## Slow surface passivation and crystal relaxation with ad performance and durability for tin-based perovskite so

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**Citation Report** 

#	Article	IF	CITATIONS
2	Robust Stability of Efficient Lead-Free Formamidinium Tin Iodide Perovskite Solar Cells Realized by Structural Regulation. Journal of Physical Chemistry Letters, 2018, 9, 6999-7006.	2.1	117
3	Lead Vacancy Can Explain the Suppressed Nonradiative Electron–Hole Recombination in FAPbI <sub>3</sub> Perovskite under Iodine-Rich Conditions: A Time-Domain Ab Initio Study. Journal of Physical Chemistry Letters, 2018, 9, 6489-6495.	2.1	29
4	Initiation and future prospects of colloidal metal halide double-perovskite nanocrystals: Cs <sub>2</sub> AgBiX <sub>6</sub> (X = Cl, Br, I). Journal of Materials Chemistry A, 2018, 6, 21666-21675.	5.2	77
5	Control of Crystal Structures and Optical Properties with Hybrid Formamidinium and 2-Hydroxyethylammonium Cations for Mesoscopic Carbon-Electrode Tin-Based Perovskite Solar Cells. ACS Energy Letters, 2018, 3, 2077-2085.	8.8	59
6	Relationship between Lattice Strain and Efficiency for Sn-Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 31105-31110.	4.0	101
7	Structured crystallization for efficient all-inorganic perovskite solar cells with high phase stability. Journal of Materials Chemistry A, 2019, 7, 20390-20397.	5.2	25
8	Suppression of Charge Carrier Recombination in Lead-Free Tin Halide Perovskite via Lewis Base Post-treatment. Journal of Physical Chemistry Letters, 2019, 10, 5277-5283.	2.1	196
9	Strategies To Improve Performance and Stability for Tin-Based Perovskite Solar Cells. ACS Energy Letters, 2019, 4, 1930-1937.	8.8	182
10	Potential Substitutes for Replacement of Lead in Perovskite Solar Cells: A Review. Global Challenges, 2019, 3, 1900050.	1.8	115
11	Additive Engineering to Grow Micronâ€5ized Grains for Stable High Efficiency Perovskite Solar Cells. Advanced Science, 2019, 6, 1901241.	5.6	93
12	Trihydrazine Dihydriodideâ€Assisted Fabrication of Efficient Formamidinium Tin Iodide Perovskite Solar Cells. Solar Rrl, 2019, 3, 1900285.	3.1	34
13	Highly Stable and Efficient FASnI <sub>3</sub> â€Based Perovskite Solar Cells by Introducing Hydrogen Bonding. Advanced Materials, 2019, 31, e1903721.	11.1	266
14	Dependence of material properties and photovoltaic performance of triple cation tin perovskites on the iodide to bromide ratio. Monatshefte Für Chemie, 2019, 150, 1921-1927.	0.9	10
15	Conjugated Organic Cations Enable Efficient Self-Healing FASnI3 Solar Cells. Joule, 2019, 3, 3072-3087.	11.7	190
16	Interface Engineering in Tin Perovskite Solar Cells. Advanced Materials Interfaces, 2019, 6, 1901322.	1.9	32
17	Efficient and Stable FASnI <sub>3</sub> Perovskite Solar Cells with Effective Interface Modulation by Lowâ€Dimensional Perovskite Layer. ChemSusChem, 2019, 12, 5007-5014.	3.6	111
18	Synthesis and Characterization of Lead-Free (CH3)3SSnI3 1-D Perovskite. Journal of Electronic Materials, 2019, 48, 7533-7538.	1.0	13
19	Leadâ€Free Tinâ€Based Perovskite Solar Cells: Strategies Toward High Performance. Solar Rrl, 2019, 3, 1900213.	3.1	44

#	Article	IF	CITATIONS
20	Leadâ€Free Perovskites: Metals Substitution towards Environmentally Benign Solar Cell Fabrication. ChemSusChem, 2019, 12, 4116-4139.	3.6	36
21	Improved Environmental Stability and Solar Cell Efficiency of (MA,FA)PbI <sub>3</sub> Perovskite Using a Wide-Band-Gap 1D Thiazolium Lead Iodide Capping Layer Strategy. ACS Energy Letters, 2019, 4, 1763-1769.	8.8	118
22	Wide-bandgap, low-bandgap, and tandem perovskite solar cells. Semiconductor Science and Technology, 2019, 34, 093001.	1.0	89
23	Imperfections and their passivation in halide perovskite solar cells. Chemical Society Reviews, 2019, 48, 3842-3867.	18.7	1,257
24	Photovoltaic properties of a triple cation methylammonium/formamidinium/phenylethylammonium tin iodide perovskite. Journal of Materials Chemistry A, 2019, 7, 9523-9529.	5.2	31
25	A Cationâ€Exchange Approach for the Fabrication of Efficient Methylammonium Tin Iodide Perovskite Solar Cells. Angewandte Chemie, 2019, 131, 6760-6764.	1.6	11
26	A Cationâ€Exchange Approach for the Fabrication of Efficient Methylammonium Tin Iodide Perovskite Solar Cells. Angewandte Chemie - International Edition, 2019, 58, 6688-6692.	7.2	150
27	Novel Surface Passivation for Stable FA <sub>0.85</sub> MA <sub>0.15</sub> PbI <sub>3</sub> Perovskite Solar Cells with 21.6% Efficiency. Solar Rrl, 2019, 3, 1900072.	3.1	64
28	Lowâ€Bandgap Mixed Tinâ€Lead Perovskites and Their Applications in Allâ€Perovskite Tandem Solar Cells. Advanced Functional Materials, 2019, 29, 1808801.	7.8	133
29	Review of Novel Passivation Techniques for Efficient and Stable Perovskite Solar Cells. Solar Rrl, 2019, 3, 1800302.	3.1	139
30	Enhanced Hole Transportation for Inverted Tinâ€Based Perovskite Solar Cells with High Performance and Stability. Advanced Functional Materials, 2019, 29, 1808059.	7.8	133
31	Recent advances toward efficient and stable tinâ€based perovskite solar cells. EcoMat, 2019, 1, e12004.	6.8	58
32	Mechanism of Photocatalytic CO <sub>2</sub> Reduction by Bismuth-Based Perovskite Nanocrystals at the Gas–Solid Interface. Journal of the American Chemical Society, 2019, 141, 20434-20442.	6.6	183
33	Coadditive Engineering with 5-Ammonium Valeric Acid Iodide for Efficient and Stable Sn Perovskite Solar Cells. ACS Energy Letters, 2019, 4, 278-284.	8.8	153
34	Robust Tinâ€Based Perovskite Solar Cells with Hybrid Organic Cations to Attain Efficiency Approaching 10%. Advanced Materials, 2019, 31, e1804835.	11.1	396
35	Improvement in performance of lead free inverted perovskite solar cell by optimization of solar parameters. Optik, 2019, 179, 969-976.	1.4	62
36	Machine Learning for Perovskites' Reap-Rest-Recovery Cycle. Joule, 2019, 3, 325-337.	11.7	62
37	Antioxidant Grain Passivation for Airâ€Stable Tinâ€Based Perovskite Solar Cells. Angewandte Chemie, 2019, 131, 816-820.	1.6	22

