Reversible photo-induced trap formation in mixed-hali photovoltaics

Chemical Science 6, 613-617 DOI: 10.1039/c4sc03141e

Citation Report

#	Article	IF	Citations
10	High-efficiency tandem perovskite solar cells. MRS Bulletin, 2015, 40, 681-686.	1.7	123
11	Charge arrier Dynamics and Mobilities in Formamidinium Lead Mixedâ€Halide Perovskites. Advanced Materials, 2015, 27, 7938-7944.	11.1	343
12	Lightâ€Induced Selfâ€Poling Effect on Organometal Trihalide Perovskite Solar Cells for Increased Device Efficiency and Stability. Advanced Energy Materials, 2015, 5, 1500721.	10.2	214
13	Working Principles of Perovskite Photodetectors: Analyzing the Interplay Between Photoconductivity and Voltageâ€Driven Energyâ€Level Alignment. Advanced Functional Materials, 2015, 25, 6936-6947.	7.8	129
14	Stability of Metal Halide Perovskite Solar Cells. Advanced Energy Materials, 2015, 5, 1500963.	10.2	1,045
15	Formamidinium and Cesium Hybridization for Photo―and Moisture‣table Perovskite Solar Cell. Advanced Energy Materials, 2015, 5, 1501310.	10.2	1,350
16	Transient Response of Organo-Metal-Halide Solar Cells Analyzed by Time-Resolved Current-Voltage Measurements. Photonics, 2015, 2, 1101-1115.	0.9	14
17	Environmental Effects on the Photophysics of Organic–Inorganic Halide Perovskites. Journal of Physical Chemistry Letters, 2015, 6, 2200-2205.	2.1	205
18	The dynamics of methylammonium ions in hybrid organic–inorganic perovskite solar cells. Nature Communications, 2015, 6, 7124.	5.8	517
19	Photoinduced Reversible Structural Transformations in Free-Standing CH ₃ NH ₃ PbI ₃ Perovskite Films. Journal of Physical Chemistry Letters, 2015, 6, 2332-2338.	2.1	190
20	Defect migration in methylammonium lead iodide and its role in perovskite solar cell operation. Energy and Environmental Science, 2015, 8, 2118-2127.	15.6	1,278
21	Impact of Capacitive Effect and Ion Migration on the Hysteretic Behavior of Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2015, 6, 4693-4700.	2.1	335
22	Mechanically stacked and monolithically integrated perovskite/silicon tandems and the challenges for high efficiency. , 2015, , .		4
23	Classification of solar cells according to mechanisms of charge separation and charge collection. Physical Chemistry Chemical Physics, 2015, 17, 4007-4014.	1.3	102
24	Photovoltaics literature survey (No. 117). Progress in Photovoltaics: Research and Applications, 2015, 23, 398-401.	4.4	0
25	Cooperative kinetics of depolarization in CH ₃ NH ₃ Pbl ₃ perovskite solar cells. Energy and Environmental Science, 2015, 8, 910-915.	15.6	116
26	Raman Spectroscopy of Organic–Inorganic Halide Perovskites. Journal of Physical Chemistry Letters, 2015, 6, 401-406.	2.1	206
27	Perovskite Solar Cells: Do We Know What We Do Not Know?. Journal of Physical Chemistry Letters, 2015, 6, 279-282.	2.1	71

ATION REDO

#	Article	IF	CITATIONS
28	Efficient mesoscopic perovskite solar cells based on the CH ₃ NH ₃ PbI ₂ Br light absorber. Journal of Materials Chemistry A, 2015, 3, 9116-9122.	5.2	67
29	Perovskite solar cells: film formation and properties. Journal of Materials Chemistry A, 2015, 3, 9032-9050.	5.2	392
30	Energetics and dynamics in organic–inorganic halide perovskite photovoltaics and light emitters. Nanotechnology, 2015, 26, 342001.	1.3	75
31	Blue-Green Color Tunable Solution Processable Organolead Chloride–Bromide Mixed Halide Perovskites for Optoelectronic Applications. Nano Letters, 2015, 15, 6095-6101.	4.5	461
32	Growth and Anion Exchange Conversion of CH ₃ NH ₃ PbX ₃ Nanorod Arrays for Light-Emitting Diodes. Nano Letters, 2015, 15, 5519-5524.	4.5	342
33	Observable Hysteresis at Low Temperature in "Hysteresis Free―Organic–Inorganic Lead Halide Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2015, 6, 3190-3194.	2.1	99
34	Capacitive Dark Currents, Hysteresis, and Electrode Polarization in Lead Halide Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2015, 6, 1645-1652.	2.1	430
35	Facile preparation of smooth perovskite films for efficient meso/planar hybrid structured perovskite solar cells. Chemical Communications, 2015, 51, 10038-10041.	2.2	49
36	Post-synthetic halide conversion and selective halogen capture in hybrid perovskites. Chemical Science, 2015, 6, 4054-4059.	3.7	110
37	A 2-terminal perovskite/silicon multijunction solar cell enabled by a silicon tunnel junction. Applied Physics Letters, 2015, 106, .	1.5	488
38	An extended Tolerance Factor approach for organic–inorganic perovskites. Chemical Science, 2015, 6, 3430-3433.	3.7	587
39	Metal-halide perovskites for photovoltaic and light-emitting devices. Nature Nanotechnology, 2015, 10, 391-402.	15.6	2,604
40	Enhanced Organo-Metal Halide Perovskite Photoluminescence from Nanosized Defect-Free Crystallites and Emitting Sites. Journal of Physical Chemistry Letters, 2015, 6, 4171-4177.	2.1	163
41	Perovskite Crystals for Tunable White Light Emission. Chemistry of Materials, 2015, 27, 8066-8075.	3.2	362
42	Colloidal Quantum Dot Photovoltaics Enhanced by Perovskite Shelling. Nano Letters, 2015, 15, 7539-7543.	4.5	173
43	Role of microstructure in the electron–hole interaction of hybrid lead halide perovskites. Nature Photonics, 2015, 9, 695-701.	15.6	226
44	Influence of halide precursor type and its composition on the electronic properties of vacuum deposited perovskite films. Physical Chemistry Chemical Physics, 2015, 17, 24342-24348.	1.3	41
45	Mixed Iodide–Bromide Methylammonium Lead Perovskite-based Diodes for Light Emission and Photovoltaics. Journal of Physical Chemistry Letters, 2015, 6, 3743-3748.	2.1	100

#	Article	IF	CITATIONS
46	Mechanistic insights into perovskite photoluminescence enhancement: light curing with oxygen can boost yield thousandfold. Physical Chemistry Chemical Physics, 2015, 17, 24978-24987.	1.3	325
47	CH ₃ NH ₃ PbI ₃ perovskite single crystals: surface photophysics and their interaction with the environment. Chemical Science, 2015, 6, 7305-7310.	3.7	192
48	Chemical engineering of methylammonium lead iodide/bromide perovskites: tuning of opto-electronic properties and photovoltaic performance. Journal of Materials Chemistry A, 2015, 3, 21760-21771.	5.2	96
49	Phonon–Electron Scattering Limits Free Charge Mobility in Methylammonium Lead Iodide Perovskites. Journal of Physical Chemistry Letters, 2015, 6, 4991-4996.	2.1	186
50	Material Innovation in Advancing Organometal Halide Perovskite Functionality. Journal of Physical Chemistry Letters, 2015, 6, 4862-4872.	2.1	37
51	Modulating the Electron–Hole Interaction in a Hybrid Lead Halide Perovskite with an Electric Field. Journal of the American Chemical Society, 2015, 137, 15451-15459.	6.6	61
52	Semi-transparent perovskite solar cells for tandems with silicon and CIGS. Energy and Environmental Science, 2015, 8, 956-963.	15.6	630
53	Emission Enhancement and Intermittency in Polycrystalline Organolead Halide Perovskite Films. Molecules, 2016, 21, 1081.	1.7	33
54	Stabilization of Organic–Inorganic Perovskite Layers by Partial Substitution of lodide by Bromide in Methylammonium Lead Iodide. ChemPhysChem, 2016, 17, 1505-1511.	1.0	49
55	Thermodynamic stability of mixed Pb:Sn methylâ€ammonium halide perovskites. Physica Status Solidi (B): Basic Research, 2016, 253, 1907-1915.	0.7	28
56	UV Degradation and Recovery of Perovskite Solar Cells. Scientific Reports, 2016, 6, 38150.	1.6	269
57	Three-Dimensional Optical Tomography and Correlated Elemental Analysis of Hybrid Perovskite Microstructures: An Insight into Defect-Related Lattice Distortion and Photoinduced Ion Migration. Journal of Physical Chemistry Letters, 2016, 7, 5227-5234.	2.1	37
58	Intrinsic Halide Segregation at Nanometer Scale Determines the High Efficiency of Mixed Cation/Mixed Halide Perovskite Solar Cells. Journal of the American Chemical Society, 2016, 138, 15821-15824.	6.6	179
59	Research Update: Luminescence in lead halide perovskites. APL Materials, 2016, 4, .	2.2	12
60	Evidence for ion migration in hybrid perovskite solar cells with minimal hysteresis. Nature Communications, 2016, 7, 13831.	5.8	616
61	Research Update: Challenges for high-efficiency hybrid lead-halide perovskite LEDs and the path towards electrically pumped lasing. APL Materials, 2016, 4, .	2.2	49
62	Fully inorganic cesium lead halide perovskites with improved stability for tandem solar cells. , 2016, , .		4
63	Resolving the Physical Origin of Octahedral Tilting in Halide Perovskites. Chemistry of Materials, 2016, 28, 4259-4266.	3.2	211

#	Article	IF	CITATIONS
64	Tailoring Mixed-Halide, Wide-Gap Perovskites via Multistep Conversion Process. ACS Applied Materials & Interfaces, 2016, 8, 14301-14306.	4.0	23
65	Ultrafast charge carrier dynamics in CH ₃ NH ₃ PbI ₃ : evidence for hot hole injection into spiro-OMeTAD. Journal of Materials Chemistry C, 2016, 4, 5922-5931.	2.7	34
66	In situ investigation of the formation and metastability of formamidinium lead tri-iodide perovskite solar cells. Energy and Environmental Science, 2016, 9, 2372-2382.	15.6	79
67	High-Pressure Single-Crystal Structures of 3D Lead-Halide Hybrid Perovskites and Pressure Effects on their Electronic and Optical Properties. ACS Central Science, 2016, 2, 201-209.	5.3	357
68	Organic–Inorganic Perovskites: Structural Versatility for Functional Materials Design. Chemical Reviews, 2016, 116, 4558-4596.	23.0	2,147
69	Advancements in the stability of perovskite solar cells: degradation mechanisms and improvement approaches. RSC Advances, 2016, 6, 38079-38091.	1.7	154
70	Highly Efficient Perovskite Nanocrystal Lightâ€Emitting Diodes Enabled by a Universal Crosslinking Method. Advanced Materials, 2016, 28, 3528-3534.	11.1	782
71	Tuneable mechanical and dynamical properties in the ferroelectric perovskite solid solution [NH ₃ NH ₂] _{1â^x} [NH ₃ OH] _x Zn(HCOO) _{3Chemical Science, 2016, 7, 5108-5112.}	u b. 7.	33
72	Light induced metastable modification of optical properties in CH3NH3PbI3â^'xBrx perovskite films: Two-step mechanism. Organic Electronics, 2016, 34, 79-83.	1.4	73
73	Super-Resolution Luminescence Microspectroscopy Reveals the Mechanism of Photoinduced Degradation in CH ₃ NH ₃ Pbl ₃ Perovskite Nanocrystals. Journal of Physical Chemistry C, 2016, 120, 10711-10719.	1.5	127
74	Interfacial Charge-Carrier Trapping in CH ₃ NH ₃ PbI ₃ -Based Heterolayered Structures Revealed by Time-Resolved Photoluminescence Spectroscopy. Journal of Physical Chemistry Letters, 2016, 7, 1972-1977.	2.1	58
75	Electric field induced reversible and irreversible photoluminescence responses in methylammonium lead iodide perovskite. Journal of Materials Chemistry C, 2016, 4, 9060-9068.	2.7	77
76	Recent progress on stability issues of organic–inorganic hybrid lead perovskite-based solar cells. RSC Advances, 2016, 6, 89356-89366.	1.7	69
77	Photoinduced Emissive Trap States in Lead Halide Perovskite Semiconductors. ACS Energy Letters, 2016, 1, 726-730.	8.8	137
78	Ultrafast ion migration in hybrid perovskite polycrystalline thin films under light and suppression in single crystals. Physical Chemistry Chemical Physics, 2016, 18, 30484-30490.	1.3	322
79	Chemical instability leads to unusual chemical-potential-independent defect formation and diffusion in perovskite solar cell material CH ₃ NH ₃ PbI ₃ . Journal of Materials Chemistry A, 2016, 4, 16975-16981.	5.2	67
80	Observation of Quantum Confinement in Monodisperse Methylammonium Lead Halide Perovskite Nanocrystals Embedded in Mesoporous Silica. Journal of the American Chemical Society, 2016, 138, 13874-13881.	6.6	308
81	Encapsulation for long-term stability enhancement of perovskite solar cells. Nano Energy, 2016, 30, 162-172.	8.2	258

		REPORT	
#	Article	IF	Citations
82	Highly Luminescent Cesium Lead Halide Perovskite Nanocrystals with Tunable Composition and Thickness by Ultrasonication. Angewandte Chemie - International Edition, 2016, 55, 13887-13892.	7.2	615
83	Photon Driven Transformation of Cesium Lead Halide Perovskites from Fewâ€Monolayer Nanoplatelets to Bulk Phase. Advanced Materials, 2016, 28, 10637-10643.	11.1	130
84	Starke Lumineszenz in Nanokristallen aus Caesiumbleihalogenid―Perowskit mit durchstimmbarer Zusammensetzung und Dicke mittels Ultraschalldispersion. Angewandte Chemie, 2016, 128, 14091-14096.	1.6	54
85	Effect of Halide Composition on the Photochemical Stability of Perovskite Photovoltaic Materials. ChemSusChem, 2016, 9, 2572-2577.	3.6	62
86	Ion Migration in Hybrid Perovskite Solar Cells. , 2016, , 137-162.		16
87	Interplay of structural and compositional effects on carrier recombination in mixed-halide perovskites. RSC Advances, 2016, 6, 86947-86954.	1.7	20
88	A road towards 25% efficiency and beyond: perovskite tandem solar cells. Molecular Systems Design and Engineering, 2016, 1, 370-376.	1.7	108
89	Multinuclear NMR as a tool for studying local order and dynamics in CH ₃ NH ₃ PbX ₃ (X = Cl, Br, I) hybrid perovskites. Physical Chemistry Chemical Physics, 2016, 18, 27133-27142.	1.3	78
90	Light-induced annihilation of Frenkel defects in organo-lead halide perovskites. Energy and Environmental Science, 2016, 9, 3180-3187.	15.6	302
91	Transition metal complex directed lead bromides with tunable structures and visible light driven photocatalytic properties. Dalton Transactions, 2016, 45, 19389-19398.	1.6	50
92	Direct Observation of Reversible Transformation of CH ₃ NH ₃ PbI ₃ and NH ₄ PbI ₃ Induced by Polar Gaseous Molecules. Journal of Physical Chemistry Letters, 2016, 7, 5068-5073.	2.1	62
93	Multidimensional Perovskites: A Mixed Cation Approach Towards Ambient Stable and Tunable Perovskite Photovoltaics. ChemSusChem, 2016, 9, 2541-2558.	3.6	88
94	Distribution of bromine in mixed iodide–bromide organolead perovskites and its impact on photovoltaic performance. Journal of Materials Chemistry A, 2016, 4, 16191-16197.	5.2	29
95	Strategic improvement of the long-term stability of perovskite materials and perovskite solar cells. Physical Chemistry Chemical Physics, 2016, 18, 27026-27050.	1.3	134
96	Advances in Perovskite Solar Cells. Advanced Science, 2016, 3, 1500324.	5.6	482
97	Perovskite Luminescent Materials. Topics in Current Chemistry, 2016, 374, 52.	3.0	20
98	Persistent Dopants and Phase Segregation in Organolead Mixed-Halide Perovskites. Chemistry of Materials, 2016, 28, 6848-6859.	3.2	132
99	Broad Wavelength Tunable Robust Lasing from Single-Crystal Nanowires of Cesium Lead Halide Perovskites (CsPbX ₃ , X = Cl, Br, I). ACS Nano, 2016, 10, 7963-7972.	7.3	507

#	Article	IF	CITATIONS
100	Unreacted PbI ₂ as a Double-Edged Sword for Enhancing the Performance of Perovskite Solar Cells. Journal of the American Chemical Society, 2016, 138, 10331-10343.	6.6	696
101	Pseudomorphic Transformation of Organometal Halide Perovskite Using the Gaseous Hydrogen Halide Reaction. Chemistry of Materials, 2016, 28, 5530-5537.	3.2	39
102	Effects of alloying on the optical properties of organic–inorganic lead halide perovskite thin films. Journal of Materials Chemistry C, 2016, 4, 7775-7782.	2.7	100
103	Organic-Inorganic Halide Perovskite Photovoltaics. , 2016, , .		115
104	Carrier Diffusion Lengths in Hybrid Perovskites: Processing, Composition, Aging, and Surface Passivation Effects. Chemistry of Materials, 2016, 28, 5259-5263.	3.2	109
105	Multiple Charge Transfer Dynamics in Colloidal CsPbBr ₃ Perovskite Quantum Dots Sensitized Molecular Adsorbate. Journal of Physical Chemistry C, 2016, 120, 18348-18354.	1.5	51
106	Effect of Cation Rotation on Charge Dynamics in Hybrid Lead Halide Perovskites. Journal of Physical Chemistry C, 2016, 120, 16577-16585.	1.5	54
107	Unveiling the Lowâ€Temperature Pseudodegradation of Photovoltaic Performance in Planar Perovskite Solar Cell by Optoelectronic Observation. Advanced Energy Materials, 2016, 6, 1600814.	10.2	21
108	Perovskite Photodetectors Operating in Both Narrowband and Broadband Regimes. Advanced Materials, 2016, 28, 8144-8149.	11.1	260
109	The Bright Side of Perovskites. Journal of Physical Chemistry Letters, 2016, 7, 4322-4334.	2.1	115
110	Molecularly Engineered Organic-Inorganic Hybrid Perovskite with Multiple Quantum Well Structure for Multicolored Light-Emitting Diodes. Scientific Reports, 2016, 6, 33546.	1.6	95
111	Stabilized Wide Bandgap Perovskite Solar Cells by Tin Substitution. Nano Letters, 2016, 16, 7739-7747.	4.5	193
112	Cs ⁺ incorporation into CH ₃ NH ₃ PbI ₃ perovskite: substitution limit and stability enhancement. Journal of Materials Chemistry A, 2016, 4, 17819-17827.	5.2	99
113	Doping and alloying for improved perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 17623-17635.	5.2	157
114	Performance and stability of mixed FAPbI3(0.85)MAPbBr3(0.15) halide perovskite solar cells under outdoor conditions and the effect of low light irradiation. Nano Energy, 2016, 30, 570-579.	8.2	110
115	Light-Induced Phase Segregation in Halide-Perovskite Absorbers. ACS Energy Letters, 2016, 1, 1199-1205.	8.8	532
116	The Impact of Phase Retention on the Structural and Optoelectronic Properties of Metal Halide Perovskites. Advanced Materials, 2016, 28, 10757-10763.	11.1	65
117	Bright Perovskite Nanocrystal Films for Efficient Light-Emitting Devices. Journal of Physical Chemistry Letters, 2016, 7, 4602-4610.	2.1	288

#	Article	IF	CITATIONS
118	Hybrid organic—inorganic perovskites: low-cost semiconductors with intriguing charge-transport properties. Nature Reviews Materials, 2016, 1, .	23.3	1,173
119	Light-activated photocurrent degradation and self-healing in perovskite solar cells. Nature Communications, 2016, 7, 11574.	5.8	584
120	Photo-induced halide redistribution in organic–inorganic perovskite films. Nature Communications, 2016, 7, 11683.	5.8	778
121	Defects in perovskite-halides and their effects in solar cells. Nature Energy, 2016, 1, .	19.8	886
122	Thin Film Electrochemical Capacitors Based on Organolead Triiodide Perovskite. Advanced Electronic Materials, 2016, 2, 1600114.	2.6	37
123	Hole Transport Layer Free Inorganic CsPbIBr ₂ Perovskite Solar Cell by Dual Source Thermal Evaporation. Advanced Energy Materials, 2016, 6, 1502202.	10.2	373
124	Photoluminescence Enhancement in Formamidinium Lead Iodide Thin Films. Advanced Functional Materials, 2016, 26, 4653-4659.	7.8	61
125	Fast Freeâ€Carrier Diffusion in CH ₃ NH ₃ PbBr ₃ Single Crystals Revealed by Timeâ€Resolved One―and Twoâ€Photon Excitation Photoluminescence Spectroscopy. Advanced Electronic Materials, 2016, 2, 1500290.	2.6	111
126	Fast Diffusion of Native Defects and Impurities in Perovskite Solar Cell Material CH ₃ NH ₃ PbI ₃ . Chemistry of Materials, 2016, 28, 4349-4357.	3.2	139
127	Crystallisation dynamics in wide-bandgap perovskite films. Journal of Materials Chemistry A, 2016, 4, 10524-10531.	5.2	29
128	Tracking Iodide and Bromide Ion Segregation in Mixed Halide Lead Perovskites during Photoirradiation. ACS Energy Letters, 2016, 1, 290-296.	8.8	321
129	Transformation of Sintered CsPbBr ₃ Nanocrystals to Cubic CsPbI ₃ and Gradient CsPbBr _{<i>x</i>} 1 _{3–<i>x</i>} through Halide Exchange. Journal of the American Chemical Society, 2016, 138, 8603-8611.	6.6	327
130	Intriguing Optoelectronic Properties of Metal Halide Perovskites. Chemical Reviews, 2016, 116, 12956-13008.	23.0	1,343
131	Band Gaps of the Lead-Free Halide Double Perovskites Cs ₂ BiAgCl ₆ and Cs ₂ BiAgBr ₆ from Theory and Experiment. Journal of Physical Chemistry Letters, 2016, 7, 2579-2585.	2.1	529
132	Asymmetric Cathodoluminescence Emission in CH ₃ NH ₃ Pbl _{3–<i>x</i>} Br _{<i>x</i>} Perovskite Single Crystals. ACS Photonics, 2016, 3, 947-952.	3.2	30
133	A dual-phase architecture for efficient amplified spontaneous emission in lead iodide perovskites. Journal of Materials Chemistry C, 2016, 4, 4630-4633.	2.7	15
134	Halide Perovskites: Poor Man's Highâ€₽erformance Semiconductors. Advanced Materials, 2016, 28, 5778-5793.	11.1	339
135	A Long-Term View on Perovskite Optoelectronics. Accounts of Chemical Research, 2016, 49, 339-346.	7.6	189

#	Article	IF	CITATIONS
136	Effects of Light and Electron Beam Irradiation on Halide Perovskites and Their Solar Cells. Accounts of Chemical Research, 2016, 49, 347-354.	7.6	150
137	Enhancing the carrier thermalization time in organometallic perovskites by halide mixing. Physical Chemistry Chemical Physics, 2016, 18, 5219-5231.	1.3	61
138	Ion Migration in Organometal Trihalide Perovskite and Its Impact on Photovoltaic Efficiency and Stability. Accounts of Chemical Research, 2016, 49, 286-293.	7.6	1,343
139	Dark-blue mirror-like perovskite dense films for efficient organic–inorganic hybrid solar cells. Journal of Materials Chemistry A, 2016, 4, 3689-3696.	5.2	8
140	Perovskites for Photovoltaics in the Spotlight: Photoinduced Physical Changes and Their Implications. Accounts of Chemical Research, 2016, 49, 320-329.	7.6	57
141	Making and Breaking of Lead Halide Perovskites. Accounts of Chemical Research, 2016, 49, 330-338.	7.6	571
142	Contactless Visualization of Fast Charge Carrier Diffusion in Hybrid Halide Perovskite Thin Films. ACS Photonics, 2016, 3, 255-261.	3.2	26
143	Excited state and charge-carrier dynamics in perovskite solar cell materials. Nanotechnology, 2016, 27, 082001.	1.3	35
144	Low-temperature solution processable n–i–p perovskite solar cell. Japanese Journal of Applied Physics, 2016, 55, 04EA01.	0.8	3
145	Grain boundary dominated ion migration in polycrystalline organic–inorganic halide perovskite films. Energy and Environmental Science, 2016, 9, 1752-1759.	15.6	917
146	Cesium-containing triple cation perovskite solar cells: improved stability, reproducibility and high efficiency. Energy and Environmental Science, 2016, 9, 1989-1997.	15.6	4,560
147	Lead-Free Halide Double Perovskites via Heterovalent Substitution of Noble Metals. Journal of Physical Chemistry Letters, 2016, 7, 1254-1259.	2.1	761
148	How Lead Halide Complex Chemistry Dictates the Composition of Mixed Halide Perovskites. Journal of Physical Chemistry Letters, 2016, 7, 1368-1373.	2.1	160
149	Stabilized Wide Bandgap MAPbBr <i>_x</i> l _{3–<i>x</i>} Perovskite by Enhanced Grain Size and Improved Crystallinity. Advanced Science, 2016, 3, 1500301.	5.6	229
150	Hybrid Organic–Inorganic Perovskites on the Move. Accounts of Chemical Research, 2016, 49, 573-581.	7.6	227
151	Thin-film semiconductor perspective of organometal trihalide perovskite materials for high-efficiency solar cells. Materials Science and Engineering Reports, 2016, 101, 1-38.	14.8	117
152	Can slow-moving ions explain hysteresis in the current–voltage curves of perovskite solar cells?. Energy and Environmental Science, 2016, 9, 1476-1485.	15.6	363
153	Ionic polarization-induced current–voltage hysteresis in CH3NH3PbX3 perovskite solar cells. Nature Communications, 2016, 7, 10334.	5.8	602

#	ARTICLE	IF	Citations
154	Universal energy level tailoring of self-organized hole extraction layers in organic solar cells and organic–inorganic hybrid perovskite solar cells. Energy and Environmental Science, 2016, 9, 932-939.	15.6	218
155	Cesium Lead Halide Perovskites with Improved Stability for Tandem Solar Cells. Journal of Physical Chemistry Letters, 2016, 7, 746-751.	2.1	966
156	Current Challenges and Prospective Research for Upscaling Hybrid Perovskite Photovoltaics. Journal of Physical Chemistry Letters, 2016, 7, 811-819.	2.1	188
157	Steady state performance, photo-induced performance degradation and their relation to transient hysteresis in perovskite solar cells. Journal of Power Sources, 2016, 309, 1-10.	4.0	49
158	Thermodynamic Origin of Photoinstability in the CH ₃ NH ₃ Pb(I _{1–<i>x</i>} Br _{<i>x</i>}) ₃ Hybrid Halide Perovskite Alloy. Journal of Physical Chemistry Letters, 2016, 7, 1083-1087.	2.1	298
159	Exploration of the compositional space for mixed lead halogen perovskites for high efficiency solar cells. Energy and Environmental Science, 2016, 9, 1706-1724.	15.6	622
160	Optoelectronic Quality and Stability of Hybrid Perovskites from MAPbI ₃ to MAPbI ₂ Br Using Composition Spread Libraries. Journal of Physical Chemistry C, 2016, 120, 893-902.	1.5	65
161	Effect of halide-mixing on the electronic transport properties of organometallic perovskites. Solar Energy Materials and Solar Cells, 2016, 148, 2-10.	3.0	25
162	Halogen Effects on Ordering and Bonding of CH ₃ NH ₃ ⁺ in CH ₃ NH ₃ PbX ₃ (X = Cl, Br, I) Hybrid Perovskites: A Vibrational Spectroscopic Study. Journal of Physical Chemistry C, 2016, 120, 2509-2519.	1.5	188
163	Nanowire Lasers of Formamidinium Lead Halide Perovskites and Their Stabilized Alloys with Improved Stability. Nano Letters, 2016, 16, 1000-1008.	4.5	391
164	Stabilizing Perovskite Structures by Tuning Tolerance Factor: Formation of Formamidinium and Cesium Lead Iodide Solid-State Alloys. Chemistry of Materials, 2016, 28, 284-292.	3.2	1,606
165	High Photoluminescence Quantum Yield in Band Gap Tunable Bromide Containing Mixed Halide Perovskites. Nano Letters, 2016, 16, 800-806.	4.5	269
166	Photoluminescence characterisations of a dynamic aging process of organic–inorganic CH ₃ NH ₃ PbBr ₃ perovskite. Nanoscale, 2016, 8, 1926-1931.	2.8	61
167	A mixed-cation lead mixed-halide perovskite absorber for tandem solar cells. Science, 2016, 351, 151-155.	6.0	2,514
168	Manipulating Crystallization of Organolead Mixed-Halide Thin Films in Antisolvent Baths for Wide-Bandgap Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 2232-2237.	4.0	91
169	Effect of crystal structure on the electronic transport properties of the organometallic perovskite CH3NH3PbI3. Solar Energy Materials and Solar Cells, 2016, 148, 60-66.	3.0	18
170	Relationships between Lead Halide Perovskite Thin-Film Fabrication, Morphology, and Performance in Solar Cells. Journal of the American Chemical Society, 2016, 138, 463-470.	6.6	221
171	Organometal halide perovskite solar cells: degradation and stability. Energy and Environmental Science, 2016, 9, 323-356.	15.6	1,457

#	Article	IF	Citations
172	Photon Emission and Reabsorption Processes in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>CH</mml:mi></mml:mrow><mml:mrow><mn Single Crystals Revealed by Time-Resolved Two-Photon-Ex. Physical Review Applied, 2017, 7, .</mn </mml:mrow></mml:msub></mml:mrow></mml:math 	nl:mn>3 </td <td>116 mml:mn></td>	116 mml:mn>
173	Origin of Reversible Photoinduced Phase Separation in Hybrid Perovskites. Nano Letters, 2017, 17, 1028-1033.	4.5	529
174	Photocurrent Spectroscopy of Perovskite Layers and Solar Cells: A Sensitive Probe of Material Degradation. Journal of Physical Chemistry Letters, 2017, 8, 838-843.	2.1	18
175	Coupled Slow and Fast Charge Dynamics in Cesium Lead Bromide Perovskite. ACS Energy Letters, 2017, 2, 488-496.	8.8	13
176	Efficient wide band gap double cation – double halide perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 3203-3207.	5.2	28
177	Solution-processed chalcopyrite–perovskite tandem solar cells in bandgap-matched two- and four-terminal architectures. Journal of Materials Chemistry A, 2017, 5, 3214-3220.	5.2	23
178	Effect of Precursor Solution Aging on the Crystallinity and Photovoltaic Performance of Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1602159.	10.2	130
179	Large-grained perovskite films via FA x MA 1â^'x Pb(I x Br 1â^'x) 3 single crystal precursor for efficient solar cells. Nano Energy, 2017, 34, 264-270.	8.2	35
180	Band Tailing and Deep Defect States in CH ₃ NH ₃ Pb(I _{1–<i>x</i>} Br _{<i>x</i>}) ₃ Perovskites As Revealed by Sub-Bandgap Photocurrent. ACS Energy Letters, 2017, 2, 709-715.	8.8	102
181	Between the Sheets: Postsynthetic Transformations in Hybrid Perovskites. Chemistry of Materials, 2017, 29, 1868-1884.	3.2	75
182	Photoelectrochemical water splitting over mesoporous CuPbI3 films prepared by electrophoretic technique. Monatshefte Für Chemie, 2017, 148, 981-989.	0.9	13
183	Epitaxial Halide Perovskite Lateral Double Heterostructure. ACS Nano, 2017, 11, 3355-3364.	7.3	79
184	Alleviating hysteresis and improving device stability of perovskite solar cells via alternate voltage sweeps. Chinese Physics B, 2017, 26, 018401.	0.7	5
185	Chemically diverse and multifunctional hybrid organic–inorganic perovskites. Nature Reviews Materials, 2017, 2, .	23.3	867
186	Effect of precursor components on the photovoltaic performance of MA _{1â^'x} FA _x Pbl _{3â 'y} Br _y films prepared via a one-step method. Inorganic Chemistry Frontiers, 2017, 4, 850-859.	3.0	6
187	Perovskite Solar Cells on the Way to Their Radiative Efficiency Limit – Insights Into a Success Story of High Openâ€Circuit Voltage and Low Recombination. Advanced Energy Materials, 2017, 7, 1602358.	10.2	430
188	Lead Halide Perovskites: Challenges and Opportunities in Advanced Synthesis and Spectroscopy. ACS Energy Letters, 2017, 2, 906-914.	8.8	97
189	Progress in Tandem Solar Cells Based on Hybrid Organic–Inorganic Perovskites. Advanced Energy Materials. 2017, 7, 1602400.	10.2	130

