chemical Engineering Journal</i> , 2023, 451, 138962.	6.6	14
1324	Perovskite nanowires as defect passivators and charge transport networks for efficient and stable perovskite solar cells. <i>Chemical Engineering Journal</i> , 2023, 451, 138920.	6.6	8
1325	Passivation of PEA+ to CsPbI ₃ (110) Surface States: From the First Principles Calculations. <i>Journal of Renewable Materials</i> , 2022, .	1.1	2
1326	Simultaneous ambient long-term conductivity promotion, interfacial modification, ion migration inhibition and anti-deliqescence by MWCNT:NiO in spiro-OMeTAD for perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2022, 10, 22592-22604.	5.2	9
1327	Deep defect passivation and shallow vacancy repair via an ionic silicone polymer toward highly stable inverted perovskite solar cells. <i>Energy and Environmental Science</i> , 2022, 15, 4414-4424.	15.6	35
1328	Stable perovskite solar cells with 25.17% efficiency enabled by improving crystallization and passivating defects synergistically. <i>Energy and Environmental Science</i> , 2022, 15, 4700-4709.	15.6	86
1329	First-principles study of detrimental iodine vacancy in lead halide perovskite under strain and electron injection. <i>Applied Physics Letters</i> , 2022, 121, .	1.5	9
1330	Strategy of Enhancing Built-in Field to Promote the Application of TiO ₂ /SnO ₂ Bilayer Electron Transport Layer in High-Efficiency Perovskite Solar Cells (24.3%). <i>Small</i> , 2022, 18, .	5.2	16
1331	Configurable Organic Charge Carriers toward Stable Perovskite Photovoltaics. <i>Chemical Reviews</i> , 2022, 122, 14954-14986.	23.0	26
1332	Efficient and Stable Perovskite Solar Cells with a High Open-Circuit Voltage Over 1.2V Achieved by a Dual-Side Passivation Layer. <i>Advanced Materials</i> , 2022, 34, .	11.1	20
1333	Influence of voids on the thermal and light stability of perovskite solar cells. <i>Science Advances</i> , 2022, 8, .	4.7	34
1334	High-Voltage and Fast-Charge Electrolytes for Lithium-Ion Batteries. <i>Batteries and Supercaps</i> , 2022, 5, .	2.4	2
1335	Bilayer metal halide perovskite for efficient and stable solar cells and modules. <i>Materials Futures</i> , 2022, 1, 042102.	3.1	19
1336	Chlorofullerene C ₆₀ Cl ₆ Enables Efficient and Stable Tin-Based Perovskite Solar Cells. <i>Energy and Environmental Materials</i> , 2024, 7, .	7.3	9
1337	Effective Multifunctional Additive Engineering for Efficient and Stable Inverted Perovskite Solar Cells. <i>Solar Rrl</i> , 2022, 6, .	3.1	9
1338	Scintillation properties of ((CH ₃) ₄ N) ₃ BiCl ₆ as a novel lead-free perovskite halide crystal. <i>Materials Research Express</i> , 2022, 9, 096202.	0.8	3
1339	Improving the stability of inverted perovskite solar cells towards commercialization. <i>Communications Materials</i> , 2022, 3, .	2.9	29
1340	Thermally Regulated Energy Loss in Dion-Jacobson Perovskite Solar Cells. <i>Solar Rrl</i> , 2022, 6, .	3.1	5

#	ARTICLE	IF	CITATIONS
1341	Targeted Management of Perovskite Film by Co($\langle \text{sc} \rangle \text{I} \langle \text{sc} \rangle$) Sulfophenyl Porphyrin for Efficient and Stable Solar Cells ^{&#x2014;} . Chinese Journal of Chemistry, 2023, 41, 43-49.	2.6	6
1342	A Universal Grain $\langle \text{c} \rangle$ to Suppress Halide Segregation of Mixed-Halide Inorganic Perovskite Solar Cells. ACS Energy Letters, 2022, 7, 3467-3475.	8.8	23
1343	Recent advances of interface engineering in inverted perovskite solar cells. Chinese Physics B, 2022, 31, 107307.	0.7	3
1344	High-Performance Flexible All-Perovskite Tandem Solar Cells with Reduced $\langle \text{V} \rangle \langle \text{sub} \rangle \text{OC} \langle \text{sub} \rangle$ -Deficit in Wide-Bandgap Subcell. Advanced Energy Materials, 2022, 12, .	10.2	19
1345	Theoretical optimization of defect density and band offsets for CsPbI ₂ Br based perovskite solar cells. Materials Today Communications, 2022, 33, 104546.	0.9	5
1346	Organic-Free and Lead-Free Perovskite Solar Cells with Efficiency over 11%. Advanced Energy Materials, 2022, 12, .	10.2	30