#	Article	IF	CITATIONS
38	Antioxidant Grain Passivation for Air‣table Tinâ€Based Perovskite Solar Cells. Angewandte Chemie - International Edition, 2019, 58, 806-810.	7.2	369
39	Ambient stable FAPbI3-based perovskite solar cells with a 2D-EDAPbI4 thin capping layer. Science China Materials, 2020, 63, 47-54.	3.5	18
40	Tin Halide Perovskite (ASnX <sub>3</sub> ) Solar Cells: A Comprehensive Guide toward the Highest Power Conversion Efficiency. Advanced Energy Materials, 2020, 10, 1902467.	10.2	114
41	Tin Halide Perovskites: Progress and Challenges. Advanced Energy Materials, 2020, 10, 1902584.	10.2	124
42	Recent Progresses on Defect Passivation toward Efficient Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1902650.	10.2	516
43	Reducing trap density and carrier concentration by a Ge additive for an efficient quasi 2D/3D perovskite solar cell. Journal of Materials Chemistry A, 2020, 8, 2962-2968.	5.2	53
44	Stability of Lead and Tin Halide Perovskites: The Link between Defects and Degradation. Journal of Physical Chemistry Letters, 2020, 11, 574-585.	2.1	84
45	Highly efficient tin perovskite solar cells achieved in a wide oxygen concentration range. Journal of Materials Chemistry A, 2020, 8, 2760-2768.	5.2	85
46	Efficient and stable tin-based perovskite solar cells by introducing π-conjugated Lewis base. Science China Chemistry, 2020, 63, 107-115.	4.2	160
47	The Low-Dimensional Three-Dimensional Tin Halide Perovskite: Film Characterization and Device Performance. Energies, 2020, 13, 2.	1.6	44
48	Imaging Metal Halide Perovskites Material and Properties at the Nanoscale. Advanced Energy Materials, 2020, 10, 1903161.	10.2	21
49	Attenuating the defect activities with a rubidium additive for efficient and stable Sn-based halide perovskite solar cells. Journal of Materials Chemistry C, 2020, 8, 2307-2313.	2.7	41
50	Progress towards High-Efficiency and Stable Tin-Based Perovskite Solar Cells. Energies, 2020, 13, 5092.	1.6	35
51	Application of a natural antioxidant as an efficient strategy to decrease the oxidation in Sn-based perovskites. Journal of Alloys and Compounds, 2020, 846, 156351.	2.8	13
52	Multifunctional Naphthol Sulfonic Salt Incorporated in Lead-Free 2D Tin Halide Perovskite for Red Light-Emitting Diodes. ACS Photonics, 2020, 7, 1915-1922.	3.2	52
53	Tuning cesium–guanidinium in formamidinium tin triiodide perovskites with an ethylenediammonium additive for efficient and stable lead-free perovskite solar cells. Materials Advances, 2020, 1, 3507-3517.	2.6	20
54	High Current Density Sn-Based Perovskite Solar Cells via Enhanced Electron Extraction in Nanoporous Electron Transport Layers. ACS Applied Nano Materials, 2020, 3, 11650-11657.	2.4	18
55	Tin-Based Defects and Passivation Strategies in Tin-Related Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 3752-3772.	8.8	143

#	Article	IF	CITATIONS
56	Templated growth of FASnI <sub>3</sub> crystals for efficient tin perovskite solar cells. Energy and Environmental Science, 2020, 13, 2896-2902.	15.6	165
57	Oriented Perovskite Crystal towards Efficient Charge Transport in FASnI <sub>3</sub> Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000153.	3.1	26
58	Instability of Tin Iodide Perovskites: Bulk p-Doping versus Surface Tin Oxidation. ACS Energy Letters, 2020, 5, 2787-2795.	8.8	143
59	The surface of halide perovskites from nano to bulk. Nature Reviews Materials, 2020, 5, 809-827.	23.3	224
60	Toward high efficiency tin perovskite solar cells: A perspective. Applied Physics Letters, 2020, 117, .	1.5	25
61	High efficiently CsPbBr3 perovskite solar cells fabricated by multi-step spin coating method. Solar Energy, 2020, 211, 1223-1229.	2.9	42
62	Passivation of defects in perovskite solar cell: From a chemistry point of view. Nano Energy, 2020, 77, 105237.	8.2	92
63	Suppression of Oxidative Degradation of Tin–Lead Hybrid Organometal Halide Perovskite Solar Cells by Ag Doping. ACS Energy Letters, 2020, 5, 3285-3294.	8.8	38
64	Defect passivation strategies in perovskites for an enhanced photovoltaic performance. Energy and Environmental Science, 2020, 13, 4017-4056.	15.6	235
65	Ag-(Bi, Sb, In, Ga)-I Solar Cells: Impacts of Elemental Composition and Additives on the Charge Carrier Dynamics and Crystal Structures. ACS Applied Energy Materials, 2020, 3, 8224-8232.	2.5	16
66	Materials Chemistry Approach for Efficient Lead-Free Tin Halide Perovskite Solar Cells. ACS Applied Electronic Materials, 2020, 2, 3794-3804.	2.0	36
67	Advancing Tin Halide Perovskites: Strategies toward the ASnX <sub>3</sub> Paradigm for Efficient and Durable Optoelectronics. ACS Energy Letters, 2020, 5, 2052-2086.	8.8	54
68	Improved Crystallization and Stability of Mixed-Cation Tin Iodide for Lead-Free Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 5415-5426.	2.5	18
69	Recent Advancements and Challenges for Low-Toxicity Perovskite Materials. ACS Applied Materials & Interfaces, 2020, 12, 26776-26811.	4.0	89
70	Tin Halide Perovskite Films Made of Highly Oriented 2D Crystals Enable More Efficient and Stable Lead-free Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 1923-1929.	8.8	116
71	Potassiumâ€Induced Phase Stability Enables Stable and Efficient Wideâ€Bandgap Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000098.	3.1	37
72	Indene-C <sub>60</sub> Bisadduct Electron-Transporting Material with the High LUMO Level Enhances Open-Circuit Voltage and Efficiency of Tin-Based Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 5581-5588.	2.5	15
73	How the Mixed Cations (Guanidium, Formamidinium, and Phenylethylamine) in Tin Iodide Perovskites Affect Their Charge Carrier Dynamics and Solar Cell Characteristics. Journal of Physical Chemistry Letters, 2020, 11, 4043-4051.	2.1	19

#	Article	IF	CITATIONS
74	Reducing ion migration in methylammonium lead tri-bromide single crystal via lead sulfate passivation. Journal of Applied Physics, 2020, 127, .	1.1	46
75	Efficient and stable tin perovskite solar cells enabled by amorphous-polycrystalline structure. Nature Communications, 2020, 11, 2678.	5.8	143
76	Interface Modification for Enhanced Efficiency and Stability Perovskite Solar Cells. Journal of Physical Chemistry C, 2020, 124, 12948-12955.	1.5	25
77	Surface-Controlled Oriented Growth of FASnI3 Crystals for Efficient Lead-free Perovskite Solar Cells. Joule, 2020, 4, 902-912.	11.7	208
78	Ligand Orientation-Induced Lattice Robustness for Highly Efficient and Stable Tin-Based Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 2327-2334.	8.8	98
79	Sn(IV)-free tin perovskite films realized by in situ Sn(0) nanoparticle treatment of the precursor solution. Nature Communications, 2020, 11, 3008.	5.8	196
80	Layered perovskite materials: key solutions for highly efficient and stable perovskite solar cells. Reports on Progress in Physics, 2020, 83, 086502.	8.1	48
81	Efficient and Stable Tin Perovskite Solar Cells Enabled by Graded Heterostructure of Lightâ€Absorbing Layer. Solar Rrl, 2020, 4, 2000240.	3.1	53
82	Ion Exchange/Insertion Reactions for Fabrication of Efficient Methylammonium Tin Iodide Perovskite Solar Cells. Advanced Science, 2020, 7, 1903047.	5.6	61
83	Development of Novel Mixed Halide/Superhalide Tin-Based Perovskites for Mesoscopic Carbon-Based Solar Cells. Journal of Physical Chemistry Letters, 2020, 11, 2443-2448.	2.1	26
84	Highly Reproducible and Efficient FASnI <sub>3</sub> Perovskite Solar Cells Fabricated with Volatilizable Reducing Solvent. Journal of Physical Chemistry Letters, 2020, 11, 2965-2971.	2.1	115
85	Regulated Crystallization of Efficient and Stable Tin-Based Perovskite Solar Cells via a Self-Sealing Polymer. ACS Applied Materials & Interfaces, 2020, 12, 14049-14056.	4.0	95
86	Aâ€Site Cation Engineering of Metal Halide Perovskites: Version 3.0 of Efficient Tinâ€Based Leadâ€Free Perovskite Solar Cells. Advanced Functional Materials, 2020, 30, 2000794.	7.8	81
87	Femtosecond Transient Absorption Spectra and Dynamics of Carrier Relaxation of Tin Perovskites in the Absence and Presence of Additives. Journal of Physical Chemistry Letters, 2020, 11, 5699-5704.	2.1	38
88	Realizing a Cosolvent System for Stable Tin-Based Perovskite Solar Cells Using a Two-Step Deposition Approach. ACS Energy Letters, 2020, 5, 2508-2511.	8.8	54
89	Lowâ€Temperature Crystallization of CsPbIBr <sub>2</sub> Perovskite for High Performance Solar Cells. Solar Rrl, 2020, 4, 2000254.	3.1	31
90	Selfâ€Repairing Tinâ€Based Perovskite Solar Cells with a Breakthrough Efficiency Over 11%. Advanced Materials, 2020, 32, e1907623.	11.1	179
91	Lowâ€Dimensional Dion–Jacobsonâ€Phase Leadâ€Free Perovskites for Highâ€Performance Photovoltaics with Improved Stability. Angewandte Chemie - International Edition, 2020, 59, 6909-6914.	7.2	123