#	Article	IF	CITATIONS
190	Self-Assembled Lead Halide Perovskite Nanocrystals in a Perovskite Matrix. ACS Energy Letters, 2017, 2, 769-775.	8.8	15
191	Spatially resolved studies of the phases and morphology of methylammonium and formamidinium lead tri-halide perovskites. Nanoscale, 2017, 9, 3222-3230.	2.8	44
192	Investigation of Ion-Mediated Charge Transport in Methylammonium Lead Iodide Perovskite. Journal of Physical Chemistry C, 2017, 121, 5515-5522.	1.5	20
193	CH 3 NH 3 PbI 3â^'x Br x perovskite solar cells via spray assisted two-step deposition: Impact of bromide on stability and cell performance. Materials and Design, 2017, 125, 222-229.	3.3	34
194	Extrinsic ion migration in perovskite solar cells. Energy and Environmental Science, 2017, 10, 1234-1242.	15.6	458
195	On-axis pulsed laser deposition of hybrid perovskite films for solar cell and broadband photo-sensor applications. Journal of Applied Physics, 2017, 121, .	1.1	27
196	Designing of blue, green, and red CsPbX ₃ perovskite-codoped flexible films with water resistant property and elimination of anion-exchange for tunable white light emission. Chemical Communications, 2017, 53, 5400-5403.	2.2	100
197	Improved Charge Collection in Highly Efficient CsPbBrI ₂ Solar Cells with Light-Induced Dealloying. ACS Energy Letters, 2017, 2, 1043-1049.	8.8	103
198	Ionic behavior of organic–inorganic metal halide perovskite based metal-oxide-semiconductor capacitors. Physical Chemistry Chemical Physics, 2017, 19, 13002-13009.	1.3	9
199	Recent progress in stabilizing hybrid perovskites for solar cell applications. Journal of Power Sources, 2017, 355, 98-133.	4.0	96
200	Efficient Red Perovskite Lightâ€Emitting Diodes Based on Solutionâ€Processed Multiple Quantum Wells. Advanced Materials, 2017, 29, 1606600.	11.1	155
201	Halide Perovskites for Tandem Solar Cells. Journal of Physical Chemistry Letters, 2017, 8, 1999-2011.	2.1	47
202	Defect-Assisted Photoinduced Halide Segregation in Mixed-Halide Perovskite Thin Films. ACS Energy Letters, 2017, 2, 1416-1424.	8.8	437
203	Perovskite Tandem Solar Cells. Advanced Energy Materials, 2017, 7, 1602761.	10.2	193
204	Growth patterns and properties of aerosol-assisted chemical vapor deposition of CH3NH3PbI3 films in a single step. Surface and Coatings Technology, 2017, 321, 336-340.	2.2	15
205	Realizing a new class of hybrid organic–inorganic multifunctional perovskite. Journal of Materials Chemistry A, 2017, 5, 10640-10650.	5.2	26
206	Matching Charge Extraction Contact for Wideâ€Bandgap Perovskite Solar Cells. Advanced Materials, 2017, 29, 1700607.	11.1	178
207	Crystallinity Preservation and Ion Migration Suppression through Dual Ion Exchange Strategy for Stable Mixed Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1700118.	10.2	74

#	Article	IF	CITATIONS
208	Enhanced Photovoltaic Properties Induced by Ferroelectric Domain Structures in Organometallic Halide Perovskites. Journal of Physical Chemistry C, 2017, 121, 11151-11158.	1.5	44
209	Quantification of light-enhanced ionic transport in lead iodide perovskite thin films and its solar cell applications. Light: Science and Applications, 2017, 6, e16243-e16243.	7.7	342
210	Photophysical properties of wavelength-tunable methylammonium lead halide perovskite nanocrystals. Journal of Materials Chemistry C, 2017, 5, 118-126.	2.7	26
211	Ambipolar Triple Cation Perovskite Field Effect Transistors and Inverters. Advanced Materials, 2017, 29, 1602940.	11.1	116
212	Comparison studies of hybrid lead halide [MPb ₂ X ₇] ^{2â^`} (M = Cu, Ag;) Tj E Transactions, 2017, 46, 9235-9244.	TQq0 0 0 1.6	rgBT /Overloo 35
213	Femtosecond Chargeâ€Injection Dynamics at Hybrid Perovskite Interfaces. ChemPhysChem, 2017, 18, 2381-2389.	1.0	24
214	Composition Engineering in Doctorâ€Blading of Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1700302.	10.2	239
215	Field-Driven Ion Migration and Color Instability in Red-Emitting Mixed Halide Perovskite Nanocrystal Light-Emitting Diodes. Chemistry of Materials, 2017, 29, 5965-5973.	3.2	267
216	Correlation between Photoluminescence and Carrier Transport and a Simple In Situ Passivation Method for High-Bandgap Hybrid Perovskites. Journal of Physical Chemistry Letters, 2017, 8, 3289-3298.	2.1	41
217	Investigation of anti-solvent induced optical properties change of cesium lead bromide iodide mixed perovskite (CsPbBr3-xlx) quantum dots. Journal of Colloid and Interface Science, 2017, 504, 586-592.	5.0	27
218	Transient Optoelectronic Analysis of the Impact of Material Energetics and Recombination Kinetics on the Open-Circuit Voltage of Hybrid Perovskite Solar Cells. Journal of Physical Chemistry C, 2017, 121, 13496-13506.	1.5	76
219	The Emergence of the Mixed Perovskites and Their Applications as Solar Cells. Advanced Energy Materials, 2017, 7, 1700491.	10.2	120
220	Lead-Free Mixed Tin and Germanium Perovskites for Photovoltaic Application. Journal of the American Chemical Society, 2017, 139, 8038-8043.	6.6	217
221	Pronounced Exciton Dynamics in the Vacancy-Ordered Bismuth Halide Perovskite (CH ₃ NH ₃) ₃ Bi ₂ I ₉ Observed by Ultrafast UV–vis–NIR Transient Absorption Spectroscopy. Journal of Physical Chemistry C, 2017, 121, 12110-12116.	1.5	39
222	Enhancing Ion Migration in Grain Boundaries of Hybrid Organic–Inorganic Perovskites by Chlorine. Advanced Functional Materials, 2017, 27, 1700749.	7.8	74
223	Nonradiative Losses in Metal Halide Perovskites. ACS Energy Letters, 2017, 2, 1515-1525.	8.8	290
224	Charge-Carrier Mobilities in Metal Halide Perovskites: Fundamental Mechanisms and Limits. ACS Energy Letters, 2017, 2, 1539-1548.	8.8	928
225	Halide Perovskites under Pressure: Accessing New Properties through Lattice Compression. ACS Energy Letters, 2017, 2, 1549-1555.	8.8	138

#	Article	IF	CITATIONS
226	Broadly tunable metal halide perovskites for solid-state light-emission applications. Materials Today, 2017, 20, 413-424.	8.3	204
227	<i>Shift Happens</i> . How Halide Ion Defects Influence Photoinduced Segregation in Mixed Halide Perovskites. ACS Energy Letters, 2017, 2, 1507-1514.	8.8	282
228	Designing indirect–direct bandgap transitions in double perovskites. Materials Horizons, 2017, 4, 688-693.	6.4	290
229	Perovskite solar cells - An overview of critical issues. Progress in Quantum Electronics, 2017, 53, 1-37.	3.5	132
230	Perspective: Theory and simulation of hybrid halide perovskites. Journal of Chemical Physics, 2017, 146, 220901.	1.2	111
231	Impact of the Halide Cage on the Electronic Properties of Fully Inorganic Cesium Lead Halide Perovskites. ACS Energy Letters, 2017, 2, 1621-1627.	8.8	215
232	Suppressed Ion Migration in Low-Dimensional Perovskites. ACS Energy Letters, 2017, 2, 1571-1572.	8.8	404
233	Recent efficient strategies for improving the moisture stability of perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 15447-15459.	5.2	125
234	Direct Observation of Charge Collection at Nanometer-Scale Iodide-Rich Perovskites during Halide Exchange Reaction on CH ₃ NH ₃ PbBr ₃ . Journal of Physical Chemistry Letters, 2017, 8, 1724-1728.	2.1	26
235	Rubidium Multication Perovskite with Optimized Bandgap for Perovskiteâ€Silicon Tandem with over 26% Efficiency. Advanced Energy Materials, 2017, 7, 1700228.	10.2	443
236	Performance Enhancement of Tri ation and Dualâ€Anion Mixed Perovskite Solar Cells by Au@SiO ₂ Nanoparticles. Advanced Functional Materials, 2017, 27, 1606545.	7.8	52
237	A critical review on tin halide perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 11518-11549.	5.2	463
238	Increased Throughput and Sensitivity of Synchrotron-Based Characterization for Photovoltaic Materials. IEEE Journal of Photovoltaics, 2017, 7, 763-771.	1.5	10
239	Brightly Luminescent and Color-Tunable Formamidinium Lead Halide Perovskite FAPbX ₃ (X) Tj ETQq1	1 0.7843 4.5	314_rgBT /0∖ 356
240	Towards enabling stable lead halide perovskite solar cells; interplay between structural, environmental, and thermal stability. Journal of Materials Chemistry A, 2017, 5, 11483-11500.	5.2	319
241	Luminescence control in hybrid perovskites and their applications. Journal of Materials Chemistry C, 2017, 5, 4098-4110.	2.7	14
242	Roadmap and roadblocks for the band gap tunability of metal halide perovskites. Journal of Materials Chemistry A, 2017, 5, 11401-11409.	5.2	307
243	Transformation of PbI ₂ , PbBr ₂ and PbCI ₂ salts into MAPbBr ₃ perovskite by halide exchange as an effective method for recombination reduction. Physical Chemistry Chemical Physics, 2017, 19, 10913-10921.	1.3	27

#	Article	IF	Citations
244	Surface passivation of mixed-halide perovskite CsPb(Br _x l _{lâ^'x}) ₃ nanocrystals by selective etching for improved stability. Nanoscale, 2017, 9, 7391-7396.	2.8	73
245	Photoinduced Anion Exchange in Cesium Lead Halide Perovskite Nanocrystals. Journal of the American Chemical Society, 2017, 139, 4358-4361.	6.6	184
246	Ions Matter: Description of the Anomalous Electronic Behavior in Methylammonium Lead Halide Perovskite Devices. Advanced Functional Materials, 2017, 27, 1606584.	7.8	65
247	Anomalous photovoltaic effect in organic-inorganic hybrid perovskite solar cells. Science Advances, 2017, 3, e1602164.	4.7	165
248	Tuning CH ₃ NH ₃ Pb(I _{1â^'x} Br _x) ₃ perovskite oxygen stability in thin films and solar cells. Journal of Materials Chemistry A, 2017, 5, 9553-9560.	5.2	72
249	Sequential Introduction of Cations Deriving Largeâ€Grain Cs <i>_x</i> FA _{1â^} <i>_x</i> PbI ₃ Thin Film for Planar Hybrid Solar Cells: Insight into Phaseâ€&egregation and Thermalâ€Healing Behavior. Small, 2017, 13, 1603225	5.2	69
250	Enhanced Charge Carrier Transport and Device Performance Through Dual-Cesium Doping in Mixed-Cation Perovskite Solar Cells with Near Unity Free Carrier Ratios. ACS Applied Materials & Interfaces, 2017, 9, 2358-2368.	4.0	28
251	Long-Distance Charge Carrier Funneling in Perovskite Nanowires Enabled by Built-in Halide Gradient. Journal of the American Chemical Society, 2017, 139, 579-582.	6.6	93
252	Stability issues pertaining large area perovskite and dye-sensitized solar cells and modules. Journal Physics D: Applied Physics, 2017, 50, 033001.	1.3	42
253	Hybrid Perovskite Photovoltaic Devices: Properties, Architecture, and Fabrication Methods. Energy Technology, 2017, 5, 373-401.	1.8	26
254	Highâ€Quality, Ligandsâ€Free, Mixedâ€Halide Perovskite Nanocrystals Inks for Optoelectronic Applications. Advanced Energy Materials, 2017, 7, 1601703.	10.2	29
255	Photovoltaic mixed-cation lead mixed-halide perovskites: links between crystallinity, photo-stability and electronic properties. Energy and Environmental Science, 2017, 10, 361-369.	15.6	482
256	Temperature-Dependent Photoluminescence of Cesium Lead Halide Perovskite Quantum Dots: Splitting of the Photoluminescence Peaks of CsPbBr ₃ and CsPb(Br/I) ₃ Quantum Dots at Low Temperature. Journal of Physical Chemistry C, 2017, 121, 26054-26062.	1.5	120
257	Mixed-Halide Perovskites with Stabilized Bandgaps. Nano Letters, 2017, 17, 6863-6869.	4.5	165
258	The Potential of Multijunction Perovskite Solar Cells. ACS Energy Letters, 2017, 2, 2506-2513.	8.8	272
259	Light Soaking Phenomena in Organic–Inorganic Mixed Halide Perovskite Single Crystals. ACS Photonics, 2017, 4, 2813-2820.	3.2	31
260	Bright-Emitting Perovskite Films by Large-Scale Synthesis and Photoinduced Solid-State Transformation of CsPbBr ₃ Nanoplatelets. ACS Nano, 2017, 11, 10206-10213.	7.3	118
261	3D hole-transporting materials based on coplanar quinolizino acridine for highly efficient perovskite solar cells. Chemical Science, 2017, 8, 7807-7814.	3.7	36

#	Article	IF	CITATIONS
262	Direct Observation of Halide Migration and its Effect on the Photoluminescence of Methylammonium Lead Bromide Perovskite Single Crystals. Advanced Materials, 2017, 29, 1703451.	11.1	83
263	Photoluminescence from Radiative Surface States and Excitons in Methylammonium Lead Bromide Perovskites. Journal of Physical Chemistry Letters, 2017, 8, 4258-4263.	2.1	46
264	Novel Three-Dimensional Semiconducting Materials Based on Hybrid d ¹⁰ Transition Metal Halogenides as Visible Light-Driven Photocatalysts. Inorganic Chemistry, 2017, 56, 10962-10970.	1.9	62
265	Selfâ€Healing Materials for Nextâ€Generation Energy Harvesting and Storage Devices. Advanced Energy Materials, 2017, 7, 1700890.	10.2	206
266	Benzylamineâ€Treated Wideâ€Bandgap Perovskite with High Thermalâ€Photostability and Photovoltaic Performance. Advanced Energy Materials, 2017, 7, 1701048.	10.2	188
267	Nonlinear photocarrier recombination dynamics in mixed-halide CH ₃ NH ₃ Pb(I _{1â^'} <i> _x </i> Br <i> _x) Tj ETQq1 1 0</i>	.71814314 r	g₿T /Over∖
268	Monolithic Wide Band Gap Perovskite/Perovskite Tandem Solar Cells with Organic Recombination Layers. Journal of Physical Chemistry C, 2017, 121, 27256-27262.	1.5	40
269	Partially Reversible Photoinduced Chemical Changes in a Mixed-Ion Perovskite Material for Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 34970-34978.	4.0	65
270	Consolidation of the optoelectronic properties of CH3NH3PbBr3 perovskite single crystals. Nature Communications, 2017, 8, 590.	5.8	207
271	Improved performance of CH3NH3PbBr3 perovskite solar cells utilizing PbI2 precursors. Chemical Physics Letters, 2017, 687, 106-109.	1.2	5
272	Solid Ligand-Assisted Storage of Air-Stable Formamidinium Lead Halide Quantum Dots via Restraining the Highly Dynamic Surface toward Brightly Luminescent Light-Emitting Diodes. ACS Photonics, 2017, 4, 2504-2512.	3.2	50
273	Dielectric relaxation and Ac conductivity of perovskites CH ₃ NH ₃ PbX ₃ (X = Br, I). Ferroelectrics, 2017, 514, 146-157.	0.3	20
274	Characterization of quenching defects in methylammonium lead triiodide (CH3NH3PbI3). Journal of Luminescence, 2017, 192, 1191-1195.	1.5	7
275	Enhanced Moisture Stability of Cesium ontaining Compositional Perovskites by a Feasible Interfacial Engineering. Advanced Materials Interfaces, 2017, 4, 1700598.	1.9	65
276	Trapping charges at grain boundaries and degradation of CH ₃ NH ₃ Pb(I _{1â^'<i>x</i>} Br <i>_x</i>) ₃ perovskite solar cells. Nanotechnology, 2017, 28, 315402.	1.3	23
277	Light and Electrically Induced Phase Segregation and Its Impact on the Stability of Quadruple Cation High Bandgap Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 26859-26866.	4.0	114
278	Current-Induced Phase Segregation in Mixed Halide Hybrid Perovskites and its Impact on Two-Terminal Tandem Solar Cell Design. ACS Energy Letters, 2017, 2, 1841-1847.	8.8	161
279	A Victim of Halide Ion Segregation. How Light Soaking Affects Solar Cell Performance of Mixed Halide Lead Perovskites. ACS Energy Letters, 2017, 2, 1860-1861.	8.8	142

#	Article	IF	CITATIONS
280	In situ investigation of halide incorporation into perovskite solar cells. MRS Communications, 2017, 7, 575-582.	0.8	7
281	Highâ€Temperature Ionic Epitaxy of Halide Perovskite Thin Film and the Hidden Carrier Dynamics. Advanced Materials, 2017, 29, 1702643.	11.1	83
282	Metal Oxides as Efficient Charge Transporters in Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1602803.	10.2	147
283	Phase Segregation Enhanced Ion Movement in Efficient Inorganic CsPbIBr ₂ Solar Cells. Advanced Energy Materials, 2017, 7, 1700946.	10.2	318
284	Role of Microstructure in Oxygen Induced Photodegradation of Methylammonium Lead Triiodide Perovskite Films. Advanced Energy Materials, 2017, 7, 1700977.	10.2	183
285	Lowâ€Dimensional Organic–Inorganic Halide Perovskite: Structure, Properties, and Applications. ChemSusChem, 2017, 10, 3712-3721.	3.6	100
286	Bromine substitution improves excited-state dynamics in mesoporous mixed halide perovskite films. Nanoscale, 2017, 9, 12005-12013.	2.8	21
287	Rationalizing the light-induced phase separation of mixed halide organic–inorganic perovskites. Nature Communications, 2017, 8, 200.	5.8	399
288	Light-Independent Ionic Transport in Inorganic Perovskite and Ultrastable Cs-Based Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2017, 8, 4122-4128.	2.1	231
289	Synthetic Manipulation of Hybrid Perovskite Systems in Search of New and Enhanced Functionalities. ChemSusChem, 2017, 10, 3722-3739.	3.6	11
290	Delayed Exciton Formation Involving Energetically Shallow Trap States in Colloidal CsPbBr ₃ Quantum Dots. Journal of Physical Chemistry C, 2017, 121, 28498-28505.	1.5	26
291	Large guanidinium cation mixed with methylammonium in lead iodide perovskites for 19% efficient solar cells. Nature Energy, 2017, 2, 972-979.	19.8	445
292	Zero-dimensional methylammonium iodo bismuthate solar cells and synergistic interactions with silicon nanocrystals. Nanoscale, 2017, 9, 18759-18771.	2.8	25
293	Effect of Low Temperature on Charge Transport in Operational Planar and Mesoporous Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 42769-42778.	4.0	4
294	Metal halide perovskite tandem and multiple-junction photovoltaics. Nature Reviews Chemistry, 2017, 1,	13.8	344
295	Photon Energy-Dependent Hysteresis Effects in Lead Halide Perovskite Materials. Journal of Physical Chemistry C, 2017, 121, 26180-26187.	1.5	26
296	Extension of catalyst lifetime by doping of Ce in Ni-loaded acid-washed Shengli lignite char for biomass catalytic gasification. Catalysis Science and Technology, 2017, 7, 5741-5749.	2.1	39
297	Promises and challenges of perovskite solar cells. Science, 2017, 358, 739-744.	6.0	1,510

ARTICLE IF CITATIONS # A generic interface to reduce the efficiency-stability-cost gap of perovskite solar cells. Science, 2017, 298 6.0 554 358, 1192-1197. Predictive Modeling of Ion Migration Induced Degradation in Perovskite Solar Cells. ACS Nano, 2017, 299 11, 11505-11512. Atmospherically Processed and Stable Cs-Pb Based Perovskite Solar Cells. MRS Advances, 2017, 2, 300 0.5 5 3083-3090. Defect-induced local variation of crystal phase transition temperature in metal-halide perovskites. 301 5.8 Nature Communications, 2017, 8, 34. Capturing the Sun: A Review of the Challenges and Perspectives of Perovskite Solar Cells. Advanced 302 10.2 295 Energy Materials, 2017, 7, 1700264. Band Gap Tuning via Lattice Contraction and Octahedral Tilting in Perovskite Materials for Photovoltaics. Journal of the American Chemical Society, 2017, 139, 11117-11124. 6.6 570 Mobile-Ion-Induced Degradation of Organic Hole-Selective Layers in Perovskite Solar Cells. Journal of 304 1.5 117 Physical Chemistry C, 2017, 121, 14517-14523. Progress on Perovskite Materials and Solar Cells with Mixed Cations and Halide Anions. ACS Applied 4.0 453 Materials & amp; Interfaces, 2017, 9, 30197-30246. High Stability and Ultralow Threshold Amplified Spontaneous Emission from Formamidinium Lead 306 50 1.5 Halide Perovskite Films. Journal of Physical Chemistry C, 2017, 121, 15318-15325. Impact of Structural Dynamics on the Optical Properties of Methylammonium Lead Iodide Perovskites. 10.2 Advanced Energy Materials, 2017, 7, 1700286. Dynamic Electronic Junctions in Organic–Inorganic Hybrid Perovskites. Nano Letters, 2017, 17, 308 4.5 26 4831-4839. Graded bandgap perovskite solar cells. Nature Materials, 2017, 16, 522-525. 13.3 135 Chemical Approaches to Addressing the Instability and Toxicity of Leadâ€"Halide Perovskite Absorbers. 310 1.9 255 Inorganic Chemistry, 2017, 56, 46-55. Photoluminescence Study of the Photoinduced Phase Separation in Mixed-Halide Hybrid Perovskite 1.6 CH3NH3Pb(BrxI1â^'x)3 Crystals Synthesized via a Solvothermal Method. Scientific Reports, 2017, 7, 17695. Triple cation mixed-halide perovskites for tunable lasers. Optical Materials Express, 2017, 7, 4082. 312 30 1.6 Recent Progresses in Perovskite Solar Cells., 2017,,. From Nanostructural Evolution to Dynamic Interplay ofÂConstituents: Perspectives for Perovskite 314 11.1 54 Solar Cells. Advanced Materials, 2018, 30, e1704208. Mechanochemical Synthesis of Methylammonium Lead Mixed–Halide Perovskites: Unraveling the 3.2 Solid-Solution Behavior Using Solid-State NMR. Chemistry of Materials, 2018, 30, 2309-2321.

#	Article	IF	CITATIONS
316	Mixed halide hybrid perovskites: a paradigm shift in photovoltaics. Journal of Materials Chemistry A, 2018, 6, 5507-5537.	5.2	104
317	Photo-induced dynamic processes in perovskite solar cells: the influence of perovskite composition in the charge extraction and the carrier recombination. Nanoscale, 2018, 10, 6155-6158.	2.8	24
318	Vacuum Deposited Tripleâ€Cation Mixedâ€Halide Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1703506.	10.2	147
319	Local Observation of Phase Segregation in Mixed-Halide Perovskite. Nano Letters, 2018, 18, 2172-2178.	4.5	186
320	Evolution of organometal halide solar cells. Journal of Photochemistry and Photobiology C: Photochemistry Reviews, 2018, 35, 74-107.	5.6	32
321	Characterising degradation of perovskite solar cells through in-situ and operando electron microscopy. Nano Energy, 2018, 47, 243-256.	8.2	67
322	Defects in metal triiodide perovskite materials towards high-performance solar cells: origin, impact, characterization, and engineering. Chemical Society Reviews, 2018, 47, 4581-4610.	18.7	455
323	Structureâ€Dependent Photochromic Iodoargentate Hybrids Based on Photolytic Mechanism. ChemistrySelect, 2018, 3, 4217-4221.	0.7	6
324	Recent progress in 2D/quasi-2D layered metal halide perovskites for solar cells. Journal of Materials Chemistry A, 2018, 6, 11063-11077.	5.2	183
325	Improving the stability and decreasing the trap state density of mixed-cation perovskite solar cells through compositional engineering. Sustainable Energy and Fuels, 2018, 2, 1332-1341.	2.5	36
326	Light-induced lattice expansion leads to high-efficiency perovskite solar cells. Science, 2018, 360, 67-70.	6.0	554
327	Enhanced photovoltaic performance of CH 3 NH 3 PbBr X I 3-X -based perovskite solar cells via anti-solvent extraction. Superlattices and Microstructures, 2018, 118, 79-91.	1.4	5
328	Ultraviolet light induced degradation of luminescence in CsPbBr3 perovskite nanocrystals. Materials Research Bulletin, 2018, 102, 86-91.	2.7	54
329	Dynamic study of the light soaking effect on perovskite solar cells by in-situ photoluminescence microscopy. Nano Energy, 2018, 46, 356-364.	8.2	67
330	Visualization and Studies of Ion-Diffusion Kinetics in Cesium Lead Bromide Perovskite Nanowires. Nano Letters, 2018, 18, 1807-1813.	4.5	136
331	Preventing Hysteresis in Perovskite Solar Cells by Undoped Charge Blocking Layers. ACS Applied Energy Materials, 2018, 1, 676-683.	2.5	35
332	Enhancement of Morphological and Optoelectronic Properties of Perovskite Films by CH ₃ NH ₃ Cl Treatment for Efficient Solar Minimodules. ACS Applied Energy Materials, 2018, 1, 1047-1052.	2.5	31
333	Suppressed Ion Migration along the In-Plane Direction in Layered Perovskites. ACS Energy Letters, 2018, 3, 684-688.	8.8	240

#	Article	IF	CITATIONS
334	Dynamics of Photoinduced Degradation of Perovskite Photovoltaics: From Reversible to Irreversible Processes. ACS Applied Energy Materials, 2018, 1, 799-806.	2.5	85
335	Low-dimensional halide perovskites: review and issues. Journal of Materials Chemistry C, 2018, 6, 2189-2209.	2.7	165
336	In Situ Observation of Light Illumination-Induced Degradation in Organometal Mixed-Halide Perovskite Films. ACS Applied Materials & Interfaces, 2018, 10, 6737-6746.	4.0	69
337	Near-Band-Edge Optical Responses of <mml:math <br="" xmlns:mml="http://www.w3.org/1998/Math/MathML">display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>CH</mml:mi></mml:mrow><mml:mrow><mm Single Crystals: Photon Recycling of Excitonic Luminescence. Physical Review Letters, 2018, 120, 057404.</mm </mml:mrow></mml:msub></mml:mrow></mml:math>	nl:mn>3 1</td <td>mml;mn></td>	mml;mn>
338	Research progress on organic–inorganic halide perovskite materials and solar cells. Journal Physics D: Applied Physics, 2018, 51, 093001.	1.3	56
339	Inorganic Perovskite Solar Cells: A Rapidly Growing Field. Solar Rrl, 2018, 2, 1700188.	3.1	193
340	Amideâ€Catalyzed Phaseâ€Selective Crystallization Reduces Defect Density in Wideâ€Bandgap Perovskites. Advanced Materials, 2018, 30, e1706275.	11.1	80
341	Compositional Engineering for Efficient Wide Band Gap Perovskites with Improved Stability to Photoinduced Phase Segregation. ACS Energy Letters, 2018, 3, 428-435.	8.8	344
342	Extending the Compositional Space of Mixed Lead Halide Perovskites by Cs, Rb, K, and Na Doping. Journal of Physical Chemistry C, 2018, 122, 13548-13557.	1.5	70
343	Light-Emitting Halide Perovskite Nanoantennas. Nano Letters, 2018, 18, 1185-1190.	4.5	132
344	Subdiffraction Infrared Imaging of Mixed Cation Perovskites: Probing Local Cation Heterogeneities. ACS Energy Letters, 2018, 3, 469-475.	8.8	54
345	Fully Vacuum-Processed Wide Band Gap Mixed-Halide Perovskite Solar Cells. ACS Energy Letters, 2018, 3, 214-219.	8.8	91
346	Formation and Diffusion of Metal Impurities in Perovskite Solar Cell Material CH ₃ NH ₃ PbI ₃ : Implications on Solar Cell Degradation and Choice of Electrode. Advanced Science, 2018, 5, 1700662.	5.6	130
347	Electrochemical Lithium Doping Induced Property Changes In Halide Perovskite CsPbBr ₃ Crystal. ACS Energy Letters, 2018, 3, 264-269.	8.8	58
348	Do Capacitance Measurements Reveal Light-Induced Bulk Dielectric Changes in Photovoltaic Perovskites?. Journal of Physical Chemistry C, 2018, 122, 13450-13454.	1.5	58
349	Lowâ€Ðimensional Perovskites: From Synthesis to Stability in Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1702073.	10.2	74
350	Light-Induced Anion Phase Segregation in Mixed Halide Perovskites. ACS Energy Letters, 2018, 3, 204-213.	8.8	444
351	Metal halide perovskite: a game-changer for photovoltaics and solar devices via a tandem design. Science and Technology of Advanced Materials, 2018, 19, 53-75.	2.8	28

#	Article	IF	CITATIONS
352	Anisotropic ionic transportation performances of (100) and (112) planes in MAPbI3 single crystal. Materials Research Bulletin, 2018, 99, 466-470.	2.7	12
353	Mechanically-stacked perovskite/CICS tandem solar cells with efficiency of 23.9% and reduced oxygen sensitivity. Energy and Environmental Science, 2018, 11, 394-406.	15.6	209
354	Role of spiro-OMeTAD in performance deterioration of perovskite solar cells at high temperature and reuse of the perovskite films to avoid Pb-waste. Journal of Materials Chemistry A, 2018, 6, 2219-2230.	5.2	229
355	Stable Lightâ€Emitting Diodes Using Phaseâ€Pure Ruddlesden–Popper Layered Perovskites. Advanced Materials, 2018, 30, 1704217.	11.1	258
356	New-generation integrated devices based on dye-sensitized and perovskite solar cells. Energy and Environmental Science, 2018, 11, 476-526.	15.6	364
357	Concentrated Sunlight for Materials Synthesis and Diagnostics. Advanced Materials, 2018, 30, e1800444.	11.1	12
358	Enhancing Defect Tolerance and Phase Stability of High-Bandgap Perovskites via Guanidinium Alloying. ACS Energy Letters, 2018, 3, 1261-1268.	8.8	105
359	Cation-Dependent Light-Induced Halide Demixing in Hybrid Organic–Inorganic Perovskites. Nano Letters, 2018, 18, 3473-3480.	4.5	65
360	Highly Crystalline Methylammonium Lead Tribromide Perovskite Films for Efficient Photovoltaic Devices. ACS Energy Letters, 2018, 3, 1233-1240.	8.8	54
361	Highly Efficient Spectrally Stable Red Perovskite Lightâ€Emitting Diodes. Advanced Materials, 2018, 30, e1707093.	11.1	184
362	Light-current-induced acceleration of degradation of methylammonium lead iodide perovskite solar cells. Journal of Power Sources, 2018, 384, 303-311.	4.0	9
363	<i>To Exchange or Not to Exchange</i> . Suppressing Anion Exchange in Cesium Lead Halide Perovskites with PbSO ₄ –Oleate Capping. ACS Energy Letters, 2018, 3, 1049-1055.	8.8	119
364	The Relationship between Chemical Flexibility and Nanoscale Charge Collection in Hybrid Halide Perovskites. Advanced Functional Materials, 2018, 28, 1706995.	7.8	28
365	Effect of pressure on the remixing process in CH3NH3Pb(I1-xBrx)3 perovskite thin films. Journal of Luminescence, 2018, 199, 348-351.	1.5	4
366	Grain engineering by ultrasonic substrate vibration post-treatment of wet perovskite films for annealing-free, high performance, and stable perovskite solar cells. Nanoscale, 2018, 10, 8526-8535.	2.8	48
367	Maximizing and stabilizing luminescence from halide perovskites with potassium passivation. Nature, 2018, 555, 497-501.	13.7	1,336
368	What Remains Unexplained about the Properties of Halide Perovskites?. Advanced Materials, 2018, 30, e1800691.	11.1	231
369	Revealing the Selfâ€Degradation Mechanisms in Methylammonium Lead Iodide Perovskites in Dark and Vacuum. ChemPhysChem, 2018, 19, 1507-1513.	1.0	56