1347	Self-Powered and Low-Noise Perovskite Photodetector Enabled by a Novel Dopant-Free Hole-Transport Material with Bottom Passivation for Underwater Blue Light Communications. ACS Applied Materials & Interfaces, 2022, 14, 46809-46818.	4.0	5
1348	Asymmetrically substituted 10H,10'H- $\langle \text{H} \rangle$,9'- $\langle \text{H} \rangle$ spirobi[acridine] derivatives as hole-transporting materials for perovskite solar cells. Angewandte Chemie, 0, , .	1.6	0
1349	Reactive Ion Etching Activating TiO ₂ Substrate for Planar Heterojunction Sb ₂ S ₃ Solar Cells with 6.06% Efficiency. Energy Technology, 2022, 10, .	1.8	6
1350	Defect passivation and electrical conductivity enhancement in perovskite solar cells using functionalized graphene quantum dots. Materials Futures, 2022, 1, 045101.	3.1	20
1351	Additive-assisted defect passivation of perovskite with metformin hydrochloride: toward high-performance p-i-n perovskite solar cells. JPhys Energy, 0, , .	2.3	0
1352	Low-Temperature Preparation of High-Quality Perovskite Polycrystalline Films via Crystallization Kinetics Engineering. ChemPhysChem, 2023, 24, .	1.0	1
1353	Interfacial Engineering for High-Performance PTAA-Based Inverted 3D Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	5
1354	Asymmetrically Substituted 10 <i>H</i> ,10' <i>H</i> ,9' <i>H</i> spirobi[acridine] Derivatives as Hole-Transporting Materials for Perovskite Solar Cells. Angewandte Chemie - International Edition, 2022, 61, .	7.2	4
1355	Facile Synthesized Acetamidine Thiocyanate with Synergistic Passivation and Crystallization for Efficient Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	5
1356	Impact of loss mechanisms on performances of perovskite solar cells. Physica B: Condensed Matter, 2022, 647, 414363.	1.3	6
1357	A multifunctional phosphorylcholine-based polymer reduces energy loss for efficient perovskite solar cells. Journal of Materials Chemistry C, 2022, 10, 16781-16788.	2.7	6
1358	Revealing superoxide-induced degradation in lead-free tin perovskite solar cells. Energy and Environmental Science, 2022, 15, 5274-5283.	15.6	32

#	ARTICLE	IF	CITATIONS
1359	Ionic and poly(ionic liquid)s as perovskite passivating molecules for improved solar cell performances. <i>Journal of Materials Chemistry C</i> , 2022, 10, 16583-16591.	2.7	6
1360	Multifunctional Histidine Cross-Linked Interface toward Efficient Planar Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 47872-47881.	4.0	13
1361	Unveiling Ultrafast Carrier Extraction in Highly Efficient 2D/3D Bilayer Perovskite Solar Cells. <i>ACS Photonics</i> , 2022, 9, 3584-3591.	3.2	5
1362	Dual Metal-Assisted Defect Engineering towards High-Performance Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	16
1363	Suppressing Interfacial Recombination with a Strong-Interaction Surface Modulator for Efficient Inverted Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	24
1364	Laser Manufactured Nano-MXenes with Tailored Halogen Terminations Enable Interfacial Ionic Stabilization of High Performance Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	15
1365	Cation Engineering by Three-Dimensional Organic Spacer Cations for Effective Defect Passivation in Perovskite Solar Cells. <i>ChemNanoMat</i> , 2022, 8, .	1.5	3
1367	Hydroxyl substituted Spiro-OMeTAD as multi-site defect healing and carrier extraction enhanced surface passivator toward efficient perovskite solar cells. <i>Materials Today Energy</i> , 2022, 30, 101191.	2.5	3
1368	Expanded Carbazoles as Hole-Selective Self-Assembled Monolayers for High-Performance Perovskite Solar Cells. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	0
1369	Expanded Carbazoles as Hole-Selective Self-Assembled Monolayers for High-Performance Perovskite Solar Cells. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	54
1370	Recent Advances in Inverted Perovskite Solar Cells: Designing and Fabrication. <i>International Journal of Molecular Sciences</i> , 2022, 23, 11792.	1.8	12
1371	Conductive Passivator for Efficient Monolithic Perovskite/Silicon Tandem Solar Cell on Commercially Textured Silicon. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	23
1372	Defect Pair Formation in FAPbI ₃ Perovskite Solar Cell Absorbers. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 9718-9724.	2.1	1
