Solvent engineering for high-performance inorganicâ€"organic hybrid perovskite solar cells

Nature Materials

13, 897-903

DOI: 10.1038/nmat4014

#	Article	IF	Citations
20	Rutherford Backscattering Spectroscopy of Mass Transport by Transformation of PbI2 into CH3NH3PbI3 within np-TiO2. Hybrid Materials, 2014, 1, .	0.7	3
21	Engineering Nanostructures by Binding Single Molecules to Single-Walled Carbon Nanotubes. ACS Nano, 2014, 8, 12748-12754.	7.3	10
22	Fully crystalline perovskite-perylene hybrid photovoltaic cell capable of 1.2 V output with a minimized voltage loss. APL Materials, 2014, 2, .	2.2	37
23	CH₃NH₃PbI₃-Based Planar Solar Cells with Magnetron-Sputtered Nickel Oxide. ACS Applied Materials & Interfaces, 2014, 6, 22862-22870.	4.0	214
24	Moisture assisted perovskite film growth for high performance solar cells. Applied Physics Letters, 2014, 105, .	1.5	667
25	Reproducible One-Step Fabrication of Compact MAPbI_{3â€“<i>x</i>}Cl_{<i>x</i>} Thin Films Derived from Mixed-Lead-Halide Precursors. Chemistry of Materials, 2014, 26, 7145-7150.	3.2	81
26	Qualifying composition dependent <i>p</i> and <i>n</i> self-doping in CH3NH3PbI3. Applied Physics Letters, 2014, 105, .	1.5	518
27	Cesium carbonate as a surface modification material for organicâ€“inorganic hybrid perovskite solar cells with enhanced performance. RSC Advances, 2014, 4, 60131-60134.	1.7	31
28	Polyfluorene Derivatives are Highâ€Performance Organic Holeâ€Transporting Materials for Inorganicâˆ'Organic Hybrid Perovskite Solar Cells. Advanced Functional Materials, 2014, 24, 7357-7365.	7.8	172
29	Controllable Perovskite Crystallization at a Gasâ€“Solid Interface for Hole Conductor-Free Solar Cells with Steady Power Conversion Efficiency over 10%. Journal of the American Chemical Society, 2014, 136, 16411-16419.	6.6	383
30	Heterojunction Modification for Highly Efficient Organicâ€“Inorganic Perovskite Solar Cells. ACS Nano, 2014, 8, 12701-12709.	7.3	614
31	Compact Layer Free Perovskite Solar Cells with 13.5% Efficiency. Journal of the American Chemical Society, 2014, 136, 17116-17122.	6.6	407
32	Ion Transport in Electrolytes for Dye-Sensitized Solar Cells: A Combined Experimental and Theoretical Study. Journal of Physical Chemistry C, 2014, 118, 28448-28455.	1.5	14
33	Perovskite-kesterite monolithic tandem solar cells with high open-circuit voltage. Applied Physics Letters, 2014, 105, .	1.5	175
34	Understanding the solvent-assisted crystallization mechanism inherent in efficient organicâ€“inorganic halide perovskite solar cells. Journal of Materials Chemistry A, 2014, 2, 20454-20461.	5.2	147
35	Predictions for p-Type CH₃NH₃PbI₃ Perovskites. Journal of Physical Chemistry C, 2014, 118, 25350-25354.	1.5	71
36	High performance perovskite solar cells by hybrid chemical vapor deposition. Journal of Materials Chemistry A, 2014, 2, 18742-18745.	5.2	284
37	Low-temperature processed high-performance flexible perovskite solar cells via rationally optimized solvent washing treatments. RSC Advances, 2014, 4, 62971-62977.	1.7	182