#	Article	IF	CITATIONS
370	Large tunable photoeffect on ion conduction in halide perovskites and implications for photodecomposition. Nature Materials, 2018, 17, 445-449.	13.3	410
371	The effect of ionic composition on acoustic phonon speeds in hybrid perovskites from Brillouin spectroscopy and density functional theory. Journal of Materials Chemistry C, 2018, 6, 3861-3868.	2.7	23
372	Nature of Photoinduced Quenching Traps in Methylammonium Lead Triiodide Perovskite Revealed by Reversible Photoluminescence Decline. ACS Photonics, 2018, 5, 2034-2043.	3.2	42
373	Fusedâ€Ring Electron Acceptor ITICâ€Th: A Novel Stabilizer for Halide Perovskite Precursor Solution. Advanced Energy Materials, 2018, 8, 1703399.	10.2	112
374	Origin of ultra-low lattice thermal conductivity in Cs2BiAgX6 (X=Cl, Br) and its impact on thermoelectric performance. Journal of Alloys and Compounds, 2018, 748, 63-72.	2.8	65
375	Perowskitâ€5olarzellen: atomare Ebene, Schichtqualitäund Leistungsfäigkeit der Zellen. Angewandte Chemie, 2018, 130, 2582-2598.	1.6	37
376	Perovskite Solar Cells: From the Atomic Level to Film Quality and Device Performance. Angewandte Chemie - International Edition, 2018, 57, 2554-2569.	7.2	413
377	Effect of non-stoichiometric solution chemistry on improving the performance of wide-bandgap perovskite solar cells. Materials Today Energy, 2018, 7, 232-238.	2.5	31
378	New class of lead free perovskite material for low-cost solar cell application. Materials Research Bulletin, 2018, 97, 572-577.	2.7	55
379	Exploring the Stability of Novel Wide Bandgap Perovskites by a Robot Based High Throughput Approach. Advanced Energy Materials, 2018, 8, 1701543.	10.2	75
380	Stability of Molecular Devices: Halide Perovskite Solar Cells. Green Chemistry and Sustainable Technology, 2018, , 477-531.	0.4	1
381	Perovskite/Silicon Tandem Solar Cells: Marriage of Convenience or True Love Story? – An Overview. Advanced Materials Interfaces, 2018, 5, 1700731.	1.9	321
382	Critical Role of Interface and Crystallinity on the Performance and Photostability of Perovskite Solar Cell on Nickel Oxide. Advanced Materials, 2018, 30, 1703879.	11.1	198
383	Tuning the Color Temperature of Whiteâ€Lightâ€Emitting Electrochemical Cells by Laserâ€Scanning Perovskiteâ€Nanocrystal Color Conversion Layers. ChemPlusChem, 2018, 83, 239-245.	1.3	13
384	Effect of Cation Composition on the Mechanical Stability of Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1702116.	10.2	130
385	Frontiers, opportunities, and challenges in perovskite solar cells: A critical review. Journal of Photochemistry and Photobiology C: Photochemistry Reviews, 2018, 35, 1-24.	5.6	329
386	Optimization of the photoelectric properties and photo-stability of CH3NH3PbBrXI3-X films for efficient planar perovskite solar cells. Superlattices and Microstructures, 2018, 113, 118-128.	1.4	7
387	Rod-shaped thiocyanate-induced abnormal band gap broadening in SCNâ^' doped CsPbBr3 perovskite nanocrystals. Nano Research, 2018, 11, 2715-2723.	5.8	44

#	Article	IF	CITATIONS
388	Influence of Radiation on the Properties and the Stability of Hybrid Perovskites. Advanced Materials, 2018, 30, 1702905.	11.1	162
389	Polystyrene stabilized perovskite component, grain and microstructure for improved efficiency and stability of planar solar cells. Nano Energy, 2018, 43, 383-392.	8.2	70
390	Modulation of Charge Recombination in CsPbBr ₃ Perovskite Films with Electrochemical Bias. Journal of the American Chemical Society, 2018, 140, 86-89.	6.6	41
391	The Ising Model of the Hoke Effect in Hybrid Perovskites. Applied Solar Energy (English Translation of) Tj ETQq1 1	0,784314 0.2	⊦rgBT /Ove
393	Tuning the Optical Properties of CsPbBr3 Nanocrystals by Anion Exchange Reactions with CsX Aqueous Solution. Nanoscale Research Letters, 2018, 13, 185.	3.1	23
394	Probing Photo-Induced Vibrational Kinetics in Perovskite Thin Films. , 2018, , .		0
395	The Bandgap as a Moving Target: Reversible Bandgap Instabilities in Multiple-Cation Mixed-Halide Perovskite Solar Cells. ACS Energy Letters, 2018, 3, 2995-3001.	8.8	24
396	Excess charge-carrier induced instability of hybrid perovskites. Nature Communications, 2018, 9, 4981.	5.8	159
397	Tandems in the thick of it. Nature Energy, 2018, 3, 1027-1028.	19.8	0
398	All-Perovskite Tandem Solar Cell Showing Unprecedentedly High Open-Circuit Voltage. Joule, 2018, 2, 2206-2207.	11.7	4
399	The degradation of structure and luminescence in CsPbBr3 perovskite nanocrystals under UV light illumination. AIP Conference Proceedings, 2018, , .	0.3	4
400	Intrinsic anion diffusivity in lead halide perovskites is facilitated by a soft lattice. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 11929-11934.	3.3	153
401	Polymer-Assisted In Situ Growth of All-Inorganic Perovskite Nanocrystal Film for Efficient and Stable Pure-Red Light-Emitting Devices. ACS Applied Materials & Interfaces, 2018, 10, 42564-42572.	4.0	86
402	Mixed halide perovskite light emitting solar cell. Journal of Physics: Conference Series, 2018, 1124, 041022.	0.3	1
403	Thin-film solar cells exceeding 22% solar cell efficiency: An overview on CdTe-, Cu(In,Ga)Se2-, and perovskite-based materials. Applied Physics Reviews, 2018, 5, .	5.5	175
404	Perovskite Quantum Dots. A New Absorber for Perovskite-Perovskite Tandem Solar Cells. , 2018, , .		2
407	Geometry Distortion and Small Polaron Binding Energy Changes with Ionic Substitution in Halide Perovskites. Journal of Physical Chemistry Letters, 2018, 9, 7130-7136.	2.1	52
408	Optical and Compositional Engineering of Wide Band Gap Perovskites with Improved Stability to Photoinduced Phase Segregation for Efficient Monolithic Perovskite/Silicon Tandem Solar Cells. , 2018, , .		0

# 409	ARTICLE Unravelling the role of vacancies in lead halide perovskite through electrical switching of photoluminescence. Nature Communications, 2018, 9, 5113.	IF 5.8	Citations 196
410	Materials toward the Upscaling of Perovskite Solar Cells: Progress, Challenges, and Strategies. Advanced Functional Materials, 2018, 28, 1803753.	7.8	145
411	Hybrid sequential deposition process for fully textured perovskite/silicon tandem solar cells. , 2018, ,		2
412	Major Impediment to Highly Efficient, Stable and Low-Cost Perovskite Solar Cells. Metals, 2018, 8, 964.	1.0	26
413	Intrinsic Behavior of CH ₃ NH ₃ PbBr ₃ Single Crystals under Light Illumination. Advanced Materials Interfaces, 2018, 5, 1801206.	1.9	18
414	The Impact of Nano―and Microstructure on the Stability of Perovskite Solar Cells. Small, 2018, 14, e1802573.	5.2	42
415	Tarnishing Silver Metal into Mithrene. Journal of the American Chemical Society, 2018, 140, 13892-13903.	6.6	30
416	Photoinstable hybrid all-inorganic halide perovskite quantum dots as single downconverters for white light emitting devices. Organic Electronics, 2018, 63, 318-327.	1.4	6
417	Efficient and Stable Inorganic Perovskite Solar Cells Manufactured by Pulsed Flash Infrared Annealing. Advanced Energy Materials, 2018, 8, 1802060.	10.2	98
418	Recent insights for achieving mixed halide perovskites without halide segregation. Current Opinion in Electrochemistry, 2018, 11, 84-90.	2.5	33
419	Several Orders of Magnitude Difference in Charge-Transfer Kinetics Induced by Localized Trapped Charges on Mixed-Halide Perovskites. ACS Applied Materials & Interfaces, 2018, 10, 37057-37066.	4.0	5
420	Electronic Properties of {111} Twin Boundaries in a Mixed-Ion Lead Halide Perovskite Solar Absorber. ACS Energy Letters, 2018, 3, 2663-2668.	8.8	47
421	Impact of Surfaces on Photoinduced Halide Segregation in Mixed-Halide Perovskites. ACS Energy Letters, 2018, 3, 2694-2700.	8.8	184
422	Gas-solid reaction based over one-micrometer thick stable perovskite films for efficient solar cells and modules. Nature Communications, 2018, 9, 3880.	5.8	109
423	Multifunctional molecular modulators for perovskite solar cells with over 20% efficiency and high operational stability. Nature Communications, 2018, 9, 4482.	5.8	266
424	Impact of iodine antisite (IPb) defects on the electronic properties of the (110) CH3NH3PbI3 surface. Journal of Chemical Physics, 2018, 149, 164704.	1.2	17
425	Illuminationâ€Induced Halide Segregation in Gradient Bandgap Mixedâ€Halide Perovskite Nanoplatelets. Advanced Optical Materials, 2018, 6, 1801107.	3.6	30
426	Rotationally Free and Rigid Sublattices of the Single Crystal Perovskite CH ₃ NH ₃ PbBr ₃ (001): The Case of the Lattice Polar Liquid. Journal of Physical Chemistry C, 2018, 122, 25506-25514.	1.5	8

#	Article	IF	CITATIONS
427	Cesium lead mixed-halide perovskites in polymer matrix. Journal of Physics: Conference Series, 2018, 1092, 012122.	0.3	3
428	Stabilization of α-CsPbI ₃ in Ambient Room Temperature Conditions by Incorporating Eu into CsPbI ₃ . Chemistry of Materials, 2018, 30, 6668-6674.	3.2	199
429	Vacancy-Mediated Anion Photosegregation Kinetics in Mixed Halide Hybrid Perovskites: Coupled Kinetic Monte Carlo and Optical Measurements. ACS Energy Letters, 2018, 3, 2321-2328.	8.8	119
430	Opportunities and Challenges in Perovskite Light-Emitting Devices. ACS Photonics, 2018, 5, 3866-3875.	3.2	129
431	Giant Zero-Drift Electronic Behaviors in Methylammonium Lead Halide Perovskite Diodes by Doping Iodine Ions. Materials, 2018, 11, 1606.	1.3	11
432	Can we use <i>time-resolved</i> measurements to get <i>steady-state</i> transport data for halide perovskites?. Journal of Applied Physics, 2018, 124, .	1.1	39
433	Trap state passivation and photoactivation in wide band gap inorganic perovskite semiconductors. Physical Chemistry Chemical Physics, 2018, 20, 25476-25481.	1.3	18
434	Quaternary alkylammonium salt incorporated 2D/3D mixed halide perovskite with highly enhanced photoluminescence and arrested iodide/bromide phase segregation. APL Materials, 2018, 6, .	2.2	13
435	Progress toward Stable Lead Halide Perovskite Solar Cells. Joule, 2018, 2, 1961-1990.	11.7	181
436	Color-stable highly luminescent sky-blue perovskite light-emitting diodes. Nature Communications, 2018, 9, 3541.	5.8	536
437	Photoinduced Migration of Ions in Optically Resonant Perovskite Nanoparticles. JETP Letters, 2018, 107, 742-748.	0.4	7
438	Direct Observation and Quantitative Analysis of Mobile Frenkel Defects in Metal Halide Perovskites Using Scanning Kelvin Probe Microscopy. Journal of Physical Chemistry C, 2018, 122, 12633-12639.	1.5	58
439	Effect of Light Illumination on Mixed Halide Lead Perovskites: Reversible or Irreversible Transformation. ACS Applied Energy Materials, 2018, 1, 2859-2865.	2.5	27
440	Photovoltaics and Nanotechnology as Alternative Energy. Environmental Chemistry for A Sustainable World, 2018, , 211-241.	0.3	1
441	Caesium for Perovskite Solar Cells: An Overview. Chemistry - A European Journal, 2018, 24, 12183-12205.	1.7	138
442	Thermal stability and miscibility of co-evaporated methyl ammonium lead halide (MAPbX ₃ ,) Tj ETQq1 2018, 6, 11496-11506.	1 0.7843 5.2	14 rgBT /O 46
443	Interaction of oxygen with halide perovskites. Journal of Materials Chemistry A, 2018, 6, 10847-10855.	5.2	140
444	Large-Scale Compositional and Electronic Inhomogeneities in CH ₃ NH ₃ Pbl ₃ Perovskites and Their Effect on Device Performance. ACS Applied Energy Materials, 2018, 1, 2410-2416.	2.5	26

#	Article	IF	CITATIONS
445	Perovskite Solar Cells with Inorganic Electron―and Holeâ€Transport Layers Exhibiting Longâ€Term (â‰^500) Tj I e1801010.	ETQq0 0 0 11.1) rgBT /Over 174
446	Recent progressive efforts in perovskite solar cells toward commercialization. Journal of Materials Chemistry A, 2018, 6, 12215-12236.	5.2	56
447	Abnormal Synergetic Effect of Organic and Halide Ions on the Stability and Optoelectronic Properties of a Mixed Perovskite via In Situ Characterizations. Advanced Materials, 2018, 30, e1801562.	11.1	55
448	Latticeâ€Defectâ€Induced Piezo Response in Methylammoniumâ€Leadâ€Iodide Perovskite Based Nanogenerator. ChemistrySelect, 2018, 3, 5304-5312.	0.7	19
449	Compositionâ€Graded Cesium Lead Halide Perovskite Nanowires with Tunable Dualâ€Color Lasing Performance. Advanced Materials, 2018, 30, e1800596.	11.1	99
450	18â€1: Invited Paper: Color Tunable, Flexible, and Efficient Light Emitting Diodes Composed of Metal Halide Perovskites. Digest of Technical Papers SID International Symposium, 2018, 49, 212-213.	0.1	1
451	Elucidating the Origins of Subgap Tail States and Open ircuit Voltage in Methylammonium Lead Triiodide Perovskite Solar Cells. Advanced Functional Materials, 2018, 28, 1801808.	7.8	78
452	Photonics and Optoelectronics of 2D Metalâ€Halide Perovskites. Small, 2018, 14, e1800682.	5.2	168
453	Highly Sensitive Terahertz Thin-Film Total Internal Reflection Spectroscopy Reveals in Situ Photoinduced Structural Changes in Methylammonium Lead Halide Perovskites. Journal of Physical Chemistry C, 2018, 122, 17552-17558.	1.5	21
454	Research Update: Bismuth-based perovskite-inspired photovoltaic materials. APL Materials, 2018, 6, .	2.2	82
455	Highâ€Performance Multilayer Encapsulation for Perovskite Photovoltaics. Advanced Energy Materials, 2018, 8, 1801234.	10.2	68
456	Point defect engineering in thin-film solar cells. Nature Reviews Materials, 2018, 3, 194-210.	23.3	275
457	Bulk heterojunction polymer solar cell and perovskite solar cell: Concepts, materials, current status, and opto-electronic properties. Solar Energy, 2018, 173, 407-424.	2.9	56
458	Doping Effects and Chargeâ€Transfer Dynamics at Hybrid Perovskite/Graphene Interfaces. Advanced Materials Interfaces, 2018, 5, 1800826.	1.9	11
459	Increased Lattice Stiffness Suppresses Nonradiative Charge Recombination in MAPbl ₃ Doped with Larger Cations: Time-Domain Ab Initio Analysis. ACS Energy Letters, 2018, 3, 2070-2076.	8.8	68
460	Dipolar cations confer defect tolerance in wide-bandgap metal halide perovskites. Nature Communications, 2018, 9, 3100.	5.8	237
461	Energy Level Alignment at Interfaces in Metal Halide Perovskite Solar Cells. Advanced Materials Interfaces, 2018, 5, 1800260.	1.9	215
462	Effect of halide ratio and Cs+ addition on the photochemical stability of lead halide perovskites.	5.2	26

#	Article	IF	CITATIONS
463	First-Principles Investigation on the Electronic and Mechanical Properties of Cs-Doped CH3NH3PbI3. Materials, 2018, 11, 1141.	1.3	18
464	Stability in Perovskite Photovoltaics: A Paradigm for Newfangled Technologies. ACS Energy Letters, 2018, 3, 2136-2143.	8.8	113
465	Perovskite/Perovskite/Silicon Monolithic Triple-Junction Solar Cells with a Fully Textured Design. ACS Energy Letters, 2018, 3, 2052-2058.	8.8	87
466	Metal Halide Perovskite Single Crystals: From Growth Process to Application. Crystals, 2018, 8, 220.	1.0	31
467	Analysing the Prospects of Perovskite Solar Cells within the Purview of Recent Scientific Advancements. Crystals, 2018, 8, 242.	1.0	13
468	Tunable Polaron Distortions Control the Extent of Halide Demixing in Lead Halide Perovskites. Journal of Physical Chemistry Letters, 2018, 9, 3998-4005.	2.1	129
469	Hierarchically responsive and photochromic imidazopyridazinium iodoargentate hybrid materials. Dyes and Pigments, 2018, 159, 457-463.	2.0	20
470	Opportunities and challenges for tandem solar cells using metal halide perovskite semiconductors. Nature Energy, 2018, 3, 828-838.	19.8	716
471	Light-emitting electrochemical cells based on inorganic metal halide perovskite nanocrystals. Journal Physics D: Applied Physics, 2018, 51, 334001.	1.3	32
472	Static and Dynamic Disorder in Triple-Cation Hybrid Perovskites. Journal of Physical Chemistry C, 2018, 122, 17473-17480.	1.5	21
473	Taking Control of Ion Transport in Halide Perovskite Solar Cells. ACS Energy Letters, 2018, 3, 1983-1990.	8.8	158
474	Compositionâ€Tuned Wide Bandgap Perovskites: From Grain Engineering to Stability and Performance Improvement. Advanced Functional Materials, 2018, 28, 1803130.	7.8	121
475	Performance Evaluation of Semitransparent Perovskite Solar Cells for Application in Four-Terminal Tandem Cells. ACS Energy Letters, 2018, 3, 1861-1867.	8.8	11
476	Correlating nano black spots and optical stability in mixed halide perovskite quantum dots. Journal of Materials Chemistry C, 2018, 6, 7803-7813.	2.7	25
477	Temperature Dependent Photoinduced Reversible Phase Separation in Mixed-Halide Perovskite. ACS Applied Energy Materials, 2018, 1, 3807-3814.	2.5	36
478	Interstitial Occupancy by Extrinsic Alkali Cations in Perovskites and Its Impact on Ion Migration. Advanced Materials, 2018, 30, e1707350.	11.1	233
479	Transient Photovoltage in Perovskite Solar Cells: Interaction of Trap-Mediated Recombination and Migration of Multiple Ionic Species. Journal of Physical Chemistry C, 2018, 122, 11270-11281.	1.5	66
480	Exploration of Near-Infrared-Emissive Colloidal Multinary Lead Halide Perovskite Nanocrystals Using an Automated Microfluidic Platform. ACS Nano, 2018, 12, 5504-5517.	7.3	138

#	Article	IF	CITATIONS
481	Uniform CH3NH3PbI3-xBrx film for efficient planar perovskite solar cells via facile PbBr2 pre-coating layer treatment. Organic Electronics, 2018, 62, 366-372.	1.4	3
482	Cs _{0.15} FA _{0.85} PbI ₃ perovskite solar cells for concentrator photovoltaic applications. Journal of Materials Chemistry A, 2018, 6, 21913-21917.	5.2	31
483	Mixed Halide Perovskite Solar Cells. Consequence of Iodide Treatment on Phase Segregation Recovery. ACS Energy Letters, 2018, 3, 2267-2272.	8.8	83
484	Benchmarking Chemical Stability of Arbitrarily Mixed 3D Hybrid Halide Perovskites for Solar Cell Applications. Small Methods, 2018, 2, 1800242.	4.6	26
485	Alleviating hysteresis and improving efficiency of MA1â^'yFAyPbI3â^'xBrx perovskite solar cells by controlling the halide composition. Journal of Materials Science, 2018, 53, 16500-16510.	1.7	10
486	Surface Passivation of Bismuth-Based Perovskite Variant Quantum Dots To Achieve Efficient Blue Emission. Nano Letters, 2018, 18, 6076-6083.	4.5	157
487	Trap-Limited Dynamics of Excited Carriers and Interpretation of the Photoluminescence Decay Kinetics in Metal Halide Perovskites. Journal of Physical Chemistry Letters, 2018, 9, 4955-4962.	2.1	46
488	Phase Control in Mixed Halide Methylammonium Lead Perovskites Using Silicon Nanotube Templates. Journal of Physical Chemistry C, 2018, 122, 20040-20045.	1.5	7
489	Impact of Environmental Stresses Onto Transport Properties of Hybrid Perovskite Investigated by Steady State Photocarrier Grating and Steady State Photocurrent Techniques. Solar Rrl, 2018, 2, 1800192.	3.1	7
490	Minimizing Current and Voltage Losses to Reach 25% Efficient Monolithic Two-Terminal Perovskite–Silicon Tandem Solar Cells. ACS Energy Letters, 2018, 3, 2173-2180.	8.8	194
491	Photoluminescence and Photoconductivity to Assess Maximum Open-Circuit Voltage and Carrier Transport in Hybrid Perovskites and Other Photovoltaic Materials. Journal of Physical Chemistry Letters, 2018, 9, 3779-3792.	2.1	17
492	Tailoring the Band Gap in 3D Hybrid Perovskites by Substitution of the Organic Cations: (CH ₃ NH ₃) _{1â^2<i>y</i>ysub>(NH₃(CH₂)_{2(0≤i>yâ‰9.25). Chemistry - A European Journal, 2018, 24, 9075-9082.}}	אואH≺sub:	> 3 2/sub>)<
493	Surface properties of lead-free halide double perovskites: Possible visible-light photo-catalysts for water splitting. Applied Physics Letters, 2018, 112, .	1.5	46
494	Outdoor performance monitoring of perovskite solar cell mini-modules: Diurnal performance, observance of reversible degradation and variation with climatic performance. Solar Energy, 2018, 170, 549-556.	2.9	40
495	Humidity-Induced Photoluminescence Hysteresis in Variable Cs/Br Ratio Hybrid Perovskites. Journal of Physical Chemistry Letters, 2018, 9, 3463-3469.	2.1	50
496	High-Bandgap Perovskite Materials for Multijunction Solar Cells. Joule, 2018, 2, 1421-1436.	11.7	173
497	Tailoring the Open-Circuit Voltage Deficit of Wide-Band-Gap Perovskite Solar Cells Using Alkyl Chain-Substituted Fullerene Derivatives. ACS Applied Materials & Interfaces, 2018, 10, 22074-22082.	4.0	57
498	A review on morphology engineering for highly efficient and stable hybrid perovskite solar cells. Journal of Materials Chemistry A, 2018, 6, 12842-12875.	5.2	168

#	Article	IF	CITATIONS
499	Hierarchical Arrays of Cesium Lead Halide Perovskite Nanocrystals through Electrophoretic Deposition. Journal of the American Chemical Society, 2018, 140, 8887-8894.	6.6	57
500	Progress in Scalable Coating and Rollâ€ŧoâ€Roll Compatible Printing Processes of Perovskite Solar Cells toward Realization of Commercialization. Advanced Optical Materials, 2018, 6, 1701182.	3.6	52
501	Biexciton Generation and Dissociation Dynamics in Formamidinium- and Chloride-Doped Cesium Lead Iodide Perovskite Nanocrystals. Journal of Physical Chemistry Letters, 2018, 9, 3673-3679.	2.1	31
502	Nature of the excited state in lead iodide perovskite materials: Time-dependent charge density response and the role of the monovalent cation. Physical Review B, 2019, 100, .	1.1	10
503	Influence of Grain Size on Phase Transitions in Halide Perovskite Films. Advanced Energy Materials, 2019, 9, 1901883.	10.2	30
504	Bandgap Tuning of Silver Bismuth Iodide via Controllable Bromide Substitution for Improved Photovoltaic Performance. ACS Applied Energy Materials, 2019, 2, 5356-5362.	2.5	23
505	Real time observation of photo-instability of ternary-halide mixed CH3NH3Pb(Br1-x-yClxly)3 perovskite: Preferential diffusion of small halide ions. Journal of Alloys and Compounds, 2019, 808, 151716.	2.8	5
506	Additive effects of alkali metals on Cu-modified CH ₃ NH ₃ PbI _{3â^î´} Cl _δ photovoltaic devices. RSC Advances, 2019, 9, 24231-24240.	1.7	41
507	I ₂ vapor-induced degradation of formamidinium lead iodide based perovskite solar cells under heat–light soaking conditions. Energy and Environmental Science, 2019, 12, 3074-3088.	15.6	131
508	Highly stable hybrid perovskite light-emitting diodes based on Dion-Jacobson structure. Science Advances, 2019, 5, eaaw8072.	4.7	188
509	Electronic structure of CsPbBr _{3â^'x} Cl _x perovskites: synthesis, experimental characterization, and DFT simulations. Physical Chemistry Chemical Physics, 2019, 21, 18930-18938.	1.3	68
510	Excitation dynamics of MAPb(I1-xBrx)3 during phase separation by photoirradiation: Evidence of sink, band filling, and Br-Rich phase coarsening. Journal of Alloys and Compounds, 2019, 806, 1180-1187.	2.8	7
511	2D Ruddlesden–Popper Perovskite Nanoplate Based Deepâ€Blue Lightâ€Emitting Diodes for Light Communication. Advanced Functional Materials, 2019, 29, 1903861.	7.8	101
512	Highly Efficient Semitransparent Perovskite Solar Cells for Four Terminal Perovskite-Silicon Tandems. ACS Applied Materials & Interfaces, 2019, 11, 34178-34187.	4.0	71
513	Highly efficient CsPbIBr ₂ perovskite solar cells with efficiency over 9.8% fabricated using a preheating-assisted spin-coating method. Journal of Materials Chemistry A, 2019, 7, 19008-19016.	5.2	76
514	Compositional Engineering of Mixed-Cation Lead Mixed-Halide Perovskites for High-Performance Photodetectors. ACS Applied Materials & Interfaces, 2019, 11, 28005-28012.	4.0	27
515	Bidirectional Halide Ion Exchange in Paired Lead Halide Perovskite Films with Thermal Activation. ACS Energy Letters, 2019, 4, 1961-1969.	8.8	76
516	The Future Is Blue (LEDs): Why Chemistry Is the Key to Perovskite Displays. Chemistry of Materials, 2019, 31, 6003-6032.	3.2	91

#	Article	IF	CITATIONS
517	Stability and Dark Hysteresis Correlate in NiOâ€Based Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1901642.	10.2	69
518	Heterogeneity at multiple length scales in halide perovskite semiconductors. Nature Reviews Materials, 2019, 4, 573-587.	23.3	200
519	Photon-Induced Reshaping in Perovskite Material Yields of Nanocrystals with Accurate Control of Size and Morphology. Journal of Physical Chemistry Letters, 2019, 10, 4149-4156.	2.1	18
520	Recent progress in fundamental understanding of halide perovskite semiconductors. Progress in Materials Science, 2019, 106, 100580.	16.0	95
521	Potassium ions as a kinetic controller in ionic double layers for hysteresis-free perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 18807-18815.	5.2	54
522	Suppression and Reversion of Light-Induced Phase Separation in Mixed-Halide Perovskites by Oxygen Passivation. ACS Energy Letters, 2019, 4, 2052-2058.	8.8	54
523	From Macroscopic to Nanoscopic Current Hysteresis Suppressed by Fullerene in Perovskite Solar Cells. Solar Rrl, 2019, 3, 1900235.	3.1	10
524	Phase Stability and Diffusion in Lateral Heterostructures of Methyl Ammonium Lead Halide Perovskites. ACS Applied Materials & Interfaces, 2019, 11, 25313-25321.	4.0	32
525	All Inorganic Mixed Halide Perovskite Nanocrystal–Graphene Hybrid Photodetector: From Ultrahigh Gain to Photostability. ACS Applied Materials & Interfaces, 2019, 11, 27064-27072.	4.0	37
526	Effect of Halide Ion Migration on the Electrical Properties of Methylammonium Lead Tri-Iodide Perovskite Solar Cells. Journal of Physical Chemistry C, 2019, 123, 17728-17734.	1.5	41
527	Lattice Anharmonicity: A Double-Edged Sword for 3D Perovskite-Based Optoelectronics. ACS Energy Letters, 2019, 4, 1888-1897.	8.8	34
528	Light induced degradation in mixed-halide perovskites. Journal of Materials Chemistry C, 2019, 7, 9326-9334.	2.7	67
529	Bimolecular Additives Improve Wide-Band-Gap Perovskites for Efficient Tandem Solar Cells with CIGS. Joule, 2019, 3, 1734-1745.	11.7	227
530	Thermochemical Stability of Hybrid Halide Perovskites. ACS Energy Letters, 2019, 4, 2859-2870.	8.8	91
531	Efficient, 23%, Solution-Processed Perovskite Tandem Cells. Joule, 2019, 3, 2069-2070.	11.7	4
532	Long-Distance Ionic Diffusion in Cesium Lead Mixed Halide Perovskite Induced by Focused Illumination. Chemistry of Materials, 2019, 31, 9049-9056.	3.2	28
533	Interfacialâ€Tunnelingâ€Effectâ€Enhanced CsPbBr ₃ Photodetectors Featuring High Detectivity and Stability. Advanced Functional Materials, 2019, 29, 1904461.	7.8	70
534	Nanostructured Perovskite Solar Cells. Nanomaterials, 2019, 9, 1481.	1.9	19

#	Article	IF	CITATIONS
535	Ternary diagrams of the phase, optical bandgap energy and photoluminescence of mixed-halide perovskites. Acta Materialia, 2019, 181, 460-469.	3.8	14
536	Efficient, stable solar cells by using inherent bandgap of α-phase formamidinium lead iodide. Science, 2019, 366, 749-753.	6.0	936
537	Halogen Engineering for Operationally Stable Perovskite Solar Cells via Sequential Deposition. Advanced Energy Materials, 2019, 9, 1902239.	10.2	41
538	Defectâ€Engineeringâ€Enabled Highâ€Efficiency Allâ€Inorganic Perovskite Solar Cells. Advanced Materials, 2019, 31, e1903448.	11.1	143
539	Identification of the Band Gap Energy of Two-dimensional (OA) ₂ (MA) _{<i>n</i>â^'1} Pb _{<i>n</i>} I _{3<i>n</i>+1} Perovskite with up to 10 Layers. Journal of Physical Chemistry Letters, 2019, 10, 7025-7030.	2.1	21
540	Reducing Defects in Perovskite Solar Cells with White Light Illumination-Assisted Synthesis. ACS Energy Letters, 2019, 4, 2821-2829.	8.8	29
541	Accelerating the Screening of Perovskite Compositions for Photovoltaic Applications through Highâ€Throughput Inkjet Printing. Advanced Functional Materials, 2019, 29, 1905487.	7.8	37
542	A Highly Emissive Surface Layer in Mixedâ€Halide Multication Perovskites. Advanced Materials, 2019, 31, e1902374.	11.1	57
543	The investigation of the unseen interrelationship of grain size, ionic defects, device physics and performance of perovskite solar cells. Journal Physics D: Applied Physics, 2019, 52, 125501.	1.3	38
544	Toward clean production of plastic perovskite solar cell: Composition-tailored perovskite absorber made from aqueous lead nitrate precursor. Nano Energy, 2019, 65, 104036.	8.2	15
545	Enabling Self-passivation by Attaching Small Grains on Surfaces of Large Grains toward High-Performance Perovskite LEDs. IScience, 2019, 19, 378-387.	1.9	26
546	The Effects of Incident Photon Energy on the Time-Dependent Voltage Response of Lead Halide Perovskites. Chemistry of Materials, 2019, 31, 8969-8976.	3.2	10
547	Reversible Removal of Intermixed Shallow States by Light Soaking in Multication Mixed Halide Perovskite Films. ACS Energy Letters, 2019, 4, 2360-2367.	8.8	41
548	Unravelling Degradation Mechanisms and Atomic Structure of Organic-Inorganic Halide Perovskites by Cryo-EM. Joule, 2019, 3, 2854-2866.	11.7	99
549	Unravelling the effects of oxidation state of interstitial iodine and oxygen passivation on charge trapping and recombination in CH ₃ NH ₃ Pbl ₃ perovskite: a time-domain <i>ab initio</i> study. Chemical Science, 2019, 10, 10079-10088.	3.7	44
550	Active meta-optics and nanophotonics with halide perovskites. Applied Physics Reviews, 2019, 6, 031307.	5.5	68
551	Temperature-driven anion migration in gradient halide perovskites. Journal of Chemical Physics, 2019, 151, 134703.	1.2	31
552	Simple fabrication of perovskite solar cells with enhanced efficiency, stability, and flexibility under ambient air. Journal of Power Sources, 2019, 442, 227216.	4.0	13