1373	Pre-annealing treatment for high-efficiency perovskite solar cells via sequential deposition. <i>Joule</i> , 2022, 6, 2869-2884.	11.7	41
1374	Hybrid Block Copolymer/Perovskite Heterointerfaces for Efficient Solar Cells. <i>Advanced Materials</i> , 2023, 35, .	11.1	14
1375	Elimination of defect and strain by functionalized CQDs dual-engineering for all-inorganic HTMs-free perovskite solar cells with an ultrahigh voltage of 1.651 V. <i>Nano Energy</i> , 2022, 104, 107920.	8.2	14
1376	Enhancing performance and stability of carbon-based perovskite solar cells by surface modification using 2-(trifluoromethylthio)aniline. <i>Materials Today Communications</i> , 2022, 33, 104653.	0.9	1
1377	Dual passivation of SnO ₂ /Perovskite heterogeneous interfacial defects for efficient perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2023, 250, 112088.	3.0	8

#	ARTICLE	IF	CITATIONS
1378	Defect control based on interfacial passivation via post-treatment of 1-ethylpyridine hydrobromide for achieving efficient and stable perovskite solar cells. <i>Applied Surface Science</i> , 2023, 608, 155042.	3.1	2
1379	An illustrative understanding on strengthening in stability and efficiency of perovskite solar cells: Utilization of the perovskite-constructed polymer hybrid system of PHQACl-CN inclusion. <i>Journal of Materials Chemistry C</i> , 0, , .	2.7	0
1380	Simultaneous interfacial and bulk defect passivation and interface energy band alignment optimization via In(SCN ₂ H ₄) ₃ Cl ₃ diffusion doping for inverted perovskite solar cells. <i>Chemical Engineering Journal</i> , 2023, 454, 140160.	6.6	5
1381	Regulating surface potential maximizes voltage in all-perovskite tandems. <i>Nature</i> , 2023, 613, 676-681.	13.7	152
1382	Efficient Continuous Light-Driven Electrochemical Water Splitting Enabled by Monolithic Perovskite-Silicon Tandem Photovoltaics. <i>Advanced Materials Technologies</i> , 2023, 8, .	3.0	5
1383	A Roadmap for Efficient and Stable All-Perovskite Tandem Solar Cells from a Chemistry Perspective. <i>ACS Central Science</i> , 2023, 9, 14-26.	5.3	13
1384	Roles that Organic Ammoniums Play on the Surface of the Perovskite Film: A Review. <i>Chemistry - A European Journal</i> , 2023, 29, .	1.7	7
1385	Recent progress in perovskite solar cells: from device to commercialization. <i>Science China Chemistry</i> , 2022, 65, 2369-2416.	4.2	53
1386	Ligand-Assisted Coupling Manipulation for Efficient and Stable FAPbI ₃ Colloidal Quantum Dot Solar Cells. <i>Angewandte Chemie</i> , 0, , .	1.6	1
1387	Ligand-Assisted Coupling Manipulation for Efficient and Stable FAPbI ₃ Colloidal Quantum Dot Solar Cells. <i>Angewandte Chemie - International Edition</i> , 2023, 62, .	7.2	13
1388	Highly Efficient Flexible Perovskite Solar Cells through Pentylammonium Acetate Modification with Certified Efficiency of 23.35%. <i>Advanced Materials</i> , 2023, 35, .	11.1	58
1389	Efficient Perovskite Solar Cells with Cesium Acetate-Modified TiO ₂ Electron Transport Layer. <i>Journal of Physical Chemistry C</i> , 2022, 126, 19963-19970.	1.5	3
1390	Solid "solid chemical bonding featuring targeted defect passivation for efficient perovskite photovoltaics. <i>Energy and Environmental Science</i> , 2023, 16, 178-189.	15.6	19
1391	Recent Progress of Surface Passivation Molecules for Perovskite Solar Cell Applications. <i>Journal of Renewable Materials</i> , 2023, 11, 1533-1554.	1.1	2
1392	Over 25% efficiency and stable bromine-free RbCsFAMA-based quadruple cation perovskite solar cells enabled by an aromatic zwitterion. <i>Journal of Materials Chemistry A</i> , 2023, 11, 1170-1179.	5.2	12
1393	Organic ligand complementary passivation to Colloidal-quantum-dot surface enables efficient infrared solar cells. <i>Chemical Engineering Journal</i> , 2023, 455, 140961.	6.6	4
1394	High-performance flexible and self-powered perovskite photodetector enabled by interfacial strain engineering. <i>Journal of Materials Chemistry C</i> , 2023, 11, 600-608.	2.7	2
1395	Organic iodides in efficient and stable perovskite solar cells: strong surface passivation and interaction. <i>Energy and Environmental Science</i> , 2023, 16, 565-573.	15.6	16