#	Article	IF	Citations
38	Recombination Kinetics in Organic-Inorganic Perovskites: Excitons, Free Charge, and Subgap States. Physical Review Applied, 2014, 2, .	1.5	1,005
39	Investigation Regarding the Role of Chloride in Organicâ€“Inorganic Halide Perovskites Obtained from Chloride Containing Precursors. Nano Letters, 2014, 14, 6991-6996.	4.5	185
40	Solution Chemistry Engineering toward High-Efficiency Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2014, 5, 4175-4186.	2.1	227
41	Improved External Quantum Efficiency from Solution-Processed (CH₃NH₃)PbI₃ Perovskite/PC₇₁BM Planar Heterojunction for High Efficiency Hybrid Solar Cells. Journal of Physical Chemistry C, 2014, 118, 25899-25905.	1.5	40
42	Hysteresis Analysis Based on the Ferroelectric Effect in Hybrid Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2014, 5, 3937-3945.	2.1	329
43	Panchromatic Ru(<scp>ii</scp>) sensitizers bearing single thiocyanate for high efficiency dye sensitized solar cells. Journal of Materials Chemistry A, 2014, 2, 17618-17627.	5.2	53
44	Electrical field profile and doping in planar lead halide perovskite solar cells. Applied Physics Letters, 2014, 105, .	1.5	168
45	Enhanced electrocatalytic activity of plasma functionalized multi-walled carbon nanotube-entrapped poly(3,4-ethylendioxythiophene):poly(styrene sulfonate) photocathode. Electrochimica Acta, 2014, 146, 68-72.	2.6	19
46	The Impact of the Crystallization Processes on the Structural and Optical Properties of Hybrid Perovskite Films for Photovoltaics. Journal of Physical Chemistry Letters, 2014, 5, 3836-3842.	2.1	238
47	Air-Stable Molecular Semiconducting Iodosalts for Solar Cell Applications: Cs₂SnI₆ as a Hole Conductor. Journal of the American Chemical Society, 2014, 136, 15379-15385.	6.6	560
48	Recent Developments in Dyeâ€Sensitized Solar Cells. ChemPhysChem, 2014, 15, 3902-3927.	1.0	79
49	Conformal Organohalide Perovskites Enable Lasing on Spherical Resonators. ACS Nano, 2014, 8, 10947-10952.	7.3	330
51	Understanding the formation and evolution of interdiffusion grown organolead halide perovskite thin films by thermal annealing. Journal of Materials Chemistry A, 2014, 2, 18508-18514.	5.2	276
52	Liquid phase deposition of TiO₂nanolayer affords CH₃NH₃PbI₃/nanocarbon solar cells with high open-circuit voltage. Faraday Discussions, 2014, 176, 271-286.	1.6	54
53	Improved Understanding of the Electronic and Energetic Landscapes of Perovskite Solar Cells: High Local Charge Carrier Mobility, Reduced Recombination, and Extremely Shallow Traps. Journal of the American Chemical Society, 2014, 136, 13818-13825.	6.6	587
54	The light and shade of perovskite solar cells. Nature Materials, 2014, 13, 838-842.	13.3	1,877
55	Continuing to soar. Nature Materials, 2014, 13, 845-846.	13.3	200
56	Efficient planar-heterojunction perovskite solar cells achieved via interfacial modification of a solâ€“gel ZnO electron collection layer. Journal of Materials Chemistry A, 2014, 2, 17291-17296.	5.2	274

#	Article	IF	Citations
57	14.8% perovskite solar cells employing carbazole derivatives as hole transporting materials. Chemical Communications, 2014, 50, 14161-14163.	2.2	159
58	Growth of CH3NH3PbI3 cuboids with controlled size for high-efficiency perovskite solar cells. Nature Nanotechnology, 2014, 9, 927-932.	15.6	1,600
59	Recent Research Developments of Perovskite Solar Cells. Chinese Journal of Chemistry, 2014, 32, 957-963.	2.6	37
60	Inkjet Printing and Instant Chemical Transformation of a CH₃NH₃PbI₃/Nanocarbon Electrode and Interface for Planar Perovskite Solar Cells. Angewandte Chemie - International Edition, 2014, 53, 13239-13243.	7.2	370
61	Gas-assisted preparation of lead iodide perovskite films consisting of a monolayer of single crystalline grains for high efficiency planar solar cells. Nano Energy, 2014, 10, 10-18.	8.2	504
62	Twisted by DNA. Nature Materials, 2014, 13, 846-848.	13.3	8
63	Efficient Planar Perovskite Solar Cells Based on 1.8 eV Band Gap CH₃NH₃PbI₂Br Nanosheets via Thermal Decomposition. Journal of the American Chemical Society, 2014, 136, 12241-12244.	6.6	222
64	Benefits of very thin PCBM and LiF layers for solution-processed pâ€“iâ€“n perovskite solar cells. Energy and Environmental Science, 2014, 7, 2642-2646.	15.6	622
66	Methylammonium lead triiodide perovskite solar cells: A new paradigm in photovoltaics. MRS Bulletin, 2015, 40, 641-645.	1.7	45
67	Photovoltaic devices employing vacuum-deposited perovskite layers. MRS Bulletin, 2015, 40, 660-666.	1.7	58
68	Vapor-assisted solution process for perovskite materials and solar cells. MRS Bulletin, 2015, 40, 667-673.	1.7	39
69	High Crystalline Quality Perovskite Thin Films Prepared by a Novel Hybrid Evaporation/CVD Technique. Materials Research Society Symposia Proceedings, 2015, 1771, 187-192.	0.1	3
70	Steps toward efficient inorganicâ€“organic hybrid perovskite solar cells. MRS Bulletin, 2015, 40, 648-653.	1.7	33
71	Modeling and optimization of two-terminal Perovskite/Si tandem solar cells: A theoretical study. , 2015, , .		1
72	Dark current reduction and bandgap-voltage offset in solution-processed nanocrystal solar cells. , 2015, , .		0
73	Quantifying Losses in Open-Circuit Voltage in Solution-Processable Solar Cells. Physical Review Applied, 2015, 4, .	1.5	500
74	Surface Engineering of ZnO Thin Film for High Efficiency Planar Perovskite Solar Cells. Scientific Reports, 2015, 5, 13211.	1.6	155
75	Direct Conversion of CH3NH3PbI3 from Electrodeposited PbO for Highly Efficient Planar Perovskite Solar Cells. Scientific Reports, 2015, 5, 15889.	1.6	83