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92	Lowâ€Dimensional Dion–Jacobsonâ€Phase Leadâ€Free Perovskites for Highâ€Performance Photovoltaics with Improved Stability. Angewandte Chemie, 2020, 132, 6976-6981.	1.6	26
93	Preparation of efficient inverted tin-based perovskite solar cells <i>via</i> the bidentate coordination effect of 8-hydroxyquinoline. Chemical Communications, 2020, 56, 4007-4010.	2.2	56
94	Strategies for Improving the Stability of Tinâ€Based Perovskite (ASnX <sub>3</sub> ) Solar Cells. Advanced Science, 2020, 7, 1903540.	5.6	123
95	Toward stable and efficient Sn-containing perovskite solar cells. Science Bulletin, 2020, 65, 786-790.	4.3	21
96	Enhancing Device Performance in Quasi-2D Perovskite ((BA) <sub>2</sub> (MA) <sub>3</sub> Pb <sub>4</sub> 1313) Solar Cells Using PbCl <sub>2</sub> Additives. ACS Applied Materials & Interfaces, 2020, 12, 11190-11196.	4.0	35
97	Grain Enlargement and Defect Passivation with Melamine Additives for High Efficiency and Stable CsPbBr <sub>3</sub> Perovskite Solar Cells. ChemSusChem, 2020, 13, 1834-1843.	3.6	62
98	Exceptional Long Electron Lifetime in Methylammonium Lead Iodide Perovskite Solar Cell Made from Aqueous Lead Nitrate Precursor. Advanced Functional Materials, 2020, 30, 1909644.	7.8	21
99	Lead-free tin-halide perovskite solar cells with 13% efficiency. Nano Energy, 2020, 74, 104858.	8.2	347
100	Recent Progress on Interface Engineering for Highâ€Performance, Stable Perovskites Solar Cells. Advanced Materials Interfaces, 2020, 7, 2000118.	1.9	34
101	Barium doping effect on the photovoltaic performance and stability of MA0.4FA0.6BaxPb1-xlyCl3-y perovskite solar cells. Applied Surface Science, 2020, 521, 146451.	3.1	7
102	Highly Air-Stable Tin-Based Perovskite Solar Cells through Grain-Surface Protection by Gallic Acid. ACS Energy Letters, 2020, 5, 1741-1749.	8.8	126
103	China's progress of perovskite solar cells in 2019. Science Bulletin, 2020, 65, 1306-1315.	4.3	12
104	Tin versus Lead Redox Chemistry Modulates Charge Trapping and Self-Doping in Tin/Lead Iodide Perovskites. Journal of Physical Chemistry Letters, 2020, 11, 3546-3556.	2.1	132
105	Large organic cation incorporation induces vertical orientation growth of Sn-based perovskites for high efficiency solar cells. Chemical Engineering Journal, 2020, 402, 125133.	6.6	25
106	In situ observation of $\hat{l}'$ phase suppression by lattice strain in all-inorganic perovskite solar cells. Nano Energy, 2020, 73, 104803.	8.2	32
107	Development of Hybrid Pseudohalide Tin Perovskites for Highly Stable Carbon-Electrode Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 21739-21747.	4.0	35
108	Development of tin-based perovskite materials for solar cell applications: A minireview. Instrumentation Science and Technology, 2021, 49, 91-105.	0.9	12
109	Enhanced efficiency and stability in Sn-based perovskite solar cells with secondary crystallization growth. Journal of Energy Chemistry, 2021, 54, 414-421.	7.1	49

#	Article	IF	CITATIONS
110	Crystallization Kinetics Modulation of FASnI <sub>3</sub> Films with Preâ€nucleation Clusters for Efficient Leadâ€Free Perovskite Solar Cells. Angewandte Chemie - International Edition, 2021, 60, 3693-3698.	7.2	80
111	Interfacial engineering in lead-free tin-based perovskite solar cells. Journal of Energy Chemistry, 2021, 57, 147-168.	7.1	55
112	Recent progress in low dimensional (quasi-2D) and mixed dimensional (2D/3D) tin-based perovskite solar cells. Sustainable Energy and Fuels, 2021, 5, 34-51.	2.5	24
113	Crystallization Kinetics Modulation of FASnI <sub>3</sub> Films with Preâ€nucleation Clusters for Efficient Leadâ€Free Perovskite Solar Cells. Angewandte Chemie, 2021, 133, 3737-3742.	1.6	20
114	High‣fficiency Tin Halide Perovskite Solar Cells: The Chemistry of Tin (II) Compounds and Their Interaction with Lewis Base Additives during Perovskite Film Formation. Solar Rrl, 2021, 5, .	3.1	50
115	Solution-processed ITO nanoparticles as hole-selective electrodes for mesoscopic lead-free perovskite solar cells. Materials Advances, 2021, 2, 754-759.	2.6	15
116	Strain Engineering of Metal–Halide Perovskites toward Efficient Photovoltaics: Advances and Perspectives. Solar Rrl, 2021, 5, 2000672.	3.1	33
117	All-inorganic CsPbBr <sub>3</sub> perovskite: a promising choice for photovoltaics. Materials Advances, 2021, 2, 646-683.	2.6	100
118	Recent progress, fabrication challenges and stability issues of lead-free tin-based perovskite thin films in the field of photovoltaics. Coordination Chemistry Reviews, 2021, 429, 213633.	9.5	51
119	Review on recent progress of lead-free halide perovskites in optoelectronic applications. Nano Energy, 2021, 80, 105526.	8.2	130
120	Toward highly efficient and stable Sn <sup>2+</sup> and mixed Pb <sup>2+</sup> /Sn <sup>2+</sup> based halide perovskite solar cells through device engineering. Energy and Environmental Science, 2021, 14, 3256-3300.	15.6	49
121	Recent progress on defect passivation in perovskites for solar cell application. Materials Science for Energy Technologies, 2021, 4, 282-289.	1.0	8
122	Recent progress in tin-based perovskite solar cells. Energy and Environmental Science, 2021, 14, 1286-1325.	15.6	257
123	Tin halide perovskites for efficient lead-free solar cells. , 2021, , 259-285.		0
124	Challenges in tin perovskite solar cells. Physical Chemistry Chemical Physics, 2021, 23, 23413-23427.	1.3	27
125	Vapor incubation of FASnI <sub>3</sub> films for efficient and stable lead-free inverted perovskite solar cells. Journal of Materials Chemistry A, 2021, 9, 16943-16951.	5.2	20
126	Improving the efficiency and stability of tin-based perovskite solar cells using anilinium hypophosphite additive. New Journal of Chemistry, 2021, 45, 8092-8100.	1.4	10
127	Enhanced photocurrent of perovskite solar cells by dual-sensitized β-NaYF4:Nd3+/Yb3+/Er3+ up-conversion nanoparticles. Chemical Physics Letters, 2021, 763, 138253.	1.2	23

