Caffeine Improves the Performance and Thermal Stabil

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Citation Report

#	Article	IF	Citations
1	Multifunctional Chemical Linker Imidazoleacetic Acid Hydrochloride for 21% Efficient and Stable Planar Perovskite Solar Cells. Advanced Materials, 2019, 31, e1902902.	11.1	366
2	Efficient Passivation with Lead Pyridineâ€2â€Carboxylic for Highâ€Performance and Stable Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1901852.	10.2	147
3	Defect passivation by alcohol-soluble small molecules for efficient pâ€“iâ€“n planar perovskite solar cells with high open-circuit voltage. Journal of Materials Chemistry A, 2019, 7, 21140-21148.	5.2	58
4	Coreâ€“Shell ZnO@SnO₂ Nanoparticles for Efficient Inorganic Perovskite Solar Cells. Journal of the American Chemical Society, 2019, 141, 17610-17616.	6.6	113
5	Constructive molecular configurations for surface-defect passivation of perovskite photovoltaics. Science, 2019, 366, 1509-1513.	6.0	846
6	A Review on Additives for Halide Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1902492.	10.2	240
7	Recent Progresses on Defect Passivation toward Efficient Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1902650.	10.2	516
8	Progress in Multifunctional Molecules for Perovskite Solar Cells. Solar Rrl, 2020, 4, 1900248.	3.1	13
9	Additive Engineering for Efficient and Stable Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1902579.	10.2	477
10	Efficient inverted perovskite solar cells with preferential orientation and suppressed defects of methylammonium lead iodide by introduction of phenothiazine as additive. Journal of Alloys and Compounds, 2020, 823, 153717.	2.8	13
11	Improved Performance of Carbon Electrode Perovskite Solar Cells Using Urea Treatment in Twoâ€Step Processing. ChemNanoMat, 2020, 6, 806-815.	1.5	9
12	A perspective on overcoming water-related stability challenges in molecular and hybrid semiconductors. MRS Communications, 2020, 10, 98-111.	0.8	8
13	Hermetic seal for perovskite solar cells: An improved plasma enhanced atomic layer deposition encapsulation. Nano Energy, 2020, 69, 104375.	8.2	78
14	Structural Evolution During Perovskite Crystal Formation and Degradation: In Situ and Operando Xâ€Ray Diffraction Studies. Advanced Energy Materials, 2020, 10, 1903074.	10.2	33
15	Novel cathode interfacial layer using creatine for enhancing the photovoltaic properties of perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 21721-21728.	5.2	28
16	Multiple Passivation of Electronic Defects for Efficient and Stable Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000481.	3.1	20
17	Alkali Metal Ion-Regulated Lead-free, All-Inorganic Double Perovskites for HTM-free, Carbon-Based Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 47408-47415.	4.0	54
18	Methoxy-Functionalized Triarylamine-Based Hole-Transporting Polymers for Highly Efficient and Stable Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 3304-3313.	8.8	59

#	Article	IF	Citations
19	Advances in Phase Stability of Cesium Lead Halide Perovskites. Solar Rrl, 2020, 4, 2000495.	3.1	13
20	Zwitterionic-Surfactant-Assisted Room-Temperature Coating of Efficient Perovskite Solar Cells. Joule, 2020, 4, 2404-2425.	11.7	137
21	Insight into the Origins of Figures of Merit and Design Strategies for Organic/Inorganic Leadâ€Halide Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000452.	3.1	14
22	Molecular Interaction Regulates the Performance and Longevity of Defect Passivation for Metal Halide Perovskite Solar Cells. Journal of the American Chemical Society, 2020, 142, 20071-20079.	6.6	145
23	Room-temperature random lasing of metal-halide perovskites via morphology-controlled synthesis. Nanoscale Advances, 2020, 2, 5833-5840.	2.2	13
24	Nicotinamide as Additive for Microcrystalline and Defect Passivated Perovskite Solar Cells with 21.7% Efficiency. ACS Applied Materials & Interfaces, 2020, 12, 52500-52508.	4.0	67
25	Sodium Dodecylbenzene Sulfonate Interface Modification of Methylammonium Lead Iodide for Surface Passivation of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 52643-52651.	4.0	25
26	In-situ passivation perovskite targeting efficient light-emitting diodes via spontaneously formed silica network. Nano Energy, 2020, 78, 105134.	8.2	28
27	Toward Efficient and Stable Perovskite Solar Cells: Choosing Appropriate Passivator to Specific Defects. Solar Rrl, 2020, 4, 2000308.	3.1	31
28	Artemisinin (ART)-Induced â€œperovskite/perovskiteâ€•bilayer structured photovoltaics. Nano Energy, 2020, 78, 105133.	8.2	30
29	Nitrobenzene as Additive to Improve Reproducibility and Degradation Resistance of Highly Efficient Methylammonium-Free Inverted Perovskite Solar Cells. Materials, 2020, 13, 3289.	1.3	10
30	An Efficient Trap Passivator for Perovskite Solar Cells: Poly(propylene glycol) bis(2-aminopropyl) Tj ETQq1 1 0.784314 rgBT /Overlock	14.4	35
31	Ambient Pressure X-ray Photoelectron Spectroscopy Investigation of Thermally Stable Halide Perovskite Solar Cells via Post-Treatment. ACS Applied Materials & Interfaces, 2020, 12, 43705-43713.	4.0	34
32	Triphenylamineâ€“Polystyrene Blends for Perovskite Solar Cells with Simultaneous Energy Loss Suppression and Stability Improvement. Solar Rrl, 2020, 4, 2000490.	3.1	6
33	Surfactant Sodium Dodecyl Benzene Sulfonate Improves the Efficiency and Stability of Airâ€Processed Perovskite Solar Cells with Negligible Hysteresis. Solar Rrl, 2020, 4, 2000376.	3.1	30
34	Passivation of defects in perovskite solar cell: From a chemistry point of view. Nano Energy, 2020, 77, 105237.	8.2	92
35	Cd-Doped Triple-Cation Perovskite Thin Films with a 20 Î¼s Carrier Lifetime. Journal of Physical Chemistry C, 2020, 124, 22011-22018.	1.5	10
36	Enhanced Device Performances of MAFACsPb(I_xBr_{1â€“x}) Perovskite Solar Cells with Dual-Functional 2-Chloroethyl Acrylate Additives. ACS Applied Materials & Interfaces, 2020, 12, 46846-46853.	4.0	17

#	Article	IF	Citations
37	Defect passivation strategies in perovskites for an enhanced photovoltaic performance. Energy and Environmental Science, 2020, 13, 4017-4056.	15.6	235
38	Towards commercialization: the operational stability of perovskite solar cells. Chemical Society Reviews, 2020, 49, 8235-8286.	18.7	371
39	How machine learning can help select capping layers to suppress perovskite degradation. Nature Communications, 2020, 11, 4172.	5.8	75
40	Dual Passivation of CsPbI₃ Perovskite Nanocrystals with Amino Acid Ligands for Efficient Quantum Dot Solar Cells. Small, 2020, 16, e2001772.	5.2	127
41	In Situ Formation of Compact PbI₂ Shell Boosts the Efficiency and Thermostability of Perovskite Solar Cells. Small, 2020, 16, e2001866.	5.2	5
42	Tailoring Component Interaction for Airâ€Processed Efficient and Stable Allâ€Inorganic Perovskite Photovoltaic. Angewandte Chemie, 2020, 132, 13456-13463.	1.6	15
43	Effect of Interfacial Layers on the Device Lifetime of Perovskite Solar Cells. Small Methods, 2020, 4, 2000065.	4.6	22
44	Defect suppression and passivation for perovskite solar cells: from the birth to the lifetime operation. EnergyChem, 2020, 2, 100032.	10.1	22
45	Identifying the functional groups effect on passivating perovskite solar cells. Science Bulletin, 2020, 65, 1726-1734.	4.3	52
46	Green perovskite light-emitting diodes with simultaneous high luminance and quantum efficiency through charge injection engineering. Science Bulletin, 2020, 65, 1832-1839.	4.3	24
47	Enhancement of Stability by Applying HAT-CN for Hole Modification With Good Water Resistance and Hole Extraction. IEEE Journal of Photovoltaics, 2020, 10, 1023-1026.	1.5	1
48	Coordination modulated crystallization and defect passivation in high quality perovskite film for efficient solar cells. Coordination Chemistry Reviews, 2020, 420, 213408.	9.5	51
49	Thermally stable perovskite solar cells with efficiency over 21% via a bifunctional additive. Journal of Materials Chemistry A, 2020, 8, 7205-7213.	5.2	50
50	Solvent Engineering Using a Volatile Solid for Highly Efficient and Stable Perovskite Solar Cells. Advanced Science, 2020, 7, 1903250.	5.6	47
51	A Polymerizationâ€Assisted Grain Growth Strategy for Efficient and Stable Perovskite Solar Cells. Advanced Materials, 2020, 32, e1907769.	11.1	161
52	A novel 2D perovskite as surface â€œpatchesâ€•for efficient flexible perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 7808-7818.	5.2	48
53	Multi-component engineering to enable long-term operational stability of perovskite solar cells. JPhys Energy, 2020, 2, 024008.	2.3	13
54	Choline Chloride-Modified SnO₂ Achieving High Output Voltage in MAPbI₃ Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 3504-3511.	2.5	57