#	Article	IF	Citations
76	Electrodeposited Ultrathin TiO2 Blocking Layers for Efficient Perovskite Solar Cells. Scientific Reports, 2015, 5, 16098.	1.6	96
77	Fabrication of efficient planar perovskite solar cells using a one-step chemical vapor deposition method. Scientific Reports, 2015, 5, 14083.	1.6	200
79	High-Performance Planar-Type Photodetector on (100) Facet of MAPbI3 Single Crystal. Scientific Reports, 2015, 5, 16563.	1.6	270
80	Enhanced Photovoltaic Performance of Perovskite Solar Cells via Modification of Surface Characteristics Using a Fullerene Interlayer. Chemistry Letters, 2015, 44, 1735-1737.	0.7	28
81	Photocurrent Enhancement of Formamidinium Lead Trihalide Mesoscopic Perovskite Solar Cells with Large Size TiO2 Nanoparticles. Chemistry Letters, 2015, 44, 1619-1621.	0.7	8
82	Perovskite Photovoltaics: Rare Functions of Organo Lead Halide in Solar Cells and Optoelectronic Devices. Chemistry Letters, 2015, 44, 720-729.	0.7	216
83	Organic Charge Carriers for Perovskite Solar Cells. ChemSusChem, 2015, 8, 3012-3028.	3.6	109
84	Efficient CH₃NH₃PbI₃ Perovskite Solar Cells Employing Nanostructured pâ€Type NiO Electrode Formed by a Pulsed Laser Deposition. Advanced Materials, 2015, 27, 4013-4019.	11.1	485
85	Highâ€Quality Mixedâ€Organicâ€Cation Perovskites from a Phaseâ€Pure Nonâ€stoichiometric Intermediate (FAI)_{1â^’}<i>_x</i>â€PbI₂ for Solar Cells. Advanced Materials, 2015, 27, 4918-4923.	11.1	140
86	Planar Heterojunction Perovskite Solar Cells Incorporating Metalâ€"Organic Framework Nanocrystals. Advanced Materials, 2015, 27, 7229-7235.	11.1	134
87	Squareâ€Centimeter Solutionâ€Processed Planar CH₃NH₃PbI₃ Perovskite Solar Cells with Efficiency Exceeding 15%. Advanced Materials, 2015, 27, 6363-6370.	11.1	311
88	Polymer/Perovskite Amplifying Waveguides for Active Hybrid Silicon Photonics. Advanced Materials, 2015, 27, 6157-6162.	11.1	83
89	Beyond Efficiency: the Challenge of Stability in Mesoscopic Perovskite Solar Cells. Advanced Energy Materials, 2015, 5, 1501066.	10.2	395
90	A Smooth CH₃NH₃PbI₃ Film via a New Approach for Forming the PbI₂ Nanostructure Together with Strategically High CH₃NH₃I Concentration for High Efficient Planarâ€Heterojunction Solar Cells. Advanced Energy Materials, 2015, 5, 1501354.	10.2	228
91	Procedures and Practices for Evaluating Thinâ€Film Solar Cell Stability. Advanced Energy Materials, 2015, 5, 1501407.	10.2	137
92	Plasmonicâ€Induced Photon Recycling in Metal Halide Perovskite Solar Cells. Advanced Functional Materials, 2015, 25, 5038-5046.	7.8	198
93	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
94	Stability of Metal Halide Perovskite Solar Cells. Advanced Energy Materials, 2015, 5, 1500963.	10.2	1,045