#	Article	IF	CITATIONS
128	Research progress on two-dimensional (2D) halide organic–inorganic hybrid perovskites. Sustainable Energy and Fuels, 2021, 5, 3950-3978.	2.5	12
129	Ultrathin polymethylmethacrylate interlayers boost performance of hybrid tin halide perovskite solar cells. Chemical Communications, 2021, 57, 5047-5050.	2.2	26
130	Comparison of surface-passivation ability of the BAI salt and its induced 2D perovskite for high-performance inverted perovskite solar cells. RSC Advances, 2021, 11, 23249-23258.	1.7	11
131	Stable tin perovskite solar cells enabled by widening the time window for crystallization. Science China Materials, 2021, 64, 1849-1857.	3.5	10
132	Illumination Durability and High-Efficiency Sn-Based Perovskite Solar Cell under Coordinated Control of Phenylhydrazine and Halogen Ions. Matter, 2021, 4, 709-721.	5.0	159
133	The bandgap regulation and optical properties of alloyed Cs2NaSbX6 (X=Cl, Br, I) systems with first principle method. Journal of Materials Research and Technology, 2021, 11, 1645-1653.	2.6	10
134	Additive Engineering toward Highâ€Performance Tin Perovskite Solar Cells. Solar Rrl, 2021, 5, 2100034.	3.1	34
136	A non-wetting and conductive polyethylene dioxothiophene hole transport layer for scalable and flexible perovskite solar cells. Science China Chemistry, 2021, 64, 834-843.	4.2	21
137	Grain Boundary Passivation with Dion–Jacobson Phase Perovskites for Highâ€Performance Pb–Sn Mixed Narrowâ€Bandgap Perovskite Solar Cells. Solar Rrl, 2021, 5, 2000681.	3.1	22
138	A review of stability and progress in tin halide perovskite solar cell. Solar Energy, 2021, 216, 26-47.	2.9	67
139	Renaissance of tin halide perovskite solar cells. Journal of Semiconductors, 2021, 42, 030201.	2.0	13
140	Making Room for Growing Oriented FASnl <sub>3</sub> with Large Grains via Cold Precursor Solution. Advanced Functional Materials, 2021, 31, 2100931.	7.8	57
141	Efficient Optical Orientation and Slow Spin Relaxation in Lead-Free CsSnBr <sub>3</sub> Perovskite Nanocrystals. ACS Energy Letters, 2021, 6, 1670-1676.	8.8	23
142	Fully Inorganic CsSnI <sub>3</sub> Mesoporous Perovskite Solar Cells with High Efficiency and Stability via Coadditive Engineering. Solar Rrl, 2021, 5, 2100069.	3.1	29
143	Effect of binary additives in mixed 2D/3D Sn-based perovskite solar cells. Journal of Power Sources, 2021, 491, 229574.	4.0	29
144	Lead-free tin perovskite solar cells. Joule, 2021, 5, 863-886.	11.7	134
145	Polyethylene Glycol Polymer Scaffold Induced Intermolecular Interactions for Crystallization Regulation and Defect Passivation in FASnI <sub>3</sub> Films. ACS Applied Energy Materials, 2021, 4, 3622-3632.	2.5	13
146	A Review of Integrated Systems Based on Perovskite Solar Cells and Energy Storage Units: Fundamental, Progresses, Challenges, and Perspectives. Advanced Science, 2021, 8, 2100552.	5.6	19

#	Article	IF	CITATIONS
147	Defect Passivation in Leadâ€Halide Perovskite Nanocrystals and Thin Films: Toward Efficient LEDs and Solar Cells. Angewandte Chemie, 2021, 133, 21804-21828.	1.6	76
148	Stable tin perovskite solar cells developed via additive engineering. Science China Materials, 2021, 64, 2645-2654.	3.5	15
149	Alternative Loneâ€Pair ns <sup>2</sup> ationâ€Based Semiconductors beyond Lead Halide Perovskites for Optoelectronic Applications. Advanced Materials, 2021, 33, e2008574.	11.1	34
150	Suppression of Tin Oxidation by 3D/2D Perovskite Interfacing. Journal of Physical Chemistry C, 2021, 125, 10901-10908.	1.5	15
151	Prospects for metal halide perovskite-based tandem solar cells. Nature Photonics, 2021, 15, 411-425.	15.6	195
152	Degradation mechanism of hybrid tin-based perovskite solar cells and the critical role of tin (IV) iodide. Nature Communications, 2021, 12, 2853.	5.8	236
153	Defect Passivation in Leadâ€Halide Perovskite Nanocrystals and Thin Films: Toward Efficient LEDs and Solar Cells. Angewandte Chemie - International Edition, 2021, 60, 21636-21660.	7.2	183
154	Advances in Lead-Free Perovskite Single Crystals: Fundamentals and Applications. , 2021, 3, 1025-1080.		70
155	Directional Crystallization by Floating Self-Assembly for Efficient and Stable Tin-based Perovskite Solar Cells. Chemistry of Materials, 2021, 33, 4362-4372.	3.2	20
156	Recent advances on interface engineering of perovskite solar cells. Nano Research, 2022, 15, 85-103.	5.8	59
157	Lead-Free Perovskite Cs <sub>2</sub> AgBiX <sub>6</sub> Nanocrystals with a Band Gap Funnel Structure for Photocatalytic CO <sub>2</sub> Reduction under Visible Light. Chemistry of Materials, 2021, 33, 4971-4976.	3.2	60
158	Electron-Beam Irradiation Induced Regulation of Surface Defects in Lead Halide Perovskite Thin Films. Research, 2021, 2021, 9797058.	2.8	9
159	Recent Progress on Perovskite Surfaces and Interfaces in Optoelectronic Devices. Advanced Materials, 2021, 33, e2006004.	11.1	86
160	Recent progress in stabilizing perovskite solar cells through two-dimensional modification. APL Materials, 2021, 9, .	2.2	12
161	Surface Defect Passivation of Pb–Snâ€Alloyed Perovskite Film by 1,3â€Propanediammonium lodide toward Highâ€Performance Photovoltaic Devices. Solar Rrl, 2021, 5, 2100299.	3.1	7
162	Defect Passivation of Perovskite Films for Highly Efficient and Stable Solar Cells. Solar Rrl, 2021, 5, 2100295.	3.1	58
163	Stability Improvement of Tinâ€Based Halide Perovskite by Precursorâ€Solution Regulation with Dualâ€Functional Reagents. Advanced Functional Materials, 2021, 31, 2104344.	7.8	47
164	Phase Evolution in Lead-Free Cs-Doped FASnI <sub>3</sub> Hybrid Perovskites and Optical Properties. Journal of Physical Chemistry C, 2021, 125, 16903-16912.	1.5	11

#	Article	IF	CITATIONS
165	Ionic Liquid Stabilizing High fficiency Tin Halide Perovskite Solar Cells. Advanced Energy Materials, 2021, 11, 2101539.	10.2	117
166	Defect Passivation Effect of Chemical Groups on Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 34161-34170.	4.0	33
167	Dopants for Enhanced Performance of Tin-Based Perovskite Solar Cells—A Short Review. Coatings, 2021, 11, 1045.	1.2	5
168	Lead-free perovskites: growth, properties, and applications. Science China Materials, 2021, 64, 2889-2914.	3.5	12
169	Environmentally Compatible Lead-Free Perovskite Solar Cells and Their Potential as Light Harvesters in Energy Storage Systems. Nanomaterials, 2021, 11, 2066.	1.9	18
170	Enhancing air-stability and reproducibility of lead-free formamidinium-based tin perovskite solar cell by chlorine doping. Solar Energy Materials and Solar Cells, 2021, 227, 111072.	3.0	15
171	Chlorides, other Halides, and Pseudoâ€Halides as Additives for the Fabrication of Efficient and Stable Perovskite Solar Cells. ChemSusChem, 2021, 14, 3665-3692.	3.6	14
172	A tin-based perovskite solar cell with an inverted hole-free transport layer to achieve high energy conversion efficiency by SCAPS device simulation. Optical and Quantum Electronics, 2021, 53, 1.	1.5	25
173	Progress of Pbâ€ <b>5</b> n Mixed Perovskites for Photovoltaics: AÂReview. Energy and Environmental Materials, 2022, 5, 370-400.	7.3	20
174	Hydroxylâ€Rich <scp>d</scp> â€6orbitol to Address Transport Layer/Perovskite Interfacial Issues toward Highly Efficient and Stable 2D/3D Tinâ€Based Perovskite Solar Cells. Advanced Optical Materials, 2021, 9, 2100755.	3.6	16
175	Chiral cation promoted interfacial charge extraction for efficient tin-based perovskite solar cells. Journal of Energy Chemistry, 2022, 68, 789-796.	7.1	16
176	High efficient and stable Tin-based perovskite solar cells via short-chain ligand modification. Organic Electronics, 2021, 96, 106198.	1.4	5
177	Controlling the Crystallization Kinetics of Leadâ€Free Tin Halide Perovskites for High Performance Green Photovoltaics. Advanced Energy Materials, 2021, 11, 2102131.	10.2	47
178	Role of defects in organic–inorganic metal halide perovskite: detection and remediation for solar cell applications. Emergent Materials, 2022, 5, 987-1020.	3.2	10
179	2D Hybrid Halide Perovskites: Structure, Properties, and Applications in Solar Cells. Small, 2021, 17, e2103514.	5.2	59
180	Mixing of Azetidinium in Formamidinium Tin Triiodide Perovskite Solar Cells for Enhanced Photovoltaic Performance and High Stability in Air. ChemSusChem, 2021, 14, 4415-4421.	3.6	19
181	Antisolventâ€Free Fabrication of Efficient and Stable Sn–Pb Perovskite Solar Cells. Solar Rrl, 2021, 5, 2100675.	3.1	9
182	Interface Energyâ€Level Management toward Efficient Tin Perovskite Solar Cells with Holeâ€Transportâ€Layerâ€Free Structure. Advanced Functional Materials, 2021, 31, 2106560.	7.8	30