#	ARTICLE	IF	CITATIONS
1396	Revivification of nickel oxide-perovskite interfaces via nickel nitrate to boost performance in perovskite solar cells. <i>Nano Energy</i> , 2023, 106, 108062.	8.2	12
1397	High performance direct current-generating triboelectric nanogenerators based on tribovoltaic p-n junction with ChCl-passivated CsFAMA perovskite. <i>Nano Energy</i> , 2023, 106, 108066.	8.2	17
1398	2-Fluoro-4-iodoaniline passivates the surface of perovskite films to enhance photovoltaic properties. <i>Applied Surface Science</i> , 2023, 612, 155787.	3.1	3
1399	Enhancing the efficiency and stability of 2D-3D perovskite solar cells with embedded interface passivation with diammonium cation spacer. <i>Solar Energy Materials and Solar Cells</i> , 2023, 251, 112135.	3.0	4
1400	On current technology for light absorber materials used in highly efficient industrial solar cells. <i>Renewable and Sustainable Energy Reviews</i> , 2023, 173, 113027.	8.2	9
1401	Vitamin Natural Molecule Enabled Highly Efficient and Stable Planar n-p Homojunction Perovskite Solar Cells with Efficiency Exceeding 24.2%. <i>Advanced Energy Materials</i> , 2023, 13, .	10.2	22
1402	Manipulating Halide Perovskite Passivation by Controlling Amino Acid Derivative Isoelectric Point for Stable and Efficient Inverted Perovskite Solar Cells. <i>Solar Rrl</i> , 2023, 7, .	3.1	8
1403	Efficient and Moisture-Stable Inverted Perovskite Solar Cells via n-Type Small-Molecule-Assisted Surface Treatment. <i>Advanced Science</i> , 2023, 10, .	5.6	16
1404	Dual-Functional 3-Acetyl-2,5-dimethylthiophene Additive-Assisted Crystallization Control and Trap State Passivation for High-Performance Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2022, 5, 14701-14711.	2.5	4
1405	Defect Passivation by Natural Piperine Molecule Enabling for Stable Perovskite Solar Cells with Efficiencies over 23%. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 16359-16367.	3.2	3
1406	Wearable Perovskite-Based Shadow Recognition Sensor for Ambient and Nonobtrusive Human-Computer Interaction. <i>Advanced Intelligent Systems</i> , 2023, 5, .	3.3	3
1407	Surface Capping Layer Prepared from the Bulky Tetradodecylammonium Bromide as an Efficient Perovskite Passivation Layer for High-Performance Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 56900-56909.	4.0	5
1408	Defect Passivation with Multifunctional Fluoro-Group-Containing Organic Additives for Highly Efficient and Stable Perovskite Solar Cells. <i>Energy & Fuels</i> , 2023, 37, 667-674.	2.5	4
1409	Thermal evaporation and hybrid deposition of perovskite solar cells and mini-modules. <i>Joule</i> , 2022, 6, 2692-2734.	11.7	22
1410	Minimizing the transport loss and degradation of perovskite optoelectronics via grain dimerization technique. <i>EcoMat</i> , 2023, 5, .	6.8	4
1411	Minimizing the Ohmic Resistance of Wide-Bandgap Perovskite for Semitransparent and Tandem Solar Cells. <i>Solar Rrl</i> , 0, , 2200877.	3.1	0
1412	Self-powered CH ₃ NH ₃ PbI ₃ perovskite photodiode with a noise-suppressible passivation layer of poly(methyl methacrylate). <i>Optics Express</i> , 2023, 31, 1202.	1.7	5
1413	Reconstructing the amorphous and defective surface for efficient and stable perovskite solar cells. <i>Science China Materials</i> , 0, , .	3.5	2

#	ARTICLE	IF	CITATIONS
1414	Perovskite grain wrapping by converting interfaces and grain boundaries into robust and water-insoluble low-dimensional perovskites. <i>Science Advances</i> , 2022, 8, .	4.7	20
1415	Synergistic Surface Modification of Tinâ€“Lead Perovskite Solar Cells. <i>Advanced Materials</i> , 2023, 35, .	11.1	22
1416	Selfâ€“Assembled Amphiphilic Monolayer for Efficient and Stable Wideâ€“Bandgap Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2023, 13, .	10.2	19
1417	A Universal Surface Treatment for pâ€“in Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 56290-56297.	4.0	13
1418	Performance and Stability Improvement of Inverted Perovskite Solar Cells by Interface Modification of Charge Transport Layers Using an Azuleneâ€“Pyridine Molecule. <i>Energy Technology</i> , 2023, 11, .	1.8	3