\sim			<u> </u>	
	ΙΤΑΤ	ION	RED	ORT
\sim	/			

#	Article	IF	CITATIONS
553	Electrical-Field-Driven Tunable Spectral Responses in a Broadband-Absorbing Perovskite Photodiode. ACS Applied Materials & Interfaces, 2019, 11, 39018-39025.	4.0	8
554	Large metal halide perovskite crystals for field-effect transistor applications. Applied Physics Letters, 2019, 115, .	1.5	34
555	Highly efficient prismatic perovskite solar cells. Energy and Environmental Science, 2019, 12, 929-937.	15.6	54
556	Bias-dependent degradation of various solar cells: lessons for stability of perovskite photovoltaics. Energy and Environmental Science, 2019, 12, 550-558.	15.6	84
557	<i>Ab initio</i> study of the dynamics of electron trapping and detrapping processes in the CH ₃ NH ₃ PbI ₃ perovskite. Journal of Materials Chemistry A, 2019, 7, 2135-2147.	5.2	25
558	Efficient and Tunable Electroluminescence from In Situ Synthesized Perovskite Quantum Dots. Small, 2019, 15, e1804947.	5.2	23
559	Perovskite—a Perfect Top Cell for Tandem Devices to Break the S–Q Limit. Advanced Science, 2019, 6, 1801704.	5.6	80
560	Stability progress of perovskite solar cells dependent on the crystalline structure: From 3D ABX ₃ to 2D Ruddlesden–Popper perovskite absorbers. Journal of Materials Chemistry A, 2019, 7, 5898-5933.	5.2	102
561	Comprehensive Elucidation of Ion Transport and Its Relation to Hysteresis in Methylammonium Lead Iodide Perovskite Thin Films. Journal of Physical Chemistry C, 2019, 123, 4029-4034.	1.5	16
562	Light- and bias-induced structural variations in metal halide perovskites. Nature Communications, 2019, 10, 444.	5.8	81
563	Development of wide bandgap perovskites for next-generation low-cost CdTe tandem solar cells. Chemical Engineering Science, 2019, 199, 388-397.	1.9	28
564	Enhancement in lifespan of halide perovskite solar cells. Energy and Environmental Science, 2019, 12, 865-886.	15.6	143
565	Tracking Dynamic Phase Segregation in Mixedâ€Halide Perovskite Single Crystals under Twoâ€Photon Scanning Laser Illumination. Small Methods, 2019, 3, 1900273.	4.6	44
566	Probing Facet-Dependent Surface Defects in MAPbI ₃ Perovskite Single Crystals. Journal of Physical Chemistry C, 2019, 123, 14144-14151.	1.5	70
567	Controlling competing photochemical reactions stabilizes perovskite solar cells. Nature Photonics, 2019, 13, 532-539.	15.6	273
568	Kinetic Stabilization of the Sol–Gel State in Perovskites Enables Facile Processing of Highâ€Efficiency Solar Cells. Advanced Materials, 2019, 31, e1808357.	11.1	76
569	Charge arrier Dynamics, Mobilities, and Diffusion Lengths of 2D–3D Hybrid Butylammonium–Cesium–Formamidinium Lead Halide Perovskites. Advanced Functional Materials, 2019, 29, 1902656.	7.8	45
570	Electrochemical Hole Injection Selectively Expels Iodide from Mixed Halide Perovskite Films. Journal of the American Chemical Society, 2019, 141, 10812-10820.	6.6	104

#	Article	IF	CITATIONS
571	Advanced diffuse reflectance spectroscopy for studies of photochromic/photoactive solids. Journal of Physics Condensed Matter, 2019, 31, 424001.	0.7	5
572	Influence of a Hole-Transport Layer on Light-Induced Degradation of Mixed Organic–Inorganic Halide Perovskite Solar Cells. ACS Applied Energy Materials, 2019, 2, 5039-5049.	2.5	34
573	Wide-bandgap, low-bandgap, and tandem perovskite solar cells. Semiconductor Science and Technology, 2019, 34, 093001.	1.0	89
574	Improving the Performance of Planar Perovskite Solar Cells through a Preheated, Delayed Annealing Process To Control Nucleation and Phase Transition of Perovskite Films. Crystal Growth and Design, 2019, 19, 4314-4323.	1.4	7
575	Optimizing optoelectronic performances by controlling halide compositions of MAPb(Cl _x I _{1a^*x}) ₃ single crystals. CrystEngComm, 2019, 21, 4169-4174.	1.3	9
576	Could Nanocomposites Continue the Success of Halide Perovskites?. ACS Energy Letters, 2019, 4, 1446-1454.	8.8	9
577	Halogen―and Counterionâ€Modulated Photochromic and Photoluminescence Properties of Haloargentate Hybrids. European Journal of Inorganic Chemistry, 2019, 2019, 2488-2492.	1.0	9
578	Detailed-balance analysis of Yb ³⁺ :CsPb(Cl _{1â^'x} Br _x) ₃ quantum-cutting layers for high-efficiency photovoltaics under real-world conditions. Energy and Environmental Science, 2019, 12, 2486-2495.	15.6	39
579	Enhancement of luminescence properties and stability in perovskite hybrid structure with CdSe/ZnS quantum dots. APL Materials, 2019, 7, 051112.	2.2	3
580	Triple-Cation-Based Perovskite Photocathodes with AZO Protective Layer for Hydrogen Production Applications. ACS Applied Materials & amp; Interfaces, 2019, 11, 23198-23206.	4.0	46
581	Imperfections and their passivation in halide perovskite solar cells. Chemical Society Reviews, 2019, 48, 3842-3867.	18.7	1,257
582	ldentifying inverted-hysteresis behavior of CH ₃ NH ₃ PbI _{3â^*x} Cl _x planar hybrid perovskite solar cells based on external bias precondition. Journal Physics D: Applied Physics, 2019, 52, 385501.	1.3	8
583	Hydrophobic perovskites based on an alkylamine compound for high efficiency solar cells with improved environmental stability. Journal of Materials Chemistry A, 2019, 7, 14689-14704.	5.2	19
584	Engineering Color-Stable Blue Light-Emitting Diodes with Lead Halide Perovskite Nanocrystals. ACS Applied Materials & Interfaces, 2019, 11, 21655-21660.	4.0	98
585	Effect of Structure Change on Luminescent Properties of CsPbBr2l Perovskite Nanocrystals after Heat Treatment. Australian Journal of Chemistry, 2019, 72, 663.	0.5	1
586	Pure Bromideâ€Based Perovskite Nanoplatelets for Blue Lightâ€Emitting Diodes. Small Methods, 2019, 3, 1900196.	4.6	34
587	Properties of Excitons and Photogenerated Charge Carriers in Metal Halide Perovskites. Advanced Materials, 2019, 31, e1806671.	11.1	134
588	Enabling Flexible All-Perovskite Tandem Solar Cells. Joule, 2019, 3, 2193-2204.	11.7	331

#	Article	IF	CITATIONS
589	Effective Control of Chlorine Contents in MAPbl _{3–<i>x</i>} Cl <i>_x</i> Perovskite Solar Cells Using a Single-Source Vapor Deposition and Anion-Exchange Technique. ACS Applied Materials & Interfaces, 2019, 11, 20073-20081.	4.0	19
590	Enhancing light harvesting in planar halide perovskite film solar cells by silicon nanorods. Ceramics International, 2019, 45, 14880-14888.	2.3	3
591	Enhancing the performance of mixed-halide perovskite-based light-emitting devices by organic additive inclusion. Synthetic Metals, 2019, 253, 88-93.	2.1	5
592	Spectra stable blue perovskite light-emitting diodes. Nature Communications, 2019, 10, 1868.	5.8	344
593	Solid-State Ionics of Hybrid Halide Perovskites. Journal of the American Chemical Society, 2019, 141, 8382-8396.	6.6	64
594	Achieving a high open-circuit voltage in inverted wide-bandgap perovskite solar cells with a graded perovskite homojunction. Nano Energy, 2019, 61, 141-147.	8.2	152
595	<i>In situ</i> investigation of light soaking in organolead halide perovskite films. APL Materials, 2019, 7, .	2.2	23
596	Goldschmidt-rule-deviated perovskite CsPbIBr2by barium substitution for efficient solar cells. Nano Energy, 2019, 61, 165-172.	8.2	93
597	An overview of the decompositions in organo-metal halide perovskites and shielding with 2-dimensional perovskites. Renewable and Sustainable Energy Reviews, 2019, 109, 160-186.	8.2	42
598	Universal Oxide Shell Growth Enables in Situ Structural Studies of Perovskite Nanocrystals during the Anion Exchange Reaction. Journal of the American Chemical Society, 2019, 141, 8254-8263.	6.6	92
599	Amplified Spontaneous Emission Realized by Cogrowing Large/Small Grains with Selfâ€Passivating Defects and Aligning Transition Dipoles. Advanced Optical Materials, 2019, 7, 1900345.	3.6	19
600	Triggering the Passivation Effect of Potassium Doping in Mixedâ€Cation Mixedâ€Halide Perovskite by Light Illumination. Advanced Energy Materials, 2019, 9, 1901016.	10.2	109
601	Simulation based Investigation of Inverted Planar Perovskite Solar Cell with All Metal Oxide Inorganic Transport Layers. , 2019, , .		24
602	Hydration of mixed halide perovskites investigated by Fourier transform infrared spectroscopy. APL Materials, 2019, 7, 031107.	2.2	17
603	Imaging photoinduced surface potentials on hybrid perovskites by real-time Scanning Electron Microscopy. Micron, 2019, 121, 53-65.	1.1	9
604	Optimization of device design for low cost and high efficiency planar monolithic perovskite/silicon tandem solar cells. Nano Energy, 2019, 60, 213-221.	8.2	79
605	Phase segregation due to ion migration in all-inorganic mixed-halide perovskite nanocrystals. Nature Communications, 2019, 10, 1088.	5.8	271
606	Insights into operational stability and processing of halide perovskite active layers. Energy and Environmental Science, 2019, 12, 1341-1348.	15.6	125

#	Article	IF	CITATIONS
607	Stabilization of Precursor Solution and Perovskite Layer by Addition of Sulfur. Advanced Energy Materials, 2019, 9, 1803476.	10.2	81
608	Anorganische CsPbX ₃ â€Perowskitâ€Solarzellen: Fortschritte und Perspektiven. Angewandte Chemie, 2019, 131, 15742-15765.	1.6	20
609	Allâ€Inorganic CsPbX ₃ Perovskite Solar Cells: Progress and Prospects. Angewandte Chemie - International Edition, 2019, 58, 15596-15618.	7.2	425
610	Structurally Constrained Boron-, Nitrogen-, Silicon-, and Phosphorus-Centered Polycyclic Ï€-Conjugated Systems. Chemical Reviews, 2019, 119, 8291-8331.	23.0	446
611	Fast Charge Diffusion in MAPb(I _{1–<i>x</i>} Br <i>_x</i>) ₃ Films for High-Efficiency Solar Cells Revealed by Ultrafast Time-Resolved Reflectivity. Journal of Physical Chemistry A, 2019, 123, 2674-2678.	1.1	6
612	Solutionâ€Processable Perovskite Solar Cells toward Commercialization: Progress and Challenges. Advanced Functional Materials, 2019, 29, 1807661.	7.8	149
613	Ultrafast carrier dynamics of metal halide perovskite nanocrystals and perovskite-composites. Nanoscale, 2019, 11, 9796-9818.	2.8	76
614	Impedance analysis of perovskite solar cells: a case study. Journal of Materials Chemistry A, 2019, 7, 12191-12200.	5.2	109
615	Morphology, optical and photoelectric properties of CH3NH3PbBr3 single crystal. Physica B: Condensed Matter, 2019, 571, 307-311.	1.3	8
616	Verification and mitigation of ion migration in perovskite solar cells. APL Materials, 2019, 7, .	2.2	179
617	The phase diagram of a mixed halide (Br, I) hybrid perovskite obtained by synchrotron X-ray diffraction. RSC Advances, 2019, 9, 11151-11159.	1.7	76
618	Dual Interfacial Design for Efficient CsPbI ₂ Br Perovskite Solar Cells with Improved Photostability. Advanced Materials, 2019, 31, e1901152.	11.1	328
619	Interfaceâ€Modificationâ€Induced Gradient Energy Band for Highly Efficient CsPbIBr ₂ Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1803785.	10.2	191
620	The Dominant Energy Transport Pathway in Halide Perovskites: Photon Recycling or Carrier Diffusion?. Advanced Energy Materials, 2019, 9, 1900185.	10.2	85
621	Patterning Multicolor Hybrid Perovskite Films <i>via</i> Top-Down Lithography. ACS Nano, 2019, 13, 3823-3829.	7.3	95
622	Causes and Solutions of Recombination in Perovskite Solar Cells. Advanced Materials, 2019, 31, e1803019.	11.1	422
623	Void and secondary phase formation mechanisms of CZTSSe using Sn/Cu/Zn/Mo stacked elemental precursors. Nano Energy, 2019, 59, 399-411.	8.2	61
624	Constructing CsPbBr ₃ Cluster Passivatedâ€Triple Cation Perovskite for Highly Efficient and Operationally Stable Solar Cells. Advanced Functional Materials, 2019, 29, 1809180.	7.8	64

#	Article	IF	CITATIONS
625	Electronic, phonon transport and thermoelectric properties of Cs2InAgCl6 from first-principles study. Computational Condensed Matter, 2019, 19, e00374.	0.9	36
626	Effect of Grain Boundaries on Charge Transport in Methylammonium Lead Iodide Perovskite Thin Films. Journal of Physical Chemistry C, 2019, 123, 5321-5325.	1.5	28
627	Suppressed phase separation of mixed-halide perovskites confined in endotaxial matrices. Nature Communications, 2019, 10, 695.	5.8	156
628	Revealing the crystallization process and realizing uniform 1.8 eV MA-based wide-bandgap mixed-halide perovskites via solution engineering. Nano Research, 2019, 12, 1033-1039.	5.8	37
629	Halide Perovskite Photovoltaics: Background, Status, and Future Prospects. Chemical Reviews, 2019, 119, 3036-3103.	23.0	2,009
630	Halide Perovskites: Is It All about the Interfaces?. Chemical Reviews, 2019, 119, 3349-3417.	23.0	404
631	Continuous wave amplified spontaneous emission in phase-stable lead halide perovskites. Nature Communications, 2019, 10, 988.	5.8	107
632	Photoinduced Lattice Symmetry Enhancement in Mixed Hybrid Perovskites and Its Beneficial Effect on the Recombination Behavior. Advanced Optical Materials, 2019, 7, 1801512.	3.6	26
633	Formation of Surface Defects Dominates Ion Migration in Lead-Halide Perovskites. ACS Energy Letters, 2019, 4, 779-785.	8.8	219
634	Theoretical study on halide and mixed halide Perovskite solar cells: Effects of halide atoms on the stability and electronic properties. Journal of the Chinese Chemical Society, 2019, 66, 575-582.	0.8	10
635	Hybrid perovskites for device applications. , 2019, , 211-256.		13
636	Charge carrier recombination dynamics in a bi-cationic perovskite solar cell. Physical Chemistry Chemical Physics, 2019, 21, 5409-5415.	1.3	20
637	Perovskite solar cells-A futuristic approach. , 2019, , .		0
638	Performance of Organic Solar Cells with Recovery. , 2019, , .		0
639	Photoinduced phase segregation and degradation of perovskites revealed by x-ray photoelectron spectroscopy. , 2019, , .		1
640	Effects of Annealing and Light on Co-evaporated Methylammonium Lead Iodide Perovskites using Kelvin Probe Force Microscopy in Ultra-High Vacuum. , 2019, , .		1
641	Triple-halide Bandgap Tuning In Top Cells For Perovskite/Si Tandems. , 2019, , .		0
642	Upconverted excitonic photoluminescence from a two-dimensional lead-halide perovskite. Journal of Chemical Physics, 2019, 151, 234709.	1.2	11
#	Article	IF	CITATIONS
-----	--	------	-----------
643	Effect of energy transfer on the optical properties of surface-passivated perovskite films with CdSe/ZnS quantum dots. Scientific Reports, 2019, 9, 18433.	1.6	16
644	Laser induced ion migration in all-inorganic mixed halide perovskite micro-platelets. Nanoscale Advances, 2019, 1, 4459-4465.	2.2	25
645	Segregation-free bromine-doped perovskite solar cells for IoT applications. RSC Advances, 2019, 9, 32833-32838.	1.7	13
646	Influence of bromide content on iodide migration in inverted MAPb(I _{1â~x} Br _x) ₃ perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 22604-22614.	5.2	42
647	Halideâ€Perovskite Resonant Nanophotonics. Advanced Optical Materials, 2019, 7, 1800784.	3.6	146
648	Rational chemical doping of metal halide perovskites. Chemical Society Reviews, 2019, 48, 517-539.	18.7	196
649	Understanding macroscale functionality of metal halide perovskites in terms of nanoscale heterogeneities. JPhys Energy, 2019, 1, 011002.	2.3	3
650	Highly efficient semitransparent CsPbIBr2 perovskite solar cells via low-temperature processed In2S3 as electron-transport-layer. Nano Energy, 2019, 57, 718-727.	8.2	211
651	Defect Passivation for Red Perovskite Light-Emitting Diodes with Improved Brightness and Stability. Journal of Physical Chemistry Letters, 2019, 10, 380-385.	2.1	55
652	Toward Long-Term Stability: Single-Crystal Alloys of Cesium-Containing Mixed Cation and Mixed Halide Perovskite. Journal of the American Chemical Society, 2019, 141, 1665-1671.	6.6	141
653	Low dimensional metal halide perovskites and hybrids. Materials Science and Engineering Reports, 2019, 137, 38-65.	14.8	300
655	Electronic Traps and Phase Segregation in Lead Mixed-Halide Perovskite. ACS Energy Letters, 2019, 4, 75-84.	8.8	212
656	Controlling the Phase Segregation in Mixed Halide Perovskites through Nanocrystal Size. ACS Energy Letters, 2019, 4, 54-62.	8.8	149
657	Dimensional tailoring of hybrid perovskites for photovoltaics. Nature Reviews Materials, 2019, 4, 4-22.	23.3	671
658	Understanding Degradation Mechanisms and Improving Stability of Perovskite Photovoltaics. Chemical Reviews, 2019, 119, 3418-3451.	23.0	1,131
659	Metal Halide Perovskite Materials for Solar Cells with Longâ€∓erm Stability. Advanced Energy Materials, 2019, 9, 1802671.	10.2	97
660	Visualisierung der Phasensegregation in Gemischthalogenid―Perowskiteinkristallen. Angewandte Chemie, 2019, 131, 2919-2924.	1.6	4
661	Visualizing Phase Segregation in Mixedâ€Halide Perovskite Single Crystals. Angewandte Chemie - International Edition, 2019, 58, 2893-2898.	7.2	77

#	Article	IF	CITATIONS
662	Substrate-Dependent Photoconductivity Dynamics in a High-Efficiency Hybrid Perovskite Alloy. Journal of Physical Chemistry C, 2019, 123, 3402-3415.	1.5	10
663	Origins of High Performance and Degradation in the Mixed Perovskite Solar Cells. Advanced Materials, 2019, 31, e1805438.	11.1	41
664	Unraveling the light-induced degradation mechanism of CH3NH3PbI3 perovskite films. Organic Electronics, 2019, 67, 19-25.	1.4	44
665	Light-emitting perovskite solar cell with segregation enhanced self doping. Applied Surface Science, 2019, 476, 486-492.	3.1	19
666	Î ³ -Ray-Induced Degradation in the Triple-Cation Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2019, 10, 813-818.	2.1	38
667	Stable, color-tunable 2D SCN-based perovskites: revealing the critical influence of an asymmetric pseudo-halide on constituent ions. Nanoscale, 2019, 11, 2608-2616.	2.8	22
668	Grain Engineering for Perovskite/Silicon Monolithic Tandem Solar Cells with Efficiency of 25.4%. Joule, 2019, 3, 177-190.	11.7	329
669	Synthetic Approaches for Halide Perovskite Thin Films. Chemical Reviews, 2019, 119, 3193-3295.	23.0	454
670	Inorganic CsPbI ₂ Br Perovskite Solar Cells: The Progress and Perspective. Solar Rrl, 2019, 3, 1800239.	3.1	217
671	Optically tuned and large-grained bromine doped CH3NH3PbI3 perovskite thin films via aerosol-assisted chemical vapour deposition. Materials Chemistry and Physics, 2019, 223, 157-163.	2.0	5
672	An overview on enhancing the stability of lead halide perovskite quantum dots and their applications in phosphor-converted LEDs. Chemical Society Reviews, 2019, 48, 310-350.	18.7	845
673	Operation Mechanism of Perovskite Quantum Dot Solar Cells Probed by Impedance Spectroscopy. ACS Energy Letters, 2019, 4, 251-258.	8.8	73
674	Minimizing Voltage Loss in Wide-Bandgap Perovskites for Tandem Solar Cells. ACS Energy Letters, 2019, 4, 259-264.	8.8	143
675	Imaging Spatial Variations of Optical Bandgaps in Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1802790.	10.2	18
676	Machine Learning for Perovskites' Reap-Rest-Recovery Cycle. Joule, 2019, 3, 325-337.	11.7	62
677	Amplified and Multicolor Emission from Films and Interfacial Layers of Lead Halide Perovskite Nanocrystals. ACS Energy Letters, 2019, 4, 133-141.	8.8	41
678	Progress of Surface Science Studies on ABX ₃ â€Based Metal Halide Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1902726.	10.2	87
679	Light Management in Monolithic Perovskite/Silicon Tandem Solar Cells. Solar Rrl, 2020, 4, 1900206.	3.1	36

#	Article	IF	CITATIONS
680	Lead-free, stable mixed halide double perovskites Cs2AgBiBr6 and Cs2AgBiBr6â^'xClx – A detailed theoretical and experimental study. Chemical Physics, 2020, 529, 110547.	0.9	38
681	Perovskite solar cells. , 2020, , 163-228.		8
682	Twoâ€ŧerminal Perovskite silicon tandem solar cells with a highâ€Bandgap Perovskite absorber enabling voltages over 1.8ÂV. Progress in Photovoltaics: Research and Applications, 2020, 28, 99-110.	4.4	63
683	Efficient all-inorganic CsPbI2Br perovskite solar cell with carbon electrode by revealing crystallization kinetics and improving crystal quality. Journal of Power Sources, 2020, 447, 227389.	4.0	37
684	High performance perovskites solar cells by hybrid perovskites co-crystallized with poly(ethylene) Tj ETQq0 0 0 r	gBT /Overl	ock_{46} 10 Tf 50
685	Halide perovskite materials as light harvesters for solar energy conversion. EnergyChem, 2020, 2, 100026.	10.1	24
686	Revolution of Perovskite. Materials Horizons, 2020, , .	0.3	10
687	Revealing the origin of voltage loss in mixed-halide perovskite solar cells. Energy and Environmental Science, 2020, 13, 258-267.	15.6	283
688	Crystallization kinetics of rapid spray plasma processed multiple cation perovskites in open air. Journal of Materials Chemistry A, 2020, 8, 169-176.	5.2	14
689	Instability of p–i–n perovskite solar cells under reverse bias. Journal of Materials Chemistry A, 2020, 8, 242-250.	5.2	76
690	Ethanol induced structure reorganization of 2D layered perovskites (OA)2(MA)n-1PbnI3n+1. Journal of Luminescence, 2020, 220, 116981.	1.5	6
691	Photophysical properties of halide perovskite CsPb(Br1-xlx)3 thin films and nanowires. Journal of Luminescence, 2020, 220, 116985.	1.5	9
692	Photon recycling in perovskite CH3NH3PbX3 (X = I, Br, Cl) bulk single crystals and polycrystalline films. Journal of Luminescence, 2020, 220, 116987.	1.5	33
693	Highâ€Performance Perovskite Lightâ€Emitting Diode with Enhanced Operational Stability Using Lithium Halide Passivation. Angewandte Chemie, 2020, 132, 4128-4134.	1.6	8
694	Highâ€Performance Perovskite Lightâ€Emitting Diode with Enhanced Operational Stability Using Lithium Halide Passivation. Angewandte Chemie - International Edition, 2020, 59, 4099-4105.	7.2	130
695	Chemical Approaches for Stabilizing Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1903249.	10.2	132
696	How Interplay between Photo and Thermal Activation Dictates Halide Ion Segregation in Mixed Halide Perovskites. ACS Energy Letters, 2020, 5, 56-63.	8.8	123
697	Correlating Phase Behavior with Photophysical Properties in Mixedâ€Cation Mixedâ€Halide Perovskite Thin Films. Advanced Energy Materials, 2020, 10, 1901350.	10.2	17

#	Article	IF	CITATIONS
698	All-Inorganic Perovskite Solar Cells: Energetics, Key Challenges, and Strategies toward Commercialization. ACS Energy Letters, 2020, 5, 290-320.	8.8	183
699	Understanding the Enhanced Stability of Bromide Substitution in Lead Iodide Perovskites. Chemistry of Materials, 2020, 32, 400-409.	3.2	53
700	Wideâ€Bandgap Perovskite/Gallium Arsenide Tandem Solar Cells. Advanced Energy Materials, 2020, 10, 1903085.	10.2	49
701	Photobrightening in Lead Halide Perovskites: Observations, Mechanisms, and Future Potential. Advanced Energy Materials, 2020, 10, 1903109.	10.2	53
702	Microscopic insight into the reversibility of photodegradation in MAPbI3 thin films. Journal of Luminescence, 2020, 219, 116916.	1.5	7
703	Bandgap tuning and compositional exchange for lead halide perovskite materials. , 2020, , 1-22.		9
704	Optical absorption and photoluminescence spectroscopy. , 2020, , 49-79.		9
705	Current-voltage analysis: lessons learned from hysteresis. , 2020, , 81-108.		9
706	Time resolved photo-induced optical spectroscopy. , 2020, , 139-160.		2
707	Stability of materials and complete devices. , 2020, , 197-215.		1
707 708	Stability of materials and complete devices. , 2020, , 197-215. Spontaneous enhancement of the stable power conversion efficiency in perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 670-682.	5.2	1 47
707 708 709	Stability of materials and complete devices. , 2020, , 197-215. Spontaneous enhancement of the stable power conversion efficiency in perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 670-682. Synergistic Effect of Dual Ligands on Stable Blue Quasiâ€2D Perovskite Lightâ€Emitting Diodes. Advanced Functional Materials, 2020, 30, 1908339.	5.2 7.8	1 47 103
707 708 709 710	Stability of materials and complete devices., 2020, , 197-215. Spontaneous enhancement of the stable power conversion efficiency in perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 670-682. Synergistic Effect of Dual Ligands on Stable Blue Quasiâ€2D Perovskite Lightâ€Emitting Diodes. Advanced Prunctional Materials, 2020, 30, 1908339. Dry Mechanochemical Synthesis of Highly Luminescent, Blue and Green Hybrid Perovskite Solids. Advanced Optical Materials, 2020, 8, 1901494.	5.27.83.6	1 47 103 16
707 708 709 710	Stability of materials and complete devices., 2020, , 197-215. Spontaneous enhancement of the stable power conversion efficiency in perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 670-682. Synergistic Effect of Dual Ligands on Stable Blue Quasiâ€2D Perovskite Lightâ€Emitting Diodes. Advanced Functional Materials, 2020, 30, 1908339. Dry Mechanochemical Synthesis of Highly Luminescent, Blue and Green Hybrid Perovskite Solids. Advanced Optical Materials, 2020, 8, 1901494. Mobile Ion Concentration Measurement and Open-Access Band Diagram Simulation Platform for Halide Perovskite Solar Cells. Joule, 2020, 4, 109-127.	5.27.83.611.7	1 47 103 16 117
 707 708 709 710 711 712 	Stability of materials and complete devices. , 2020, , 197-215. Spontaneous enhancement of the stable power conversion efficiency in perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 670-682. Synergistic Effect of Dual Ligands on Stable Blue Quasiâ€2D Perovskite Lightâ€Emitting Diodes. Advanced Functional Materials, 2020, 30, 1908339. Dry Mechanochemical Synthesis of Highly Luminescent, Blue and Green Hybrid Perovskite Solids. Advanced Optical Materials, 2020, 8, 1901494. Mobile Ion Concentration Measurement and Open-Access Band Diagram Simulation Platform for Halide Perovskite Solar Cells. Joule, 2020, 4, 109-127. Efficient and stable perovskite solar cells thanks to dual functions of oleyl amine-coated PbSO4(PbO)4 quantum dots: Defect passivation and moisture/oxygen blocking. Nano Energy, 2020, 68, 104313.	 5.2 7.8 3.6 11.7 8.2 	1 47 103 16 117
 707 708 709 710 711 712 713 	Stability of materials and complete devices. , 2020, , 197-215. Spontaneous enhancement of the stable power conversion efficiency in perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 670-682. Synergistic Effect of Dual Ligands on Stable Blue Quasiã€2D Perovskite Lightâ€Emitting Diodes. Advanced Functional Materials, 2020, 30, 1908339. Dry Mechanochemical Synthesis of Highly Luminescent, Blue and Green Hybrid Perovskite Solids. Advanced Optical Materials, 2020, 8, 1901494. Mobile Ion Concentration Measurement and Open-Access Band Diagram Simulation Platform for Halide Perovskite Solar Cells. Joule, 2020, 4, 109-127. Efficient and stable perovskite solar cells thanks to dual functions of oleyl amine-coated PbSO4(PbO)4 quantum dots: Defect passivation and moisture/oxygen blocking. Nano Energy, 2020, 68, 104313. Leadâ€free perovskite MASnBr< sub>3â€based memristor for quaternary information storage. InformaĂnĂ-MateriĂ;ly, 2020, 2, 743-751.	 5.2 7.8 3.6 11.7 8.2 8.5 	1 47 103 16 117 56
 707 708 709 710 711 712 713 714 	Stability of materials and complete devices. , 2020, , 197-215. Spontaneous enhancement of the stable power conversion efficiency in perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 670-682. Synergistic Effect of Dual Ligands on Stable Blue Quasiã€2D Perovskite Lightâ€Emitting Diodes. Advanced Functional Materials, 2020, 30, 1908339. Dry Mechanochemical Synthesis of Highly Luminescent, Blue and Green Hybrid Perovskite Solids. Advanced Optical Materials, 2020, 8, 1901494. Mobile Ion Concentration Measurement and Open-Access Band Diagram Simulation Platform for Halide Perovskite Solar Cells. Joule, 2020, 4, 109-127. Efficient and stable perovskite solar cells thanks to dual functions of oleyl amine-coated PbSO4(PbO)4 quantum dots: Defect passivation and moisture/oxygen blocking. Nano Energy, 2020, 68, 104313. Leadã€free perovskite MASnBrcsub>3/sub>â€based memristor for quaternary information storage. InformaAnA-MateriAiJy, 2020, 2, 743-751. Ion Migration: A "Doubleã€Edged Swordã€-for Halideã€Perovskiteã€Based Electronic Devices. Small Methods, 2020, 4, 1900552.	 5.2 7.8 3.6 11.7 8.2 8.5 4.6 	1 47 103 16 117 56 58 127