#	Article	IF	Citations
55	Aryl Diammonium Iodide Passivation for Efficient and Stable Hybrid Organâ€Inorganic Perovskite Solar Cells. Advanced Functional Materials, 2020, 30, 2002366.	7.8	52
56	22% Efficiency Inverted Perovskite Photovoltaic Cell Using Cationâ€Doped Brookite TiO₂ Top Buffer. Advanced Science, 2020, 7, 2001285.	5.6	43
57	Architecturing Lattice-Matched Bismutheneâ€“SnO₂ Heterojunction for Effective Perovskite Solar Cells. ACS Sustainable Chemistry and Engineering, 0, , .	3.2	8
58	Correlated Electrical and Chemical Nanoscale Properties in Potassiumâ€Passivated, Tripleâ€Cation Perovskite Solar Cells. Advanced Materials Interfaces, 2020, 7, 2000515.	1.9	4
59	Inorganic material passivation of defects toward efficient perovskite solar cells. Science Bulletin, 2020, 65, 2022-2032.	4.3	36
60	Intrinsic and environmental stability issues of perovskite photovoltaics. Progress in Energy, 2020, 2, 022002.	4.6	33
61	From Defects to Degradation: A Mechanistic Understanding of Degradation in Perovskite Solar Cell Devices and Modules. Advanced Energy Materials, 2020, 10, 1904054.	10.2	256
62	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
63	Biomolecular photosensitizers for dye-sensitized solar cells: Recent developments and critical insights. Renewable and Sustainable Energy Reviews, 2020, 121, 109678.	8.2	91
64	Xâ€Ray Microscopy of Halide Perovskites: Techniques, Applications, and Prospects. Advanced Energy Materials, 2020, 10, 1903170.	10.2	49
65	Dual-Protection Strategy for High-Efficiency and Stable CsPbI₂Br Inorganic Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 676-684.	8.8	119
66	Tailoring Component Interaction for Airâ€Processed Efficient and Stable Allâ€Inorganic Perovskite Photovoltaic. Angewandte Chemie - International Edition, 2020, 59, 13354-13361.	7.2	158
67	Green Composite of Instant Coffee and Poly(vinyl alcohol): An Excellent Transparent UV-Shielding Material with Superior Thermal-Oxidative Stability. Industrial & Engineering Chemistry Research, 2020, 59, 8640-8648.	1.8	17
68	Interface Defects Passivation and Conductivity Improvement in Planar Perovskite Solar Cells Using Na₂S-Doped Compact TiO₂ Electron Transport Layers. ACS Applied Materials & Interfaces, 2020, 12, 22853-22861.	4.0	59
69	Dye Engineered Perovskite Solar Cells under Accelerated Thermal Stress and Prolonged Light Exposure. ChemistrySelect, 2020, 5, 4454-4462.	0.7	13
70	Multifunctional dopamine-assisted preparation of efficient and stable perovskite solar cells. Journal of Energy Chemistry, 2021, 54, 291-300.	7.1	42
71	A crosslinked polymer as dopant-free hole-transport material for efficient n-i-p type perovskite solar cells. Journal of Energy Chemistry, 2021, 55, 211-218.	7.1	29
72	Tetrazole modulated perovskite films for efficient solar cells with improved moisture stability. Chemical Engineering Journal, 2021, 420, 127579.	6.6	14

#	Article	IF	Citations
73	Advanced Strategies of Passivating Perovskite Defects for Highâ€Performance Solar Cells. Energy and Environmental Materials, 2021, 4, 293-301.	7.3	15
74	Minimizing Voltage Losses in Perovskite Solar Cells. Small Structures, 2021, 2, 2000050.	6.9	43
75	Perovskite tandem solar cells with improved efficiency and stability. Journal of Energy Chemistry, 2021, 58, 219-232.	7.1	32
76	Structural, optical and excitonic properties of urea grading doped CH3NH3PbI3 thin films and their application in inverted-type perovskite solar cells. Journal of Alloys and Compounds, 2021, 858, 157660.	2.8	12
77	Superior photovoltaics/optoelectronics of two-dimensional halide perovskites. Journal of Energy Chemistry, 2021, 57, 69-82.	7.1	20
78	A charge-separated interfacial hole transport semiconductor for efficient and stable perovskite solar cells. Organic Electronics, 2021, 88, 105988.	1.4	4
79	Bidentate Lewis bases are preferred for passivation of MAPbI3 surfaces: A time-domain ab initio analysis. Nano Energy, 2021, 79, 105491.	8.2	33
80	Carbon quantum dot additive engineering for efficient and stable carbon-based perovskite solar cells. Journal of Alloys and Compounds, 2021, 859, 157784.	2.8	29
81	Roles of MACl in Sequentially Deposited Bromineâ€Free Perovskite Absorbers for Efficient Solar Cells. Advanced Materials, 2021, 33, e2007126.	11.1	112
82	Tailoring organic bulk-heterojunction for charge extraction and spectral absorption in CsPbBr3 perovskite solar cells. Science China Materials, 2021, 64, 798-807.	3.5	17
83	Pb[N(CN)2]2â€•A novel and effective additive provides visual verifications elucidating efficiency enhancement of CH3NH3PbI3 perovskite solar cells. Organic Electronics, 2021, 88, 106009.	1.4	3
84	Epitaxial halide perovskite-based materials for photoelectric energy conversion. Energy and Environmental Science, 2021, 14, 127-157.	15.6	37
85	Towards highly stable and efficient planar perovskite solar cells: Materials development, defect control and interfacial engineering. Chemical Engineering Journal, 2021, 420, 127599.	6.6	37
86	Perovskite solar cells with PCE over 19% fabricated under air environment by using a dye molecule additive. Sustainable Energy and Fuels, 2021, 5, 2266-2272.	2.5	7
87	Synergistic improvements in the performance and stability of inverted planar MAPbI₃-based perovskite solar cells incorporating benzylammonium halide salt additives. Materials Chemistry Frontiers, 2021, 5, 3378-3387.	3.2	18
88	Efficient and Stable Perovskiteâ€Based Photocathode for Photoelectrochemical Hydrogen Production. Advanced Functional Materials, 2021, 31, 2008277.	7.8	36
89	Lessons learned from spiro-OMeTAD and PTAA in perovskite solar cells. Energy and Environmental Science, 2021, 14, 5161-5190.	15.6	255
90	Postpassivation of Cs_{0.05}(FA_{0.83}MA_{0.17})_{0.95}Pb(I_{0.83}Br_{0.17})₃ Perovskite Films with Tris(pentafluorophenyl)borane. ACS Applied Materials & Interfaces, 2021, 13, 2472-2482.	4.0	34