1419	Synergistic Effect of Crystallization Control and Defect Passivation Induced by a Multifunctional Primidone Additive for High-Performance Perovskite Solar Cells. <i>Energy & Fuels</i> , 2023, 37, 675-683.	2.5	5
1420	Perovskite precursor concentration for enhanced recombination suppression in perovskite solar cells. , 2022, 1, 100006.		6
1421	Interfacial Engineering of Au@Nb₂CT_{<i>x</i>}-MXene Modulates the Growth Strain, Suppresses the Auger Recombination, and Enables an Open-Circuit Voltage of over 1.2 V in Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2023, 15, 3961-3973.	4.0	5
1422	Biomolecules incorporated in halide perovskite nanocrystals: synthesis, optical properties, and applications. <i>Nanoscale</i> , 2023, 15, 2997-3031.	2.8	2
1423	Rational Selection of the Lewis Base Molecules Targeted for Lead-Based Defects of Perovskite Solar Cells: The Synergetic Co-passivation of Carbonyl and Carboxyl Groups. <i>Journal of Physical Chemistry Letters</i> , 2023, 14, 653-662.	2.1	7
1424	Numerical Study on the Effect of Dual Electron Transport Layer in Improving the Performance of Perovskiteâ€“Perovskite Tandem Solar Cells. <i>Advanced Theory and Simulations</i> , 2023, 6, .	1.3	6
1425	Cage Polyamine Molecule Hexamethylenetetramine as Additives for Improving Performance of Perovskite Solar Cells. <i>Energy Technology</i> , 2023, 11, .	1.8	4
1426	24.64%â€“Efficiency MAâ€“Free Perovskite Solar Cell with <i>V</i> _{oc} of 1.19â€“V Enabled by a Hingeâ€“Type Fluorineâ€“Rich Complex. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	18
1427	Phthalocyanines, porphyrins and other porphyrinoids as components of perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2023, 11, 7885-7919.	2.7	11
1428	Hydrazone dye passivator for high-performance and stable perovskite solar cells. <i>Dalton Transactions</i> , 2023, 52, 1702-1710.	1.6	3
1429	Omnidirectional diffusion of organic amine salts assisted by ordered arrays in porous lead iodide for two-step deposited large-area perovskite solar cells. <i>Energy and Environmental Science</i> , 2023, 16, 629-640.	15.6	31
1430	Room temperature slot-die coated perovskite layer modified with sulfonyl-Î³-AApeptide for high performance perovskite solar devices. <i>Chemical Engineering Journal</i> , 2023, 457, 141199.	6.6	7
1431	Heterocyclic amino acid molecule as a multifunctional interfacial bridge for improving the efficiency and stability of quadruple cation perovskite solar cells. <i>Nano Energy</i> , 2023, 107, 108154.	8.2	23

#	ARTICLE	IF	CITATIONS
1432	Rinsing Intermediate Phase Strategy for Modulating Perovskite Crystal Growth and Fabricating Highly Efficient and Stable Inverted Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2023, 15, 818-829.	4.0	2
1433	Enhancing the stability and efficiency of MAPbI ₃ perovskite solar cells by theophylline-BF ₄ ⁻ alkaloid derivatives, a theoretical-experimental approach. <i>RSC Advances</i> , 2023, 13, 5070-5080.	1.7	3
1434	Challenges in the development of metal-halide perovskite single crystal solar cells. <i>Journal of Materials Chemistry A</i> , 2023, 11, 3822-3848.	5.2	3
1435	IR Spectroscopic Degradation Study of Thin Organometal Halide Perovskite Films. <i>Molecules</i> , 2023, 28, 1288.	1.7	8
1436	Pressure-induced distinct excitonic properties of 2D perovskites with isomeric organic molecules for spacer cations. <i>Nanoscale</i> , 2023, 15, 6234-6242.	2.8	2
1437	Interface Regulation for Efficient and Stable Perovskite Solar Cells through Potassium Citrate Molecules. <i>Chemistry - A European Journal</i> , 2023, 29, .	1.7	1
1438	Stabilization of FAPbI ₃ with Multifunctional Alkali-Functionalized Polymer. <i>Advanced Materials</i> , 2023, 35, .	11.1	12
1439	Two-dimensional materials for boosting the performance of perovskite solar cells: Fundamentals, materials and devices. <i>Materials Science and Engineering Reports</i> , 2023, 153, 100727.	14.8	5
1440	Building optimistic perovskite-polymer composite solar cells: Feasible involvement of a BLP inclusion to efficiently stable perovskite films. <i>Materials Science in Semiconductor Processing</i> , 2023, 160, 107409.	1.9	0