#	Article	IF	CITATIONS
716	Organic Ligands Armored ZnO Enhances Efficiency and Stability of CsPbl ₂ Br Perovskite Solar Cells. Advanced Science, 2020, 7, 2000421.	5.6	35
717	Suppression of Electric Field-Induced Segregation in Sky-Blue Perovskite Light-Emitting Electrochemical Cells. Nanomaterials, 2020, 10, 1937.	1.9	14
718	Self-healing perovskite solar cells. Solar Energy, 2020, 209, 408-414.	2.9	41
719	Revealing Electricalâ€Polingâ€Induced Polarization Potential in Hybrid Perovskite Photodetectors. Advanced Materials, 2020, 32, e2005481.	11.1	23
720	Dipolar cation accumulation at the interfaces of perovskite light-emitting solar cells. Journal of Materials Chemistry C, 2020, 8, 16992-16999.	2.7	7
721	Perovskite Quantum Dots for Application in High Color Gamut Backlighting Display of Light-Emitting Diodes. ACS Energy Letters, 2020, 5, 3374-3396.	8.8	162
722	Toward mixed-halide perovskites: insight into photo-induced anion phase segregation. Journal of Materials Chemistry C, 2020, 8, 14626-14644.	2.7	11
723	Photoinduced Phase Segregation in Mixed Halide Perovskites: Thermodynamic and Kinetic Aspects of Cl–Br Segregation. Advanced Optical Materials, 2021, 9, 2001440.	3.6	46
724	Defect states influencing hysteresis and performance of perovskite solar cells. Solar Energy, 2020, 211, 345-353.	2.9	29
725	Phonon, thermal, and thermo-optical properties of halide perovskites. Physical Chemistry Chemical Physics, 2020, 22, 26069-26087.	1.3	23
726	Effect of Different Bromine Sources on the Dual Cation Mixed Halide Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 8285-8294.	2.5	8
727	Halide Segregation versus Interfacial Recombination in Bromide-Rich Wide-Gap Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 2728-2736.	8.8	114
728	Perovskiteâ€Based Tandem Solar Cells: Get the Most Out of the Sun. Advanced Functional Materials, 2020, 30, 2001904.	7.8	78
729	Thermodynamic Stabilization of Mixed-Halide Perovskites against Phase Segregation. Cell Reports Physical Science, 2020, 1, 100120.	2.8	56
730	Emission Quenching and Recovery of Illuminated Perovskite Quantum Dots Due to Iodide Ion Migration. Journal of Physical Chemistry Letters, 2020, 11, 6168-6175.	2.1	11
731	Arylammonium-Assisted Reduction of the Open-Circuit Voltage Deficit in Wide-Bandgap Perovskite Solar Cells: The Role of Suppressed Ion Migration. ACS Energy Letters, 2020, 5, 2560-2568.	8.8	131
732	Phase Segregation and Photothermal Remixing of Mixed-Halide Lead Perovskites. Journal of Physical Chemistry Letters, 2020, 11, 1802-1807.	2.1	27
733	Spectral shifts upon halide segregation in perovskite nanocrystals observed via transient absorption spectroscopy. MRS Advances, 2020, 5, 2613-2621.	0.5	0

#	ARTICLE	IF	CITATIONS
734	Isotopic Exchange Extends Charge Carrier Lifetime in Metal Lead Perovskites by Quantum Dynamics Simulations. Journal of Physical Chemistry Letters, 2020, 11, 10298-10305.	2.1	11
735	External Field-Tunable Internal Orbit–Orbit Interaction in Flexible Perovskites. Journal of Physical Chemistry Letters, 2020, 11, 10323-10328.	2.1	2
736	Flash Formation of I-Rich Clusters during Multistage Halide Segregation Studied in MAPbI1.5Br1.5. Journal of Physical Chemistry C, 2020, 124, 24608-24615.	1.5	13
737	Potassium iodide reduces the stability of triple-cation perovskite solar cells. RSC Advances, 2020, 10, 40341-40350.	1.7	27
738	Perovskite Tandem Solar Cells: From Fundamentals to Commercial Deployment. Chemical Reviews, 2020, 120, 9835-9950.	23.0	248
739	Switchable Perovskite Photovoltaic Sensors for Bioinspired Adaptive Machine Vision. Advanced Intelligent Systems, 2020, 2, 2000122.	3.3	44
740	Hybrid Perovskites with Larger Organic Cations Reveal Autocatalytic Degradation Kinetics and Increased Stability under Light. Inorganic Chemistry, 2020, 59, 12176-12186.	1.9	12
741	Searching for stable perovskite solar cell materials using materials genome techniques and high-throughput calculations. Journal of Materials Chemistry C, 2020, 8, 12012-12035.	2.7	22
742	Toward Efficient and Stable Perovskite Solar Cells: Choosing Appropriate Passivator to Specific Defects. Solar Rrl, 2020, 4, 2000308.	3.1	31
743	Inhibition of Phase Segregation in Cesium Lead Mixed-Halide Perovskites by B-Site Doping. IScience, 2020, 23, 101415.	1.9	18
744	High-Efficiency Perovskite Solar Cells. Chemical Reviews, 2020, 120, 7867-7918.	23.0	1,480
745	Opportunities for Cryogenic Electron Microscopy in Materials Science and Nanoscience. ACS Nano, 2020, 14, 9263-9276.	7.3	55
746	Illumination-Induced Phase Segregation and Suppressed Solubility Limit in Br-Rich Mixed-Halide Inorganic Perovskites. ACS Applied Materials & Interfaces, 2020, 12, 38376-38385.	4.0	27
747	Suppressing Cation Migration in Triple-Cation Lead Halide Perovskites. ACS Energy Letters, 2020, 5, 2802-2810.	8.8	51
748	Two-Dimensional Cs ₂ Pb(SCN) ₂ Br ₂ -Based Photomemory Devices Showing a Photoinduced Recovery Behavior and an Unusual Fully Optically Driven Memory Behavior. ACS Applied Materials & Interfaces, 2020, 12, 36398-36408.	4.0	39
749	Materials and Methods for Interface Engineering toward Stable and Efficient Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 2742-2786.	8.8	307
750	Photoinduced Phase Segregation Leading to Evident Open-Circuit Voltage Loss in Efficient Inorganic CsPbIBr ₂ Solar Cells. Journal of Physical Chemistry Letters, 2020, 11, 7035-7041.	2.1	26
751	Dimensionality engineering of metal halide perovskites. Frontiers of Optoelectronics, 2020, 13, 196-224.	1.9	25

# 752	ARTICLE Defects chemistry in high-efficiency and stable perovskite solar cells. Journal of Applied Physics, 2020, 128, .	IF 1.1	CITATIONS 91
753	Metal Halide Perovskite@Metalâ€Organic Framework Hybrids: Synthesis, Design, Properties, and Applications. Small, 2020, 16, e2004891.	5.2	46
754	Tandem cells under the weather. Nature Energy, 2020, 5, 828-829.	19.8	0
755	Nearâ€Infraredâ€Transparent Perovskite Solar Cells and Perovskiteâ€Based Tandem Photovoltaics. Small Methods, 2020, 4, 2000395.	4.6	63
756	The Role of Potassium in the Segregation of MAPb(Br 0.6 I 0.4) 3 Mixedâ€Halide Perovskite in Different Environments. Physica Status Solidi - Rapid Research Letters, 2020, 14, 2000335.	1.2	4
757	Lattice Compression Increases the Activation Barrier for Phase Segregation in Mixed-Halide Perovskites. ACS Energy Letters, 2020, 5, 3152-3158.	8.8	90
758	Moving Ions Vary Electronic Conductivity in Lead Bromide Perovskite Single Crystals through Dynamic Doping. Advanced Electronic Materials, 2020, 6, 2000485.	2.6	26
759	Establishing Multifunctional Interface Layer of Perovskite Ligand Modified Lead Sulfide Quantum Dots for Improving the Performance and Stability of Perovskite Solar Cells. Small, 2020, 16, e2002628.	5.2	20
760	Nanoscale Charge Accumulation and Its Effect on Carrier Dynamics in Tri-cation Perovskite Structures. ACS Applied Materials & Interfaces, 2020, 12, 48057-48066.	4.0	21
761	High-Efficiency Silicon Heterojunction Solar Cells: Materials, Devices and Applications. Materials Science and Engineering Reports, 2020, 142, 100579.	14.8	139
762	Single-emissive-layer all-perovskite white light-emitting diodes employing segregated mixed halide perovskite crystals. Chemical Science, 2020, 11, 11338-11343.	3.7	18
763	Manipulation of PEDOT:PSS with Polar and Nonpolar Solvent Post-treatment for Efficient Inverted Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 9656-9666.	2.5	16
764	Effects of Co-Addition of Sodium Chloride and Copper(II) Bromide to Mixed-Cation Mixed-Halide Perovskite Photovoltaic Devices. ACS Applied Energy Materials, 2020, 3, 7272-7283.	2.5	37
765	Hysteretic Ion Migration and Remanent Field in Metal Halide Perovskites. Advanced Science, 2020, 7, 2001176.	5.6	29
766	Defect Tolerance and Intolerance in Metalâ€Halide Perovskites. Advanced Energy Materials, 2020, 10, 2001959.	10.2	85
767	Interplay between temperature and bandgap energies on the outdoor performance of perovskite/silicon tandem solar cells. Nature Energy, 2020, 5, 851-859.	19.8	177
768	Defect passivation strategies in perovskites for an enhanced photovoltaic performance. Energy and Environmental Science, 2020, 13, 4017-4056.	15.6	235
769	Recent Progress in Metal Halide Perovskiteâ€Based Tandem Solar Cells. Advanced Materials, 2020, 32, e2002228.	11.1	39

CITAT	ION	
CHAI	IUN	REPORT

#	Article	IF	CITATIONS
770	Towards commercialization: the operational stability of perovskite solar cells. Chemical Society Reviews, 2020, 49, 8235-8286.	18.7	371
771	Impacts of carrier trapping and ion migration on charge transport of perovskite solar cells with TiO _x electron transport layer. RSC Advances, 2020, 10, 28083-28089.	1.7	4
772	Moisture-Induced Structural Degradation in Methylammonium Lead Iodide Perovskite Thin Films. ACS Applied Energy Materials, 2020, 3, 8240-8248.	2.5	34
773	Photocorrosion at Irradiated Perovskite/Electrolyte Interfaces. Journal of the American Chemical Society, 2020, 142, 21595-21614.	6.6	32
774	A-Site Cation Engineering for Efficient Blue-Emissive Perovskite Light-Emitting Diodes. Energies, 2020, 13, 6689.	1.6	5
775	Strain-activated light-induced halide segregation in mixed-halide perovskite solids. Nature Communications, 2020, 11, 6328.	5.8	86
776	Monolithic perovskite/silicon tandem solar cell with >29% efficiency by enhanced hole extraction. Science, 2020, 370, 1300-1309.	6.0	1,120
777	Mapping temperature-dependent energy–structure–property relationships for solid solutions of inorganic halide perovskites. Journal of Materials Chemistry C, 2020, 8, 16815-16825.	2.7	10
778	Choose Your Own Adventure: Fabrication of Monolithic Allâ€Perovskite Tandem Photovoltaics. Advanced Materials, 2020, 32, e2003312.	11.1	39
779	Recent Advances in Plasmonic Perovskite Solar Cells. Advanced Science, 2020, 7, 1902448.	5.6	78
780	Monolithic Perovskite Tandem Solar Cells: A Review of the Present Status and Advanced Characterization Methods Toward 30% Efficiency. Advanced Energy Materials, 2020, 10, 1904102.	10.2	321
781	Electron irradiation induced aging effects on radiative recombination properties of quadruple cation organic-inorganic perovskite layers. Emergent Materials, 2020, 3, 133-160.	3.2	4
782	Applications of atomic layer deposition and chemical vapor deposition for perovskite solar cells. Energy and Environmental Science, 2020, 13, 1997-2023.	15.6	102
783	High-humidity processed perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 10481-10518.	5.2	56
784	Solvent modification to suppress halide segregation in mixed halide perovskite solar cells. Journal of Materials Science, 2020, 55, 9787-9794.	1.7	7
785	The Role of Dimethylammonium in Bandgap Modulation for Stable Halide Perovskites. ACS Energy Letters, 2020, 5, 1856-1864.	8.8	65
786	Reversible Photoinduced Phase Segregation and Origin of Long Carrier Lifetime in Mixedâ€Halide Perovskite Films. Advanced Functional Materials, 2020, 30, 2002622.	7.8	37
787	Improving the Quality and Luminescence Performance of Allâ€Inorganic Perovskite Nanomaterials for Lightâ€Emitting Devices by Surface Engineering. Small, 2020, 16, e1907089.	5.2	54

#	Article	IF	CITATIONS
788	Stable green and red dual-color emission in all-inorganic halide-mixed perovskite single microsheets. RSC Advances, 2020, 10, 18368-18376.	1.7	2
789	Potassiumâ€Induced Phase Stability Enables Stable and Efficient Wideâ€Bandgap Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000098.	3.1	37
790	Effect of Interfacial Layers on the Device Lifetime of Perovskite Solar Cells. Small Methods, 2020, 4, 2000065.	4.6	22
791	Preventing phase segregation in mixed-halide perovskites: a perspective. Energy and Environmental Science, 2020, 13, 2024-2046.	15.6	221
792	Iodine (I) Expulsion at Photoirradiated Mixed Halide Perovskite Interface. <i>Should I Stay or Should I Go?</i> . ACS Energy Letters, 2020, 5, 1872-1880.	8.8	55
793	Dopant-free polymeric hole transport materials for efficient CsPbl ₂ Br perovskite cells with a fill factor exceeding 84%. Journal of Materials Chemistry C, 2020, 8, 8507-8514.	2.7	27
794	Composition Engineering of Allâ€Inorganic Perovskite Film for Efficient and Operationally Stable Solar Cells. Advanced Functional Materials, 2020, 30, 2001764.	7.8	69
795	lon Migrationâ€Induced Amorphization and Phase Segregation as a Degradation Mechanism in Planar Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 2000310.	10.2	103
796	Self-aligned concentrating immersion-lens arrays for patterning and efficiency recovery in scaffold-reinforced perovskite solar cells. Applied Materials Today, 2020, 20, 100704.	2.3	1
797	In Situ TEM Monitoring of Phase-Segregation in Inorganic Mixed Halide Perovskite. Journal of Physical Chemistry Letters, 2020, 11, 4945-4950.	2.1	29
798	In situ studies of the degradation mechanisms of perovskite solar cells. EcoMat, 2020, 2, e12025.	6.8	123
799	Progress in Materials Development for the Rapid Efficiency Advancement of Perovskite Solar Cells. Small, 2020, 16, e1907531.	5.2	23
800	Laser-induced inter-ion migration and the effect of different long alkylammonium halide functionalization on CH3NH3Pb(BrxI1â^'x)3 colloidal nanoparticles. Applied Surface Science, 2020, 526, 146789.	3.1	5
801	Nonâ€Uniform Chemical Corrosion of Metal Electrode of p–i–n Type of Perovskite Solar Cells Caused by the Diffusion of CH ₃ NH ₃ I. Energy Technology, 2020, 8, 2000250.	1.8	13
802	Local Rearrangement of the Iodide Defect Structure Determines the Phase Segregation Effect in Mixed-Halide Perovskites. Journal of Physical Chemistry Letters, 2020, 11, 4911-4916.	2.1	20
803	Origin of Ionic Inhomogeneity in MAPb(I _{<i>x</i>} Br _{1–<i>x</i>}) ₃ Perovskite Thin Films Revealed by In-Situ Spectroscopy during Spin Coating and Annealing. ACS Applied Materials & Interfaces, 2020, 12, 30343-30352.	4.0	20
804	Simulation studies to quantify the impacts of point defects: An investigation of Cs2AgBiBr6 perovskite solar devices utilizing ZnO and Cu2O as the charge transport layers. Computational Materials Science, 2020, 184, 109865.	1.4	33
805	Doping and ion substitution in colloidal metal halide perovskite nanocrystals. Chemical Society Reviews, 2020, 49, 4953-5007.	18.7	269

#	Article	IF	CITATIONS
806	Stable, Bromine-Free, Tetragonal Perovskites with 1.7 eV Bandgaps via A-Site Cation Substitution. , 2020, 2, 869-872.		18
807	Molecular materials as interfacial layers and additives in perovskite solar cells. Chemical Society Reviews, 2020, 49, 4496-4526.	18.7	130
808	Photoinduced phase separation in the lead halides is a polaronic effect. Journal of Chemical Physics, 2020, 152, 230901.	1.2	41
809	Defects in halide perovskites: The lattice as a boojum?. MRS Bulletin, 2020, 45, 478-484.	1.7	20
810	Understanding the effect of light and temperature on the optical properties and stability of mixed-ion halide perovskites. Journal of Materials Chemistry C, 2020, 8, 9714-9723.	2.7	13
811	Photochromic and luminescent switchable iodoargentate hybrids directed by solvated lanthanide cations. Dalton Transactions, 2020, 49, 8883-8890.	1.6	14
812	Dynamical Imaging of Surface Photopotentials in Hybrid Lead Iodide Perovskite Films under High Optical Irradiance and the Role of Selective Contacts. Advanced Materials Interfaces, 2020, 7, 2000297.	1.9	6
813	Ion migration in Br-doped MAPbI3 and its inhibition mechanisms investigated via quantum dynamics simulations. Physical Chemistry Chemical Physics, 2020, 22, 7778-7786.	1.3	10
814	Shining Light on the Photoluminescence Properties of Metal Halide Perovskites. Advanced Functional Materials, 2020, 30, 1910004.	7.8	101
815	2D/3D Heterostructure for Semitransparent Perovskite Solar Cells with Engineered Bandgap Enables Efficiencies Exceeding 25% in Four‶erminal Tandems with Silicon and CIGS. Advanced Functional Materials, 2020, 30, 1909919.	7.8	123
816	Recent Advances in Improving Phase Stability of Perovskite Solar Cells. Small Methods, 2020, 4, 1900877.	4.6	74
817	Latticeâ€Matching Structurallyâ€Stable 1D@3D Perovskites toward Highly Efficient and Stable Solar Cells. Advanced Energy Materials, 2020, 10, 1903654.	10.2	50
818	Photoinduced Anion Segregation in Mixed Halide Perovskites. Trends in Chemistry, 2020, 2, 282-301.	4.4	141
819	Resolving spatial and energetic distributions of trap states in metal halide perovskite solar cells. Science, 2020, 367, 1352-1358.	6.0	699
820	Design Rules to Fully Benefit From Bifaciality in Two-Terminal Perovskite/Silicon Tandem Solar Cells. IEEE Journal of Photovoltaics, 2020, 10, 714-721.	1.5	18
821	Improved Chemical Stability of Organometal Halide Perovskite Solar Cells Against Moisture and Heat by Ag Doping. ChemSusChem, 2020, 13, 3261-3268.	3.6	11
822	Efficient, stable silicon tandem cells enabled by anion-engineered wide-bandgap perovskites. Science, 2020, 368, 155-160.	6.0	420
823	Revealing the compositional effect on the intrinsic long-term stability of perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 7653-7658.	5.2	30

#	Article	IF	CITATIONS
824	Unraveling the Impact of Hole Transport Materials on Photostability of Perovskite Films and p–i–n Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 19161-19173.	4.0	35
825	Triple-halide wide–band gap perovskites with suppressed phase segregation for efficient tandems. Science, 2020, 367, 1097-1104.	6.0	669
826	Fabrication and optimization of nanocube mixed halide perovskite films for solar cell application. Solar Energy, 2020, 201, 209-218.	2.9	6
827	Routes toward Long-Term Stability of Mixed-Halide Perovskites. Matter, 2020, 2, 800-802.	5.0	20
828	Recent Progresses on Metal Halide Perovskite-Based Material as Potential Photocatalyst. Catalysts, 2020, 10, 709.	1.6	65
829	Direct Observation of Competition between Amplified Spontaneous Emission and Auger Recombination in Quasi-Two-Dimensional Perovskites. Journal of Physical Chemistry Letters, 2020, 11, 5734-5740.	2.1	28
830	Light-Induced Passivation in Triple Cation Mixed Halide Perovskites: Interplay between Transport Properties and Surface Chemistry. ACS Applied Materials & Interfaces, 2020, 12, 34784-34794.	4.0	25
831	Understanding the interplay of stability and efficiency in A-site engineered lead halide perovskites. APL Materials, 2020, 8, .	2.2	57
832	Microscopic Degradation in Formamidinium-Cesium Lead Iodide Perovskite Solar Cells under Operational Stressors. Joule, 2020, 4, 1743-1758.	11.7	156
833	How Chloride Suppresses Photoinduced Phase Segregation in Mixed Halide Perovskites. Chemistry of Materials, 2020, 32, 6206-6212.	3.2	58
834	Defect Energetics in Pseudo-Cubic Mixed Halide Lead Perovskites from First-Principles. Journal of Physical Chemistry C, 2020, 124, 16729-16738.	1.5	19
835	Sensory Adaptation and Neuromorphic Phototransistors Based on CsPb(Br _{1–<i>x</i>} < _{<i>x</i>}) ₃ Perovskite and MoS ₂ Hybrid Structure. ACS Nano, 2020, 14, 9796-9806.	7.3	88
836	Rapid Decoherence Induced by Light Expansion Suppresses Charge Recombination in Mixed Cation Perovskites: Time-Domain <i>ab Initio</i> Analysis. Journal of Physical Chemistry Letters, 2020, 11, 1601-1608.	2.1	19
837	Pressure effect on CH3NH3PbBr3 perovskite films deposited by close space sublimation for PIN diode and its possible application in radiation detector. Materials Science in Semiconductor Processing, 2020, 110, 104965.	1.9	1
838	A Cocktail of Multiple Cations in Inorganic Halide Perovskite toward Efficient and Highly Stable Blue Light-Emitting Diodes. ACS Energy Letters, 2020, 5, 1062-1069.	8.8	79
839	A Review and Perspective on Cathodoluminescence Analysis of Halide Perovskites. Advanced Energy Materials, 2020, 10, 1903840.	10.2	26
840	Vibrational dynamics in lead halide hybrid perovskites investigated by Raman spectroscopy. Physical Chemistry Chemical Physics, 2020, 22, 5604-5614.	1.3	61
841	Arranging strategies for A-site cations: impact on the stability and carrier migration of hybrid perovskite materials. Inorganic Chemistry Frontiers, 2020, 7, 1741-1749.	3.0	17

#	Article	IF	CITATIONS
842	Intrinsic and environmental stability issues of perovskite photovoltaics. Progress in Energy, 2020, 2, 022002.	4.6	33
843	Stability of Perovskite Light Sources: Status and Challenges. Advanced Optical Materials, 2020, 8, 1902012.	3.6	54
844	Mechanically Stacked, Two-Terminal Graphene-Based Perovskite/Silicon Tandem Solar Cell with Efficiency over 26%. Joule, 2020, 4, 865-881.	11.7	125
845	Approaches for thermodynamically stabilized CsPbI3 solar cells. Nano Energy, 2020, 71, 104634.	8.2	95
846	TiO ₂ -Assisted Halide Ion Segregation in Mixed Halide Perovskite Films. Journal of the American Chemical Society, 2020, 142, 5362-5370.	6.6	72
847	Thermodynamic Control in the Synthesis of Quantum-Confined Blue-Emitting CsPbBr ₃ Perovskite Nanostrips. Journal of Physical Chemistry Letters, 2020, 11, 2036-2043.	2.1	39
848	What Exactly Causes Light-Induced Halide Segregation in Mixed-Halide Perovskites?. Matter, 2020, 2, 21-23.	5.0	27
849	Correlating the Composition-Dependent Structural and Electronic Dynamics of Inorganic Mixed Halide Perovskites. Chemistry of Materials, 2020, 32, 2470-2481.	3.2	20
850	Ultrahigh photo-stable all-inorganic perovskite nanocrystals and their robust random lasing. Nanoscale Advances, 2020, 2, 888-895.	2.2	6
851	Optical Absorptionâ€Based In Situ Characterization of Halide Perovskites. Advanced Energy Materials, 2020, 10, 1903587.	10.2	42
852	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
853	Excellent Moisture Stability and Efficiency of Inverted All-Inorganic CsPbIBr ₂ Perovskite Solar Cells through Molecule Interface Engineering. ACS Applied Materials & Interfaces, 2020, 12, 13931-13940.	4.0	52
854	FAâ€Assistant lodide Coordination in Organic–Inorganic Wideâ€Bandgap Perovskite with Mixed Halides. Small, 2020, 16, e1907226.	5.2	38
855	How far are we from attaining 10-year lifetime for metal halide perovskite solar cells?. Materials Science and Engineering Reports, 2020, 140, 100545.	14.8	67
856	Coupling halide perovskites with different materials: From doping to nanocomposites, beyond photovoltaics. Progress in Materials Science, 2020, 110, 100639.	16.0	38
857	Halide perovskites: current issues and new strategies to push material and device stability. JPhys Energy, 2020, 2, 021005.	2.3	40
858	Cation Diffusion Guides Hybrid Halide Perovskite Crystallization during the Gel Stage. Angewandte Chemie, 2020, 132, 6035-6043.	1.6	22
859	Large-area transparent flexible guanidinium incorporated MAPbI3 microstructures for high-performance photodetectors with enhanced stability. Nanoscale Horizons, 2020, 5, 696-704.	4.1	15

#	Article	IF	CITATIONS
860	Recent advances in defect passivation of perovskite active layer via additive engineering: a review. Journal Physics D: Applied Physics, 2020, 53, 183002.	1.3	15
861	Xâ€Ray Microscopy of Halide Perovskites: Techniques, Applications, and Prospects. Advanced Energy Materials, 2020, 10, 1903170.	10.2	49
862	CsIâ€Antisolvent Adduct Formation in Allâ€Inorganic Metal Halide Perovskites. Advanced Energy Materials, 2020, 10, 1903365.	10.2	55
863	Trap States, Electric Fields, and Phase Segregation in Mixedâ€Halide Perovskite Photovoltaic Devices. Advanced Energy Materials, 2020, 10, 1903488.	10.2	79
864	Degradation Mechanism of Silver Metal Deposited on Lead Halide Perovskites. ACS Applied Materials & Interfaces, 2020, 12, 7212-7221.	4.0	85
865	Cation Diffusion Guides Hybrid Halide Perovskite Crystallization during the Gel Stage. Angewandte Chemie - International Edition, 2020, 59, 5979-5987.	7.2	29
866	Consensus statement for stability assessment and reporting for perovskite photovoltaics based on ISOS procedures. Nature Energy, 2020, 5, 35-49.	19.8	797
867	Ecoâ€Friendly Spray Deposition of Perovskite Films on Macroscale Textured Surfaces. Advanced Materials Technologies, 2020, 5, 1901009.	3.0	23
868	Complex evolution of photoluminescence during phase segregation of MAPb(I1-xBrx)3 mixed halide perovskite. Journal of Luminescence, 2020, 221, 117073.	1.5	31
869	Dual Passivation of Perovskite Defects for Lightâ€Emitting Diodes with External Quantum Efficiency Exceeding 20%. Advanced Functional Materials, 2020, 30, 1909754.	7.8	212
870	Quantifying Chargeâ€Carrier Mobilities and Recombination Rates in Metal Halide Perovskites from Timeâ€Resolved Microwave Photoconductivity Measurements. Advanced Energy Materials, 2020, 10, 1903788.	10.2	43
871	Polymorphous nature of cubic halide perovskites. Physical Review B, 2020, 101, .	1.1	104
872	Electric field-induced segregation in a sky-blue perovskite light-emitting diode based on CsPbBr ₂ Cl:PEO composite. Journal of Physics: Conference Series, 2020, 1461, 012086.	0.3	5
873	Light soaking in metal halide perovskites studied via steady-state microwave conductivity. Communications Physics, 2020, 3, .	2.0	20
874	Metal composition influences optoelectronic quality in mixed-metal lead–tin triiodide perovskite solar absorbers. Energy and Environmental Science, 2020, 13, 1776-1787.	15.6	87
875	Visualizing the role of photoinduced ion migration on photoluminescence in halide perovskite grains. Journal of Materials Chemistry C, 2020, 8, 7509-7518.	2.7	14
876	A Thermally Induced Perovskite Crystal Control Strategy for Efficient and Photostable Wideâ€Bandgap Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000033.	3.1	22
877	Halogen-containing semiconductors: From artificial photosynthesis to unconventional computing. Coordination Chemistry Reviews, 2020, 415, 213316.	9.5	21

#	Article	IF	CITATIONS
878	Superlattices are Greener on the Other Side: How Light Transforms Self-Assembled Mixed Halide Perovskite Nanocrystals. ACS Energy Letters, 2020, 5, 1465-1473.	8.8	46
879	Spatially Resolved Performance Analysis for Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1904001.	10.2	30
880	Photoflexoelectric effect in halide perovskites. Nature Materials, 2020, 19, 605-609.	13.3	132
881	Revealing Dynamic Effects of Mobile Ions in Halide Perovskite Solar Cells Using Timeâ€Resolved Microspectroscopy. Small Methods, 2021, 5, e2000731.	4.6	18
882	Amino-mediated anchoring of FAPbBr3 perovskite quantum dots on silica spheres for efficient visible light photocatalytic NO removal. Chemical Engineering Journal, 2021, 406, 126740.	6.6	21
883	Light-induced reversal of ion segregation in mixed-halide perovskites. Nature Materials, 2021, 20, 55-61.	13.3	126
884	Shining more light on photoinduced segregation. Nature Materials, 2021, 20, 6-7.	13.3	2
885	In Situ Exploration of the Structural Transition during Morphology―and Efficiency onserving Halide Exchange on a Single Perovskite Nanocrystal. Angewandte Chemie - International Edition, 2021, 60, 2548-2553.	7.2	9
886	Interface engineering, the trump-card for CsPbX3 (XËł, Br) perovskite solar cells development. Nano Energy, 2021, 79, 105490.	8.2	22
887	Recent progress of minimal voltage losses for high-performance perovskite photovoltaics. Nano Energy, 2021, 81, 105634.	8.2	48
888	Mechanisms and Suppression of Photoinduced Degradation in Perovskite Solar Cells. Advanced Energy Materials, 2021, 11, 2002326.	10.2	118
889	In Quest of Environmentally Stable Perovskite Solar Cells: A Perspective. Helvetica Chimica Acta, 2021, 104, .	1.0	15
890	Effect of organic cation composition and halogen atom type on 2D-layered organic–inorganic hybrids for luminescent solar concentrator. Journal of Materials Science: Materials in Electronics, 2021, 32, 12939-12950.	1.1	7
891	Effects of ion migration and improvement strategies for the operational stability of perovskite solar cells. Physical Chemistry Chemical Physics, 2021, 23, 94-106.	1.3	68
892	In Situ Exploration of the Structural Transition during Morphology―and Efficiencyâ€Conserving Halide Exchange on a Single Perovskite Nanocrystal. Angewandte Chemie, 2021, 133, 2578-2583.	1.6	2
893	Electrochemically induced iodine migration in mixed halide perovskites: suppression through chloride insertion. Chemical Communications, 2021, 57, 235-238.	2.2	8
894	Wide-Bandgap Metal Halide Perovskites for Tandem Solar Cells. ACS Energy Letters, 2021, 6, 232-248.	8.8	89
895	Reconfigurable Perovskite LEC: Effects of Ionic Additives and Dual Function Devices. Advanced Optical Materials, 2021, 9, 2001715.	3.6	33

#	Article	IF	CITATIONS
896	Leadâ€Free Perovskiteâ€Inspired Absorbers for Indoor Photovoltaics. Advanced Energy Materials, 2021, 11, 2002761.	10.2	95
897	Photoâ€Effect on Ion Transport in Mixed Cation and Halide Perovskites and Implications for Photoâ€Demixing**. Angewandte Chemie - International Edition, 2021, 60, 820-826.	7.2	43
898	Photoâ€Effect on Ion Transport in Mixed Cation and Halide Perovskites and Implications for Photoâ€Đemixing**. Angewandte Chemie, 2021, 133, 833-839.	1.6	8
899	Reduced graphene oxide in perovskite solar cells: the influence on film formation, photophysics, performance, and stability. Journal of Materials Chemistry C, 2021, 9, 14648-14658.	2.7	9
900	Studies on Dye-Sensitized Solar Cells Incorporated with Perovskite as Sensitizer Dye. , 2021, , 45-81.		0
901	The lattice reconstruction of Cs-introduced FAPbI _{1.80} Br _{1.20} enables improved stability for perovskite solar cells. RSC Advances, 2021, 11, 3997-4005.	1.7	3
902	Chloride-incorporated quasi-2D perovskite films <i>via</i> dynamic processing for spectrum-stable blue light-emitting diodes. Journal of Materials Chemistry C, 2021, 9, 9637-9642.	2.7	8
903	Recent progress of metal-halide perovskite-based tandem solar cells. Materials Chemistry Frontiers, 2021, 5, 4538-4564.	3.2	15
904	Electronic Structure and Optical Properties of Mixed Iodine/Bromine Lead Perovskites. To Mix or Not to Mix?. Advanced Optical Materials, 2021, 9, 2001832.	3.6	17
905	Halide perovskites scintillators: unique promise and current limitations. Journal of Materials Chemistry C, 2021, 9, 11588-11604.	2.7	43
906	Semiconductor to metallic transition under induced pressure in Cs ₂ AgBiBr ₆ double halide perovskite: a theoretical DFT study for photovoltaic and optoelectronic applications. RSC Advances, 2021, 11, 24001-24012.	1.7	26
907	Recent progress on defect passivation in perovskites for solar cell application. Materials Science for Energy Technologies, 2021, 4, 282-289.	1.0	8
908	Organic–inorganic hybrid and inorganic halide perovskites: structural and chemical engineering, interfaces and optoelectronic properties. Journal Physics D: Applied Physics, 2021, 54, 133002.	1.3	27
909	X-ray stability and degradation mechanism of lead halide perovskites and lead halides. Physical Chemistry Chemical Physics, 2021, 23, 12479-12489.	1.3	33
910	Dye-Sensitized and Perovskite Solar Cells: Theory and Applications. , 2021, , 558-594.		0
911	Passivation and process engineering approaches of halide perovskite films for high efficiency and stability perovskite solar cells. Energy and Environmental Science, 2021, 14, 2906-2953.	15.6	170
912	An antibonding valence band maximum enables defect-tolerant and stable GeSe photovoltaics. Nature Communications, 2021, 12, 670.	5.8	58
913	A Perspective on Perovskite Solar Cells. Energy, Environment, and Sustainability, 2021, , 55-151.	0.6	1