#	Article	IF	Citations
91	On the adsorption mechanism of caffeine on MAPbI₃ perovskite surfaces: a combined UMC-DFT study. Physical Chemistry Chemical Physics, 2021, 23, 10807-10813.	1.3	6
92	Star-polymer multidentate-cross-linking strategy for superior operational stability of inverted perovskite solar cells at high efficiency. Energy and Environmental Science, 2021, 14, 5406-5415.	15.6	88
93	Boosting the performance of MA-free inverted perovskite solar cellsviamultifunctional ion liquid. Journal of Materials Chemistry A, 2021, 9, 12746-12754.	5.2	44
94	Chemical characterization of Wuyi rock tea with different roasting degrees and their discrimination based on volatile profiles. RSC Advances, 2021, 11, 12074-12085.	1.7	24
95	Construction and mechanistic understanding of high-performance all-air-processed perovskite solar cells via mixed-cation engineering. Materials Chemistry Frontiers, 2021, 5, 4244-4253.	3.2	7
96	Manipulation of Perovskite Crystallization Kinetics via Lewis Base Additives. Advanced Functional Materials, 2021, 31, 2009425.	7.8	61
97	Self-assembled carbon dot-wrapped perovskites enable light trapping and defect passivation for efficient and stable perovskite solar cells. Journal of Materials Chemistry A, 2021, 9, 7508-7521.	5.2	21
98	Zwitterions: promising interfacial/doping materials for organic/perovskite solar cells. New Journal of Chemistry, 2021, 45, 15118-15130.	1.4	15
99	Highly stable and efficient perovskite solar cells passivated by a functional amorphous layer. Journal of Materials Chemistry A, 2021, 9, 21708-21715.	5.2	13
100	Merocyanine with Hole-Transporting Ability and Efficient Defect Passivation Effect for Perovskite Solar Cells. ACS Energy Letters, 2021, 6, 869-876.	8.8	64
101	Excellent Intrinsic Longâ€Term Thermal Stability of Coâ€Evaporated MAPbI₃ Solar Cells at 85 Â°C. Advanced Functional Materials, 2021, 31, 2100557.	7.8	36
102	Stability Improvement of Perovskite Solar Cells by Compositional and Interfacial Engineering. Chemistry of Materials, 2021, 33, 1540-1570.	3.2	65
103	Intermediateâ€Adductâ€Assisted Growth of Stable CsPbI₂Br Inorganic Perovskite Films for Highâ€Efficiency Semitransparent Solar Cells. Advanced Materials, 2021, 33, e2006745.	11.1	47
104	A Facile Surface Passivation Enables Thermally Stable and Efficient Planar Perovskite Solar Cells Using a Novel IDTTâ€Based Small Molecule Additive. Advanced Energy Materials, 2021, 11, 2003829.	10.2	72
105	Bulk Passivation and Interfacial Passivation for Perovskite Solar Cells: Which One is More Effective?. Advanced Materials Interfaces, 2021, 8, 2002078.	1.9	34
106	Thermal Stability and Cation Composition of Hybrid Organicâ€“Inorganic Perovskites. ACS Applied Materials & Interfaces, 2021, 13, 15292-15304.	4.0	41
107	Universal Passivation Strategy for the Hole Transport Layer/Perovskite Interface via an Alkali Treatment for Highâ€Efficiency Perovskite Solar Cells. Solar Rrl, 2021, 5, 2000793.	3.1	14
108	Origin, Influence, and Countermeasures of Defects in Perovskite Solar Cells. Small, 2021, 17, e2005495.	5.2	61

#	Article	IF	Citations
109	Thymine as a Biocompatible Surface Passivator for a Highly Efficient and Stable Planar Perovskite Solar Cell. ACS Applied Energy Materials, 2021, 4, 3310-3316.	2.5	6
110	Photoferroelectric perovskite solar cells: Principles, advances and insights. Nano Today, 2021, 37, 101062.	6.2	54
111	Efficient and stable MAPbI3 perovskite solar cells achieved via chlorobenzene/perylene mixed anti-solvent. Solar Energy, 2021, 220, 251-257.	2.9	22
112	Thermal stability enhancement of perovskite MAPbI3 film at high temperature (150 Â°C) by PMMA encapsulation. Journal of Materials Science: Materials in Electronics, 2021, 32, 14885-14900.	1.1	13
113	High visible-light photocatalytic performance of stable lead-free Cs2AgBiBr6 double perovskite nanocrystals. Journal of Catalysis, 2021, 397, 27-35.	3.1	47
114	Fluorinated Oligomer Wrapped Perovskite Crystals for Inverted MAPbI₃ Solar Cells with 21% Efficiency and Enhanced Stability. ACS Applied Materials & Interfaces, 2021, 13, 26093-26101.	4.0	18
115	Crystallization Control and Defect Passivation via a Cross-Linking Additive for High-Performance FAPbBr₃ Perovskite Solar Cells. Journal of Physical Chemistry C, 2021, 125, 12551-12559.	1.5	10
116	Additive Engineering by 6-Aminoquinoline Monohydrochloride for High-Performance Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 7083-7090.	2.5	9
117	Concurrent cationic and anionic perovskite defect passivation enables 27.4% perovskite/silicon tandems with suppression of halide segregation. Joule, 2021, 5, 1566-1586.	11.7	119
118	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
119	Tailored Key Parameters of Perovskite for High-Performance Photovoltaics. Accounts of Materials Research, 2021, 2, 447-457.	5.9	5
120	Benzodithiopheneâ€Based Spacers for Layered and Quasiâ€Layered Lead Halide Perovskite Solar Cells. ChemSusChem, 2021, 14, 3001-3009.	3.6	8
121	Dopant-free Hole-transporting Materials for CH₃NH₃PbI₃ Inverted Perovskite Solar Cells with an Approximate Efficiency of 20%. ACS Applied Energy Materials, 2021, 4, 5756-5766.	2.5	16
122	Recent Progress on Perovskite Surfaces and Interfaces in Optoelectronic Devices. Advanced Materials, 2021, 33, e2006004.	11.1	86
123	Mitigating ion migration in perovskite solar cells. Trends in Chemistry, 2021, 3, 575-588.	4.4	81
124	Protecting Perovskite Solar Cells against Moisture-Induced Degradation with Sputtered Inorganic Barrier Layers. ACS Applied Energy Materials, 2021, 4, 7571-7578.	2.5	20
125	Enhancing charge transport performance of perovskite solar cells by using reduced graphene oxide-cysteine/nanogold hybrid material in the active layer. FlatChem, 2021, 28, 100254.	2.8	12
126	Beyond the Limit of Goldschmidt Tolerance Factor: Crystal Surface Engineering to Boost the Î±â€Phase Stability of Formamidiniumâ€Only Hybrid Inorganicâ€“Organic Perovskites. Solar Rrl, 2021, 5, 2100188.	3.1	8

#	Article	IF	Citations
127	Improving ethylene glycol transport properties by caffeine â€“ Thermodynamic and computational evidence. Journal of Molecular Liquids, 2021, 333, 115918.	2.3	4
128	Magnesium acetate additive enables efficient and stable carbon electrode based CsPbI2Br perovskite solar cells. Solar Energy, 2021, 222, 186-192.	2.9	11
129	Efficient and stable inverted perovskite solar cells with very high fill factors via incorporation of star-shaped polymer. Science Advances, 2021, 7, .	4.7	195
130	Ionic Liquid Stabilizing Highâ€Efficiency Tin Halide Perovskite Solar Cells. Advanced Energy Materials, 2021, 11, 2101539.	10.2	117
131	Stability of Perovskite Solar Cells: Degradation Mechanisms and Remedies. Frontiers in Electronics, 2021, 2, .	2.0	75
132	Defect Passivation Effect of Chemical Groups on Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 34161-34170.	4.0	33
133	Small-Area Perovskite Photodiodes With High Detectivity and Stability. IEEE Electron Device Letters, 2021, 42, 1200-1203.	2.2	2
134	Efficient and stable planar MAPbI3 perovskite solar cells based on a small molecule passivator. Surfaces and Interfaces, 2021, 25, 101213.	1.5	3
135	Perovskite Passivation with a Bifunctional Molecule 1,2â€Benzisothiazolinâ€3â€One for Efficient and Stable Planar Solar Cells. Solar Rrl, 2021, 5, 2100472.	3.1	5
136	Anharmonic DFT Study of Near-Infrared Spectra of Caffeine: Vibrational Analysis of the Second Overtones and Ternary Combinations. Molecules, 2021, 26, 5212.	1.7	12
137	Uniaxially Oriented Monolithically Grained Perovskite Films for Enhanced Performance of Solar Cells. Journal of Physical Chemistry C, 2021, 125, 19131-19141.	1.5	4
138	Lewis Base Passivation Mediates Charge Transfer at Perovskite Heterojunctions. Journal of the American Chemical Society, 2021, 143, 12230-12243.	6.6	36
139	Efficient defect passivation for high performance perovskite solar cell by adding alizarin red S. Journal of Materials Science, 2021, 56, 19552-19563.	1.7	2
140	Material, Phase, and Interface Stability of Photovoltaic Perovskite: A Perspective. Journal of Physical Chemistry C, 2021, 125, 19088-19096.	1.5	7
141	Robust Unencapsulated Perovskite Solar Cells Protected by a Fluorinated Fullerene Electron Transporting Layer. ACS Energy Letters, 2021, 6, 3376-3385.	8.8	27
142	Grain Boundary Defects Passivated with tert-Butyl Methacrylate for High-Efficiency Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 11298-11305.	2.5	8
143	Improvement Performance of Planar Perovskite Solar Cells by Bulk and Surface Defect Passivation. ACS Sustainable Chemistry and Engineering, 2021, 9, 13001-13009.	3.2	14
144	A Green Lead Recycling Strategy from Used Lead Acid Batteries for Efficient Inverted Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2021, 12, 9595-9601.	2.1	6