1441	Metal Ion-Incorporated Lead-Free Perovskites toward Broadband Photodetectors. <i>ACS Applied Electronic Materials</i> , 2023, 5, 5291-5302.	2.0	5
1442	Advances in Encapsulations for Perovskite Solar Cells: From Materials to Applications. <i>Solar Rrl</i> , 2023, 7, .	3.1	11
1443	Probing the Genuine Carrier Dynamics of Semiconducting Perovskites under Sunlight. <i>Jacs Au</i> , 2023, 3, 441-448.	3.6	6
1444	Deciphering the Role of Water in Promoting the Optoelectronic Performance of Surface-Engineered Lead Halide Perovskite Nanocrystals. <i>ACS Applied Materials & Interfaces</i> , 2023, 15, 7294-7307.	4.0	6
1445	Instability of solution-processed perovskite films: origin and mitigation strategies. <i>Materials Futures</i> , 2023, 2, 012102.	3.1	11
1446	Highly Efficient and Stable Self-Powered Perovskite Photodiode by Cathode-Side Interfacial Passivation with Poly(Methyl Methacrylate). <i>Nanomaterials</i> , 2023, 13, 619.	1.9	4
1447	Realizing nearly-zero dark current and ultrahigh signal-to-noise ratio perovskite X-ray detector and image array by dark-current-shunting strategy. <i>Nature Communications</i> , 2023, 14, .	5.8	33
1448	A Theoretical Study to Investigate the Impact of Bilayer Interfacial Modification in Perovskite Solar Cell. <i>Energy Technology</i> , 2023, 11, .	1.8	12
1449	Modulating the strength of acceptor in D-A-D type hole transport materials for efficient inverted perovskite solar cells. <i>Chemical Physics</i> , 2023, 568, 111847.	0.9	0

#	ARTICLE	IF	CITATIONS
1450	Recent Achievements on the Liquid Electrolytes for Fast-Charging Lithium Metal Batteries. <i>Energy Technology</i> , 2023, 11, .	1.8	5
1451	Tailoring the Interfacial Termination via Dipole Interlayer for High-Efficiency Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2023, 13, .	10.2	26
1452	An ultra-thin chemical vapor deposited polymer interlayer to achieve highly improved stability of perovskite solar cell. <i>Chemical Engineering Journal</i> , 2023, 461, 141914.	6.6	4
1453	<i>In situ</i> surface regulation of 3D perovskite using diethylammonium iodide for highly efficient perovskite solar cells. <i>Physical Chemistry Chemical Physics</i> , 2023, 25, 9349-9356.	1.3	2
1454	Microwave-facilitated crystal growth of defect-passivated triple-cation metal halide perovskites toward efficient solar cells. <i>Nanoscale</i> , 2023, 15, 5954-5963.	2.8	1
1455	One-stone-for-two-birds strategy to attain beyond 25% perovskite solar cells. <i>Nature Communications</i> , 2023, 14, .	5.8	74
1456	Opportunities and challenges of hole transport materials for high-performance inverted hybrid perovskite solar cells. <i>Exploration</i> , 2023, 3, .	5.4	8
1457	Synergistic Fluorine and Sulfur Intra- and Intermolecular Interactions on Dopant-Free Hole Transport Material for Efficient and Stable Inverted Perovskite Solar Cells. <i>Solar Rrl</i> , 2023, 7, .	3.1	3
1458	Tetramethylammonium hexafluorophosphate interface modification for high-efficiency perovskite solar cells. <i>Journal Physics D: Applied Physics</i> , 2023, 56, 145101.	1.3	0
1459	Multifunctional anthraquinone-sulfonic potassium salts passivate the buried interface for efficient and stable planar perovskite solar cells. <i>Physical Chemistry Chemical Physics</i> , 2023, 25, 8403-8411.	1.3	3
1460	Oligo(ethylene glycol)-incorporated hole transporting polymers for efficient and stable inverted perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2023, 11, 6615-6624.	5.2	3
1461	Efficient and Stable Perovskite Solar Cells by Tailoring of Interfaces. <i>Advanced Materials</i> , 2023, 35, .	11.1	21
1462	Importance of Low Humidity and Selection of Halide Ions of Octylammonium Halide in 2D-3D Perovskite Solar Cells Fabricated in Air. <i>Advanced Materials Interfaces</i> , 2023, 10, .	1.9	2
1463	Improved Crystallization of Lead Halide Perovskite in Two-Step Growth Method by Polymer-Assisted Slow-Release Effect. <i>Small Methods</i> , 2023, 7, .	4.6	9
1464	Polymer-Encapsulated Halide Perovskite Color Converters to Overcome Blue Overshoot and Cyan Gap of White Light-Emitting Diodes. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	5