#	Article	IF	CITATIONS
183	Advances in surface passivation of perovskites using organic halide salts for efficient and stable solar cells. Surfaces and Interfaces, 2021, 26, 101420.	1.5	10
184	A review on metal-organic frameworks photoelectrochemistry: A headlight for future applications. Coordination Chemistry Reviews, 2021, 445, 214097.	9.5	70
185	Facile lattice tensile strain compensation in mixed-cation halide perovskite solar cells. Journal of Energy Chemistry, 2022, 66, 422-428.	7.1	29
186	Efficient interface engineering of N, N'-Dicyclohexylcarbodiimide for stable HTMs-free CsPbBr3 perovskite solar cells with 10.16%-efficiency. Chemical Engineering Journal, 2022, 428, 131950.	6.6	32
187	Defect passivation and interface modification by tetra-n-octadecyl ammonium bromide for efficient and stable inverted perovskite solar cells. Chemical Engineering Journal, 2022, 429, 132426.	6.6	24
188	Stability of Sn-Pb mixed organic–inorganic halide perovskite solar cells: Progress, challenges, and perspectives. Journal of Energy Chemistry, 2022, 65, 371-404.	7.1	36
189	Hydrazine dihydrochloride as a new additive to promote the performance of tin-based mixed organic cation perovskite solar cells. Sustainable Energy and Fuels, 2021, 5, 2660-2667.	2.5	14
190	Recent advances and challenges of inverted lead-free tin-based perovskite solar cells. Energy and Environmental Science, 0, , .	15.6	62
191	Rational strategies toward efficient and stable lead-free tin halide perovskite solar cells. Materials Chemistry Frontiers, 2021, 5, 4107-4127.	3.2	11
192	Recent progress toward highly efficient tinâ€based perovskite (ASnX3) solar cells. Nano Select, 2021, 2, 1023-1054.	1.9	11
193	Lead-Free Perovskite Materials for Solar Cells. Nano-Micro Letters, 2021, 13, 62.	14.4	175
194	Enhanced Performance and Stability of 3D/2D Tin Perovskite Solar Cells Fabricated with a Sequential Solution Deposition. ACS Energy Letters, 2021, 6, 485-492.	8.8	109
195	Controlling Crystal Growth via an Autonomously Longitudinal Scaffold for Planar Perovskite Solar Cells. Advanced Materials, 2020, 32, e2000617.	11.1	118
196	Enhanced Performance of Sn-Based Perovskite Solar Cells by Two-Dimensional Perovskite Doping. ACS Sustainable Chemistry and Engineering, 2020, 8, 8624-8628.	3.2	31
197	An inorganic stable Sn-based perovskite film with regulated nucleation for solar cell application. Journal of Materials Chemistry C, 2020, 8, 8840-8845.	2.7	27
198	Tin Halide Perovskites: From Fundamental Properties to Solar Cells. Advanced Materials, 2022, 34, e2105844.	11.1	124
199	Mn-Doped Organic–Inorganic Perovskite Nanocrystals for a Flexible Luminescent Solar Concentrator. ACS Applied Energy Materials, 2021, 4, 10565-10573.	2.5	19
200	Large Grain Growth and Energy Alignment Optimization by Diethylammonium Iodide Substitution at A Site in Leadâ€Free Tin Halide Perovskite Solar Cells. Solar Rrl, 2021, 5, 2100633.	3.1	14

#	Article	IF	CITATIONS
201	Slow Passivation and Inverted Hysteresis for Hybrid Tin Perovskite Solar Cells Attaining 13.5% via Sequential Deposition. Journal of Physical Chemistry Letters, 2021, 12, 10106-10111.	2.1	57
202	Enhanced Performance and Stability of Carbon Counter Electrode-Based MAPbI <sub>3</sub> Perovskite Solar Cells with <i>p</i> -Methylphenylamine Iodate Additives. ACS Applied Energy Materials, 2021, 4, 11314-11324.	2.5	4
203	Lead-Free Perovskite Single Crystals: A Brief Review. Crystals, 2021, 11, 1329.	1.0	3
204	Diaminomaleonitrile Lewis Base Additive for Push–Pull Electron Extraction for Efficient and Stable Tin-Based Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 12515-12524.	2.5	3
205	Organic Halide PEACl for Surface Passivation and Defects Suppression in Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 12411-12420.	2.5	9
208	The Voltage Loss in Tin Halide Perovskite Solar Cells: Origins and Perspectives. Advanced Functional Materials, 2022, 32, 2108832.	7.8	43
209	Interfacial Engineering with a Hole-Selective Self-Assembled Monolayer for Tin Perovskite Solar Cells via a Two-Step Fabrication. ACS Energy Letters, 2021, 6, 4179-4186.	8.8	60
210	Large synergy effects of doping, a site substitution, and surface passivation in wide bandgap Pb-free ASnI2Br perovskite solar cells on efficiency and stability enhancement. Journal of Power Sources, 2022, 520, 230848.	4.0	13
211	Pseudohalide Functional Additives in Tin Halide Perovskite for Efficient and Stable Pb-Free Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 12819-12826.	2.5	20
212	Electronic defect passivation of FASnI3 films by simultaneous Hydrogen-bonding and chlorine co-ordination for highly efficient and stable perovskite solar cells. Chemical Engineering Journal, 2022, 431, 133745.	6.6	26
213	Multifunctional potassium thiocyanate interlayer for eco-friendly tin perovskite indoor and outdoor photovoltaics. Chemical Engineering Journal, 2022, 433, 133832.	6.6	39
214	Rational Design of Additive with Suitable Functional Groups Toward Highâ€Quality FA 0.75 MA 0.25 SnI 3 Films and Solar Cells. Solar Rrl, 0, , 2100800.	3.1	3
215	Crystallization Dynamics of Snâ€Based Perovskite Thin Films: Toward Efficient and Stable Photovoltaic Devices. Advanced Energy Materials, 2022, 12, 2102213.	10.2	63
216	Stabilization Techniques of Lead Halide Perovskite for Photovoltaic Applications. Solar Rrl, 2022, 6, .	3.1	8
217	Efficient Bulk Defect Suppression Strategy in FASnI <sub>3</sub> Perovskite for Photovoltaic Performance Enhancement. Advanced Functional Materials, 2022, 32, 2107710.	7.8	40
218	Acetic Acidâ€Assisted Synergistic Modulation of Crystallization Kinetics and Inhibition of Sn <sup>2+</sup> Oxidation in Tinâ€Based Perovskite Solar Cells. Advanced Functional Materials, 2022, 32, 2109631.	7.8	95
219	Hybrid perovskites: Charge carrier recombination effects in photovoltaic devices. , 2022, 5, .		0
220	Regulating crystallization dynamics and crystal orientation of methylammonium tin iodide enables high-efficiency lead-free perovskite solar cells. Nanoscale. 2022. 14. 1219-1225.	2.8	14