#	Article	IF	Citations
145	NH3+-Functionalized PAMAM Dendrimers Enhancing Power Conversion Efficiency and Stability of Perovskite Solar Cells. Journal of Electronic Materials, 2021, 50, 6414-6425.	1.0	2
146	Robust, High-Performing Maizeâ€"Perovskite-Based Solar Cells with Improved Stability. ACS Applied Energy Materials, 2021, 4, 11194-11203.	2.5	11
147	Additive engineering for stable halide perovskite solar cells. Journal of Energy Chemistry, 2021, 60, 599-634.	7.1	59
148	Unnatural Hygroscopic Property of Nicotinic Acid by Restructuring Molecular Density: Self-Healing Halide Perovskites. Journal of Physical Chemistry Letters, 2021, 12, 8932-8938.	2.1	2
149	Imaging Real-Time Amorphization of Hybrid Perovskite Solar Cells under Electrical Biasing. ACS Energy Letters, 2021, 6, 3530-3537.	8.8	12
150	Mitigating the Lead Leakage of High-Performance Perovskite Solar Cells via In Situ Polymerized Networks. ACS Energy Letters, 2021, 6, 3443-3449.	8.8	67
151	Defect Passivation for Perovskite Solar Cells: from Molecule Design to Device Performance. ChemSusChem, 2021, 14, 4354-4376.	3.6	43
152	Binary Additive Engineering Enables Efficient Perovskite Solar Cells via Spray-Coating in Air. ACS Applied Energy Materials, 2021, 4, 11496-11504.	2.5	8
153	Synergistic Effect of Defect Passivation and Crystallization Control Enabled by Bifunctional Additives for Carbon-Based Mesoscopic Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 45435-45445.	4.0	12
154	Selfâ€Polymerization of Monomer and Induced Interactions with Perovskite for Highly Performed and Stable Perovskite Solar Cells. Advanced Functional Materials, 2022, 32, 2105290.	7.8	14
155	Laser fabricated carbon quantum dots in anti-solvent for highly efficient carbon-based perovskite solar cells. Journal of Colloid and Interface Science, 2021, 600, 691-700.	5.0	20
156	Reducing defect of inorganic perovskite film by sulphur-containing Lewis base for robust photodetectors. Journal of Energy Chemistry, 2021, 61, 163-169.	7.1	16
157	Managing transparency through polymer/perovskite blending: A route toward thermostable and highly efficient, semi-transparent solar cells. Nano Energy, 2021, 89, 106406.	8.2	20
158	Lewis bases: promising additives for enhanced performance of perovskite solar cells. Materials Today Energy, 2021, 22, 100847.	2.5	24
159	Benzotriazole derivative inhibits nonradiative recombination and improves the UV-stability of inverted MAPbI3 perovskite solar cells. Journal of Energy Chemistry, 2022, 65, 592-599.	7.1	18
160	Li-TFSI endohedral Metal-Organic frameworks in stable perovskite solar cells for Anti-Deliquescent and restricting ion migration. Chemical Engineering Journal, 2022, 429, 132481.	6.6	25
161	Reduced energy loss enabled by thiophene-based interlayers for high performance and stable perovskite solar cells. Journal of Materials Chemistry A, 2021, 9, 4138-4149.	5.2	80
162	Steric Impediment of Ion Migration Contributes to Improved Operational Stability of Perovskite Solar Cells. Advanced Materials, 2020, 32, e1906995.	11.1	142

#	Article	IF	Citations
163	Simultaneously Passivating Cation and Anion Defects in Metal Halide Perovskite Solar Cells Using a Zwitterionic Amino Acid Additive. Small, 2021, 17, e2005608.	5.2	51
164	Low-Temperature Growing Anatase TiO2/SnO2 Multi-dimensional Heterojunctions at MXene Conductive Network for High-Efficient Perovskite Solar Cells. Nano-Micro Letters, 2020, 12, 44.	14.4	76
165	Enhancing Chemical Stability and Suppressing Ion Migration in CH₃NH₃PbI₃ Perovskite Solar Cells via Direct Backbone Attachment of Polyesters on Grain Boundaries. Chemistry of Materials, 2020, 32, 5104-5117.	3.2	64
166	Roadmap on organicâ€“inorganic hybrid perovskite semiconductors and devices. APL Materials, 2021, 9, .	2.2	102
167	Defects in halide perovskite semiconductors: impact on photo-physics and solar cell performance. Journal Physics D: Applied Physics, 2020, 53, 503003.	1.3	26
168	High detectivity photodetectors based on perovskite nanowires with suppressed surface defects. Photonics Research, 2020, 8, 1862.	3.4	23
169	Regulating the crystalline phase of intermediate films enables FA_{1â^'x}MA_xPbI₃ perovskite solar cells with efficiency over 22%. Journal of Materials Chemistry A, 2021, 9, 24064-24070.	5.2	20
170	Crystallization control via a molecular needle knitting strategy for the enhanced emission efficiency and stability of CsPbBr₃ films. Journal of Materials Chemistry C, 2021, 9, 15967-15976.	2.7	6
171	Bio-inspired strategies for next-generation perovskite solar mobile power sources. Chemical Society Reviews, 2021, 50, 12915-12984.	18.7	15
172	Consistent Interpretation of Electrical and Optical Transients in Halide Perovskite Layers and Solar Cells. Advanced Energy Materials, 2021, 11, 2102290.	10.2	25
173	Improving interfacial charge transfer by multi-functional additive for high-performance carbon-based perovskite solar cells. Applied Physics Letters, 2021, 119, .	1.5	11
174	Benefitting from Synergistic Effect of Anion and Cation in Antimony Acetate for Stable CH₃NH₃PbI₃â€Based Perovskite Solar Cell with Efficiency Beyond 21%. Small, 2021, 17, e2102186.	5.2	28
175	Efficient Skyâ€Blue Lightâ€Emitting Diodes Based on Oriented Perovskite Nanoplates. Advanced Optical Materials, 2022, 10, 2101525.	3.6	12
176	Enhancing the photo-luminescence stability of CH₃NH₃PbI₃ film with ionic liquids. Chinese Physics B, 2022, 31, 037802.	0.7	5
177	Enhanced Performance and Stability of Carbon Counter Electrode-Based MAPbI₃ Perovskite Solar Cells with p-Methylphenylamine Iodate Additives. ACS Applied Energy Materials, 2021, 4, 11314-11324.	2.5	4
178	Interfacial engineering of a thiophene-based 2D/3D perovskite heterojunction for efficient and stable inverted wide-bandgap perovskite solar cells. Nano Energy, 2021, 90, 106608.	8.2	71
179	Enhanced Performance in Perovskite Optoelectronic Devices. , 2019, , .		0
180	Da braut sich was zusammen: Chemie in KÃ¼chen und Weinkellern. , 2019, , 43-89.		0