#	Article	IF	Citations
95	Targeting Ideal Dualâ€Absorber Tandem Water Splitting Using Perovskite Photovoltaics and CuIn<i>_x</i>Ga_{1â€<i>x</i>}Se₂ Photocathodes. Advanced Energy Materials, 2015, 5, 1501520.	10.2	109
97	Probing Molecular and Crystalline Orientation in Solutionâ€Processed Perovskite Solar Cells. Advanced Functional Materials, 2015, 25, 5529-5536.	7.8	57
98	Inverted, Environmentally Stable Perovskite Solar Cell with a Novel Lowâ€Cost and Waterâ€Free PEDOT Holeâ€Extraction Layer. Advanced Energy Materials, 2015, 5, 1500543.	10.2	81
99	Effective Electron Blocking of CuPCâ€Doped Spiroâ€OMeTAD for Highly Efficient Inorganicâ€"Organic Hybrid Perovskite Solar Cells. Advanced Energy Materials, 2015, 5, 1501320.	10.2	84
100	The Role of Oxygen in the Degradation of Methylammonium Lead Trihalide Perovskite Photoactive Layers. Angewandte Chemie - International Edition, 2015, 54, 8208-8212.	7.2	749
101	Methylamineâ€Gasâ€Induced Defectâ€Healing Behavior of CH₃NH₃PbI₃ Thin Films for Perovskite Solar Cells. Angewandte Chemie - International Edition, 2015, 54, 9705-9709.	7.2	377
102	A Methoxydiphenylamineâ€Substituted Carbazole Twin Derivative: An Efficient Holeâ€Transporting Material for Perovskite Solar Cells. Angewandte Chemie - International Edition, 2015, 54, 11409-11413.	7.2	239
103	Morphologyâ€Controlled Synthesis of Organometal Halide Perovskite Inverse Opals. Angewandte Chemie - International Edition, 2015, 54, 13806-13810.	7.2	68
104	The Significance of Ion Conduction in a Hybrid Organicâ€"Inorganic Leadâ€Iodideâ€Based Perovskite Photosensitizer. Angewandte Chemie, 2015, 127, 8016-8021.	1.6	143
105	Facile Synthesis of a Furanâ€"Arylamine Holeâ€Transporting Material for Highâ€Efficiency, Mesoscopic Perovskite Solar Cells. Chemistry - A European Journal, 2015, 21, 15113-15117.	1.7	49
106	Charge carrier decay and diffusion in organic-inorganic CH₃ NH₃ PbI_{3-<i>x</i>} Cl_{<i>x</i>} perovskite based solar cell. Physica Status Solidi - Rapid Research Letters, 2015, 9, 682-686.	1.2	4
107	The Role of Oxygen in the Degradation of Methylammonium Lead Trihalide Perovskite Photoactive Layers. Angewandte Chemie, 2015, 127, 8326-8330.	1.6	154
108	Selective Deposition of Insulating Metal Oxide in Perovskite Solar Cells with Enhanced Device Performance. ChemSusChem, 2015, 8, 2625-2629.	3.6	10
109	Highâ€Performance Semitransparent Perovskite Solar Cells with 10% Power Conversion Efficiency and 25% Average Visible Transmittance Based on Transparent CuSCN as the Holeâ€Transporting Material. Advanced Energy Materials, 2015, 5, 1500486.	10.2	221
110	Singleâ€Layer Lightâ€Emitting Diodes Using Organometal Halide Perovskite/Poly(ethylene oxide) Composite Thin Films. Advanced Materials, 2015, 27, 5196-5202.	11.1	288
111	Understanding the Impact of Bromide on the Photovoltaic Performance of CH₃NH₃PbI₃ Solar Cells. Advanced Materials, 2015, 27, 7221-7228.	11.1	73
112	A Lowâ€Temperature, Solutionâ€Processable, Cuâ€Doped Nickel Oxide Holeâ€Transporting Layer via the Combustion Method for Highâ€Performance Thinâ€Film Perovskite Solar Cells. Advanced Materials, 2015, 27, 7874-7880.	11.1	405
113	Controlled Synthesis of Organic/Inorganic van der Waals Solid for Tunable Lightâ€"Matter Interactions. Advanced Materials, 2015, 27, 7800-7808.	11.1	109

#	Article	IF	Citations
114	A Strategy to Design a Donorâ€“Ï€â€“Acceptor Polymeric Hole Conductor for an Efficient Perovskite Solar Cell. Advanced Energy Materials, 2015, 5, 1500471.	10.2	55
117	Hierarchically Structured Hole Transport Layers of Spiroâ€OMeTAD and Multiwalled Carbon Nanotubes for Perovskite Solar Cells. ChemSusChem, 2015, 8, 2358-2362.	3.6	73
118	Controlled growth of PbI₂ nanoplates for rapid preparation of CH₃NH₃PbI₃ in planar perovskite solar cells. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 2708-2717.	0.8	63
119	Unraveling the Reasons for Efficiency Loss in Perovskite Solar Cells. Advanced Functional Materials, 2015, 25, 3925-3933.	7.8	129
120	Mapping Electric Fieldâ€Induced Switchable Poling and Structural Degradation in Hybrid Lead Halide Perovskite Thin Films. Advanced Energy Materials, 2015, 5, 1500962.	10.2	225
121	Lowâ€Temperature and Hysteresisâ€Free Electronâ€Transporting Layers for Efficient, Regular, and Planar Structure Perovskite Solar Cells. Advanced Energy Materials, 2015, 5, 1501056.	10.2	69
122	Formamidinium and Cesium Hybridization for Photoâ€•and Moistureâ€Stable Perovskite Solar Cell. Advanced Energy Materials, 2015, 5, 1501310.	10.2	1,350
123	Mechanically Recoverable and Highly Efficient Perovskite Solar Cells: Investigation of Intrinsic Flexibility of Organicâ€“Inorganic Perovskite. Advanced Energy Materials, 2015, 5, 1501406.	10.2	131
124	Material Exchange Property of Organo Lead Halide Perovskite with Hole-Transporting Materials. Photonics, 2015, 2, 1043-1053.	0.9	19
125	Transient Response of Organo-Metal-Halide Solar Cells Analyzed by Time-Resolved Current-Voltage Measurements. Photonics, 2015, 2, 1101-1115.	0.9	14
126	Hybrid Organic-Inorganic Perovskites Open a New Era for Low-Cost, High Efficiency Solar Cells. Journal of Nanomaterials, 2015, 2015, 1-10.	1.5	19
127	Perovskite Solar Cells: Potentials, Challenges, and Opportunities. International Journal of Photoenergy, 2015, 2015, 1-13.	1.4	65
129	Graphene/SrTiO₃nanocomposites used as an effective electron-transporting layer for high-performance perovskite solar cells. RSC Advances, 2015, 5, 52041-52047.	1.7	50
130	Environmental Effects on the Photophysics of Organicâ€“Inorganic Halide Perovskites. Journal of Physical Chemistry Letters, 2015, 6, 2200-2205.	2.1	205
131	Hysteresis-less mesoscopic CH3NH3PbI3 perovskite hybrid solar cells by introduction of Li-treated TiO2 electrode. Nano Energy, 2015, 15, 530-539.	8.2	246
132	Solvent engineering towards controlled grain growth in perovskite planar heterojunction solar cells. Nanoscale, 2015, 7, 10595-10599.	2.8	294
133	High-performance photovoltaic perovskite layers fabricated through intramolecular exchange. Science, 2015, 348, 1234-1237.	6.0	5,529
134	Controllable Sequential Deposition of Planar CH₃NH₃PbI₃ Perovskite Films via Adjustable Volume Expansion. Nano Letters, 2015, 15, 3959-3963.	4.5	245