#	Article	IF	CITATIONS
221	Optimization of a Pb-free all-perovskite tandem solar cell with 30.85% efficiency. Optical Materials, 2022, 123, 111891.	1.7	18
222	Fabricating Stable and Efficient Perovskite Solar Cells in Air Ambient Via Lattice Anchoring Strategy. SSRN Electronic Journal, 0, , .	0.4	0
223	Highly efficient and stable perovskite solar cells enabled by low-dimensional perovskitoids. Science Advances, 2022, 8, eabk2722.	4.7	53
224	Substituted thiourea as versatile ligands for crystallization control and surface passivation of tin-based perovskite. Cell Reports Physical Science, 2022, 3, 100690.	2.8	13
225	Surface Passivation Using 2D Perovskites toward Efficient and Stable Perovskite Solar Cells. Advanced Materials, 2022, 34, e2105635.	11.1	221
226	Over 8% efficient CsSnI <sub>3</sub> -based mesoporous perovskite solar cells enabled by two-step thermal annealing and surface cationic coordination dual treatment. Journal of Materials Chemistry A, 2022, 10, 3642-3649.	5.2	35
227	Fabricating stable and efficient perovskite solar cells in air ambient via lattice anchoring strategy. Chemical Engineering Journal, 2022, 435, 134899.	6.6	4
228	Ternary strategy enabling high-efficiency rigid and flexible organic solar cells with reduced non-radiative voltage loss. Energy and Environmental Science, 2022, 15, 1563-1572.	15.6	83
229	Photoluminescence Enhancement in Thin Two-Dimensional Ruddlesden–Popper Perovskites by Spiro-OMeTAD. Journal of Physical Chemistry C, 0, , .	1.5	1
230	High performance wide bandgap Lead-free perovskite solar cells by monolayer engineering. Chemical Engineering Journal, 2022, 436, 135196.	6.6	33
231	Surface Engineering Enabled by Bifunctional Guanidinium Tetrafluoroborate Achieving High-Performance Inverted Perovskite Solar Cells. SSRN Electronic Journal, 0, , .	0.4	0
232	Nucleation and crystallization manipulations of tin halide perovskites for highly efficient solar cells. Journal of Materials Chemistry C, 2022, 10, 7423-7436.	2.7	6
233	A Review of Three-Dimensional Tin Halide Perovskites as Solar Cell Materials. Materials Research, 0, 25,	0.6	5
234	Effect of Steric Hindrance of Butylammonium Iodide as Interface Modification Materials on the Performance of Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	10
235	Biuret Induced Tinâ€Anchoring and Crystallizationâ€Regulating for Efficient Leadâ€Free Tin Halide Perovskite Lightâ€Emitting Diodes. Small, 2022, 18, e2200036.	5.2	24
236	Bi-Linkable Reductive Cation as Molecular Glue for One Year Stable Sn-Based Perovskite Solar Cells. ACS Applied Energy Materials, 2022, 5, 4008-4016.	2.5	13
237	Tin perovskite solar cells with >1,300Âh of operational stability in N2 through a synergistic chemical engineering approach. Joule, 2022, 6, 861-883.	11.7	92
238	Recent Progress in Perovskite Materials Using Diammonium Organic Cations Toward Stable and Efficient Solar Cell Devices: Dion–Jacobson. Energy Technology, 2022, 10, .	1.8	9

#	Article	IF	CITATIONS
239	Assessment of Leadâ€Free Tin Halide Perovskite Solar Cells Using <i>J–V</i> Hysteresis. Physica Status Solidi (A) Applications and Materials Science, 2022, 219, .	0.8	19
240	Accelerated Design of High-Efficiency Lead-Free Tin Perovskite Solar Cells via Machine Learning. International Journal of Precision Engineering and Manufacturing - Green Technology, 2023, 10, 109-121.	2.7	9
241	Toward Stable High-Performance Tin Halide Perovskite: First-Principles Insights into the Incorporation of Bivalent Dopants. Journal of Physical Chemistry C, 2022, 126, 5256-5264.	1.5	5
242	Self-Enhancement of Efficiency and Self-Attenuation of Hysteretic Behavior of Perovskite Solar Cells with Aging. Journal of Physical Chemistry Letters, 2022, 13, 2792-2799.	2.1	16
243	Carbon Dioxide Conversion Synergistically Activated by Dielectric Barrier Discharge Plasma and the CsPbBr <sub>3</sub> @TiO <sub>2</sub> Photocatalyst. Journal of Physical Chemistry Letters, 2022, 13, 2418-2427.	2.1	13
244	A study on numerical simulation optimization of perovskite solar cell based on Cul and C60. Materials Research Express, 2022, 9, 036401.	0.8	9
245	Heterogeneous FASnI3 Absorber with Enhanced Electric Field for High-Performance Lead-Free Perovskite Solar Cells. Nano-Micro Letters, 2022, 14, 99.	14.4	43
246	A Selective Targeting Anchor Strategy Affords Efficient and Stable Idealâ€Bandgap Perovskite Solar Cells. Advanced Materials, 2022, 34, e2110241.	11.1	44
247	Composition engineering to enhance the photovoltaic performance and to prolong the lifetime for silver bismuth iodide solar cell. Chemical Engineering Journal Advances, 2022, 10, 100275.	2.4	6
248	Surface treatment enabled by functional guanidinium tetrafluoroborate achieving high-performance inverted perovskite solar cells. Solar Energy Materials and Solar Cells, 2022, 240, 111682.	3.0	12
249	Influence of charge transport layer on the crystallinity and charge extraction of pure tin-based halide perovskite film. Journal of Energy Chemistry, 2022, 69, 612-615.	7.1	2
250	Enhanced Photovoltaic Performance via a Bifunctional Additive in Tin-Based Perovskite Solar Cells. ACS Applied Energy Materials, 2022, 5, 108-115.	2.5	12
251	Femtosecond Exciton and Carrier Relaxation Dynamics of Two-Dimensional (2D) and Quasi-2D Tin Perovskites. Journal of Physical Chemistry Letters, 2021, 12, 12292-12299.	2.1	15
252	Supervised Machine Learning-Aided SCAPS-Based Quantitative Analysis for the Discovery of Optimum Bromine Doping in Methylammonium Tin-Based Perovskite (MASnl <sub>3–<i>x</i></sub> Br <i><sub>x</sub></i> ). ACS Applied Materials & amp; Interfaces, 2022, 14, 502-516.	4.0	19
253	Lead-Free Perovskite Solar Cells with Over 10% Efficiency and Size 1 cm <sup>2</sup> Enabled by Solvent–Crystallization Regulation in a Two-Step Deposition Method. ACS Energy Letters, 2022, 7, 425-431.	8.8	36
254	Bridging Effects of Sulfur Anions at Titanium Oxide and Perovskite Interfaces on Interfacial Defect Passivation and Performance Enhancement of Perovskite Solar Cells. ACS Omega, 2021, 6, 34485-34493.	1.6	10
255	Composition Engineering to Enhance the Photovoltaic Performance and to Prolong the Lifetime for Silver Bismuth Iodide Solar Cell. SSRN Electronic Journal, 0, , .	0.4	0
256	Accelerated Crystal Growth in >16% Printed MA <sub><i>x</i></sub> FA <sub><i>y</i></sub> Cs <sub><i>z</i></sub> PbI <sub>3</sub> Perovskite Solar Cells from Aqueous Inks. ACS Sustainable Chemistry and Engineering, 2022, 10, 5225-5232.	3.2	1