#	Article	IF	CITATIONS
914	Insights into the effect of bromineâ€based organic salts on the efficiency and stability of wide bandgap perovskite. Nano Select, 2021, 2, 615-623.	1.9	0
915	Investigating the iodide and bromide ion exchange in metal halide perovskite single crystals and thin films. Chemical Communications, 2021, 57, 6125-6128.	2.2	7
916	Efficient bifacial monolithic perovskite/silicon tandem solar cells via bandgap engineering. Nature Energy, 2021, 6, 167-175.	19.8	164
917	Strategies of perovskite mechanical stability for flexible photovoltaics. Materials Chemistry Frontiers, 2021, 5, 7467-7478.	3.2	9
918	Microscopic (Dis)order and Dynamics of Cations in Mixed FA/MA Lead Halide Perovskites. Journal of Physical Chemistry C, 2021, 125, 1742-1753.	1.5	28
919	Mixed halide perovskites for spectrally stable and high-efficiency blue light-emitting diodes. Nature Communications, 2021, 12, 361.	5.8	268
920	Band-Gap Tuning in All-Inorganic CsPb <i>_x</i> Sn _{1–<i>x</i>} Br ₃ Perovskites. ACS Applied Materials & Interfaces, 2021, 13, 4203-4210.	4.0	24
921	Frenkel defects promote polaronic exciton dissociation in methylammonium lead iodide perovskites. Physical Chemistry Chemical Physics, 2021, 23, 6583-6590.	1.3	2
922	Research progress of light irradiation stability of functional layers in perovskite solar cells. Wuli Xuebao/Acta Physica Sinica, 2021, 70, 098402.	0.2	2
923	When photoluminescence, electroluminescence, and open-circuit voltage diverge – light soaking and halide segregation in perovskite solar cells. Journal of Materials Chemistry A, 2021, 9, 13967-13978.	5.2	8
925	The effect of dimensionality on the charge carrier mobility of halide perovskites. Journal of Materials Chemistry A, 2021, 9, 21551-21575.	5.2	49
926	Tuning Ionic and Electronic Conductivities in the "Hollow―Perovskite { <i>en</i> }MAPbI ₃ . Chemistry of Materials, 2021, 33, 719-726.	3.2	24
927	How to apply metal halide perovskites to photocatalysis: challenges and development. Nanoscale, 2021, 13, 10281-10304.	2.8	47
928	Performance and stability improvements in metal halide perovskite with intralayer incorporation of organic additives. Journal of Materials Chemistry A, 2021, 9, 16281-16338.	5.2	28
929	Perovskite Nanocrystals: Synthesis, Stability, and Optoelectronic Applications. Small Structures, 2021, 2, 2000124.	6.9	53
930	Stabilizing Mixed Halide Lead Perovskites against Photoinduced Phase Segregation by A-Site Cation Alloying. ACS Energy Letters, 2021, 6, 837-847.	8.8	34
931	Reversible Pb ²⁺ /Pb ⁰ and I ^{â^'} /I ₃ ^{â^'} Redox Chemistry Drives the Lightâ€Induced Phase Segregation in Allâ€Inorganic Mixed Halide Perovskites. Advanced Energy Materials, 2021, 11, 2002934.	10.2	56
932	Fast Optical Reflectance Measurements during Spin Coating and Annealing of Organic–Inorganic Perovskite Precursor Solutions. Physica Status Solidi (B): Basic Research, 2021, 258, 2000479. 	0.7	2

#	Article	IF	CITATIONS
933	Efficient Wide-Bandgap Mixed-Cation and Mixed-Halide Perovskite Solar Cells by Vacuum Deposition. ACS Energy Letters, 2021, 6, 827-836.	8.8	81
934	Grain Transformation and Degradation Mechanism of Formamidinium and Cesium Lead Iodide Perovskite under Humidity and Light. ACS Energy Letters, 2021, 6, 934-940.	8.8	90
935	Halide Segregation in Mixed-Halide Perovskites: Influence of A-Site Cations. ACS Energy Letters, 2021, 6, 799-808.	8.8	129
936	Selfâ€Structural Healing of Encapsulated Perovskite Microcrystals for Improved Optical and Thermal Stability. Advanced Materials, 2021, 33, e2100466.	11.1	28
937	Anion Exchange of Ruddlesden–Popper Lead Halide Perovskites Produces Stable Lateral Heterostructures. Journal of the American Chemical Society, 2021, 143, 5212-5221.	6.6	37
938	Modulation of Photoinduced Iodine Expulsion in Mixed Halide Perovskites with Electrochemical Bias. Journal of Physical Chemistry Letters, 2021, 12, 2615-2621.	2.1	14
939	Interface Optimization via Fullerene Blends Enables Openâ€Circuit Voltages of 1.35ÂV in CH ₃ NH ₃ Pb(I _{0.8} Br _{0.2}) ₃ Solar Cells. Advanced Energy Materials, 2021, 11, 2003386.	10.2	57
940	Photophysics of Localized Deep Defect States in Hybrid Organic–Inorganic Perovskites. Journal of Physical Chemistry C, 2021, 125, 6975-6982.	1.5	2
941	Halide Perovskite Lightâ€Emitting Diode Technologies. Advanced Optical Materials, 2021, 9, 2002128.	3.6	100
942	The Complex Interplay of Lead Halide Perovskites with Their Surroundings. Advanced Optical Materials, 2021, 9, 2100133.	3.6	7
943	Wide-Bandgap Halide Perovskites for Indoor Photovoltaics. Frontiers in Chemistry, 2021, 9, 632021.	1.8	27
944	Suppression of ion migration through cross-linked PDMS doping to enhance the operational stability of perovskite solar cells. Solar Energy, 2021, 217, 105-112.	2.9	10
945	Wide and Tunable Bandgap MAPbBr _{3â^'<i>x</i>} Cl _{<i>x</i>} Hybrid Perovskites with Enhanced Phase Stability: In Situ Investigation and Photovoltaic Devices. Solar Rrl, 2021, 5, 2000718.	3.1	32
946	Engineering bandgap of CsPbI3 over 1.7 eV with enhanced stability and transport properties. IScience, 2021, 24, 102235.	1.9	29
947	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
948	Revealing Nanomechanical Domains and Their Transient Behavior in Mixedâ€Halide Perovskite Films. Advanced Functional Materials, 2021, 31, 2100293.	7.8	23
949	In Situ Spectroelectrochemical Investigation of Perovskite Quantum Dots for Tracking Their Transformation. Frontiers in Energy Research, 2021, 8, .	1.2	7
950	Recent Advances on Cyanâ€Emitting (480 â‰â€‰ λ  â‰â€‰520 nm) Metal Halide Perovskite I 2021, 1, 2000077.	Materials. S	Small Science

#	Article	IF	CITATIONS
951	Ionic Liquids-Enabled Efficient and Stable Perovskite Photovoltaics: Progress and Challenges. ACS Energy Letters, 0, , 1453-1479.	8.8	98
952	Strain in Metal Halide Perovskites: The Critical Role of A-Site Cation. ACS Applied Energy Materials, 2021, 4, 2068-2072.	2.5	14
953	Ion Movement Explains Huge <i>V</i> _{OC} Increase despite Almost Unchanged Internal Quasiâ€Fermi‣evel Splitting in Planar Perovskite Solar Cells. Energy Technology, 2021, 9, 2001104.	1.8	18
954	Monolithic all-perovskite tandem solar cells: recent progress and challenges. Journal of the Korean Ceramic Society, 2021, 58, 399-413.	1.1	14
955	Minimizing Open ircuit Voltage Loss in Perovskite/Si Tandem Solar Cells via Exploring the Synergic Effect of Cations and Anions. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2100119.	1.2	7
956	Review on persistent challenges of perovskite solar cells' stability. Solar Energy, 2021, 218, 469-491.	2.9	80
957	Structural Stability of Formamidinium- and Cesium-Based Halide Perovskites. ACS Energy Letters, 2021, 6, 1942-1969.	8.8	76
958	Linking Phase Segregation and Photovoltaic Performance of Mixed-Halide Perovskite Films through Grain Size Engineering. ACS Energy Letters, 0, , 1649-1658.	8.8	33
959	Defect suppression and photoresponsivity enhancement in methylammonium lead halide perovskites by CdSe/ZnS quantum dots. Journal of Colloid and Interface Science, 2021, 590, 19-27.	5.0	11
960	Unified theory for light-induced halide segregation in mixed halide perovskites. Nature Communications, 2021, 12, 2687.	5.8	70
961	Distinguishing Models for Mixed Halide Lead Perovskite Photosegregation via Terminal Halide Stoichiometry. ACS Energy Letters, 2021, 6, 2064-2071.	8.8	22
962	Wide-Band-Gap Mixed-Halide 3D Perovskites: Electronic Structure and Halide Segregation Investigation. ACS Applied Electronic Materials, 2021, 3, 2277-2285.	2.0	10
963	Switchedâ€On: Progress, Challenges, and Opportunities in Metal Halide Perovskite Transistors. Advanced Functional Materials, 2021, 31, 2101029.	7.8	57
964	Cold-Cage Perovskites: A Three-Dimensional Au ^{III} –X Framework Encasing Isolated MX ₆ ^{3–} Octahedra (M ^{III} = In, Sb, Bi; X = Cl [–] ,) Tj ETQq1 I	067&4314	4 rgBT /Overl
965	Ferroelectric and Charge Transport Properties in Strain-Engineered Two-Dimensional Lead Iodide Perovskites. Chemistry of Materials, 2021, 33, 4077-4088.	3.2	10
966	Insights into the Development of Monolithic Perovskite/Silicon Tandem Solar Cells. Advanced Energy Materials, 2022, 12, 2003628.	10.2	72
967	Metalâ€Halide Perovskite Crystallization Kinetics: A Review of Experimental and Theoretical Studies. Advanced Energy Materials, 2021, 11, 2100784.	10.2	35
968	27.9% Efficient Monolithic Perovskite/Silicon Tandem Solar Cells on Industry Compatible Bottom Cells. Solar Rrl, 2021, 5, 2100244.	3.1	59

#	Article	IF	CITATIONS
969	Halide Perovskites: A New Era of Solutionâ€Processed Electronics. Advanced Materials, 2021, 33, e2005000.	11.1	138
970	Multistep Regioselectivity and Non-Kirkendall Anion Exchange of Copper Chalcogenide Nanorods. Chemistry of Materials, 2021, 33, 3841-3850.	3.2	11
971	Optoelectronic properties of Rb-doped inorganic double perovskite Cs2AgBiBr6. Chemical Physics Letters, 2021, 771, 138501.	1.2	4
972	Water Stable Haloplumbate Modulation for Efficient and Stable Hybrid Perovskite Photovoltaics. Advanced Energy Materials, 2021, 11, 2101082.	10.2	21
973	Allâ€Inorganic Cesiumâ€Based Hybrid Perovskites for Efficient and Stable Solar Cells and Modules. Advanced Energy Materials, 2021, 11, 2100672.	10.2	54
974	The Role of Dimensionality on the Optoelectronic Properties of Oxide and Halide Perovskites, and their Halide Derivatives. Advanced Energy Materials, 2022, 12, 2100499.	10.2	66
975	Temperature dependency of excitonic effective mass and charge carrier conduction mechanism in CH3NH3PbI3â°'xClx thin films. Scientific Reports, 2021, 11, 10772.	1.6	8
976	Exploring Responses of Contact Kelvin Probe Force Microscopy in Triple-Cation Double-Halide Perovskites. Journal of Physical Chemistry C, 2021, 125, 12355-12365.	1.5	3
977	Defect activity in metal halide perovskites with wide and narrow bandgap. Nature Reviews Materials, 2021, 6, 986-1002.	23.3	121
978	Color-Stable Blue Light-Emitting Diodes Enabled by Effective Passivation of Mixed Halide Perovskites. Journal of Physical Chemistry Letters, 2021, 12, 6041-6047.	2.1	21
979	Intermediate phase-enhanced Ostwald ripening for the elimination of phase segregation in efficient inorganic CsPbIBr2 perovskite solar cells. Science China Materials, 2021, 64, 2655-2666.	3.5	12
980	Spacer Cations Dictate Photoinduced Phase Segregation in 2D Mixed Halide Perovskites. ACS Energy Letters, 2021, 6, 2499-2501.	8.8	43
981	Evolution of stability enhancement in organo-metallic halide perovskite photovoltaics-a review. Materials Today Communications, 2021, 27, 102159.	0.9	12
982	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
983	Robust Molecular Dipoleâ€Enabled Defect Passivation and Control of Energyâ€Level Alignment for Highâ€Efficiency Perovskite Solar Cells. Angewandte Chemie, 2021, 133, 17805-17811.	1.6	22
984	Understanding VOC and performance deficit in wide bandgap perovskite photovoltaic devices. Solar Energy Materials and Solar Cells, 2021, 225, 111015.	3.0	9
985	Impact of Orientational Glass Formation and Local Strain on Photo-Induced Halide Segregation in Hybrid Metal-Halide Perovskites. Journal of Physical Chemistry C, 2021, 125, 15025-15034.	1.5	8
986	Robust Molecular Dipoleâ€Enabled Defect Passivation and Control of Energyâ€Level Alignment for Highâ€Efficiency Perovskite Solar Cells. Angewandte Chemie - International Edition, 2021, 60, 17664-17670.	7.2	69

	CITATION	REPORT	
#	Article	IF	CITATIONS
987	State of the Art and Prospects for Halide Perovskite Nanocrystals. ACS Nano, 2021, 15, 10775-10981.	7.3	705
988	Emerging Indoor Photovoltaic Technologies for Sustainable Internet of Things. Advanced Energy Materials, 2021, 11, 2100698.	10.2	117
989	Exploring Transport Behavior in Hybrid Perovskites Solar Cells via Machine Learning Analysis of Environmentalâ€Đependent Impedance Spectroscopy. Advanced Science, 2021, 8, e2002510.	5.6	23
990	Tailored Local Bandgap Modulation as a Strategy to Maximize Luminescence Yields in Mixedâ€Halide Perovskites. Advanced Optical Materials, 2021, 9, 2100635.	3.6	5
991	Synthetic approaches for thin-film halide double perovskites. Matter, 2021, 4, 1801-1831.	5.0	11
992	Recent advances on interface engineering of perovskite solar cells. Nano Research, 2022, 15, 85-103.	5.8	59
993	Lowâ€Dimensional Metal Halide Perovskite Crystal Materials: Structure Strategies and Luminescence Applications. Advanced Science, 2021, 8, e2004805.	5.6	116
994	Photoinduced Self-healing of Halide Segregation in Mixed-halide Perovskites. ACS Energy Letters, 2021, 6, 2502-2511.	8.8	34
995	Laserâ€induced recoverable fluorescence quenching of perovskite films at a microscopic grainâ€scale. Energy and Environmental Materials, 0, , .	7.3	2
996	Toward Stable Monolithic Perovskite/Silicon Tandem Photovoltaics: A Six-Month Outdoor Performance Study in a Hot and Humid Climate. ACS Energy Letters, 2021, 6, 2944-2951.	8.8	42
997	Mitigating ion migration in perovskite solar cells. Trends in Chemistry, 2021, 3, 575-588.	4.4	81
998	Bias-Dependent Dynamics of Degradation and Recovery in Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 6562-6573.	2.5	11
999	Suppressed light-induced phase transition of CsPbBr2I: Strategies, progress and applications in the photovoltaic field. Journal of Semiconductors, 2021, 42, 071901.	2.0	3
1000	Dopantâ€Free Polymer HTMâ€Based CsPbl ₂ Br Solar Cells with Efficiency Over 17% in Sunlight and 34% in Indoor Light. Advanced Functional Materials, 2021, 31, 2103614.	7.8	60
1001	Effect of Light-Induced Halide Segregation on the Performance of Mixed-Halide Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 6650-6658.	2.5	26
1002	Revealing the Mechanism behind the Catastrophic Failure of nâ€iâ€p Type Perovskite Solar Cells under Operating Conditions and How to Suppress It. Advanced Functional Materials, 2021, 31, 2103820.	7.8	22
1003	Mixed Cation Halide Perovskite under Environmental and Physical Stress. Materials, 2021, 14, 3954.	1.3	14
1004	Compositional Investigation for Bandgap Engineering of Wide Bandgap Triple Cation Perovskite. ACS Applied Energy Materials, 2021, 4, 6377-6384.	2.5	13

#	Article	IF	CITATIONS
1005	Revealing the Mechanism of π Aromatic Molecule as an Effective Passivator and Stabilizer in Highly Efficient Wideâ€Bandgap Perovskite Solar Cells. Solar Rrl, 2021, 5, 2100249.	3.1	11
1006	Beyond the Limit of Goldschmidt Tolerance Factor: Crystal Surface Engineering to Boost the αâ€Phase Stability of Formamidiniumâ€Only Hybrid Inorganic–Organic Perovskites. Solar Rrl, 2021, 5, 2100188.	3.1	8
1007	Impact of Transition Metal Doping on the Structural and Optical Properties of Halide Perovskites. Chemistry of Materials, 2021, 33, 6099-6107.	3.2	3
1008	Oneâ€Step Slotâ€Die Coating Deposition of Wideâ€Bandgap Perovskite Absorber for Highly Efficient Solar Cells. Solar Rrl, 2021, 5, 2100391.	3.1	10
1009	A Review on Emerging Barrier Materials and Encapsulation Strategies for Flexible Perovskite and Organic Photovoltaics. Advanced Energy Materials, 2021, 11, 2101383.	10.2	57
1010	Stability of Perovskite Solar Cells: Degradation Mechanisms and Remedies. Frontiers in Electronics, 2021, 2, .	2.0	75
1011	Charge Carrier Dynamics of Multiple-Cation Mixed-Halide Perovskite Thin Films. Journal of Physical Chemistry C, 2021, 125, 17411-17417.	1.5	0
1012	Waterâ€Induced and Wavelengthâ€Dependent Light Absorption and Emission Dynamics in Tripleâ€Cation Halide Perovskites. Advanced Optical Materials, 2021, 9, 2100710.	3.6	0
1013	Progress in ambient air-processed perovskite solar cells: Insights into processing techniques and stability assessment. Solar Energy, 2021, 224, 1369-1395.	2.9	43
1014	Understanding the Semi-Switchable Thermochromic Behavior of Mixed Halide Hybrid Perovskite Nanorods. Journal of Physical Chemistry C, 2021, 125, 18058-18070.	1.5	21
1015	Impact of Potentialâ€Induced Degradation on Different Architectureâ€Based Perovskite Solar Cells. Solar Rrl, 2021, 5, 2100349.	3.1	14
1016	Ion migration in halide perovskite solar cells: Mechanism, characterization, impact and suppression. Journal of Energy Chemistry, 2021, 63, 528-549.	7.1	76
1017	Perovskite/silicon tandem photovoltaics: Technological disruption without business disruption. Applied Physics Letters, 2021, 119, .	1.5	22
1018	Indoor Perovskite Photovoltaics for the Internet of Things—Challenges and Opportunities toward Market Uptake. Advanced Energy Materials, 2021, 11, 2101854.	10.2	52
1019	Operational and Spectral Stability of Perovskite Light-Emitting Diodes. ACS Energy Letters, 2021, 6, 3114-3131.	8.8	46
1020	Metal Halide Perovskites for Solar Fuel Production and Photoreactions. Journal of Physical Chemistry Letters, 2021, 12, 8292-8301.	2.1	17
1021	Stimuli-responsive switchable halide perovskites: Taking advantage of instability. Joule, 2021, 5, 2027-2046.	11.7	56
1022	MA Cation-Induced Diffusional Growth of Low-Bandgap FA-Cs Perovskites Driven by Natural Gradient Annealing. Research, 2021, 2021, 9765106.	2.8	8

#	Article	IF	CITATIONS
1023	UV soaking for enhancing the photocurrent and response speed of Cs2AgBiBr6-based all-inorganic perovskite photodetectors. Science China Materials, 2022, 65, 442-450.	3.5	7
1024	Stability of Perovskite Films Encapsulated in Single- and Multi-Layer Graphene Barriers. ACS Applied Energy Materials, 2021, 4, 10314-10322.	2.5	5
1025	Stability in Photoinduced Instability in Mixed-Halide Perovskite Materials and Solar Cells. Journal of Physical Chemistry C, 2021, 125, 21370-21380.	1.5	10
1026	Protonâ€Radiation Tolerant Allâ€Perovskite Multijunction Solar Cells. Advanced Energy Materials, 2021, 11, 2102246.	10.2	25
1027	The Effect of Cs/FA Ratio on the Longâ€Term Stability of Mixed Cation Perovskite Solar Cells. Solar Rrl, 2021, 5, 2100660.	3.1	10
1028	Atomic-scale imaging of CH3NH3PbI3 structure and its decomposition pathway. Nature Communications, 2021, 12, 5516.	5.8	36
1029	Mixed or Segregated: Toward Efficient and Stable Mixed Halide Perovskite-Based Devices. ACS Omega, 2021, 6, 24304-24315.	1.6	29
1030	Atomic-scale understanding on the physics and control of intrinsic point defects in lead halide perovskites. Applied Physics Reviews, 2021, 8, .	5.5	36
1031	Halogen-halogen bonds enable improved long-term operational stability of mixed-halide perovskite photovoltaics. CheM, 2021, 7, 3131-3143.	5.8	55
1032	Moisture tolerant solar cells by encapsulating 3D perovskite with long-chain alkylammonium cation-based 2D perovskite. Communications Materials, 2021, 2, .	2.9	19
1033	Effect of PbSO4-Oleate Coverage on Cesium Lead Halide Perovskite Quantum Dots to Control Halide Exchange Kinetics. Nanomaterials, 2021, 11, 2515.	1.9	2
1034	Mixed-Halide Perovskite Film-Based Neuromorphic Phototransistors for Mimicking Experience-History-Dependent Sensory Adaptation. ACS Applied Materials & Interfaces, 2021, 13, 47807-47816.	4.0	9
1035	The role of halide oxidation in perovskite halide phase separation. Joule, 2021, 5, 2273-2295.	11.7	86
1036	Repair Strategies for Perovskite Solar Cells. Chemical Research in Chinese Universities, 2021, 37, 1055-1066.	1.3	3
1037	Lead-free indium-silver based double perovskites for thermoelectric applications: Structural, electronic and thermoelectric properties using first-principles approach. Materials Today Communications, 2021, 28, 102609.	0.9	4
1038	Photo-induced defects in MAPbBr ₃ single crystals. JPhys Energy, 2021, 3, 044005.	2.3	7
1039	Strain engineering in metal halide perovskite materials and devices: Influence on stability and optoelectronic properties. Chemical Physics Reviews, 2021, 2, .	2.6	23
1040	A SCAPS simulation investigation of non-toxic MAGel3-on-Si tandem solar device utilizing monolithically integrated (2-T) and mechanically stacked (4-T) configurations. Solar Energy, 2021, 225, 471-485	2.9	33

#	Article	IF	CITATIONS
1041	Stability of mixed-halide wide bandgap perovskite solar cells: Strategies and progress. Journal of Energy Chemistry, 2021, 61, 395-415.	7.1	34
1042	Limitations and solutions for achieving high-performance perovskite tandem photovoltaics. Nano Energy, 2021, 88, 106219.	8.2	20
1043	Reversible photochromic and photoluminescence in iodide perovskites. Thin Solid Films, 2021, 737, 138950.	0.8	4
1044	Unraveling the hysteretic behavior at double cations-double halides perovskite - electrode interfaces. Nano Energy, 2021, 89, 106428.	8.2	11
1045	Li2S doping into CZTSe drives the large improvement of VOC of solar cell. Journal of Energy Chemistry, 2021, 62, 637-644.	7.1	15
1046	Phase segregation in mixed halide perovskite by post-treatment of methylammonium halides. Vacuum, 2021, 194, 110624.	1.6	4
1047	Stabilization of mixed-halide lead perovskites under light by photothermal effects. Journal of Energy Chemistry, 2021, 63, 8-11.	7.1	13
1048	Undercoordinated Pb2+ defects passivation via tetramethoxysilane-modified for efficient and stable perovskite solar cells. Organic Electronics, 2021, 99, 106332.	1.4	6
1049	Interfaces in metal halide perovskites probed by solid-state NMR spectroscopy. Journal of Materials Chemistry A, 2021, 9, 19206-19244.	5.2	28
1050	Wide-bandgap organic–inorganic hybrid and all-inorganic perovskite solar cells and their application in all-perovskite tandem solar cells. Energy and Environmental Science, 2021, 14, 5723-5759.	15.6	114
1051	Halide Ion Migration in Perovskite Nanocrystals and Nanostructures. Accounts of Chemical Research, 2021, 54, 520-531.	7.6	98
1052	Transparent Electrode Techniques for Semitransparent and Tandem Perovskite Solar Cells. Electronic Materials Letters, 2021, 17, 18-32.	1.0	22
1053	Bandgap tuning strategy by cations and halide ions of lead halide perovskites learned from machine learning. RSC Advances, 2021, 11, 15688-15694.	1.7	36
1054	Benzocyclobutene polymer as an additive for a benzocyclobutene-fullerene: application in stable p–i–n perovskite solar cells. Journal of Materials Chemistry A, 2021, 9, 9347-9353.	5.2	6
1055	Composition and dimension dependent static and dynamic stabilities of inorganic mixed halide antimony perovskites. Journal of Materials Chemistry C, 0, , .	2.7	3
1056	Oneâ€Dimensional Molecular Metal Halide Materials: Structures, Properties, and Applications. Small Structures, 2021, 2, 2000062.	6.9	40
1057	Nano-emitting Heterostructures Violate Optical Reciprocity and Enable Efficient Photoluminescence in Halide-Segregated Methylammonium-Free Wide Bandgap Perovskites. ACS Energy Letters, 2021, 6, 419-428.	8.8	31
1058	Organic–inorganic hybrid thin film light-emitting devices: interfacial engineering and device physics. Journal of Materials Chemistry C, 2021, 9, 1484-1519.	2.7	25

#	Article	IF	CITATIONS
1059	Spontaneous Ion Migration via Mechanochemical Ultrasonication in Mixed Halide Perovskite Phase Formation: Experimental and Theoretical Insights. Journal of Physical Chemistry Letters, 2021, 12, 1189-1194.	2.1	7
1060	Ion migration in perovskite solar cells. Journal of Semiconductors, 2021, 42, 010201.	2.0	29
1061	A review on the stability of inorganic metal halide perovskites: challenges and opportunities for stable solar cells. Energy and Environmental Science, 2021, 14, 2090-2113.	15.6	193
1062	Energy Barriers Restrict Charge Carrier Motion in MAPI Perovskite Films. Advanced Optical Materials, 2020, 8, 2000036.	3.6	12
1063	Photophysics of Methylammonium Lead Tribromide Perovskite: Free Carriers, Excitons, and Subâ€Bandgap States. Advanced Energy Materials, 2020, 10, 1903258.	10.2	20
1064	High Efficiency Perovskiteâ€6ilicon Tandem Solar Cells: Effect of Surface Coating versus Bulk Incorporation of 2D Perovskite. Advanced Energy Materials, 2020, 10, 1903553.	10.2	110
1065	On the Way to Optoionics. Helvetica Chimica Acta, 2020, 103, e2000073.	1.0	16
1066	Crystallization Control of Methylammoniumâ€Free Perovskite in Twoâ€Step Deposited Printable Tripleâ€Mesoscopic Solar Cells. Solar Rrl, 2020, 4, 2000455.	3.1	24
1067	Perovskite Photovoltaics: From Laboratory to Industry. Springer Series in Optical Sciences, 2020, , 219-255.	0.5	9
1068	LEDs and Other Electronic Devices Based on Perovskite Materials. Materials Horizons, 2020, , 289-314.	0.3	1
1069	Self-Passivation of CsPbBr ₃ Nanocrystals through Introducing Bromide Vacancies and Ultraviolet Irradiation. Journal of Physical Chemistry C, 2021, 125, 1010-1017.	1.5	4
1070	Discerning the Role of an A-Site Cation and X-Site Anion for Ion Conductivity Tuning in Hybrid Perovskites by Photoelectrochemical Impedance Spectroscopy. Journal of Physical Chemistry C, 2021, 125, 211-222.	1.5	30
1071	Spectral Instability of Layered Mixed Halide Perovskites Results from Anion Phase Redistribution and Selective Hole Injection. ACS Nano, 2021, 15, 1486-1496.	7.3	18
1072	Modified Antisolvent Method for Improving the Performance and Stability of Triple-Cation Perovskite Solar Cells. ACS Omega, 2021, 6, 172-179.	1.6	14
1073	Photodoping through local charge carrier accumulation in alloyed hybrid perovskites for highly efficient luminescence. Nature Photonics, 2020, 14, 123-128.	15.6	93
1074	Characterization of Capacitance, Transport and Recombination Parameters in Hybrid Perovskite and Organic Solar Cells. RSC Energy and Environment Series, 2016, , 57-106.	0.2	9
1075	CHAPTER 4. Solution-processed Solar Cells: Perovskite Solar Cells. Inorganic Materials Series, 2019, , 153-192.	0.5	6
1076	Photovoltaics. EPJ Web of Conferences, 2020, 246, 00005.	0.1	8

	CITATION RE	PORT	
#	Article	IF	CITATIONS
1077	Roadmap on organic–inorganic hybrid perovskite semiconductors and devices. APL Materials, 2021, 9, .	2.2	102
1078	Basis and effects of ion migration on photovoltaic performance of perovskite solar cells. Journal Physics D: Applied Physics, 2021, 54, 063001.	1.3	20
1079	Real-time observation of ion migration in halide perovskite by photoluminescence imaging microscopy. Journal Physics D: Applied Physics, 2021, 54, 044002.	1.3	10
1080	The compatibility of methylammonium and formamidinium in mixed cation perovskite: the optoelectronic and stability properties. Nanotechnology, 2021, 32, 075406.	1.3	14
1081	First-principles thermodynamics study of phase stability in inorganic halide perovskite solid solutions. Physical Review Materials, 2018, 2, .	0.9	27
1082	Role of fluoride and fluorocarbons in enhanced stability and performance of halide perovskites for photovoltaics. Physical Review Materials, 2020, 4, .	0.9	20
1083	Phase segregation in inorganic mixed-halide perovskites: from phenomena to mechanisms. Photonics Research, 2020, 8, A56.	3.4	45
1084	Lead-free metal-halide double perovskites: from optoelectronic properties to applications. Nanophotonics, 2021, 10, 2181-2219.	2.9	33
1085	Efficient wide-bandgap perovskite solar cells enabled by doping a bromine-rich molecule. Nanophotonics, 2021, 10, 2059-2068.	2.9	17
1086	Recent advancements and perspectives on light management and high performance in perovskite light-emitting diodes. Nanophotonics, 2021, 10, 2103-2143.	2.9	35
1087	Halide Homogenization for High-Performance Blue Perovskite Electroluminescence. Research, 2020, 2020, 9017871.	2.8	32
1088	Compositional heterogeneity in Cs _{<i>y</i>} FA _{1â[^]<i>y</i>} Pb(Br _{<i>x</i>} I _{1â[^]<i>x</i>}) _{3< perovskite films and its impact on phase behavior. Energy and Environmental Science, 2021, 14, 6394-6405.}	/sub> 15.6	20
1089	The Impact of Ion Migration on the Electroâ€Optic Effect in Hybrid Organic–Inorganic Perovskites. Advanced Functional Materials, 2022, 32, 2107939.	7.8	7
1090	Short-Range Migration of A-Site Cations Inhibit Photoinduced Phase Segregation in FA _{<i>x</i>} MA _{<i>y</i>} Cs _{1–<i>x</i>–<i>y</i>} Pbl _{3–<i>z</i><!--<br-->Single Crystals. Journal of Physical Chemistry C, 2021, 125, 23050-23057.}	sudbo5 Br <su< td=""><td>ub4 <i>z </i></td></su<>	ub4 <i>z </i>
1091	Photoinduced Halide Segregation in Ruddlesden–Popper 2D Mixed Halide Perovskite Films. Advanced Materials, 2021, 33, e2105585.	11.1	49
1092	Organic additives in all-inorganic perovskite solar cells and modules: from moisture endurance to enhanced efficiency and operational stability. Journal of Energy Chemistry, 2022, 67, 361-390.	7.1	21
1093	Universal Existence of Localized Singleâ€Photon Emitters in the Perovskite Film of Allâ€Inorganic CsPbBr ₃ Microcrystals. Advanced Materials, 2022, 34, e2106278.	11.1	10
1094	Interplay of Structure, Chargeâ€Carrier Localization and Dynamics in Copperâ€Silverâ€Bismuthâ€Halide Semiconductors. Advanced Functional Materials, 2022, 32, .	7.8	19