#	Article	IF	Citations
181	Intrinsic stability of organic-inorganic hybrid perovskite. Wuli Xuebao/Acta Physica Sinica, 2019, 68, 158804.	0.2	8
182	Muntermacherligand. Nachrichten Aus Der Chemie, 2019, 67, 106-106.	0.0	0
183	Inorganic charge transport materials for high reliable perovskite solar cells. Ceramist, 2020, 23, 145-165.	0.0	1
184	Alkali Metal Chlorideâ€Doped Waterâ€Based TiO₂ for Efficient and Stable Planar Perovskite Photovoltaics Exceeding 23% Efficiency. Small Methods, 2021, 5, e2100856.	4.6	19
185	Improving performance of hybrid perovskite/graphene-based photodetector via hot carriers injection. Journal of Alloys and Compounds, 2022, 895, 162496.	2.8	10
186	Organic Dye Passivation for Highâ€Performance Allâ€Inorganic CsPbI 1.5 Br 1.5 Perovskite Solar Cells with Efficiency over 14%. Advanced Energy Materials, 2021, 11, 2003585.	10.2	29
187	Crystal growth, defect passivation and strain release via In-situ Self-polymerization strategy enables efficient and stable perovskite solar cells. Chemical Engineering Journal, 2022, 430, 132869.	6.6	25
188	High-temperature inverted annealing for efficient perovskite photovoltaics. CrystEngComm, 0, , .	1.3	3
190	Reduced defects and enhanced Vbi in perovskite absorbers through synergetic passivating effect using 4-methoxyphenylacetic acid. Journal of Power Sources, 2022, 518, 230734.	4.0	11
191	Updated Progresses in Perovskite Solar Cells. Chinese Physics Letters, 2021, 38, 107801.	1.3	11
192	Challenges and strategies of all-inorganic lead-free halide perovskite solar cells. Ceramics International, 2022, 48, 5876-5891.	2.3	10
193	3,5-Difluorophenylboronic acid-modified SnO2 as ETLs for perovskite solar cells: PCEÂ>Â22.3%, T82Â>Â3000Âh. Chemical Engineering Journal, 2022, 433, 133744.	6.6	22
194	Degradation mechanism and addressing techniques of thermal instability in halide perovskite solar cells. Solar Energy, 2021, 230, 954-978.	2.9	19
195	Interfacial Passivation and Energy Level Alignment Regulation for Selfâ€Powered Perovskite Photodetectors with Enhanced Performance and Stability. Advanced Materials Interfaces, 2022, 9, 2101766.	1.9	6
196	Suppressing Interfacial Shunt Loss via Functional Polymer for Performance Improvement of Leadâ€Free Cs₂AgBiBr₆ Double Perovskite Solar Cells. Solar Rrl, 2022, 6, 2100791.	3.1	22
197	Cooperative Effects of Dopant-Free Hole-Transporting Materials and Polycarbonate Film for Sustainable Perovskite Solar Cells. SSRN Electronic Journal, 0, , .	0.4	0
198	Defects in Solution-Processed Perovskite Semiconductors: Photophysics and Impact on Solar Cell Performance. , 2021, , 1-34.		1
199	Efficient and stable low-cost perovskite solar cells enabled by using surface passivated carbon as the counter electrode. Journal of Materials Chemistry C, 2022, 10, 1270-1275.	2.7	23

#	Article	IF	Citations
200	Design of dopant-free small molecular hole transport materials for perovskite solar cells: a viewpoint from defect passivation. Journal of Materials Chemistry A, 2022, 10, 1150-1178.	5.2	44
201	A multi-functional halogen-free cesium salt bulk-doping treatment toward performance-enhancement of perovskite solar cells. Journal of Power Sources, 2022, 520, 230900.	4.0	10
202	Sodium fluoride sacrificing layer concept enables high-efficiency and stable methylammonium lead iodide perovskite solar cells. Journal of Materials Science and Technology, 2022, 113, 138-146.	5.6	32
203	A holistic sunscreen interface strategy to effectively improve the performance of perovskite solar cells and prevent lead leakage. Chemical Engineering Journal, 2022, 433, 134566.	6.6	20
204	Acetone complexes for high-performance perovskite photovoltaics with reduced nonradiative recombination. Materials Advances, 2022, 3, 2047-2055.	2.6	2
205	Stabilizing XPbI₃ (X = MA, FA and Cs) cubic perovskites by monolayer Ag₄Se₂ deposition. New Journal of Chemistry, 2022, 46, 1329-1338.	1.4	3
206	Carbazole-based Dâ€“A type hole transport materials to enhance the performance of perovskite solar cells. Sustainable Energy and Fuels, 2022, 6, 371-376.	2.5	14
207	Improving the Conductivity of the PEDOT:PSS Layers in Photovoltaic Cells Based on Organometallic Halide Perovskites. Materials, 2022, 15, 990.	1.3	6
208	Silk fibroin induced homeotropic alignment of perovskite crystals toward high efficiency and stability. Nano Energy, 2022, 94, 106936.	8.2	25
209	Boost the efficiency of nickel oxide-based formamidinium-cesium perovskite solar cells to 21% by using coumarin 343 dye as defect passivator. Nano Energy, 2022, 94, 106935.	8.2	49
210	Cooperative effects of Dopant-Free Hole-Transporting materials and polycarbonate film for sustainable perovskite solar cells. Chemical Engineering Journal, 2022, 437, 135197.	6.6	13
211	Symmetrical Acceptorâ€“Donorâ€“Acceptor Molecule as a Versatile Defect Passivation Agent toward Efficient FA_{0.85}MA_{0.15}PbI₃ Perovskite Solar Cells. Advanced Functional Materials, 2022, 32, .	7.8	47
212	Oxalate Pushes Efficiency of CsPb_{0.7}Sn_{0.3}IBr₂ Based Allâ€inorganic Perovskite Solar Cells to over 14%. Advanced Science, 2022, 9, e2106054.	5.6	32
213	Defects Passivation Via D-Glucosamine Hydrochloride for Highly Efficient and Stable Perovskite Solar Cells. SSRN Electronic Journal, 0, , .	0.4	0
214	A multifunctional ligand for defect passivation of perovskite film realizes air-stable perovskite solar cells with efficiencies exceeding 20%. Sustainable Energy and Fuels, 2022, 6, 1950-1958.	2.5	6
215	ZnO electron transporting layer engineering realized over 20% efficiency and over 1.28 V openâ€circuit voltage in allâ€inorganic perovskite solar cells. EcoMat, 2022, 4, .	6.8	23
216	Pinning Bromide Ion with Ionic Liquid in Leadâ€Free Cs₂AgBiBr₆ Double Perovskite Solar Cells. Advanced Functional Materials, 2022, 32, .	7.8	37
217	Lowâ€Temperatureâ€Processed Stable Perovskite Solar Cells and Modules: A Comprehensive Review. Advanced Energy Materials, 2022, 12, .	10.2	38

#	Article	IF	Citations
218	Multifunctional Ï€â€Conjugated Additives for Halide Perovskite. Advanced Science, 2022, 9, e2105307.	5.6	33
219	Quasiâ€2D Bilayer Surface Passivation for High Efficiency Narrow Bandgap Perovskite Solar Cells. Angewandte Chemie - International Edition, 2022, 61, .	7.2	40
220	Polyacrylic Acid Grafted Carbon Nanotubes for Immobilization of Lead(II) in Perovskite Solar Cell. ACS Energy Letters, 2022, 7, 1577-1585.	8.8	33
221	Triple Passivation Approach to Laminate Perovskite Layers for Augmented UV and Ambient Stable Photovoltaics. ACS Applied Energy Materials, 2022, 5, 3392-3400.	2.5	6
222	Manipulating Crystallization Kinetics in Highâ€Performance Bladeâ€Coated Perovskite Solar Cells via Cosolventâ€Assisted Phase Transition. Advanced Materials, 2022, 34, e2200276.	11.1	64
223	Influence of Halide Choice on Formation of Lowâ€Dimensional Perovskite Interlayer in Efficient Perovskite Solar Cells. Energy and Environmental Materials, 2022, 5, 670-682.	7.3	9
224	Quasiâ€2D Bilayer Surface Passivation for High Efficiency Narrow Bandgap Perovskite Solar Cells. Angewandte Chemie, 2022, 134, .	1.6	5
225	Plasmonic Local Heating Induced Strain Modulation for Enhanced Efficiency and Stability of Perovskite Solar Cells. Advanced Energy Materials, 2022, 12, .	10.2	18
226	Robust Selfâ€Assembled Molecular Passivation for Highâ€Performance Perovskite Solar Cells. Angewandte Chemie, 2022, 134, .	1.6	8
227	Multifunctional zwitterion modified SnO2 nanoparticles for efficient and stable planar perovskite solar cells. Organic Electronics, 2022, 106, 106519.	1.4	5
228	Robust Selfâ€Assembled Molecular Passivation for Highâ€Performance Perovskite Solar Cells. Angewandte Chemie - International Edition, 2022, 61, .	7.2	32
229	Ionic Liquidâ€Tuned Crystallization for Stable and Efficient Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	10
230	Uridine as additive in antisolvent for improving performance and reproducibility of perovskite solar cells. Journal of Materials Science: Materials in Electronics, 0, , 1.	1.1	0
231	Hydrophobic long alkyl chain organic cations induced 2D/3D heterojunction for efficient and stable perovskite solar cells. Journal of Materials Science and Technology, 2022, 124, 243-251.	5.6	18
232	Tartaric acid additive to enhance perovskite multiple preferential orientations for high-performance solar cells. Journal of Energy Chemistry, 2022, 69, 406-413.	7.1	8
233	Enhanced performance of hole-conductor free carbon-based perovskite solar cells through polyvinylidene fluoride as additive. Materials Today Communications, 2022, 31, 103446.	0.9	3
234	Tailoring type-II all-in-one buried interface for 1.635V-voltage, all-inorganic CsPbBr3 perovskite solar cells. Nano Energy, 2022, 96, 107138.	8.2	30
235	Synergistic effect of amide and fluorine of polymers assist stable inverted perovskite solar cells with fill factorÂ>Â83%. Chemical Engineering Journal, 2022, 442, 136136.	6.6	29