#	Article	IF	CITATIONS
257	Oriented Attachment Growth of Tin Halide Perovskites for High Performance Green Photovoltaics. SSRN Electronic Journal, 0, , .	0.4	0
258	Progress of defect and defect passivation in perovskite solar cells. Wuli Xuebao/Acta Physica Sinica, 2022, 71, 166801.	0.2	1
259	Reducing the interfacial voltage loss in tin halides perovskite solar cells. Chemical Engineering Journal, 2022, 445, 136769.	6.6	30
260	How Can a Hydrophobic Polymer Ptaa Serve as a Hole- Transport Layer for an Inverted Tin Perovskite Solar Cell?. SSRN Electronic Journal, 0, , .	0.4	1
261	Phenylethylammonium-formamidinium-methylammonium quasi-2D/3D tin wide-bandgap perovskite solar cell with improved efficiency and stability. Chemical Engineering Journal, 2022, 446, 137388.	6.6	17
262	The high open-circuit voltage of perovskite solar cells: a review. Energy and Environmental Science, 2022, 15, 3171-3222.	15.6	181
263	Defects Passivation Strategy for Efficient and Stable Perovskite Solar Cells. Advanced Materials Interfaces, 2022, 9, .	1.9	13
265	Methylammonium and Bromideâ€Free Tinâ€Based Low Bandgap Perovskite Solar Cells. Advanced Energy Materials, 2022, 12, .	10.2	18
266	Machine Learning Approach to Delineate the Impact of Material Properties on Solar Cell Device Physics. ACS Omega, 2022, 7, 22263-22278.	1.6	11
267	New strategies to develop High-Efficiency Lead-Free wide bandgap perovskite solar cells. Chemical Engineering Journal, 2022, 448, 137622.	6.6	2
268	Sustainable Pb Management in Perovskite Solar Cells toward Ecoâ€Friendly Development. Advanced Energy Materials, 2022, 12, .	10.2	38
269	3D Networkâ€Assisted Crystallization for Fully Printed Perovskite Solar Cells with Superior Irradiation Stability. Advanced Functional Materials, 2022, 32, .	7.8	8
270	Recent defect passivation drifts and role of additive engineering in perovskite photovoltaics. Nano Energy, 2022, 101, 107579.	8.2	46
271	How can a hydrophobic polymer PTAA serve as a hole- transport layer for an inverted tin perovskite solar cell?. Chemical Engineering Journal, 2022, 450, 138037.	6.6	18
272	Towards high-efficiency tin-based perovskite solar cell by adding co-additives. Optical and Quantum Electronics, 2022, 54, .	1.5	3
273	Multidentate Chelation Heals Structural Imperfections for Minimized Recombination Loss in Leadâ€Free Perovskite Solar Cells. Angewandte Chemie, 2022, 134, .	1.6	22
274	Multidentate Chelation Heals Structural Imperfections for Minimized Recombination Loss in Leadâ€Free Perovskite Solar Cells. Angewandte Chemie - International Edition, 2022, 61, .	7.2	41
275	Additive engineering for improving the stability of tin-based perovskite (FASnI3) solar cells. Solar Energy, 2022, 243, 134-141.	2.9	7

#	Article	IF	CITATIONS
276	Performance enhancement of cost-effective mixed cationic perovskite solar cell with MgCl2 and n-BAI as surface passivating agents. Optical Materials, 2022, 132, 112845.	1.7	2
277	Lewis base manipulated crystallization for efficient tin halide perovskite solar cells. Applied Surface Science, 2022, 602, 154393.	3.1	18
278	Dual-site passivation of tin-related defects enabling efficient lead-free tin perovskite solar cells. Nano Energy, 2022, 103, 107818.	8.2	37
279	Recent promise of lead-free halide perovskites in optoelectronic applications. Chemical Engineering Journal, 2023, 451, 138926.	6.6	26
280	Dimensional Tailoring Endows Tin Halide Perovskite Solar Cells with High Efficiency and Stability. , 0, 1, .		2
281	Mitigating <i>V</i> <sub>oc</sub> Loss in Tin Perovskite Solar Cells via Simultaneous Suppression of Bulk and Interface Nonradiative Recombination. ACS Applied Materials & Interfaces, 2022, 14, 41086-41094.	4.0	11
282	Regulating the Crystallization Kinetics and Lattice Strain of Lead-Free Perovskites with Perovskite Quantum Dots. ACS Energy Letters, 2022, 7, 3251-3259.	8.8	11
283	Sequential Passivation for Leadâ€Free Tin Perovskite Solar Cells with High Efficiency. Angewandte Chemie - International Edition, 2022, 61, .	7.2	22
284	Single-Crystal Hybrid Lead Halide Perovskites: Growth, Properties, and Device Integration for Solar Cell Application. Crystal Growth and Design, 2022, 22, 6338-6362.	1.4	7
285	Recent Development of Lead-Free Perovskite Solar Cells. , 0, , .		0
286	Modulating preferred crystal orientation for efficient and stable perovskite solar cells—From progress to perspectives. InformaÄnÃ-Materiály, 2022, 4, .	8.5	18
287	Pseudo-halide anion engineering for efficient quasi-2D Ruddlesden-Popper tin perovskite solar cells. Cell Reports Physical Science, 2022, 3, 101060.	2.8	7
288	Sequential Passivation for Leadâ€Free Tin Perovskite Solar Cells with High Efficiency. Angewandte Chemie, 2022, 134, .	1.6	14
289	Cooperative Adsorption of Metalâ€organic Complexes on CsPbI <sub>2</sub> Br Perovskite Surface for Photovoltaic Efficiency Exceeding 17 %. ChemSusChem, 2022, 15, .	3.6	2
290	Solar Cell Efficiency Exceeding 25% through Rb-Based Perovskitoid Scaffold Stabilizing the Buried Perovskite Surface. ACS Energy Letters, 2022, 7, 3685-3694.	8.8	44
291	SnO <sub><i>x</i></sub> as Bottom Hole Extraction Layer and Top In Situ Protection Layer Yields over 14% Efficiency in Sn-Based Perovskite Solar Cells. ACS Energy Letters, 2022, 7, 3703-3708.	8.8	29
292	Grain Boundary Passivation Using D131 Organic Dye Molecule for Efficient and Thermally Stable Perovskite Solar Cells. ACS Sustainable Chemistry and Engineering, 2022, 10, 13825-13834.	3.2	12
293	Organic Additive Engineering to Grow Highâ€Quality Inorganic CsPbX <sub>3</sub> Perovskite Films for Efficient and Stable Solar Cells. Solar Rrl, 2022, 6, .	3.1	7

ARTICLE IF CITATIONS # Tinâ€Based Perovskite Solar Cells Reach Over 13% with Inclusion of Nâ€Doped Graphene Oxide in Active, 294 10.2 15 Holeâ€Transport, and Interfacial Layers. Advanced Energy Materials, 2022, 12, . Revealing superoxide-induced degradation in lead-free tin perovskite solar cells. Energy and 15.6 Environmental Science, 2022, 15, 5274-5283. Recent development in electron transport layers for efficient tin-based perovskite solar cells. IOP 296 0.3 0 Conference Series: Materials Science and Engineering, 2022, 1258, 012015. Antioxidant induced bulk passivation for efficient and stable hole transport layer-free carbon 4.8 electrode perovskite solar cells. Chinese Chemical Letters, 2023, 34, 107933. Snâ€Based Perovskite Halides for Electronic Devices. Advanced Science, 2022, 9, . 298 12 5.6 Multifunctional Ionic Fullerene Additive for Synergistic Boundary and Defect Healing of Tin Perovskite to Achieve High-Efficiency Solar Cells. ACS Applied Materials & amp; Interfaces, 2022, 14, 4.0 46603-46614. Efficient Tin (II) Fluorideâ€Free Formamidinium Tin Triiodide Perovskite Solar Cells via Composition and 300 3.1 4 Additive Engineering. Solar Rrl, 2022, 6, . Efficient and Stable Mesoporous CsSnl<sub>3</sub> Perovskite Solar Cells via Imidazoliumâ€Based Ionic 3.1 Liquid Additive. Solar Rrl, 2022, 6, . Dimensionality regulation in tin halide perovskite solar cells: Toward high performance and stability. 302 7.1 10 Journal of Energy Chemistry, 2023, 77, 144-156. All-inorganic CsPb1-xSnxl2Br perovskites mediated by dicyandiamide additive for efficient 4-terminal 6.6 tandem solar cell. Chemical Engineering Journal, 2023, 452, 139697. Enabling water-free PEDOT as hole selective layer in lead-free tin perovskite solar cells. Materials 304 2.6 5 Advances, 0, , . Additive Engineering with Triple Cations and Bifunctional Sulfamic Acid for Tin Perovskite Solar Cells 8.8 Attaining a PCE Value of 12.5% without Hysteresis. ACS Energy Letters, 2022, 7, 4436-4442. Early thermal aging detection in tin based perovskite solar cell. Heliyon, 2022, 8, e11455. 306 1.4 0 Recent Advancements in Tin Halide Perovskite-Based Solar Cells and Thermoelectric Devices. 1.9 Nanomaterials, 2022, 12, 4055. Energy level alignment studies in tin perovskite solar cells through incorporation of inorganic 308 1.4 3 cation and charge transport layer selection. Organic Electronics, 2023, 113, 106712. Additive-Assisted Electronic Defect Passivation in Lead-Free Tin Perovskite Solar Cells: Suppression of Sn<sup>2+</sup> Oxidation and I<sup>â€"</sup> Losses. ACS Applied Energy Materials, 2022, 5, 309 15038-15047. Strain Relaxation for Perovskite Lattice Reconfiguration. Advanced Energy and Sustainability 310 2.8 7 Research, 2023, 4, . Pure Tin Halide Perovskite Solar Cells: Focusing on Preparation and Strategies. Advanced Energy Materials, 2023, 13, .