#	Article	IF	Citations
135	Solvent engineering of the electron transport layer using 1,8-diiodooctane for improving the performance of perovskite solar cells. Organic Electronics, 2015, 24, 101-105.	1.4	45
136	Thin-film Sb2Se3 photovoltaics with oriented one-dimensional ribbons and benign grain boundaries. Nature Photonics, 2015, 9, 409-415.	15.6	781
137	Enhanced Carrier Lifetimes of Pure Iodide Hybrid Perovskite via Vapor-Equilibrated Re-Growth (VERG). Journal of Physical Chemistry Letters, 2015, 6, 2503-2508.	2.1	39
138	Crystal Morphologies of Organolead Trihalide in Mesoscopic/Planar Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2015, 6, 2292-2297.	2.1	93
139	Efficiency Enhancement of Inverted Structure Perovskite Solar Cells via Oleamide Doping of PCBM Electron Transport Layer. ACS Applied Materials & Interfaces, 2015, 7, 13659-13665.	4.0	132
140	A computational view of the change in the geometric and electronic properties of perovskites caused by the partial substitution of Pb by Sn. Physical Chemistry Chemical Physics, 2015, 17, 17679-17687.	1.3	43
141	Annealing-induced chemical and structural changes in tri-iodide and mixed-halide organometal perovskite layers. Journal of Materials Chemistry A, 2015, 3, 14195-14201.	5.2	21
142	Energy harvesting and storage devices fused into various patterns. Journal of Materials Chemistry A, 2015, 3, 14977-14984.	5.2	22
143	Ligand-Hole in [SnI6] Unit and Origin of Band Gap in Photovoltaic Perovskite Variant Cs2SnI6. Bulletin of the Chemical Society of Japan, 2015, 88, 1250-1255.	2.0	130
144	Elucidating the Reaction Pathways in the Synthesis of Organolead Trihalide Perovskite for High-Performance Solar Cells. Scientific Reports, 2015, 5, 10557.	1.6	48
145	Enhanced photocatalytic performance of Ag-decorated BiFeO3 in visible light region. Journal of Sol-Gel Science and Technology, 2015, 76, 50-57.	1.1	23
146	Efficient and non-hysteresis CH3NH3PbI3/PCBM planar heterojunction solar cells. Organic Electronics, 2015, 24, 106-112.	1.4	94
147	Temperature-assisted controlling morphology and charge transport property for highly efficient perovskite solar cells. Nano Energy, 2015, 15, 540-548.	8.2	85
148	Observation and Mediation of the Presence of Metallic Lead in Organicâ€“Inorganic Perovskite Films. ACS Applied Materials & Interfaces, 2015, 7, 13440-13444.	4.0	167
149	2D Homologous Perovskites as Light-Absorbing Materials for Solar Cell Applications. Journal of the American Chemical Society, 2015, 137, 7843-7850.	6.6	1,818
150	An up-scalable approach to CH3NH3PbI3 compact films for high-performance perovskite solar cells. Nano Energy, 2015, 15, 670-678.	8.2	79
151	Inverted planar NH₂CHî€NH₂PbI₃ perovskite solar cells with 13.56% efficiency via low temperature processing. Physical Chemistry Chemical Physics, 2015, 17, 19745-19750.	1.3	74
152	Efficient photosynthesis of carbon monoxide from CO2 using perovskite photovoltaics. Nature Communications, 2015, 6, 7326.	5.8	295