#	Article	IF	CITATIONS
1095	Dynamic Symmetry Conversion in Mixed-Halide Hybrid Perovskite upon Illumination. ACS Energy Letters, 2021, 6, 3858-3863.	8.8	5
1096	Light‧oaking Induced Optical Tuning in Rare Earthâ€Doped Allâ€Inorganic Perovskite. Advanced Functional Materials, 2022, 32, 2107086.	7.8	10
1097	Improved Photostability of Metal Halide Perovskites by microstructure modulation for Photovoltaic Application. Organic Electronics, 2021, 101, 106380.	1.4	1
1098	A Systematic Review of Metal Halide Perovskite Crystallization and Film Formation Mechanism Unveiled by In Situ GIWAXS. Advanced Materials, 2021, 33, e2105290.	11.1	104
1099	Halide Ion Migration and its Role at the Interfaces in Perovskite Solar Cells. European Journal of Inorganic Chemistry, 2021, 2021, 4781-4789.	1.0	8
1100	A-site phase segregation in mixed cation perovskite. Materials Reports Energy, 2021, 1, 100064.	1.7	19
1101	Halide Perovskite Solar Cells for Building Integrated Photovoltaics: Transforming Building Façades into Power Generators. Advanced Materials, 2022, 34, e2104661.	11.1	37
1102	Enhancing the stability and crystallinity of CsPbIBr2 through antisolvent engineering. Journal of Materials Science, 2021, 56, 20071-20086.	1.7	9
1103	Optimal Interfacial Band Bending Achieved by Fine Energy Level Tuning in Mixed-Halide Perovskite Solar Cells. ACS Energy Letters, 2021, 6, 3970-3981.	8.8	18
1104	Degradation mechanisms of perovskite solar cells under vacuum and one atmosphere of nitrogen. Nature Energy, 2021, 6, 977-986.	19.8	103
1106	Atomic Level Insights into Metal Halide Perovskite Materials by Scanning Tunneling Microscopy and Spectroscopy. Angewandte Chemie - International Edition, 2022, 61, .	7.2	3
1107	Atomic level insights intoÂmetal halide perovskiteÂmaterials by scanning tunneling microscopy and spectroscopy. Angewandte Chemie, 2022, 134, e202112352.	1.6	0
1108	Additive-Assisted Stabilization Against Photooxidation of Organic and Hybrid Solar Cells. , 2022, , 169-193.		0
1109	Review on perovskite silicon tandem solar cells: Status and prospects 2T, 3T and 4T for real world conditions. Materials and Design, 2021, 211, 110138.	3.3	53
1110	Recent progress of ion migration in organometal halide perovskite. Wuli Xuebao/Acta Physica Sinica, 2019, 68, 158801.	0.2	11
1111	Highly Efficient and Stable Perovskite-Silicon Tandem Solar Cells. , 2019, , .		0
1112	Recent advances in photo-stability of lead halide perovskites. Wuli Xuebao/Acta Physica Sinica, 2019, 68, 157102.	0.2	4
1114	Increasing of solar cell stability using Br-doped CH3NH3PbI3 perovskite absorber layers. Iranian Journal of Crystallography and Mineralogy, 2019, 27, 231-244.	0.0	1

	Сітат	ION REPORT	
#	Article	IF	CITATIONS
1115	Organic-Inorganic Perovskite for Highly Efficient Tandem Solar Cells. Ceramist, 2019, 22, 146-169.	0.0	1
1116	Imaging light-induced phase separation dynamics of inorganic halide perovskites. , 2020, , .		0
1117	The Impacts and Origins of A-site Instability in Formamidinium-Cesium Lead Iodide Perovskite Solar Cells Under Extended Operation. , 2020, , .		0
1118	Narrow and broadband light emission in layered organic lead halide perovskites: interplay between weak electron-lattice interactions and defect-related effects. , 2020, , .		1
1119	Surface treatment of Mixed-Halide CsPb(BrxI1-x)3 perovskite quantum dots for thermal stability enhancement. Materials Research Bulletin, 2022, 146, 111622.	2.7	4
1120	Nearâ€Unity Quantum Yield and Superior Stable Indiumâ€Doped CsPbBr <i>_x</i> l _{3â^'} <i>_x</i> Perovskite Quantum Dots for Pure Re Lightâ€Emitting Diodes. Advanced Optical Materials, 2022, 10, 2101517.	d 3.6	27
1121	Development of encapsulation strategies towards the commercialization of perovskite solar cells. Energy and Environmental Science, 2022, 15, 13-55.	15.6	158
1122	Ab-initio investigations for structural, mechanical, optoelectronic, and thermoelectric properties of Ba2SbXO6 (X Nb, Ta) compounds. Journal of Alloys and Compounds, 2022, 893, 162332.	2.8	7
1123	Enhancing the performance of n-i-p perovskite solar cells by introducing hydroxyethylpiperazine ethane sulfonic acid for interfacial adjustment. Nanoscale, 2021, 14, 35-41.	2.8	18
1124	High-Performance and Stable Semi-Transparent Perovskite Solar Cells Through Composition Engineering. SSRN Electronic Journal, 0, , .	0.4	0
1125	Research progress of wide bandgap perovskite materials and solar cells. Wuli Xuebao/Acta Physica Sinica, 2020, 69, 207401.	0.2	2
1126	Ion Migration in Metal Halide Perovskites Solar Cells. , 2020, , 1-32.		2
1131	Dielectric Junction: Electrostatic Design for Charge Carrier Collection in Solar Cells. Solar Rrl, 2022, 6, 2100720.	3.1	7
1132	Formation of a Fast Charge Transfer Channel in Quasi-2D Perovskite Solar Cells through External Electric Field Modulation. Energies, 2021, 14, 7402.	1.6	1
1136	Impact of the polar optical phonon and alloy scattering on the charge-carrier mobilities of FA0.83Cs0.17Pb(I1â^xBrx)3 hybrid perovskites. Physical Chemistry Chemical Physics, 2021, , .	1.3	3
1137	Towards improving the optoelectronics properties of MAPbI3(1â°'x)B3x/ZnO heterojunction by bromine doping. Optik, 2022, 249, 168283.	1.4	21
1139	Improved Performance and Stability of Perovskite Solar Modules by Regulating Interfacial Ion Diffusion with Nonionic Cross‣inked 1D Lead″odide. Advanced Energy Materials, 2022, 12, .	10.2	24
1140	Impedance Spectroscopy of Metal Halide Perovskite Solar Cells from the Perspective of Equivalent Circuits. Chemical Reviews, 2021, 121, 14430-14484.	23.0	121

ARTICLE IF CITATIONS Nanoscale chemical heterogeneity dominates the optoelectronic response of alloyed perovskite solar 75 1141 15.6 cells. Nature Nanotechnology, 2022, 17, 190-196. Defect Behaviors in Perovskite Light-Emitting Diodes., 2021, 3, 1702-1728. 1142 Microstructural Evaluation of Phase Instability in Large Bandgap Metal Halide Perovskites. ACS Nano, 7.3 1144 8 2021, 15, 20391-20402. Spectral Stable Blue-Light-Emitting Diodes via Asymmetric Organic Diamine Based Dion–Jacobson Perovskites. Journal of the American Chemical Society, 2021, 143, 19711-19718. 1145 Phase segregation in mixed-halide perovskites affects charge-carrier dynamics while preserving 1146 5.8 72 mobility. Nature Communications, 2021, 12, 6955. 28.2%-efficient, outdoor-stable perovskite/silicon tandem solar cell. Joule, 2021, 5, 3169-3186. 99 11.7 Practical Demonstration of Deep-Ultraviolet Detection with Wearable and Self-Powered Halide 1148 4.0 28 Perovskite-Based Photodetector. ACS Applied Materials & amp; Interfaces, 2021, 13, 57609-57618. Gammaâ€Ray Radiation Stability of Mixedâ€Cation Lead Mixedâ€Halide Perovskite Single Crystals. Advanced 1149 3.6 Optical Matérials, 2022, 10, 2102069. Mixed halide bulk perovskite triplet sensitizers: Interplay between band alignment, mid-gap traps, and 1150 1.2 8 phonons. Journal of Chemical Physics, 2021, 155, 234706. Lowâ€Temperature Atomic Layer Deposited Electron Transport Layers for Coâ€Evaporated Perovskite Solar 3.1 Cells. Solar Rrl, 2022, 6, 2100842. The Role of Subsurface Valence Band Localization in the Passivation of Perovskite Nanocrystals. 1156 3.6 3 Advanced Optical Materials, 2022, 10, 2101914. CsI Enhanced Buried Interface for Efficient and UVâ€Robust Perovskite Solar Cells. Advanced Energy 10.2 Materials, 2022, 12, 2103151. Unlocking Voltage Potentials of Mixedâ€Halide Perovskite Solar Cells via Phase Segregation 1158 7.8 30 Suppression. Advanced Functional Materials, 2022, 32, 2110698. Recent Advances and Perspectives of Photostability for Halide Perovskite Solar Cells. Advanced 3.6 Optical Materials, 2022, 10, 2101822. Atomistic models of metal halide perovskites. Matter, 2021, 4, 3867-3873. 1160 5.06 Electronic Doping Strategy in Perovskite Solar Cells., 2021, , 1-56. 1161 Thermodynamic stability screening of IR-photonic processed multication halide perovskite thin films. 1162 5.24 Journal of Materials Chemistry A, 2021, 9, 26885-26895. Identifying high-performance and durable methylammonium-free lead halide perovskites <i>via</i> high-throughput synthesis and characterization. Energy and Environmental Science, 2021, 14, 6638-6654

#	Article	IF	CITATIONS
1164	Photoinduced quasi-2D to 3D phase transformation in hybrid halide perovskite nanoplatelets. Physical Chemistry Chemical Physics, 2021, 23, 27355-27364.	1.3	7
1165	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
1166	Photo de-mixing in mixed halide perovskites: the roles of ions and electrons. JPhys Energy, 2022, 4, 011001.	2.3	6
1167	Self-Healing Materials for Electronics Applications. International Journal of Molecular Sciences, 2022, 23, 622.	1.8	22
1168	Understanding and suppressing non-radiative losses in methylammonium-free wide-bandgap perovskite solar cells. Energy and Environmental Science, 2022, 15, 714-726.	15.6	68
1169	Tailoring capping-layer composition for improved stability of mixed-halide perovskites. Journal of Materials Chemistry A, 2022, 10, 2957-2965.	5.2	5
1170	Regulating synthesis and photochromic behavior via interfacial Eu3+/Eu2+-Pb0/Pb2+ redox of the CsPbCl1.5Br1.5@ Ca0.9Eu0.1MoO4 porous composites. Materials Today Chemistry, 2022, 23, 100721.	1.7	6
1171	Recent progress in perovskite solar cells: challenges from efficiency to stability. Materials Today Chemistry, 2022, 23, 100686.	1.7	26
1172	A short review on progress in perovskite solar cells. Materials Research Bulletin, 2022, 149, 111700.	2.7	48
1173	Interfacial engineering from material to solvent: A mechanistic understanding on stabilizing <mml:math <br="" xmlns:mml="http://www.w3.org/1998/Math/MathML">altimg="si0001.svg"><mml:mi>î±</mml:mi></mml:math> -formamidinium lead triiodide perovskite photovoltaics. Nano Energy, 2022, 94, 106924.	8.2	13
1174	Lattice compression increases the activation barrier for phase segregation in mixed-halide perovskites. , 0, , .		0
1175	Structural Dynamics of Metal Halide Perovskites during Photoinduced Halide Segregation. ACS Applied Materials & Interfaces, 2022, 14, 4335-4343.	4.0	13
1176	Physical Fields Manipulation for Highâ€Performance Perovskite Photovoltaics. Small, 2022, , 2107556.	5.2	6
1177	Role of electrochemical reactions in the degradation of formamidinium lead halide hybrid perovskite quantum dots. Analyst, The, 2022, 147, 841-850.	1.7	2
1178	Revealing defective interfaces in perovskite solar cells from highly sensitive sub-bandgap photocurrent spectroscopy using optical cavities. Nature Communications, 2022, 13, 349.	5.8	21
1179	Recent Progress and Future Prospects for Light Management of Allâ€Perovskite Tandem Solar Cells. Advanced Materials Interfaces, 2022, 9, .	1.9	16
1180	Defects and stability of perovskite solar cells: a critical analysis. Materials Chemistry Frontiers, 2022, 6, 400-417.	3.2	68
1181	Ion Migration in Organic–Inorganic Hybrid Perovskite Solar Cells: Current Understanding and Perspectives. Small, 2022, 18, e2105783.	5.2	53

		CITATION REPORT		
#	Article		IF	CITATIONS
1182	The halogen chemistry of halide perovskites. Trends in Chemistry, 2022, 4, 206-219.		4.4	14
1183	A comprehensive analysis of PV cell parameters with varying halides stoichiometry in mixed hal perovskite solar cells. Optical Materials, 2022, 123, 111905.	ide	1.7	6
1184	Monolithic Perovskite‧ilicon Tandem Solar Cells: From the Lab to Fab?. Advanced Materials, e2106540.	2022, 34,	11.1	92
1185	Recent Advances of Monolithic <scp>Allâ€Perovskite</scp> Tandem Solar Cells: From Materia Devices. Chinese Journal of Chemistry, 2022, 40, 856-871.	s to	2.6	11
1186	Charge Compensation by Iodine Covalent Bonding in Lead Iodide Perovskite Materials. Crystal 12, 88.	s, 2022,	1.0	2
1187	Toward stable lead halide perovskite solar cells: A knob on the A/X sites components. IScience, 25, 103599.	2022,	1.9	13
1188	Suppressed Halide Segregation and Defects in Wide Bandgap Perovskite Solar Cells Enabled b Organic Bromide Salt with Moderate Chain Length. Journal of Physical Chemistry C, 2022, 126	/ Doping , 1711-1720.	1.5	8
1189	Additiveâ€Free, Lowâ€Temperature Crystallization of Stable αâ€FAPbI ₃ Perovski Materials, 2022, 34, e2107850.	ce. Advanced	11.1	71
1190	Interpretation of Rubidiumâ€Based Perovskite Recipes toward Electronic Passivation and Ionâ4 Mitigation. Advanced Materials, 2022, 34, e2109998.	Diffusion	11.1	29
1191	Study on the halide effect of MA4PbX6·2H2O hybrid perovskites – From thermochromic pr practical deployment for smart windows. Materials Today Physics, 2022, 23, 100624.	operties to	2.9	13
1192	Halide Ions Distribution and Charge Dynamics in Mixedâ€Halide Perovskites. Physica Status Sc Research Letters, 2022, 16, .	lidi - Rapid	1.2	3
1193	The Complex Degradation Mechanism of Copper Electrodes on Lead Halide Perovskites. ACS M Au, 2022, 2, 301-312.	laterials	2.6	8
1194	Recent progress of halide perovskites for thermoelectric application. Nano Energy, 2022, 94, 1	06949.	8.2	18
1195	Phase segregation leading to tunable amplified spontaneous emission in mixed halide perovski Materials Letters, 2022, 313, 131843.	tes.	1.3	1
1196	Urbach Energy and Open-Circuit Voltage Deficit for Mixed Anion–Cation Perovskite Solar Ce Applied Materials & Interfaces, 2022, 14, 7796-7804.	lls. ACS	4.0	53
1197	Phase segregation induced efficiency degradation and variability in mixed halide perovskite sol cells. Journal of Applied Physics, 2021, 130, .	ar	1.1	12
1198	Concept for Efficient Light Harvesting in Perovskite Materials via Solar Harvester with Multi-Functional Folded Electrode. Nanomaterials, 2021, 11, 3362.		1.9	4
1199	Towards Up-Scaling the 4-Terminal All-Perovskite Tandem Solar Modules on Flexible Substrates Electronic Journal, 0, , .	. SSRN	0.4	0

#	Article	IF	CITATIONS
1200	Laser-induced crystal growth observed in CsPbBr ₃ perovskite nanoplatelets. Physical Chemistry Chemical Physics, 2022, 24, 8303-8310.	1.3	4
1201	Towards Up-Scaling the 4-Terminal All-Perovskite Tandem Solar Modules on Flexible Substrates. SSRN Electronic Journal, 0, , .	0.4	0
1202	Investigation of structural and optical properties of MAPbBr ₃ monocrystals under fast electron irradiation. Journal of Materials Chemistry C, 2022, 10, 5821-5828.	2.7	11
1203	Suppressing photoinduced phase segregation in mixed halide perovskites. Journal of Semiconductors, 2022, 43, 020201.	2.0	4
1204	Halide Segregation in Mixed Halide Perovskites: Visualization and Mechanisms. Electronics (Switzerland), 2022, 11, 700.	1.8	7
1205	Dissipation of Charge Accumulation and Suppression of Phase Segregation in Mixed Halide Perovskite Solar Cells via Nanoribbons. ACS Applied Energy Materials, 2022, 5, 2727-2737.	2.5	3
1206	A-Site FA ⁺ Doping-Enhanced Photoluminescence Efficiency and Photostability of Mn-Doped Perovskite Nanocrystals. Journal of Physical Chemistry C, 2022, 126, 3582-3590.	1.5	6
1207	Deconvolution of Lightâ€Induced Ion Migration Phenomena by Statistical Analysis of Cathodoluminescence in Lead Halideâ€Based Perovskites. Advanced Science, 2022, 9, e2103729.	5.6	13
1208	Dimensional Engineering Enables 1.31 V Open ircuit Voltage for Efficient and Stable Wideâ€Bandgap Halide Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	5
1209	Overcoming Degradation Pathways to Achieve Stable Blue Perovskite Light-Emitting Diodes. ACS Energy Letters, 2022, 7, 1348-1354.	8.8	28
1210	Wideâ€Bandgap Organic–Inorganic Lead Halide Perovskite Solar Cells. Advanced Science, 2022, 9, e2105085.	5.6	60
1211	Quadruple-Cation Wide-Bandgap Perovskite Solar Cells with Enhanced Thermal Stability Enabled by Vacuum Deposition. ACS Energy Letters, 2022, 7, 1355-1363.	8.8	24
1212	The Intrinsic Photoluminescence Spectrum of Perovskite Films. Advanced Optical Materials, 2022, 10, .	3.6	14
1213	Revealing the Correlation of Light Soaking Effect with Ion Migration in Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	9
1214	Moistureâ€Induced Nonâ€Equilibrium Phase Segregation in Triple Cation Mixed Halide Perovskite Monitored by <i>In Situ</i> Characterization Techniques and Solidâ€State NMR. Energy and Environmental Materials, 2023, 6, .	7.3	7
1215	Influence of Annealing and Composition on the Crystal Structure of Mixed-Halide, Ruddlesden–Popper Perovskites. Chemistry of Materials, 2022, 34, 3109-3122.	3.2	27
1216	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
1217	Investigation of the Acceleration and Suppression of the Light-Induced Degradation of a Lead Halide Perovskite Solar Cell Using Hard X-ray Photoelectron Spectroscopy. ACS Applied Energy Materials, 2022, 5, 4125-4137.	2.5	4

#	Article	IF	CITATIONS
1218	Photoinduced iodide repulsion and halides-demixing in layered perovskites. Materials Today Nano, 2022, 18, 100197.	2.3	5
1219	Unleashing the Full Power of Perovskite/Silicon Tandem Modules with Solar Trackers. ACS Energy Letters, 2022, 7, 1604-1610.	8.8	18
1220	Light-induced halide segregation in perovskites with wrinkled morphology. Journal of Energy Chemistry, 2022, 71, 83-88.	7.1	2
1221	Progress on the stability and encapsulation techniques of perovskite solar cells. Organic Electronics, 2022, 106, 106515.	1.4	22
1222	Encapsulation of commercial and emerging solar cells with focus on perovskite solar cells. Solar Energy, 2022, 237, 264-283.	2.9	35
1223	Perovskite films passivated by poly[(R)-3-hydroxybutyric acid] for improved photovoltaic performance. Organic Electronics, 2022, 104, 106487.	1.4	3
1224	Halide perovskite based synaptic devices for neuromorphic systems. Materials Today Physics, 2022, 24, 100667.	2.9	7
1225	Ligand engineering of perovskite quantum dots for efficient and stable solar cells. Journal of Energy Chemistry, 2022, 69, 626-648.	7.1	16
1226	Understanding the Energy Barriers of the Reversible Ion Exchange Process in CsPbBr _{1.5} Cl _{1.5} @Y ₂ O ₃ :Eu ³⁺ Macroporous Composites and Their Application in Anti-Counterfeiting Codes. ACS Applied Materials & amp; Interfaces, 2021, 13, 60362-60372.	4.0	12
1227	Reduced Barrier for Ion Migration in Mixed-Halide Perovskites. ACS Applied Energy Materials, 2021, 4, 13431-13437.	2.5	16
1228	Mixing Matters: Nanoscale Heterogeneity and Stability in Metal Halide Perovskite Solar Cells. ACS Energy Letters, 2022, 7, 471-480.	8.8	23
1229	Assessing Optical Properties of CH ₃ NH ₃ PbBr ₃ Single Crystals across the Structural Phase Transitions by Spectroscopic Ellipsometry. Journal of Physical Chemistry C, 2022, 126, 797-805.	1.5	2
1230	Dimethylammonium Addition to Halide Perovskite Precursor Increases Vertical and Lateral Heterogeneity. ACS Energy Letters, 2022, 7, 204-210.	8.8	10
1231	Tuning the Emission Wavelength of Lead Halide Perovskite NCs via Size and Shape Control. ACS Omega, 2022, 7, 565-577.	1.6	13
1232	Halide Mixing Inhibits Exciton Transport in Two-dimensional Perovskites Despite Phase Purity. ACS Energy Letters, 2022, 7, 358-365.	8.8	12
1233	An open-access database and analysis tool for perovskite solar cells based on the FAIR data principles. Nature Energy, 2022, 7, 107-115.	19.8	136
1234	Beyond the Phase Segregation: Probing the Irreversible Phase Reconstruction of Mixedâ€Halide Perovskites. Advanced Science, 2022, 9, e2103948.	5.6	17
1235	Monolithic perovskite/silicon tandem solar cells offer an efficiency over 29%. Journal of Semiconductors, 2021, 42, 120203.	2.0	6

#	Article	IF	CITATIONS
1236	Efficient bandgap widening in co-evaporated MAPbI ₃ perovskite. Sustainable Energy and Fuels, 2022, 6, 2428-2438.	2.5	8
1237	A review on monolithic perovskite/c-Si tandem solar cells: progress, challenges, and opportunities. Journal of Materials Chemistry A, 2022, 10, 10811-10828.	5.2	11
1238	Strain Modulation for Light‣table n–i–p Perovskite/Silicon Tandem Solar Cells. Advanced Materials, 2022, 34, e2201315.	11.1	45
1239	Steric Engineering Enables Efficient and Photostable Wideâ€Bandgap Perovskites for Allâ€Perovskite Tandem Solar Cells. Advanced Materials, 2022, 34, e2110356.	11.1	48
1240	In Situ Characterization for Understanding the Degradation in Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	19
1241	Scalable growth of stable wideâ€bandgap perovskite towards largeâ€scale tandem photovoltaics. Solar Rrl, 0, , .	3.1	2
1243	Progress of defect and defect passivation in perovskite solar cells. Wuli Xuebao/Acta Physica Sinica, 2022, 71, 166801.	0.2	1
1244	Efficient and Stable FAâ€Rich Perovskite Photovoltaics: From Material Properties to Device Optimization. Advanced Energy Materials, 2022, 12, .	10.2	16
1245	çj基-钙钛矿åå±,å≇é~³èf½ç"µæ±çš"å‰ç®jç†ç−ç•¥. Chinese Science Bulletin, 2022, , .	0.4	1
1246	In Situ Ellipsometry Measurements on the Halide Phase Segregation of Mixed Halide Lead Perovskites**. ChemPhysChem, 2022, 23, .	1.0	3
1247	Could two-dimensional perovskites fundamentally solve the instability of perovskite photovoltaics. Chinese Physics B, 2022, 31, 117803.	0.7	0
1248	Downward Homogenized Crystallization for Inverted Wideâ€Bandgap Mixedâ€Halide Perovskite Solar Cells with 21% Efficiency and Suppressed Photoâ€Induced Halide Segregation. Advanced Functional Materials, 2022, 32, .	7.8	63
1249	CsPbCl ₃ â€Clusterâ€Widened Bandgap and Inhibited Phase Segregation in a Wideâ€Bandgap Perovskite and its Application to NiO <i>_x</i> â€Based Perovskite/Silicon Tandem Solar Cells. Advanced Materials, 2022, 34, e2201451.	11.1	29
1250	Synthesis, Structure, and Tunability of Zero-Dimensional Organic–Inorganic Metal Halides Utilizing the <i>m</i> -Xylylenediammonium Cation: MXD ₂ Pbl ₆ , MXDBil ₅ , and MXD ₃ Bi ₂ Br ₁₂ ·2H ₂ 0. Crystal Growth and Design, 2022, 23, 23, 23, 23, 23, 23, 23, 23, 23,	1.4	4
1251	Global prediction of the energy yields for hybrid perovskite/Si tandem and Si heterojunction single solar modules. Progress in Photovoltaics: Research and Applications, 2022, 30, 1198-1218.	4.4	4
1252	Effect of Doping, Photodoping, and Bandgap Variation on the Performance of Perovskite Solar Cells. Advanced Optical Materials, 2022, 10, .	3.6	10
1253	Anion diffusion in two-dimensional halide perovskites. APL Materials, 2022, 10, .	2.2	7
1254	Round-Robin Inter-Comparison of Maximum Power Measurement for Metastable Perovskite Solar Cells. ECS Journal of Solid State Science and Technology, 2022, 11, 055008.	0.9	1

#	Article	IF	Citations
1255	Optoelectronic Properties of Mixed Iodide–Bromide Perovskites from First-Principles Computational Modeling and Experiment. Journal of Physical Chemistry Letters, 2022, 13, 4184-4192.	2.1	16
1256	Multifunctional and Transformative Metaphotonics with Emerging Materials. Chemical Reviews, 2022, 122, 15414-15449.	23.0	23
1257	Colorimetric paper test strips based on cesium lead bromide perovskite nanocrystals for rapid detection of ciprofloxacin hydrochloride. Journal of Physics Condensed Matter, 2022, 34, 304002.	0.7	1
1258	Review on two-terminal and four-terminal crystalline-silicon/perovskite tandem solar cells; progress, challenges, and future perspectives. Energy Reports, 2022, 8, 5820-5851.	2.5	24
1259	Bromide complimented methylammonium-free wide bandgap perovskite solar modules with high efficiency and stability. Chemical Engineering Journal, 2022, 445, 136626.	6.6	12
1260	Realization of ultra-flat perovskite films with surprisingly large-grain distribution using high-pressure cooking. Chemical Engineering Journal, 2022, 445, 136803.	6.6	8
1261	Ambient Airâ€Processed Wideâ€Bandgap Perovskite Solar Cells with Wellâ€Controlled Film Morphology for Fourâ€Terminal Tandem Application. Solar Rrl, 2022, 6, .	3.1	4
1262	An overview of the pressure- and strain-induced changes in the structural and optoelectronic properties of organometal halide perovskites. Solar Energy, 2022, 239, 198-220.	2.9	4
1263	Recent advancement in perovskite solar cell with imidazole additive. Materials Science in Semiconductor Processing, 2022, 148, 106788.	1.9	7
1264	Suppressing Halide Segregation in Wide-Band-Gap Mixed-Halide Perovskite Layers through Post-Hot Pressing. ACS Applied Materials & Interfaces, 2022, , .	4.0	4
1266	Indirect to direct band gap transition through order to disorder transformation of Cs ₂ AgBiBr ₆ <i>via</i> creating antisite defects for optoelectronic and photovoltaic applications. RSC Advances, 2022, 12, 15461-15469.	1.7	21
1267	Efficacy of Perovskite Photocatalysis: Challenges to Overcome. ACS Energy Letters, 2022, 7, 1994-2011.	8.8	56
1268	Highâ€Performance and Stable Semiâ€Transparent Perovskite Solar Cells through Composition Engineering. Advanced Science, 2022, 9, .	5.6	16
1269	X-ray diffraction of photovoltaic perovskites: Principles and applications. Applied Physics Reviews, 2022, 9, .	5.5	28
1270	Ion migration in hybrid perovskites: Classification, identification, and manipulation. Nano Today, 2022, 44, 101503.	6.2	41
1271	Impact of Halide Anions in CsX (X = I, Br, Cl) on the Microstructure and Photovoltaic Performance of FAPbI ₃ â€Based Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	4
1272	Engineering the Nonâ€Radiative Recombination of Mixedâ€Halide Perovskites with Optimal Bandgap for Indoor Photovoltaics. Small, 2022, 18, .	5.2	13
1273	Engineered Surface Halide Defects by Two-Dimensional Perovskite Passivation for Deformable Intelligent Photodetectors. ACS Applied Materials & Interfaces, 2022, 14, 26004-26013.	4.0	13

#	Article	IF	CITATIONS
1274	Damping the phase segregation in mixed halide perovskites: Influence of X-site anion. Materials Chemistry and Physics, 2022, 287, 126335.	2.0	2
1275	Stressing Halide Perovskites with Light and Electric Fields. ACS Energy Letters, 2022, 7, 2211-2218.	8.8	16
1276	Resolve deep-rooted challenges of halide perovskite for sustainable energy development and environmental remediation. Nano Energy, 2022, 99, 107401.	8.2	14
1277	Perovskite-based tandem solar cells: Device architecture, stability, and economic perspectives. Renewable and Sustainable Energy Reviews, 2022, 165, 112553.	8.2	16
1279	The high open-circuit voltage of perovskite solar cells: a review. Energy and Environmental Science, 2022, 15, 3171-3222.	15.6	181
1280	Enhanced photostability of CsPbI ₂ Br-based perovskite solar cells through suppression of phase segregation using a zwitterionic additive. Sustainable Energy and Fuels, 0, , .	2.5	4
1281	Photo Deâ€Mixing in Dionâ€Jacobson 2D Mixed Halide Perovskites. Advanced Energy Materials, 2022, 12, .	10.2	14
1283	Thermally Stable Redâ€Emitting Mixed Halide Perovskite Nanocrystals Enabled by Solid Reaction and Coâ€Doping Process. Advanced Optical Materials, 2022, 10, .	3.6	11
1286	Fast Aâ€Site Cation Crossâ€Exchange at Room Temperature: Singleâ€to Double―and Triple ation Halide Perovskite Nanocrystals. Angewandte Chemie - International Edition, 2022, 61, .	7.2	29
1288	Fast Aâ€Site Cation Crossâ€Exchange at Room Temperature: Singleâ€to Double―and Tripleâ€Cation Halide Perovskite Nanocrystals. Angewandte Chemie, 2022, 134, .	1.6	5
1289	Unencapsulated CsPbClBr ₂ Film Photodetectors Grown by Thermal Vacuum Deposition Exhibit Exceptional Environmental Stability in High-Humidity Air. ACS Applied Energy Materials, 2022, 5, 8709-8716.	2.5	2
1290	lodine Electrochemistry Dictates Voltageâ€Induced Halide Segregation Thresholds in Mixedâ€Halide Perovskite Devices. Advanced Functional Materials, 2022, 32, .	7.8	25
1291	TowardÂup-scaling the four-terminal all-perovskite tandem solar modules on flexible substrates. Materials Today Energy, 2022, 28, 101073.	2.5	5
1292	Formamidinium lead triiodide perovskites with improved structural stabilities and photovoltaic properties obtained by ultratrace dimethylamine substitution. NPG Asia Materials, 2022, 14, .	3.8	13
1294	Thermally-induced drift of A-site cations at solid–solid interface in physically paired lead halide perovskites. Scientific Reports, 2022, 12, .	1.6	2
1295	A Thermalâ€Pressed Strategy for Crystal Growth and Boundaries Selfâ€Fusion of Mixedâ€Halide Perovskite Films against Halide Phase Segregation. Advanced Materials Interfaces, 2022, 9, .	1.9	2
1296	Bifacial perovskite/silicon tandem solar cells. Joule, 2022, 6, 1431-1445.	11.7	24
1298	A simulation based incremental study of stable perovskite-on-perovskite tandem solar device utilizing non-toxic tin and germanium perovskite. Materials Today Communications, 2022, 32, 103881.	0.9	3