#	Article	IF	Citations
236	Improving the stability and efficiency of inorganic CsPbI2Br perovskite via surface reconstruction strategy. Chemical Engineering Journal, 2022, 442, 136242.	6.6	13
237	The emergence of concentrator photovoltaics for perovskite solar cells. Applied Physics Reviews, 2021, 8, .	5.5	8
238	Role of additives and surface passivation on the performance of perovskite solar cells. Materials for Renewable and Sustainable Energy, 2022, 11, 47-70.	1.5	18
239	Enhanced Activation Energy Released by Coordination of Bifunctional Lewis Base <scp>d</scp>-Tryptophan for Highly Efficient and Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 58458-58466.	4.0	14
240	Monodisperse Carbon Nitride Nanosheets as Multifunctional Additives for Efficient and Durable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 61215-61226.	4.0	9
241	Polyacrylonitrileâ€Coordinated Perovskite Solar Cell with Openâ€Circuit Voltage Exceeding 1.23â€...V. Angewandte Chemie - International Edition, 2022, 61, .	7.2	63
242	Polymethyl Methacrylate as an Interlayer Between the Halide Perovskite and Copper Phthalocyanine Layers for Stable and Efficient Perovskite Solar Cells. Advanced Functional Materials, 2022, 32, .	7.8	30
243	Polyacrylonitrileâ€Coordinated Perovskite Solar Cell with Openâ€Circuit Voltage Exceeding 1.23â€...V. Angewandte Chemie, 2022, 134, .	1.6	18
244	Improving the Efficiency, Stability, and Adhesion of Perovskite Solar Cells Using Nanogel Additive Engineering. ACS Applied Materials & Interfaces, 2021, 13, 58640-58651.	4.0	2
245	Inhibiting metal-inward diffusion-induced degradation through strong chemical coordination toward stable and efficient inverted perovskite solar cells. Energy and Environmental Science, 2022, 15, 2154-2163.	15.6	30
246	Highly effective surface defect passivation of perovskite quantum dots for excellent optoelectronic properties. Journal of Materials Research and Technology, 2022, 18, 4145-4155.	2.6	10
247	Modulation of Perovskite Grain Boundaries by Electron Donorâ€“Acceptor Zwitterions R,R-Diphenylamino-phenyl-pyridinium-(CH₂)_n-sulfonates: All-Round Improvement on the Solar Cell Performance. Jacs Au, 2022, 2, 1189-1199.	3.6	8
248	Highly Orientational Order Perovskite Induced by In situâ€generated 1D Perovskitoid for Efficient and Stable Printable Photovoltaics. Small, 2022, 18, e2200130.	5.2	10
249	Inâ€‰Situ Characterization for Understanding the Degradation in Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	19
250	Photovoltaic properties and microstructures of polysilane-added perovskite solar cells. , 0, , .		2
251	Efficient and Stable FAâ€Rich Perovskite Photovoltaics: From Material Properties to Device Optimization. Advanced Energy Materials, 2022, 12, .	10.2	16
252	Multifunctional Polymer Capping Frameworks Enable High-Efficiency and Stable All-Inorganic Perovskite Solar Cells. ACS Applied Energy Materials, 2022, 5, 6432-6441.	2.5	12
253	Pyridine Derivativesâ€™ Surface Passivation Enables Efficient and Stable Carbon-Based Perovskite Solar Cells. , 2022, 4, 1101-1111.		30

#	Article	IF	Citations
254	Learning From Plants: Lycopene Additive Passivation toward Efficient and â€œFreshâ€•Perovskite Solar Cells with Oxygen and Ultraviolet Resistance. Advanced Energy Materials, 2022, 12, .	10.2	50
255	A Brief on Emerging Materials and Its Photovoltaic Application. , 2022, , 361-406.		3
256	Ionic Liquid Engineering in Perovskite Photovoltaics. Energy and Environmental Materials, 2023, 6, .	7.3	18
257	Unveiling the key factor affecting the illumination deterioration and response measures for lead halide perovskite solar cells. Journal of Energy Chemistry, 2022, 73, 429-435.	7.1	9
258	When Aggregationâ€Induced Emission Meets Perovskites: Efficient Defectâ€Passivation and Chargeâ€Transfer for Ambient Fabrication of Perovskite Solar Cells. Chemistry - A European Journal, 2022, 28, .	1.7	6
259	Sulfonyl passivation through synergistic hydrogen bonding and coordination interactions for efficient and stable perovskite solar cells. Journal of Materials Chemistry A, 2022, 10, 13048-13054.	5.2	18
260	Molecular Engineering for Functionâ€Tailored Interface Modifier in Highâ€Performance Perovskite Solar Cells. Advanced Energy Materials, 2022, 12, .	10.2	16
261	Ways to Improve the Performance of Tripleâ€Mesoscopic Holeâ€Conductorâ€Free Perovskiteâ€Based Solar Cells. Solar Rrl, 2022, 6, .	3.1	3
262	Metal oxide sol annealing on perovskite MAPbI3 film with thermal stability enhanced by caffeine additive and PMMA interlayer. Journal of Materials Science, 2022, 57, 10242-10259.	1.7	1
263	Defects passivation via d-glucosamine hydrochloride for highly efficient and stable perovskite solar cells. Organic Electronics, 2022, 107, 106559.	1.4	0
264	Two-dimensional Dion-Jacobson halide perovskites as new-generation light absorbers for perovskite solar cells. Renewable and Sustainable Energy Reviews, 2022, 166, 112614.	8.2	39
266	Grain Boundary Chemical Anchoring via Bidirectional Active Site Additive Enables Efficient and Stable Perovskite Solar Cells. Advanced Materials Interfaces, 2022, 9, .	1.9	8
267	Lansoprazole, a cure-four, enables perovskite solar cells efficiency exceeding 24%. Chemical Engineering Journal, 2022, 446, 137416.	6.6	14
269	Multilevel halide perovskite memristors based on optical & electrical resistive switching effects. Materials Chemistry and Physics, 2022, 288, 126393.	2.0	6
270	Selfâ€Organized Small Molecules in Robust MOFs for Highâ€Performance Perovskite Solar Cells with Enhanced Degradation Activation Energy. Advanced Functional Materials, 2022, 32, .	7.8	25
271	Maltose as an ecoâ€friendly modifier of the buried interface for efficient and stable inverted perovskite solar cells. Energy Technology, 0, , .	1.8	0
272	Interfacial Dipole poly(2-ethyl-2-oxazoline) Modification Triggers Simultaneous Band Alignment and Passivation for Air-Stable Perovskite Solar Cells. Polymers, 2022, 14, 2748.	2.0	2
273	Synergistic Crystallization and Passivation by a Single Molecular Additive for Highâ€Performance Perovskite Solar Cells. Advanced Materials, 2022, 34, .	11.1	37