#	Article	IF	CITATIONS
312	Engineering Stable Leadâ€Free Tin Halide Perovskite Solar Cells: Lessons from Materials Chemistry. Advanced Materials, 2023, 35, .	11.1	13
313	Synergistic Surface Modification of Tin–Lead Perovskite Solar Cells. Advanced Materials, 2023, 35, .	11.1	22
314	Highly Efficient Tin Perovskite Solar Cells via Suppressing Superoxide Generation. Solar Rrl, 2023, 7, .	3.1	6
315	A Universal Surface Treatment for p–i–n Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 56290-56297.	4.0	13
316	Challenges and strategies toward long-term stability of lead-free tin-based perovskite solar cells. Communications Materials, 2022, 3, .	2.9	36
317	Healing aged metal halide perovskite toward robust optoelectronic devices: Mechanisms, strategies, and perspectives. Nano Energy, 2023, 108, 108219.	8.2	4
318	Buried Interface Modification via Guanidine Thiocyanate for High-Performance Lead-Free Perovskite Solar Cells. Journal of Physical Chemistry C, 2023, 127, 1320-1325.	1.5	1
319	Dimensional Tuning in Leadâ€Free Tin Halide Perovskite for Solar Cells. Advanced Energy Materials, 2023, 13, .	10.2	21
320	Defect-Stabilized Tin-Based Perovskite Solar Cells Enabled by Multifunctional Molecular Additives. Chemistry of Materials, 2023, 35, 1148-1158.	3.2	8
321	Lead-free halide perovskites. , 2023, , 187-237.		0
322			
	Efficient and stable perovskite solar cells based on blade-coated CH3NH3PbI3 thin films fabricated using "green―solvents under ambient conditions. Organic Electronics, 2023, 116, 106763.	1.4	6
323		1.4 3.0	6
323 324	using "green―solvents under ambient conditions. Organic Electronics, 2023, 116, 106763. Regulated oxidation and moisture permeation via sulfinic acid based additive enables highly efficient		
	using "green―solvents under ambient conditions. Organic Electronics, 2023, 116, 106763. Regulated oxidation and moisture permeation via sulfinic acid based additive enables highly efficient and stable tin-based perovskite solar cells. Solar Energy Materials and Solar Cells, 2023, 254, 112241. Optimization of Sn-based perovskite solar cells with the antisolvent doped by acetaldoxime. Organic	3.0	1
324	<ul> <li>using "greenâ€-solvents under ambient conditions. Organic Electronics, 2023, 116, 106763.</li> <li>Regulated oxidation and moisture permeation via sulfinic acid based additive enables highly efficient and stable tin-based perovskite solar cells. Solar Energy Materials and Solar Cells, 2023, 254, 112241.</li> <li>Optimization of Sn-based perovskite solar cells with the antisolvent doped by acetaldoxime. Organic Electronics, 2023, 119, 106809.</li> <li>Oriented Attachment of Tin Halide Perovskites for Photovoltaic Applications. ACS Energy Letters,</li> </ul>	3.0 1.4	1 0
324 325	<ul> <li>using "greenâ€-solvents under ambient conditions. Organic Electronics, 2023, 116, 106763.</li> <li>Regulated oxidation and moisture permeation via sulfinic acid based additive enables highly efficient and stable tin-based perovskite solar cells. Solar Energy Materials and Solar Cells, 2023, 254, 112241.</li> <li>Optimization of Sn-based perovskite solar cells with the antisolvent doped by acetaldoxime. Organic Electronics, 2023, 119, 106809.</li> <li>Oriented Attachment of Tin Halide Perovskites for Photovoltaic Applications. ACS Energy Letters, 2023, 8, 1590-1596.</li> <li>Suppressing Disproportionation Decomposition in Sn-Based Perovskite Light-Emitting Diodes. ACS</li> </ul>	3.0 1.4 8.8	1 0 6
324 325 326	<ul> <li>using "greenâ€-solvents under ambient conditions. Organic Electronics, 2023, 116, 106763.</li> <li>Regulated oxidation and moisture permeation via sulfinic acid based additive enables highly efficient and stable tin-based perovskite solar cells. Solar Energy Materials and Solar Cells, 2023, 254, 112241.</li> <li>Optimization of Sn-based perovskite solar cells with the antisolvent doped by acetaldoxime. Organic Electronics, 2023, 119, 106809.</li> <li>Oriented Attachment of Tin Halide Perovskites for Photovoltaic Applications. ACS Energy Letters, 2023, 8, 1590-1596.</li> <li>Suppressing Disproportionation Decomposition in Sn-Based Perovskite Light-Emitting Diodes. ACS Energy Letters, 2023, 8, 1597-1605.</li> <li>Quinoxalineâ€Based Xâ€6haped Sensitizers as Selfâ€Assembled Monolayer for Tin Perovskite Solar cells.</li> </ul>	3.0 1.4 8.8 8.8	1 0 6 13

#	Article	IF	CITATIONS
330	Tuning Perovskite Surface Polarity via Dipole Moment Engineering for Efficient Hole-Transport-Layer-Free Sn–Pb Mixed-Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2023, 15, 15321-15331.	4.0	7
331	Lead-free perovskite solar cells, what's next?. , 2023, 1, 100011.		9
332	Foldable Holeâ€Transporting Materials for Merging Electronic States between Defective and Perfect Perovskite Sites. Advanced Materials, 2023, 35, .	11.1	12
333	An Overview of Lead, Tin, and Mixed Tin–Leadâ€Based ABI <sub>3</sub> Perovskite Solar Cells. Advanced Energy and Sustainability Research, 2023, 4, .	2.8	12
334	Solvent engineering for triple cationic ITO-based mesoscopic tin perovskite solar cells. Chemical Engineering Journal, 2023, 464, 142635.	6.6	4
335	Enhanced stability of CsPbI3 nanocrystals by ethylenediammonium diiodide. Bulletin of Materials Science, 2023, 46, .	0.8	0
336	Environmentally friendly anti-solvent engineering for high-efficiency tin-based perovskite solar cells. Energy and Environmental Science, 2023, 16, 2177-2186.	15.6	20
337	Effective Approaches for Perovskite Solar Cells; Recent Advances and Perspectives. Physica Status Solidi (A) Applications and Materials Science, 0, , .	0.8	0
338	Surface Reconstruction for Efficient and Stable Monolithic Perovskite/Silicon Tandem Solar Cells with Greatly Suppressed Residual Strain. Advanced Materials, 2023, 35, .	11.1	12
354	Ligand Engineering in Tin-Based Perovskite Solar Cells. Nano-Micro Letters, 2023, 15, .	14.4	2
367	Rational design and recent advancements of addictives engineering in ASnI <sub>3</sub> tin-based perovskite solar cells: insights from experiments and computational. Sustainable Energy and Fuels, 2023, 7, 5198-5223.	2.5	0
376	Advanced Perovskite Solar Cells. Advances in Material Research and Technology, 2024, , 113-135.	0.3	0
378	Advanced materials to overcome the challenges in the fabrication of stable and efficient perovskite solar cells by additive engineering: a review. Journal of Materials Science, 2023, 58, 16565-16590.	1.7	1
386	Strategies for constructing high-performance tin-based perovskite solar cells. Journal of Materials Chemistry C, 2024, 12, 4184-4207.	2.7	0