#	Article	IF	CITATIONS	
1299	Heterogeneous lead iodide obtains perovskite solar cells with efficiency of 24.27%. Chemical Engineering Journal, 2022, 448, 137676.	6.6	29	
1300	Amino-acid-directed formation of quasi-zero-dimensional perovskites for high-purity blue and red luminescence. Journal of Materials Chemistry C, 2022, 10, 10464-10472.	2.7	2	
1301	Stabilizing wide-bandgap halide perovskites through hydrogen bonding. Science China Chemistry, 2022, 65, 1650-1660.	4.2	9	
1302	Revealing the Transient Formation Dynamics and Optoelectronic Properties of 2D Ruddlesdenâ€Popper Phases on 3D Perovskites. Advanced Energy Materials, 2023, 13, .	10.2	14	
1303	Hole Trapping in Halide Perovskites Induces Phase Segregation. Accounts of Materials Research, 2022, 3, 761-771.	5.9	38	
1304	Defect engineering in wide-bandgap perovskites for efficient perovskite–silicon tandem solar cells. Nature Photonics, 2022, 16, 588-594.	15.6	112	
1305	Stability of perovskite materials and devices. Materials Today, 2022, 58, 275-296.	8.3	35	
1306	Advances in Perovskites for Photovoltaic Applications in Space. ACS Energy Letters, 2022, 7, 2490-2514.	8.8	27	
1307	Focusing on mixed-halide Br-rich perovskite solar cells: An inevitable open-circuit voltage deficit derived from photoinduced halide segregation?. Matter, 2022, 5, 2015-2030.	5.0	9	
1308	Operational stability, low light performance, and long-lived transients in mixed-halide perovskite solar cells with a monolayer-based hole extraction layer. Solar Energy Materials and Solar Cells, 2022, 245, 111885.	3.0	2	
1309	Recent defect passivation drifts and role of additive engineering in perovskite photovoltaics. Nano Energy, 2022, 101, 107579.	8.2	46	
1310	Phase‣table Wideâ€Bandgap Perovskites for Fourâ€Terminal Perovskite/Silicon Tandem Solar Cells with Over 30% Efficiency. Small, 2022, 18, .	5.2	18	
1311	Impact of non-stoichiometry on ion migration and photovoltaic performance of formamidinium-based perovskite solar cells. Journal of Materials Chemistry A, 2022, 10, 18782-18791.	5.2	7	
1312	Correlating light-induced deep defects and phase segregation in mixed-halide perovskites. Journal of Materials Chemistry A, 2022, 10, 18928-18938.	5.2	5	
1313	Tuning the Band Gap in the Halide Perovskite CsPbBr ₃ through Sr Substitution. ACS Applied Materials & Interfaces, 2022, 14, 34884-34890.	4.0	11	
1314	Perovskite Plasticity: Exploiting Instability for Selfâ€Optimized Performance. Advanced Functional Materials, 0, , 2203771.	7.8	1	
1315	Rudorffites and Beyond: Perovskiteâ€Inspired Silver/Copper Pnictohalides for Nextâ€Generation Environmentally Friendly Photovoltaics and Optoelectronics. Advanced Functional Materials, 2022, 32, .	7.8	23	
1316	Defect-Polaron and Enormous Light-Induced Fermi-Level Shift at Halide Perovskite Surface. Journal of Physical Chemistry Letters, 2022, 13, 6711-6720.	2.1	8	
		CITATION REPORT		
------	--	------------------------	------	-----------
#	Article		IF	CITATIONS
1317	Life on the Urbach Edge. Journal of Physical Chemistry Letters, 2022, 13, 7702-7711.		2.1	40
1318	Impact of Holeâ€Transport Layer and Interface Passivation on Halide Segregation in Mix Perovskites. Advanced Functional Materials, 2022, 32, .	kedâ€Halide	7.8	11
1319	Unraveling the Effect of Halogen Ion Substitution on the Noise of Perovskite Single-Cry Photodetectors. Journal of Physical Chemistry Letters, 2022, 13, 7831-7837.	stal	2.1	7
1320	Reversible Phase Segregation and Amorphization of Mixed-Halide Perovskite Nanocryst Matrices. Journal of Physical Chemistry Letters, 2022, 13, 7809-7815.	als in Class	2.1	1
1321	Computational study of Cs2ScXBr6 (X=Ag, Tl) for renewable energy devices. Physica B: Matter, 2022, , 414277.	Condensed	1.3	2
1322	Intensity modulated photocurrent spectroscopy to investigate hidden kinetics at hybric perovskite–electrolyte interface. Scientific Reports, 2022, 12, .		1.6	4
1323	The influence of strain on phase stability in mixed-halide perovskites. Joule, 2022, 6, 202	16-2031.	11.7	30
1324	Cavity Engineering of Perovskite Distributed Feedback Lasers. ACS Photonics, 2022, 9,	3124-3133.	3.2	9
1325	Halide Remixing under Device Operation Imparts Stability on Mixedâ€Cation Mixedâ€H Cells. Advanced Materials, 2022, 34, .	alide Perovskite Solar	11.1	8
1326	Monolithic Perovskite–Perovskite–Silicon Triple-Junction Tandem Solar Cell with an over 20%. ACS Energy Letters, 2022, 7, 3003-3005.	Efficiency of	8.8	28
1327	lodide and charge migration at defective surfaces of methylammonium lead triiodide pe role of hydrogen bonding. Applied Surface Science, 2022, 604, 154501.	rovskites: The	3.1	2
1328	Review of nanomaterials impact on improving the performance of dye-sensitized and performance of dye-sensiti	erovskite solar	1.5	6
1329	Bandgap graded perovskite solar cell for above 30% efficiency. Optik, 2022, 269, 1698	91.	1.4	13
1330	Trap passivation and suppressed electrochemical dynamics in perovskite solar cells with interlayers. Electrochimica Acta, 2022, 433, 141215.	C60	2.6	5
1331	Experimental evidence of ion migration in aged inorganic perovskite solar cells using no RBS depth profiling. Materials Advances, 2022, 3, 7846-7853.	n-destructive	2.6	2
1332	Metal halide perovskite layers studied by scanning transmission X-ray microscopy. RSC 12, 25570-25577.	Advances, 2022,	1.7	4
1333	Understanding the Doping Effect in Cspbi2br Solar Cells: Crystallization Kinetics, Defection and Energy Level Alignment. SSRN Electronic Journal, 0, , .	t Passivation	0.4	0
1334	[PbX ₆] ^{4â^'} modulation and organic spacer construction for st solar cells. Energy and Environmental Science, 2022, 15, 4470-4510.	able perovskite	15.6	16

#	Article	IF	CITATIONS
1335	Reliably obtaining white light from layered halide perovskites at room temperature. Chemical Science, 2022, 13, 9973-9979.	3.7	10
1336	Degradation pathways in perovskite solar cells and how to meet international standards. Communications Materials, 2022, 3, .	2.9	64
1337	Halide perovskite materials as chemical playground. Nachrichten Aus Der Chemie, 2022, 70, 68-69.	0.0	0
1338	Investigation of Electron Transport Material-Free Perovskite/CIGS Tandem Solar Cell. Energies, 2022, 15, 6326.	1.6	11
1339	Recent Advances in the Combined Elevated Temperature, Humidity, and Light Stability of Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	12
1340	Bilayer metal halide perovskite for efficient and stable solar cells and modules. Materials Futures, 2022, 1, 042102.	3.1	19
1341	Stabilization of Perovskite Solar Cells: Recent Developments and Future Perspectives. Advanced Materials, 2022, 34, .	11.1	67
1342	Stable pure-iodide wide-band-gap perovskites for efficient Si tandem cells via kinetically controlled phase evolution. Joule, 2022, 6, 2390-2405.	11.7	35
1343	Photoinduced Segregation Behavior in 2D Mixed Halide Perovskite: Effects of Light and Heat. ACS Energy Letters, 2022, 7, 3500-3508.	8.8	7
1344	Photo-induced macro/mesoscopic scale ion displacement in mixed-halide perovskites: ring structures and ionic plasma oscillations. Light: Science and Applications, 2022, 11, .	7.7	11
1345	Encapsulation of Perovskite Solar Cells with Thin Barrier Films. , 0, , .		2
1347	Assessing the Drawbacks and Benefits of Ion Migration in Lead Halide Perovskites. ACS Energy Letters, 2022, 7, 3401-3414.	8.8	46
1348	Optical Memory, Switching, and Neuromorphic Functionality in Metal Halide Perovskite Materials and Devices. Advanced Materials, 2023, 35, .	11.1	12
1349	Intrinsic Halide Immiscibility in 2D Mixed-Halide Ruddlesden–Popper Perovskites. ACS Energy Letters, 2022, 7, 3423-3431.	8.8	13
1350	Present status and future prospects for monolithic all-perovskite tandem solar cells. Science China Materials, 2022, 65, 3353-3360.	3.5	10
1351	Reduced interfacial recombination in perovskite solar cells by structural engineering simulation. Journal of Optics (United Kingdom), 2022, 24, 115901.	1.0	4
1352	Electric field induced degradation in sky-blue perovskite light-emitting diodes. Materials Today Energy, 2022, 29, 101139.	2.5	3
1353	From Heterostructures to Solid olutions: Structural Tunability in Mixed Halide Perovskites. Advanced Materials, 2023, 35, .	11.1	5

#	Article	IF	CITATIONS
1354	Multifunctionality of Li ₂ SrNb ₂ O ₇ : Memristivity, Tunable Rectification, Ferroelasticity, and Ferroelectricity. Advanced Materials, 2022, 34, .	11.1	7
1355	A practical guide to 3D halide perovskites: Structure, synthesis, and measurement. , 2022, , .		Ο
1356	Enhanced photothermal stability of <i>in situ</i> grown FAPbBr ₃ nanocrystals in polyvinylidene fluoride by incorporation of Cd ²⁺ ions. Journal of Materials Chemistry C, 2022, 10, 17512-17520.	2.7	1
1357	Evaluation of surface passivating solvents for single and mixed halide perovskites. RSC Advances, 2022, 12, 28853-28861.	1.7	2
1358	Suppressing Phase Segregation in Wide Bandgap Perovskites for Monolithic Perovskite/Organic Tandem Solar Cells with Reduced Voltage Loss. Small, 2022, 18, .	5.2	18
1359	Enlighten the non-illuminated region by phase segregation of mixed halide perovskites. Light: Science and Applications, 2022, 11, .	7.7	2
1360	Perovskiteâ€Based Photovoltaics for Artificial Indoor Light Harvesting: A Critical Review. Solar Rrl, 2023, 7, .	3.1	3
1361	Light-tunable three-phase coexistence in mixed halide perovskites. Physical Review B, 2022, 106, .	1.1	0
1362	Stabilizing Wide Bandgap Tripleâ€Halide Perovskite Alloy through Organic Gelators. Solar Rrl, 2022, 6, .	3.1	2
1363	Charge Carrier Recombination Dynamics in MAPb(Br1â 'yly)3 Single Crystals. Crystals, 2022, 12, 1425.	1.0	3
1364	Valence-Regulated Metal Doping of Mixed-Halide Perovskites to Modulate Phase Segregation and Solar Cell Performance. ACS Energy Letters, 2022, 7, 4150-4160.	8.8	9
1365	Reassigning the Pressure-Induced Phase Transitions of Methylammonium Lead Bromide Perovskite. Journal of the American Chemical Society, 2022, 144, 20099-20108.	6.6	22
1366	Hole Transport Layer Modification for Highly Efficient Divalent Ionâ€Doped Pure Blue Perovskite Lightâ€Emitting Diodes. Advanced Optical Materials, 2023, 11, .	3.6	3
1367	Phase Segregation and Sequential Expulsion of Iodide and Bromide in Photoirradiated Ruddlesden–Popper 2D Perovskite Films. ACS Energy Letters, 2022, 7, 3982-3988.	8.8	10
1368	Oriented Lowâ€n Ruddlesdenâ€Popper Formamidiniumâ€Based Perovskite for Efficient and Air Stable Solar Cells. Advanced Energy Materials, 2022, 12, .	10.2	25
1369	Strain Relaxation on Perovskite Surface via Light-Enhanced Ionic Homogeneity. Journal of Physical Chemistry Letters, 2022, 13, 10447-10454.	2.1	5
1370	lon Migration and Accumulation in Halide Perovskite Solar Cells ^{â€} . Chinese Journal of Chemistry, 2023, 41, 861-876.	2.6	5
1371	Stability and degradation in triple cation and methyl ammonium lead iodide perovskite solar cells mediated via Au and Ag electrodes. Scientific Reports, 2022, 12, .	1.6	17

#	Article	IF	CITATIONS
1372	Lateral ion migration accelerates degradation in halide perovskite devices. Energy and Environmental Science, 2022, 15, 5324-5339.	15.6	19
1373	Understanding the doping effect in CsPbI2Br solar cells: crystallization kinetics, defect passivation and energy level alignment. Chemical Engineering Journal, 2023, 453, 139952.	6.6	9
1374	Negligible Ion Migration in Tinâ€Based and Tinâ€Doped Perovskites. Angewandte Chemie - International Edition, 2023, 62, .	7.2	17
1375	A Roadmap for Efficient and Stable All-Perovskite Tandem Solar Cells from a Chemistry Perspective. ACS Central Science, 2023, 9, 14-26.	5.3	13
1376	Recent progress in perovskite solar cells: from device to commercialization. Science China Chemistry, 2022, 65, 2369-2416.	4.2	53
1377	Correlating the perovskite/polymer multi-mode reactions with deep-level traps in perovskite solar cells. Joule, 2022, 6, 2849-2868.	11.7	29
1378	Disentangling Xâ€Ray and Sunlight Irradiation Effects Under a Controllable Atmosphere in Metal Halide Perovskites. Solar Rrl, 2023, 7, .	3.1	3
1379	Scanning x-ray excited optical luminescence of heterogeneity in halide perovskite alloys. Journal Physics D: Applied Physics, 2023, 56, 034002.	1.3	3
1380	Negligible Ion Migration in Tinâ€Based and Tinâ€Doped Perovskites. Angewandte Chemie, 2023, 135, .	1.6	6
1381	Pure 2D Perovskite Formation by Interfacial Engineering Yields a High Openâ€Circuit Voltage beyond 1.28 V for 1.77â€eV Wideâ€Bandgap Perovskite Solar Cells. Advanced Science, 2022, 9, .	5.6	21
1383	Generating spin-triplet states at the bulk perovskite/organic interface for photon upconversion. Nanoscale, 2023, 15, 998-1013.	2.8	8
1384	Hypervalent potassium xanthate modified SnO2 for highly efficient perovskite solar modules. Chemical Engineering Journal, 2023, 456, 140894.	6.6	7
1385	Ultra-small α-CsPbI ₃ perovskite quantum dots with stable, bright and pure red emission for Rec. 2020 display backlights. Nanoscale, 2023, 15, 1661-1668.	2.8	6
1386	The Electronic Disorder Landscape of Mixed Halide Perovskites. ACS Energy Letters, 2023, 8, 250-258.	8.8	10
1387	Improving intrinsic stability for perovskite/silicon tandem solar cells. Science China: Physics, Mechanics and Astronomy, 2023, 66, .	2.0	7
1388	Zwitterions in 3D Perovskites: Organosulfide-Halide Perovskites. Journal of the American Chemical Society, 2022, 144, 22403-22408.	6.6	10
1389	Multi‣tage Phase‣egregation of Mixed Halide Perovskites under Illumination: A Quantitative Comparison of Experimental Observations and Thermodynamic Models. Advanced Functional Materials, 2023, 33, .	7.8	18
1390	Halogen Redox Shuttle Explains Voltage-Induced Halide Redistribution in Mixed-Halide Perovskite Devices. ACS Energy Letters, 2023, 8, 513-520.	8.8	17

ARTICLE IF CITATIONS Nucleation Regulation and Anchoring of Halide Ions in Allâ€Inorganic Perovskite Solar Cells Assisted by 1391 7.8 4 CulnSe₂ Quantum Dots. Advanced Functional Materials, 2023, 33, . Combinatorial Vacuumâ€Deposition of Wide Bandgap Perovskite Films and Solar Cells. Advanced 1392 1.9 Materials Interfaces, 2023, 10, . High Ionic Conduction and Polarity-Induced Piezoresponse in Layered Bimetallic Rb₄Ag₂BiBr₉ Single Crystals. Journal of Physical Chemistry C, 1393 1.5 8 2022, 126, 21810-21824. Compositional texture engineering for highly stable wide-bandgap perovskite solar cells. Science, 1394 103 2022, 378, 1295-1300. Understanding and Minimizing <i>>∨</i>>_{OC} Losses in Allâ€Perovskite Tandem Photovoltaics. 1395 10.2 28 Advanced Energy Materials, 2023, 13, . Intermediate-phase engineering via dimethylammonium cation additive for stable perovskite solar cells. Nature Materials, 2023, 22, 73-83. 13.3 Continuous Modification of Perovskite Film by a Eu Complex to Fabricate the Thermal and 1397 4.0 2 UV-Light-Stable Solar Cells. ACS Applied Materials & amp; Interfaces, 2022, 14, 55538-55547. White light-induced halide segregation in triple-cation mixed halide perovskites studied by in-situ fast scanning nano-XRF at the NANOSCOPIUM beamline, Synchrotron SOLEIL. Journal of Physics: 1398 0.3 Conference Series, 2022, 2380, 012127. Metal Halide Perovskite Alloy: Fundamental, Optoelectronic Properties and Applications. Advanced 1399 1.7 4 Photonics Research, 2023, 4, . Excitation Intensity- and Size-Dependent Halide Photosegregation in 1400 CsPb(I_{0.5}Br_{0.5})₃Perovskite Nanocrystals. ACS Nano, 2022, 16, 7.3 21636-21644. Charge Carrier Recombination Dynamics in MAPb(Br_{<i>x</i>}Cl_{1â€"<i>x</i>})₃ Single Crystals. Journal of 1401 2.1 1 Physical Chemistry Letters, 2023, 14, 245-252. Thermodynamic Origin of the Photostability of the Two-Dimensional Perovskite PEA₂Pb(I_{1â€"<i>x</i>}Br_{<i>x</i>})₄. ACS Energy Letters, 1402 8.8 2023, 8, 943-949. Wideâ€Bandgap Perovskite Solar Cell Using a Fluorideâ€Assisted Surface Gradient Passivation Strategy. 1403 7.2 41 Angewandte Chemie - International Edition, 2023, 62, . Light-Induced Phase Segregation Evolution of All-Inorganic Mixed Halide Perovskites. Journal of 1404 2.1 Physical Chemistry Letters, 2023, 14, 267-272. Healing aged metal halide perovskite toward robust optoelectronic devices: Mechanisms, strategies, 1405 8.2 4 and perspectives. Nano Energy, 2023, 108, 108219. Redox Chemistry of the Subphases of α-CsPbI2Br and Î2-CsPbI2Br: Theory Reveals New Potential for 1406 1.9 Photostability. Nanomaterials, 2023, 13, 276. Effective Inhibition of Phase Segregation in Wideâ€Bandgap Perovskites with Alkali Halides Additives to 1407 3.110 Improve the Stability of Solar Cells. Solar Rrl, 2023, 7, . Metal Halide Perovskite Heterostructures: Blocking Anion Diffusion with Single-Layer Graphene. 1408 6.6 Journal of the American Chemical Society, 2023, 145, 2052-2057.

#	Article	IF	CITATIONS
1409	In Situ Observation of Photoinduced Halide Segregation in Mixed Halide Perovskite. ACS Applied Energy Materials, 2023, 6, 1565-1574.	2.5	9
1410	Research progress of perovskite/crystalline silicon tandem solar cells with efficiency of over 30%. Wuli Xuebao/Acta Physica Sinica, 2023, 72, 058801.	0.2	0
1411	Bulk Incorporation with 4â€Methylphenethylammonium Chloride for Efficient and Stable Methylammoniumâ€Free Perovskite and Perovskiteâ€6ilicon Tandem Solar Cells. Advanced Energy Materials, 2023, 13, .	10.2	14
1412	Wideâ€Bandgap Perovskite Solar Cell Using a Fluorideâ€Assisted Surface Gradient Passivation Strategy. Angewandte Chemie, 2023, 135, .	1.6	0
1413	Stability challenges for the commercialization of perovskite–silicon tandem solar cells. Nature Reviews Materials, 2023, 8, 261-281.	23.3	77
1414	Recent Advances in the Functionalization of Perovskite Solar Cells/Photodetectors. Laser and Photonics Reviews, 2023, 17, .	4.4	5
1415	Phase-segregation free quasi-2D perovskite/organic tandem solar cells with low <i>V</i> _{oc} loss and efficiency beyond 21%. Journal of Materials Chemistry A, 2023, 11, 6877-6885.	5.2	3
1417	Exploring the Evolution of Metal Halide Perovskites via Latent Representations of the Photoluminescent Spectra. Advanced Intelligent Systems, 2023, 5, .	3.3	1
1418	Halide Composition Engineered a Non-Toxic Perovskite–Silicon Tandem Solar Cell with 30.7% Conversion Efficiency. ACS Applied Electronic Materials, 2023, 5, 5303-5315.	2.0	50
1419	Synergistic Defect Passivation by the Treatment of Ionic Liquids for Efficient and Stable Perovskite Solar Cells. Advanced Energy and Sustainability Research, 2023, 4, .	2.8	3
1420	Radical polymeric p-doping and grain modulation for stable, efficient perovskite solar modules. Science, 2023, 379, 288-294.	6.0	59
1421	Fundamentals and classification of halide perovskites. , 2023, , 19-55.		0
1422	Disorder to order: how halide mixing in MAPbI _{3â^'<i>x</i>} Br _{<i>x</i>} perovskites restricts MA dynamics. Journal of Materials Chemistry A, 2023, 11, 4587-4597.	5.2	2
1423	Data Transmission Dielectric Recombination Proving Ground Besides Bilateral Interaction Sites Software Architecture. , 2022, , .		0
1424	A multiscale ion diffusion framework sheds light on the diffusion–stability–hysteresis nexus in metal halide perovskites. Nature Materials, 2023, 22, 329-337.	13.3	23
1425	A New Descriptor for Complicated Effects of Electronic Density of States on Ion Migration. Advanced Functional Materials, 2023, 33, .	7.8	6
1426	Strengthening the Stability of the Reconstructed NiOOH Phase for 5-Hydroxymethylfurfural Oxidation. Inorganic Chemistry, 2023, 62, 6499-6509.	1.9	10
1427	Photo-carrier induced composition separation in mixed-halide CsPb(I _x Br _{1â^*x) Tj ETQq1 1 0.7 2023, 16, 041002.}	784314 rg 1.1	BT /Overlock 0

#	Article	IF	CITATIONS
1428	Polarization dependent light-induced phase segregation in inorganic CsPb(BrxI1â^'x)3 perovskite microcrystals. Journal of Alloys and Compounds, 2023, 944, 169257.	2.8	1
1429	Insight into structure defects in high-performance perovskite solar cells. Journal of Power Sources, 2023, 570, 233011.	4.0	4
1430	Maximizing Current Density in Monolithic Perovskite Silicon Tandem Solar Cells. Solar Rrl, 2023, 7, .	3.1	15
1431	Advances in Encapsulations for Perovskite Solar Cells: From Materials to Applications. Solar Rrl, 2023, 7, .	3.1	11
1432	Probing the Genuine Carrier Dynamics of Semiconducting Perovskites under Sunlight. Jacs Au, 2023, 3, 441-448.	3.6	6
1433	Pure Blue Perovskites Nanocrystals in Glass: Ultrafast Laser Direct Writing and Bandgap Tuning. Laser and Photonics Reviews, 2023, 17, .	4.4	9
1434	Instability of solution-processed perovskite films: origin and mitigation strategies. Materials Futures, 2023, 2, 012102.	3.1	11
1435	One-year outdoor operation of monolithic perovskite/silicon tandem solar cells. Cell Reports Physical Science, 2023, 4, 101280.	2.8	16
1436	Surface‣tabilized CsPbl ₃ Nanocrystals with Tailored Organic Polymer Ligand Binding. Chemistry - A European Journal, 2023, 29, .	1.7	0
1437	Challenges and Perspectives toward Future Wideâ€Bandgap Mixedâ€Halide Perovskite Photovoltaics. Advanced Energy Materials, 2023, 13, .	10.2	29
1438	Open-circuit and short-circuit loss management in wide-gap perovskite p-i-n solar cells. Nature Communications, 2023, 14, .	5.8	32
1439	lssues of phase segregation in wide-bandgap perovskites. Materials Chemistry Frontiers, 2023, 7, 1896-1911.	3.2	4
1440	How cation nature controls the bandgap and bulk Rashba splitting of halide perovskites. Journal of Computational Chemistry, 2023, 44, 1395-1403.	1.5	1
1441	Temperatureâ€Dependent Reversal of Phase Segregation in Mixedâ€Halide Perovskites. Advanced Materials, 2023, 35, .	11.1	9
1442	Surface Photovoltage Study of Metal Halide Perovskites Deposited Directly on Crystalline Silicon. ACS Omega, 2023, 8, 8125-8133.	1.6	1
1443	Direct Measurements of Interfacial Photovoltage and Band Alignment in Perovskite Solar Cells Using Hard X-ray Photoelectron Spectroscopy. ACS Applied Materials & Interfaces, 2023, 15, 12485-12494.	4.0	2
1444	Efficiency Enhancement Strategies for Stable Bismuth-Based Perovskite and Its Bioimaging Applications. International Journal of Molecular Sciences, 2023, 24, 4711.	1.8	2
1445	Light-Induced Halide Segregation in 2D and Quasi-2D Mixed-Halide Perovskites. ACS Energy Letters, 2023, 8, 1662-1670.	8.8	13

#	Article	IF	Citations
1446	Precise Control of Crystallization and Phaseâ€Transition with Green Antiâ€Solvent in Wideâ€Bandgap Perovskite Solar Cells with Openâ€Circuit Voltage Exceeding 1.25ÂV. Small, 2023, 19, .	5.2	11
1447	<i>In Situ</i> and <i>Operando</i> Characterizations of Metal Halide Perovskite and Solar Cells: Insights from Lab-Sized Devices to Upscaling Processes. Chemical Reviews, 2023, 123, 3160-3236.	23.0	15
1448	Prospects and challenges for perovskite-organic tandem solar cells. Joule, 2023, 7, 484-502.	11.7	20
1449	Machine Learning Enables Prediction of Halide Perovskites' Optical Behavior with >90% Accuracy. ACS Energy Letters, 2023, 8, 1716-1722.	8.8	10
1450	Probing the Local Electronic Structure in Metal Halide Perovskites through Cobalt Substitution. Small Methods, 2023, 7, .	4.6	0
1451	Morphology-Dependent Carrier Accumulation Dynamics in Mixed Halide Perovskite Thin Films Caused by Phase Segregation. Journal of Physical Chemistry Letters, 2023, 14, 2800-2806.	2.1	1
1452	Reduced 0.418 V <i>V</i> _{OC} -deficit of 1.73 eV wide-bandgap perovskite solar cells assisted by dual chlorides for efficient all-perovskite tandems. Energy and Environmental Science, 2023, 16, 2080-2089.	15.6	16
1453	Key Parameters and Thresholds Values for Obtaining High Performance Perovskite Solar Cells Indoors from Full Br Compositional and Bandgap Engineering. ACS Applied Energy Materials, 2023, 6, 10215-10224.	2.5	5
1454	An Overview of Lead, Tin, and Mixed Tin–Leadâ€Based ABI ₃ Perovskite Solar Cells. Advanced Energy and Sustainability Research, 2023, 4, .	2.8	12
1455	Examining a Year-Long Chemical Degradation Process and Reaction Kinetics in Pristine and Defect-Passivated Lead Halide Perovskites. Chemistry of Materials, 2023, 35, 2904-2917.	3.2	3
1456	Suppressed phase segregation for triple-junction perovskite solar cells. Nature, 2023, 618, 74-79.	13.7	55
1457	Compositional gradient engineering and applications in halide perovskites. Chemical Communications, 2023, 59, 5156-5173.	2.2	2
1458	Selfâ€īracking Solar Concentrator with Absorption of Diffuse Sunlight. Advanced Optical Materials, 0,	3.6	0
1459	Light Soaking Effects in Perovskite Solar Cells: Mechanism, Impacts, and Elimination. ACS Applied Energy Materials, 2023, 6, 10303-10318.	2.5	5
1460	Insights into the replacement of FA by Cs in FAPbI3â ^{~,} xClx thin film fabricated in atmospheric conditions: Inspection of solar cell and photocatalytic performances. Journal of Alloys and Compounds, 2023, 953, 169930.	2.8	1
1461	All-inorganic perovskite solar cells featuring mixed group IVA cations. Nanoscale, 2023, 15, 7249-7260.	2.8	6
1462	Precursor Engineering of Lead Acetate-Based Precursors for High-Open-Circuit Voltage Wide-Bandgap Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2023, 15, 18800-18807.	4.0	3
1463	Photolysis of Mixed Halide Perovskite Nanocrystals. ACS Energy Letters, 0, , 2150-2158.	8.8	1

#	Article	IF	CITATIONS
1464	Inhibition of Ion Migration for Highly Efficient and Stable Perovskite Solar Cells. Advanced Materials, 2023, 35, .	11.1	8
1465	All-Perovskite Tandem Solar Cells: From Certified 25% and Beyond. Energies, 2023, 16, 3519.	1.6	3
1466	Strain and Optoelectronic Tuning in Mixedâ€Halide Perovskites with Ion Irradiation. Advanced Optical Materials, 2023, 11, .	3.6	1
1504	Halide perovskites: Properties, synthesis, and applications. , 2024, , 659-678.		0
1505	Phase-pure two-dimensional layered perovskite thin films. Nature Reviews Materials, 2023, 8, 533-551.	23.3	25
1509	Vacuum-Deposited Wide-Bandgap Perovskite for All-Perovskite Tandem Solar Cells. ACS Energy Letters, 2023, 8, 2728-2737.	8.8	16
1516	Synergy of 3D and 2D Perovskites for Durable, Efficient Solar Cells and Beyond. Chemical Reviews, 2023, 123, 9565-9652.	23.0	21
1517	Tailoring passivators for highly efficient and stable perovskite solar cells. Nature Reviews Chemistry, 2023, 7, 632-652.	13.8	36
1525	Structure, composition, and stability of metal halide perovskites. , 2023, , 3-47.		0
1529	Long-term operating stability in perovskite photovoltaics. Nature Reviews Materials, 2023, 8, 569-586.	23.3	31
1543	Perovskite material-based memristors for applications in information processing and artificial intelligence. Journal of Materials Chemistry C, 2023, 11, 13167-13188.	2.7	4
1590	Methylammonium-free wide-bandgap metal halide perovskites for tandem photovoltaics. Nature Reviews Materials, 2023, 8, 822-838.	23.3	2
1604	Identifying a laser ablation damage threshold for all-inorganic mixed-halide perovskite microwires. , 2023, , .		0
1605	On the persistence of photoluminescence in all-inorganic mixed-halide nanowire lasers. , 2023, , .		0
1612	Recent progress in monolithic two-terminal perovskite-based triple-junction solar cells. Energy and Environmental Science, 2024, 17, 1781-1818.	15.6	0
1626	Phase Distributions and Local Bandgap Energies in Mixed-Halide Perovskite Nanoparticles. , 2023, , .		0
1629	Enhancing FAPbI ₃ perovskite solar cell performance with a methanesulfonate-based additive. Sustainable Energy and Fuels, 2024, 8, 491-495.	2.5	0
1640	All inorganic CsPbI3 perovskite solar cells with reduced mobile ion concentration and film stress. MRS Communications, 2024, 14, 208-214.	0.8	0

		CITATION REPORT		
#	Article		IF	CITATIONS
1642	The concept of complexity and nanoscience. AIP Conference Proceedings, 2024, , .		0.3	0
1645	Potential-induced degradation: a challenge in the commercialization of perovskite sola and Environmental Science, 2024, 17, 1819-1853.	r cells. Energy	15.6	0
1650	Perovskite–organic tandem solar cells. Nature Reviews Materials, 2024, 9, 202-217.		23.3	0
1658	Bicolour, large area, inkjet-printed metal halide perovskite light emitting diodes. Materi 0, , .	als Horizons,	6.4	Ο