#	Article	IF	Citations
274	Customizing a coordinative crab molecule BCPâ€3N with multifunctionality for highâ€performance inverted perovskite solar cells. Solar Rrl, 0, , .	3.1	1
275	Active Functional Groups and Adjacent Dual-Interaction Strategies Enable Perovskite Solar Cells to Prosper: Including Unique Morphology and Enhanced Optoelectronic Performance. ACS Sustainable Chemistry and Engineering, 2022, 10, 9946-9955.	3.2	6
276	Defect Passivation by a Multifunctional Phosphate Additive toward Improvements of Efficiency and Stability of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 31911-31919.	4.0	6
277	Recent defect passivation drifts and role of additive engineering in perovskite photovoltaics. Nano Energy, 2022, 101, 107579.	8.2	46
278	Ultra-high moisture stability perovskite films, soaking in water over 360Âmin. Chemical Engineering Journal, 2022, 450, 138028.	6.6	5
279	Multifunctional Crystal Regulation Enables Efficient and Stable Skyâ€Blue Perovskite Lightâ€Emitting Diodes. Advanced Functional Materials, 2022, 32, .	7.8	51
280	Enhanced efficiency and stability of Dionâ€“Jacobson quasi-two-dimensional perovskite solar cells by additive. Journal Physics D: Applied Physics, 2022, 55, 414002.	1.3	2
281	Selective lithiation and lithium induced nano sticks formation unveil caffeine for ultra-long-term stability at high C-rate and high power density lithium-ion battery. Electrochimica Acta, 2022, 430, 141082.	2.6	2
282	Carbonyl functional group assisted crystallization of mixed tinâ€“lead narrow bandgap perovskite absorber in ambient conditions. Applied Physics Letters, 2022, 121, 073901.	1.5	0
283	Regulation of Quantum Wells Width Distribution in 2D Perovskite Films for Photovoltaic Application. Advanced Functional Materials, 2022, 32, .	7.8	29
284	Overcoming Perovskite Corrosion and De-Doping Through Chemical Binding of Halogen Bonds Toward Efficient and Stable Perovskite Solar Cells. Nano-Micro Letters, 2022, 14, .	14.4	10
285	All-in-one additive enables defect passivated, crystallization modulated and moisture resisted perovskite films toward efficient solar cells. Chemical Engineering Journal, 2023, 452, 139345.	6.6	27
286	Deep defect passivation and shallow vacancy repairviaan ionic silicone polymer toward highly stable inverted perovskite solar cells. Energy and Environmental Science, 2022, 15, 4414-4424.	15.6	35
287	Fabrication of efficient and stable perovskite solar cells in open air through adopting a dye interlayer. Sustainable Energy and Fuels, 2022, 6, 4275-4284.	2.5	2
288	Anchoring Vertical Dipole to Enable Efficient Charge Extraction for Highâ€Performance Perovskite Solar Cells. Advanced Science, 2022, 9, .	5.6	20
289	Effective Multifunctional Additive Engineering for Efficient and Stable Inverted Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	9
290	Enhancing Performance and Stability of Perovskite Solar Cells through Surface Defect Passivation with Organic Bidentate Lewis Bases. ACS Omega, 2022, 7, 32383-32392.	1.6	7
291	Transporting holes stably under iodide invasion in efficient perovskite solar cells. Science, 2022, 377, 1227-1232.	6.0	75

#	Article	IF	Citations
292	Bio-Inspired Pangolin Design for Self-Healable Flexible Perovskite Light-Emitting Diodes. ACS Nano, 2022, 16, 17973-17981.	7.3	11
293	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
294	Defect passivation and electrical conductivity enhancement in perovskite solar cells using functionalized graphene quantum dots. Materials Futures, 2022, 1, 045101.	3.1	20
295	Additive-assisted defect passivation of perovskite with metformin hydrochloride: toward high-performance p-i-n perovskite solar cells. JPhys Energy, 0, , .	2.3	0
296	Multifunctional Modifications Based on Carbonyl Material Enhanced Performance of Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	3
297	Probing charge carrier dynamics in metal halide perovskite solar cells. EcoMat, 2023, 5, .	6.8	8
298	N â€(2â€aminoethyl) Acetamide Additive Enables Phaseâ€Pure and Stable Î±â€FAPbI₃ for Efficient Selfâ€Powered Photodetectors. Advanced Materials, 2022, 34, .	11.1	9
299	Photocationic Initiator Induced Synergy for Highâ€Performance Perovskite Solar Cells. Advanced Energy and Sustainability Research, 2023, 4, .	2.8	3
300	Evaluation of the Sublimation Process of Some Purine Derivatives: Sublimation Rate, Activation Energy, Mass Transfer Coefficients and Phenomenological Models. Materials, 2022, 15, 7376.	1.3	1
301	Anionic surfactant anchoring enables 23.4% efficient and stable perovskite solar cells. Science China Materials, 2022, 65, 3361-3367.	3.5	2
302	Hydroxyl substituted Spiro-OMeTAD as multi-site defect healing and carrier extraction enhanced surface passivator toward efficient perovskite solar cells. Materials Today Energy, 2022, 30, 101191.	2.5	3
303	Green Coffee Extract Microencapsulated: Physicochemical Characteristics, Stability, Bioaccessibility, and Sensory Acceptability through Dairy Beverage Consumption. International Journal of Environmental Research and Public Health, 2022, 19, 13221.	1.2	2
304	Inkjetâ€Printing Controlled Phase Evolution Boosts the Efficiency of Hole Transport Material Free and Carbonâ€Based CsPbBr₃ Perovskite Solar Cells Exceeding 9%. Energy and Environmental Materials, 0, , .	7.3	2
305	Molecular engineering of contact interfaces for high-performance perovskite solar cells. Nature Reviews Materials, 2023, 8, 89-108.	23.3	125
306	Construction of a Highly Anisotropic Supramolecular Assembly Assisted by a Dimensional Confinement Space: Toward Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 52262-52269.	4.0	0
307	Molecular Configuration Engineering in Holeâ€Transporting Materials toward Efficient and Stable Perovskite Solar Cells. Advanced Functional Materials, 2023, 33, .	7.8	10
308	Defect engineering of metal halide perovskite optoelectronic devices. Progress in Quantum Electronics, 2022, 86, 100438.	3.5	4
309	Solidâ€“solid chemical bonding featuring targeted defect passivation for efficient perovskite photovoltaics. Energy and Environmental Science, 2023, 16, 178-189.	15.6	19

#	Article	IF	Citations
310	Ethylene glycol-containing ammonium salt for developing highly compatible interfaces in perovskite solar cells. Chemical Engineering Journal, 2023, 455, 140833.	6.6	2
311	Anisotropy growth of perovskite crystal induced by layered double hydroxide for efficiency enhancement of solar cell. Electrochimica Acta, 2023, 438, 141586.	2.6	1
312	Perovskite solar cells: Thermal and chemical stability improvement, and economic analysis. Materials Today Chemistry, 2023, 27, 101284.	1.7	5
313	Vitamin Natural Molecule Enabled Highly Efficient and Stable Planar nâ€“p Homojunction Perovskite Solar Cells with Efficiency Exceeding 24.2%. Advanced Energy Materials, 2023, 13, .	10.2	22
314	Synthesis and Electrochemical Evaluation of MSNs-PbAE Nanocontainers for the Controlled Release of Caffeine as a Corrosion Inhibitor. Pharmaceutics, 2022, 14, 2670.	2.0	1
315	Orotic Acid as a Bifunctional Additive for Regulating Crystallization and Passivating Defects toward High-Performance Formamidiniumâ€“Cesium Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 53808-53818.	4.0	3
316	Plantâ€Derived <scp>l</scp>â€Theanine for Ultraviolet/Ozone Resistant Perovskite Photovoltaics. Advanced Energy Materials, 2023, 13, .	10.2	17
317	A Core@Dualâ€“Shell Nanostructured SnO₂to Modulate the Buried Interfaces Toward Stable Perovskite Solar Cells With Minimized Energy Losses. Advanced Energy Materials, 2023, 13, .	10.2	14
318	Crystallization Regulation and Dualâ€Defects Healing by Selfâ€Polymerization of Multifunctional Monomer Additives for Stable and Efficient CsPbBr₃ Perovskite Solar Cells. Solar Rrl, 2023, 7, .	3.1	10
319	Tailoring Two-Dimensional Ruddlesdenâ€“Popper Perovskite via 1D Perovskitoid Enables Efficient and Stable Solar Cells. ACS Energy Letters, 2023, 8, 637-646.	8.8	7
320	Manipulating the Crystallization and Phase Transition for Highâ€Performance CsPbI₂Br Solar Cells. Advanced Energy Materials, 2023, 13, .	10.2	17
321	Reduced E_{loss} of Planar-Structured Carbon Counter Electrode-Based CsPbI₃ Solar Cells with Tetrabutylammonium Halide-Modified SnO₂. ACS Applied Energy Materials, 0, , .	2.5	0
322	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. Journal of Physical Chemistry Letters, 2023, 14, 653-662.	2.1	7
323	Effect of Edaravone (An Antioxidant) on the Performance of Organic Perovskite Solar Cells. Physica Status Solidi - Rapid Research Letters, 2023, 17, .	1.2	2
324	Hydrazone dye passivator for high-performance and stable perovskite solar cells. Dalton Transactions, 2023, 52, 1702-1710.	1.6	3
326	Understanding the Degradation Factors, Mechanism and Initiatives for Highly Efficient Perovskite Solar Cells. ChemNanoMat, 2023, 9, .	1.5	5
327	Surface-modification-induced synergies of crystal growth and defect passivation toward CsPbI2Br solar cells with efficiency exceeding 17%. Chemical Engineering Journal, 2023, 457, 141300.	6.6	6
328	4-Carboxyphenyl isothiocyanate as a Lewis base additive for efficient and stable perovskite solar cells. Synthetic Metals, 2023, 293, 117276.	2.1	1