1465	Regioselective Multisite Atomic-Chlorine Passivation Enables Efficient and Stable Perovskite Solar Cells. <i>Journal of the American Chemical Society</i> , 2023, 145, 5872-5879.	6.6	38
1466	Radical reinforced defect passivation strategy for efficient and stable MAPbI ₃ perovskite solar cells fabricated in air using a green anti-solvent process. <i>Chemical Engineering Journal</i> , 2023, 462, 142328.	6.6	10
1467	Organic-Additive-Derived Cathode Electrolyte Interphase Layer Mitigating Intertwined Chemical and Mechanical Degradation for Sulfide-Based Solid-State Batteries. <i>Advanced Energy Materials</i> , 2023, 13, .	10.2	6

#	ARTICLE	IF	CITATIONS
1468	First-Principles Study of Group VA Monolayer Passivators for Perovskite Solar Cells. ACS Applied Nano Materials, 2023, 6, 4279-4287.	2.4	3
1469	Reduced 0.418 V V_{OC} -deficit of 1.73 eV wide-bandgap perovskite solar cells assisted by dual chlorides for efficient all-perovskite tandems. Energy and Environmental Science, 2023, 16, 2080-2089.	15.6	16
1470	All-blade-coated flexible perovskite solar cells & modules processed in air from a sustainable dimethyl sulfoxide (DMSO)-based solvent system. Sustainable Energy and Fuels, 2023, 7, 2219-2228.	2.5	3
1471	Foldable Hole-Transporting Materials for Merging Electronic States between Defective and Perfect Perovskite Sites. Advanced Materials, 2023, 35, .	11.1	12
1472	3,5-dichlorobenzylamine lead high-performance and stable 2D/3D perovskite solar cells. Journal of Materials Science: Materials in Electronics, 2023, 34, .	1.1	1
1473	Crystal Growth Regulation of $FAPb_3$ Perovskite Films for High-Efficiency Solar Cells with Long-Term Stability. Advanced Functional Materials, 2023, 33, .	7.8	5
1474	Anti-corrosion strategy to improve the stability of perovskite solar cells. Nanoscale, 2023, 15, 8473-8490.	2.8	2
1475	Buried interface passivation strategies for high-performance perovskite solar cells. Journal of Materials Chemistry A, 2023, 11, 8573-8598.	5.2	10
1476	Molecular Dipole Engineering of Carbonyl Additives for Efficient and Stable Perovskite Solar Cells. Angewandte Chemie, 2023, 135, .	1.6	0
1477	Molecular Dipole Engineering of Carbonyl Additives for Efficient and Stable Perovskite Solar Cells. Angewandte Chemie - International Edition, 2023, 62, .	7.2	19
1478	Synergistic Ionic Liquid in Hole Transport Layers for Highly Stable and Efficient Perovskite Solar Cells. Small, 2023, 19, .	5.2	3
1479	Surface Passivation by Sulfur-Based 2D (TEA) $_2$ Pb $_4$ for Stable and Efficient Perovskite Solar Cells. ACS Omega, 2023, 8, 12842-12852.	1.6	7
1480	CsPbBr $_3$ Quantum Dots-Sensitized Mesoporous TiO $_2$ Electron Transport Layers for High-Efficiency Perovskite Solar Cells. Solar Rrl, 2023, 7, .	3.1	2
1481	Solar cell capacitance simulation and experimental photovoltaic performance analysis of perovskite solar cell based on CsGel3. Materials Today: Proceedings, 2023, , .	0.9	2
1482	Myth behind Metastable and Stable n -Hexylammonium Bromide-Based Low-Dimensional Perovskites. Journal of the American Chemical Society, 2023, 145, 8209-8217.	6.6	8
1483	Methoxy Functionalization of Phenethylammonium Ligand for Efficient Perovskite Light-Emitting Diodes. Advanced Optical Materials, 0, , .	3.6	0
1484	Self-powered perovskite photon-counting detectors. Nature, 2023, 616, 712-718.	13.7	28
1485	Halides-Enhanced Buried Interfaces for Stable and Extremely Low-Voltage-Deficit Perovskite Solar Cells. Advanced Materials, 2023, 35, .	11.1	11

#	ARTICLE	IF	CITATIONS
1486	Enhanced performance in perovskites films by defect engineering and charge carrier transportation via pulsed laser doping of 2D MoS ₂ . <i>Sustainable Materials and Technologies</i> , 2023, 36, e00622.	1.7	1
1487	Numerical Analysis of Stable (FAPbI ₃) _{0.85} (MAPbBr ₃) _{0.15} -Based Perovskite Solar Cell with TiO ₂ /ZnO Double Electron Layer. <i>Nanomaterials</i> , 2023, 13, 1313.	1.9	8
1488	R ⁴ N ⁺ and Cl ⁻ stabilized Γ -formamidinium lead triiodide and efficient bar-coated mini-modules. <i>Joule</i> , 2023, 7, 797-809.	11.7	6