#	Article	IF	Citations
153	Enhanced reproducibility of the high efficiency perovskite solar cells via a thermal treatment. RSC Advances, 2015, 5, 52571-52577.	1.7	5
154	Effects of Oxide Contact Layer on the Preparation and Properties of CH3NH3PbI3 for Perovskite Solar Cell Application. Journal of Physical Chemistry C, 2015, 119, 14919-14928.	1.5	78
155	Role of phase composition for electronic states in CH3NH3PbI3 prepared from CH3NH3I/PbCl2 solution. Applied Physics Letters, 2015, 106, 232104.	1.5	34
156	Controlled Humidity Study on the Formation of Higher Efficiency Formamidinium Lead Triiodide-Based Solar Cells. Chemistry of Materials, 2015, 27, 4814-4820.	3.2	133
157	Fast Crystallization and Improved Stability of Perovskite Solar Cells with Zn₂SnO₄ Electron Transporting Layer: Interface Matters. ACS Applied Materials & Interfaces, 2015, 7, 28404-28411.	4.0	103
158	Organicâ€“Inorganic Hybrid Ternary Bulk Heterojunction of Nanostructured Perovskiteâ€“Low Bandgap Polymerâ€“PCBM for Improved Efficiency of Organic Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 28459-28465.	4.0	9
159	Hole-Transporting Materials with a Two-Dimensionally Expanded Ï€-System around an Azulene Core for Efficient Perovskite Solar Cells. Journal of the American Chemical Society, 2015, 137, 15656-15659.	6.6	271
160	Enhanced amplified spontaneous emission from morphology-controlled organicâ€“inorganic halide perovskite films. RSC Advances, 2015, 5, 103674-103679.	1.7	23
161	Chemical Pathways Connecting Lead(II) Iodide and Perovskite via Polymeric Plumbate(II) Fiber. Journal of the American Chemical Society, 2015, 137, 15907-15914.	6.6	223
162	DMSO-based PbI₂ precursor with PbCl₂ additive for highly efficient perovskite solar cells fabricated at low temperature. RSC Advances, 2015, 5, 104606-104611.	1.7	26
163	Ultraviolet surprise: Efficient soft x-ray high-harmonic generation in multiply ionized plasmas. Science, 2015, 350, 1225-1231.	6.0	165
164	Overcoming the electroluminescence efficiency limitations of perovskite light-emitting diodes. Science, 2015, 350, 1222-1225.	6.0	2,440
165	Perovskites: Solar cells & engineering applications â€“ materials and device developments. Solar Energy, 2015, 122, 678-699.	2.9	133
166	Annealing effects on high-performance CH3NH3PbI3 perovskite solar cells prepared by solution-process. Solar Energy, 2015, 122, 1047-1051.	2.9	70
167	New Hybrid Hole Extraction Layer of Perovskite Solar Cells with a Planar pâ€“iâ€“n Geometry. Journal of Physical Chemistry C, 2015, 119, 27285-27290.	1.5	71
168	Microstructures of Organometal Trihalide Perovskites for Solar Cells: Their Evolution from Solutions and Characterization. Journal of Physical Chemistry Letters, 2015, 6, 4827-4839.	2.1	344
169	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
170	Thickness of the hole transport layer in perovskite solar cells: performance versus reproducibility. RSC Advances, 2015, 5, 99356-99360.	1.7	98

#	Article	IF	Citations
171	Optical loss analysis of monolithic perovskite/Si tandem solar cell. , 2015, , .		4
172	Low temperature two-step solution process for perovskite solar cells with planar structure. , 2015, , .		0
173	Illumination dependent carrier dynamics of CH₃NH₃PbBr₃perovskite. Proceedings of SPIE, 2015, , .	0.8	1
174	Effects of different chloride precursors on crystal growth of lead halide perovskites. Applied Physics Express, 2015, 8, 125501.	1.1	10
175	Spray PEDOT:PSS coated perovskite with a transparent conducting electrode for low cost scalable photovoltaic devices. Materials Research Innovations, 2015, 19, 482-487.	1.0	9
176	Effects of domain size in polycrystalline perovskite organic-inorganic hybrids investigated by spatially resolved optical spectroscopy. , 2015, , .		0
177	Electronic and optical properties of mixed Snâ€“Pb organohalide perovskites: a first principles investigation. Journal of Materials Chemistry A, 2015, 3, 9208-9215.	5.2	170
178	Phenoxazineâ€Based Small Molecule Material for Efficient Perovskite Solar Cells and Bulk Heterojunction Organic Solar Cells. Advanced Energy Materials, 2015, 5, 1401720.	10.2	109
179	Compositional engineering of perovskite materials for high-performance solar cells. Nature, 2015, 517, 476-480.	13.7	5,478
180	Toward Large Scale Rollâ€toâ€Roll Production of Fully Printed Perovskite Solar Cells. Advanced Materials, 2015, 27, 1241-1247.	11.1	785
181	HPbI₃: A New Precursor Compound for Highly Efficient Solutionâ€Processed Perovskite Solar Cells. Advanced Functional Materials, 2015, 25, 1120-1126.	7.8	293
182	New generation solar cells: concepts, trends and perspectives. Chemical Communications, 2015, 51, 3957-3972.	2.2	170
183	Impact of Anionic Br^{â€“} Substitution on Open Circuit Voltage in Lead Free Perovskite (CsSnI_{3-x}Br_{<i>x</i>}) Solar Cells. Journal of Physical Chemistry C, 2015, 119, 1763-1767.	1.5	332
184	Advancements in all-solid-state hybrid solar cells based on organometal halide perovskites. Materials Horizons, 2015, 2, 378-405.	6.4	110
185	Classification of solar cells according to mechanisms of charge separation and charge collection. Physical Chemistry Chemical Physics, 2015, 17, 4007-4014.	1.3	102
186	Development of Lead Iodide Perovskite Solar Cells Using Three-Dimensional Titanium Dioxide Nanowire Architectures. ACS Nano, 2015, 9, 564-572.	7.3	125
187	Understanding the rate-dependent Jâ€“V hysteresis, slow time component, and aging in CH₃NH₃PbI₃ perovskite solar cells: the role of a compensated electric field. Energy and Environmental Science, 2015, 8, 995-1004.	15.6	1,150
188	Structure and function relationships in alkylammonium lead(<scp>ii</scp>) iodide solar cells. Journal of Materials Chemistry A, 2015, 3, 9201-9207.	5.2	57