#	Article	IF	Citations
329	Enhancing the stability and efficiency of MAPbI₃ perovskite solar cells by theophylline-BF₄^{â^'} alkaloid derivatives, a theoretical-experimental approach. RSC Advances, 2023, 13, 5070-5080.	1.7	3
330	Tailoring Multifunctional Selfâ€Assembled Hole Transporting Molecules for Highly Efficient and Stable Inverted Perovskite Solar Cells. Advanced Functional Materials, 2023, 33, .	7.8	17
331	Synergistic Effects of Interfacial Energy Level Regulation and Stress Relaxation via a Buried Interface for Highly Efficient Perovskite Solar Cells. ACS Nano, 2023, 17, 2802-2812.	7.3	19
332	Enhanced performance of inverted hybrid perovskite solar cells with interfacial passivation filler. Materials Today Sustainability, 2023, 22, 100381.	1.9	0
333	Passivation effect of theophylline on the surface defects of MAPbI3 perovskite. Computational Materials Science, 2023, 219, 112028.	1.4	5
334	Dual-interface modification strategy via tautomeric UV absorber for efficient and UV stable planar perovskite solar cells. Organic Electronics, 2023, 115, 106762.	1.4	1
335	Instability of solution-processed perovskite films: origin and mitigation strategies. Materials Futures, 2023, 2, 012102.	3.1	11
336	Synergetic Excess PbI₂ and Reduced Pb Leakage Management Strategy for 24.28% Efficient, Stable and Ecoâ€Friendly Perovskite Solar Cells. Advanced Functional Materials, 2023, 33, .	7.8	23
337	A Polymer Strategy toward Highâ€Performance Multifunctional Perovskite Optoelectronics: From Polymer Matrix to Device Applications. Advanced Optical Materials, 2023, 11, .	3.6	4
338	Biomassâ€Derived Materials for Interface Engineering in Organic/Perovskite Photovoltaic and Lightâ€Emitting Devices. Advanced Materials Technologies, 2023, 8, .	3.0	6
339	Managing Secondary Phase Lead Iodide in Hybrid Perovskites via Surface Reconstruction for Highâ€Performance Perovskite Solar Cells with Robust Environmental Stability. Angewandte Chemie - International Edition, 2023, 62, .	7.2	19
340	Managing Secondary Phase Lead Iodide in Hybrid Perovskites via Surface Reconstruction for Highâ€Performance Perovskite Solar Cells with Robust Environmental Stability. Angewandte Chemie, 2023, 135, .	1.6	0
341	Surfaceâ€Stabilized CsPbI₃ Nanocrystals with Tailored Organic Polymer Ligand Binding. Chemistry - A European Journal, 2023, 29, .	1.7	0
342	Orbital Polarization-Dependent Fragment Twist-Induced Intramolecular Electric-Field-Driven Charge Transfer. Molecules, 2023, 28, 1801.	1.7	0
343	Halogenated Holeâ€Transport Molecules with Enhanced Isotropic Coordination Capability Enable Improved Interface and Light Stability of Perovskite Solar Cells. Advanced Energy Materials, 2023, 13, .	10.2	14
344	Lead(II) 2â€Ethylhexanoate for Simultaneous Modulated Crystallization and Surface Shielding to Boost Perovskite Solar Cell Efficiency and Stability. Advanced Materials, 2023, 35, .	11.1	12
345	Toxicity, Leakage, and Recycling of Lead in Perovskite Photovoltaics. Advanced Energy Materials, 2023, 13, .	10.2	18
346	Verticalâ€type 3D/Quasiâ€2D nâ€p Heterojunction Perovskite Photodetector. Advanced Functional Materials, 2023, 33, .	7.8	4

#	Article	IF	Citations
347	Concurrent Top and Buried Surface Optimization for Flexible Perovskite Solar Cells with High Efficiency and Stability. Advanced Functional Materials, 2023, 33, .	7.8	11
348	Relieving the Ion Migration and Increasing Superoxide Resistance with Glutathione Incorporation for Efficient and Stable Perovskite Solar Cells. Advanced Materials Interfaces, 2023, 10, .	1.9	2
349	Application of Natural Molecules in Efficient and Stable Perovskite Solar Cells. Materials, 2023, 16, 2163.	1.3	3
350	Radical reinforced defect passivation strategy for efficient and stable MAPbI3 perovskite solar cells fabricated in air using a green anti-solvent process. Chemical Engineering Journal, 2023, 462, 142328.	6.6	10
351	Synergistic Crystallization Modulation and Defects passivation via Additive Engineering Stabilize Perovskite Films for Efficient Solar Cells. Advanced Functional Materials, 2023, 33, .	7.8	15
352	Inverted Perovskite Solar Cells with >85% Fill Factor via Sequential Interfacial Engineering. Solar Rrl, 2023, 7, .	3.1	3
353	A Polymer Defect Passivator for Efficient Holeâ€Conductorâ€Free Printable Mesoscopic Perovskite Solar Cells. Advanced Functional Materials, 2023, 33, .	7.8	14
354	Selfâ€Healing Perovskite Grain Boundaries in Efficient and Stable Solar Cells via Incorporation of 502 Adhesive. Solar Rrl, 2023, 7, .	3.1	2
355	Review on Chemical Stability of Lead Halide Perovskite Solar Cells. Nano-Micro Letters, 2023, 15, .	14.4	29
356	Methylammonium halide salt interfacial modification of perovskite quantum dots/triple-cation perovskites enable efficient solar cells. Scientific Reports, 2023, 13, .	1.6	2
357	Doped metal halide perovskite materials for solar energy. , 2023, , 169-188.		0
358	How organic chemistry can affect perovskite photovoltaics. Cell Reports Physical Science, 2023, 4, 101358.	2.8	5
359	Bridging the Buried Interface with Piperazine Dihydriodide Layer for High Performance Inverted Solar Cells. Small, 2023, 19, .	5.2	10
360	Hydrogen-bond-bridged intermediate for perovskite solar cells with enhanced efficiency and stability. Nature Photonics, 2023, 17, 478-484.	15.6	62
361	Inhibition of Ion Migration for Highly Efficient and Stable Perovskite Solar Cells. Advanced Materials, 2023, 35, .	11.1	8
362	Unraveling Optical and Electrical Gains of Perovskite Solar Cells with an Antireflective and Energetic Cascade Electron Transport Layer. ACS Applied Materials & Interfaces, 2023, 15, 21152-21161.	4.0	3
363	Elucidating Structure Formation in Highly Oriented Triple Cation Perovskite Films. Advanced Science, 2023, 10, .	5.6	2
364	Defect passivation via a multifunctional organic additive toward efficient and stable inverted perovskite solar cells. Chemical Communications, 2023, 59, 6414-6417.	2.2	4

#	Article	IF	Citations
365	Surface Passivation of FAPbI₃-Rich Perovskite with Cesium Iodide Outperforms Bulk Incorporation. ACS Energy Letters, 2023, 8, 2456-2462.	8.8	14
389	Tailoring passivators for highly efficient and stable perovskite solar cells. Nature Reviews Chemistry, 2023, 7, 632-652.	13.8	36
434	The impact of moisture on the stability and degradation of perovskites in solar cells. Materials Advances, 2024, 5, 2200-2217.	2.6	0