1489	Effective Approaches for Perovskite Solar Cells; Recent Advances and Perspectives. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 0, , .	0.8	0
1490	Enhanced performance of CsPbI ₂ Br ₂ perovskite solar cell by modified zinc oxide nanorods array with [6,6]-Phenyl C ₆₁ butyric acid. <i>Chemistry - A European Journal</i> , 0, , .	1.7	0
1491	3D/1D Architecture Using a 1-Hexyl-3-methylimidazolium Lead Triiodide Interlayer for Robust and Highly Performing Perovskite Solar Cells. <i>ACS Applied Electronic Materials</i> , 2023, 5, 2093-2105.	2.0	4
1492	Binary hole transport layer enables stable perovskite solar cells with PCE exceeding 24%. , 2023, 1, 100004.		9
1493	Tungstate-mediated In-situ Passivation of Grain Boundary Grooves in Perovskite Solar Cells. <i>Angewandte Chemie</i> , 2023, 135, .	1.6	0
1494	Low-Cost Hydroxyacid Potassium Synergists as an Efficient In Situ Defect Passivator for High Performance Tin-Oxide-Based Perovskite Solar Cells. <i>Angewandte Chemie - International Edition</i> , 2023, 62, .	7.2	16
1495	Low-Cost Hydroxyacid Potassium Synergists as an Efficient In Situ Defect Passivator for High Performance Tin-Oxide-Based Perovskite Solar Cells. <i>Angewandte Chemie</i> , 0, , .	1.6	0
1496	Bifunctional hole-shuttle molecule for improved interfacial energy level alignment and defect passivation in perovskite solar cells. <i>Nature Energy</i> , 2023, 8, 515-525.	19.8	51
1497	Identification and Mitigation of Transient Phenomena That Complicate the Characterization of Halide Perovskite Photodetectors. <i>ACS Applied Energy Materials</i> , 2023, 6, 10233-10242.	2.5	3
1498	Recent Trends in Sustainable Solar Energy Conversion Technologies: Mechanisms, Prospects, and Challenges. <i>Energy & Fuels</i> , 2023, 37, 6283-6301.	2.5	11
1500	Moisture-Resilient Perovskite Solar Cells for Enhanced Stability. <i>Advanced Materials</i> , 0, , .	11.1	12
1501	How Do Surface Polar Molecules Contribute to High Open-Circuit Voltage in Perovskite Solar Cells?. <i>Advanced Science</i> , 2023, 10, .	5.6	9
1502	Covalent bonding strategy to enable non-volatile organic cation perovskite for highly stable and efficient solar cells. <i>Joule</i> , 2023, 7, 1033-1050.	11.7	13
1503	A Flexible Supercapacitor with High Energy Density Driven by MXene/Deep Eutectic Solvent Gel Polyelectrolyte. <i>ACS Energy Letters</i> , 2023, 8, 2316-2324.	8.8	11
1504	Hybrid composites for optoelectronics. , 2023, , 253-276.		0

#	ARTICLE	IF	CITATIONS
1505	Multiple-Ion Management of Perovskites by Regulating Spatial Distribution of Hydroxyls in Oligosaccharides. <i>Small</i> , 2023, 19, .	5.2	4
1517	Surface Passivation of FAPb ₃ -Rich Perovskite with Cesium Iodide Outperforms Bulk Incorporation. <i>ACS Energy Letters</i> , 2023, 8, 2456-2462.	8.8	14
1520	Light Makes Right: Laser Polishing for Surface Modification of Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2023, 8, 2603-2610.	8.8	10
1535	Recent progress in the development of high-efficiency inverted perovskite solar cells. <i>NPG Asia Materials</i> , 2023, 15, .	3.8	38
1542	Numerical Simulation of High Efficiency Perovskite Solar Cell for Indoor Application. <i>Lecture Notes in Mechanical Engineering</i> , 2023, , 191-200.	0.3	0
1556	Tailoring passivators for highly efficient and stable perovskite solar cells. <i>Nature Reviews Chemistry</i> , 2023, 7, 632-652.	13.8	36
1612	Engineering Strategies for Suppressing the Shuttle Effect in Lithium-Sulfur Batteries. <i>Nano-Micro Letters</i> , 2024, 16, .	14.4	7
1620	Challenges in the design and synthesis of self-assembling molecules as selective contacts in perovskite solar cells. <i>Chemical Science</i> , 0, , .	3.7	0
1627	Additive effect on hot carrier cooling in a hybrid perovskite. <i>Chemical Communications</i> , 0, , .	2.2	0
1633	Templated-Seeding Renders Tailored Crystallization in Perovskite Photovoltaics: Path towards Future Efficient Modules. <i>Journal of Materials Chemistry A</i> , 0, , .	5.2	0
1669	The impact of moisture on the stability and degradation of perovskites in solar cells. <i>Materials Advances</i> , 2024, 5, 2200-2217.	2.6	0