#	Article	IF	Citations
189	Air-Exposure Induced Dopant Redistribution and Energy Level Shifts in Spin-Coated Spiro-MeOTAD Films. Chemistry of Materials, 2015, 27, 562-569.	3.2	357
190	Low Noise, IRâ€Blind Organohalide Perovskite Photodiodes for Visible Light Detection and Imaging. Advanced Materials, 2015, 27, 2060-2064.	11.1	271
191	Lead-Halide Perovskite Solar Cells by CH₃NH₃I Dripping on PbI₂â€“CH₃NH₃Iâ€“DMSO Precursor Layer for Planar and Porous Structures Using CuSCN Hole-Transporting Material. Journal of Physical Chemistry Letters, 2015, 6, 881-886.	2.1	78
192	Superior Photovoltaic Properties of Lead Halide Perovskites: Insights from First-Principles Theory. Journal of Physical Chemistry C, 2015, 119, 5253-5264.	1.5	246
193	Nanocarbons for mesoscopic perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 9020-9031.	5.2	104
194	Ultrathin Atomic Layer Deposited TiO₂ for Surface Passivation of Hydrothermally Grown 1D TiO₂ Nanorod Arrays for Efficient Solid-State Perovskite Solar Cells. Chemistry of Materials, 2015, 27, 1541-1551.	3.2	170
195	Phosphonium Halides as Both Processing Additives and Interfacial Modifiers for High Performance Planarâ€Heterojunction Perovskite Solar Cells. Small, 2015, 11, 3344-3350.	5.2	91
196	Recent progress and perspective in solution-processed Interfacial materials for efficient and stable polymer and organometal perovskite solar cells. Energy and Environmental Science, 2015, 8, 1160-1189.	15.6	725
197	A promising alternative solvent of perovskite to induce rapid crystallization for high-efficiency photovoltaic devices. RSC Advances, 2015, 5, 20521-20529.	1.7	73
198	Insights into Planar CH₃NH₃PbI₃ Perovskite Solar Cells Using Impedance Spectroscopy. Journal of Physical Chemistry C, 2015, 119, 4444-4453.	1.5	160
199	Shape Evolution and Single Particle Luminescence of Organometal Halide Perovskite Nanocrystals. ACS Nano, 2015, 9, 2948-2959.	7.3	252
200	A facile, solvent vaporâ€“fumigation-induced, self-repair recrystallization of CH₃NH₃PbI₃ films for high-performance perovskite solar cells. Nanoscale, 2015, 7, 5427-5434.	2.8	61
201	Interfaces in Perovskite Solar Cells. Small, 2015, 11, 2472-2486.	5.2	344
202	Highly Efficient Perovskite Solar Cells with Tunable Structural Color. Nano Letters, 2015, 15, 1698-1702.	4.5	289
203	Transforming Hybrid Organic Inorganic Perovskites by Rapid Halide Exchange. Chemistry of Materials, 2015, 27, 2181-2188.	3.2	179
204	Enhanced Photovoltaic Performance of CH₃NH₃PbI₃ Perovskite Solar Cells through Interfacial Engineering Using Self-Assembling Monolayer. Journal of the American Chemical Society, 2015, 137, 2674-2679.	6.6	590
205	Formation of Thin Films of Organicâ€“Inorganic Perovskites for Highâ€Efficiency Solar Cells. Angewandte Chemie - International Edition, 2015, 54, 3240-3248.	7.2	245
206	Resonance Raman and Excitation Energy Dependent Charge Transfer Mechanism in Halide-Substituted Hybrid Perovskite Solar Cells. ACS Nano, 2015, 9, 2088-2101.	7.3	141

#	Article	IF	Citations
207	Control of organicâ€“inorganic halide perovskites in solid-state solar cells: a perspective. Science Bulletin, 2015, 60, 405-418.	4.3	39
208	Perovskite Solar Cells: Beyond Methylammonium Lead Iodide. Journal of Physical Chemistry Letters, 2015, 6, 898-907.	2.1	266
209	Methylammonium Lead Bromide Perovskite-Based Solar Cells by Vapor-Assisted Deposition. Journal of Physical Chemistry C, 2015, 119, 3545-3549.	1.5	223
210	Investigation of CH₃NH₃PbI₃ Degradation Rates and Mechanisms in Controlled Humidity Environments Using <i>in Situ</i> Techniques. ACS Nano, 2015, 9, 1955-1963.	7.3	1,171
211	Crystallization Kinetics of Organicâ€“Inorganic Trihalide Perovskites and the Role of the Lead Anion in Crystal Growth. Journal of the American Chemical Society, 2015, 137, 2350-2358.	6.6	326
212	Zr Incorporation into TiO₂ Electrodes Reduces Hysteresis and Improves Performance in Hybrid Perovskite Solar Cells while Increasing Carrier Lifetimes. Journal of Physical Chemistry Letters, 2015, 6, 669-675.	2.1	106
213	Identifying the Optimum Morphology in Highâ€Performance Perovskite Solar Cells. Advanced Energy Materials, 2015, 5, 1401775.	10.2	67
214	High-efficiency solution-processed perovskite solar cells with millimeter-scale grains. Science, 2015, 347, 522-525.	6.0	2,978
215	Ultrasmooth organicâ€“inorganic perovskite thin-film formation and crystallization for efficient planar heterojunction solar cells. Nature Communications, 2015, 6, 6142.	5.8	784
216	Perovskite/polymer monolithic hybrid tandem solar cells utilizing a low-temperature, full solution process. Materials Horizons, 2015, 2, 203-211.	6.4	148
217	A facile and low-cost fabrication of TiO2 compact layer for efficient perovskite solar cells. Current Applied Physics, 2015, 15, 574-579.	1.1	34
218	Atmospheric effects on the photovoltaic performance of hybrid perovskite solar cells. Solar Energy Materials and Solar Cells, 2015, 137, 6-14.	3.0	117
219	Fatigue resistance of a flexible, efficient, and metal oxide-free perovskite solar cell. Journal of Materials Chemistry A, 2015, 3, 9241-9248.	5.2	100
220	Investigation on regeneration kinetics at perovskite/oxide interface with scanning electrochemical microscopy. Journal of Materials Chemistry A, 2015, 3, 9216-9222.	5.2	19
221	Inverted Planar Heterojunction Perovskite Solar Cells Employing Polymer as the Electron Conductor. ACS Applied Materials & Interfaces, 2015, 7, 3994-3999.	4.0	100
222	Cooperative kinetics of depolarization in CH₃NH₃PbI₃ perovskite solar cells. Energy and Environmental Science, 2015, 8, 910-915.	15.6	116
223	Fabrication of metal-oxide-free CH₃NH₃PbI₃perovskite solar cells processed at low temperature. Journal of Materials Chemistry A, 2015, 3, 3271-3275.	5.2	162
224	Efficiency enhancement by defect engineering in perovskite photovoltaic cells prepared using evaporated PbI₂/CH₃NH₃I multilayers. Journal of Materials Chemistry A, 2015, 3, 9223-9231.	5.2	82

#	Article	IF	Citations
225	Control of Charge Transport in the Perovskite CH₃NH₃PbI₃ Thin Film. ChemPhysChem, 2015, 16, 842-847.	1.0	36
226	Perovskite thin-film solar cell: excitation in photovoltaic science. Science China Chemistry, 2015, 58, 221-238.	4.2	63
227	Uniform, Stable, and Efficient Planar-Heterojunction Perovskite Solar Cells by Facile Low-Pressure Chemical Vapor Deposition under Fully Open-Air Conditions. ACS Applied Materials & Interfaces, 2015, 7, 2708-2714.	4.0	173
228	High efficiency solar cells combining a perovskite and a silicon heterojunction solar cells via an optical splitting system. Applied Physics Letters, 2015, 106, .	1.5	119
229	Additive to regulate the perovskite crystal film growth in planar heterojunction solar cells. Applied Physics Letters, 2015, 106, .	1.5	123
230	Inorganic p-type contact materials for perovskite-based solar cells. Journal of Materials Chemistry A, 2015, 3, 9011-9019.	5.2	143
231	Spontaneous Defect Annihilation in CH₃NH₃PbI₃ Thin Films at Room Temperature Revealed by Time-Resolved Photoluminescence Spectroscopy. Journal of Physical Chemistry Letters, 2015, 6, 482-486.	2.1	83
232	Facile preparation of organometallic perovskite films and high-efficiency solar cells using solid-state chemistry. Nano Research, 2015, 8, 263-270.	5.8	32
233	Pressure-assisted CH₃NH₃PbI₃ morphology reconstruction to improve the high performance of perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 5289-5293.	5.2	76
234	Growing perovskite into polymers for easy-processable optoelectronic devices. Scientific Reports, 2015, 5, 7725.	1.6	78
235	Flexible organo-metal halide perovskite solar cells on a Ti metal substrate. Journal of Materials Chemistry A, 2015, 3, 4129-4133.	5.2	89
236	Distinct Exciton Dissociation Behavior of Organolead Trihalide Perovskite and Excitonic Semiconductors Studied in the Same System. Small, 2015, 11, 2164-2169.	5.2	78
237	Fabrication of Planar Heterojunction Perovskite Solar Cells by Controlled Low-Pressure Vapor Annealing. Journal of Physical Chemistry Letters, 2015, 6, 493-499.	2.1	112
238	Fast and low temperature growth of electron transport layers for efficient perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 4909-4915.	5.2	101
239	Efficient Hybrid Mesoscopic Solar Cells with Morphology-Controlled CH₃NH₃PbI_{3-x}Cl_{<i>x</i>} Derived from Two-Step Spin Coating Method. ACS Applied Materials & Interfaces, 2015, 7, 2242-2248.	4.0	92
240	Growth control of compact CH₃NH₃PbI₃ thin films via enhanced solid-state precursor reaction for efficient planar perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 9249-9256.	5.2	128
241	Unraveling film transformations and device performance of planar perovskite solar cells. Nano Energy, 2015, 12, 494-500.	8.2	65
242	Morphology control of the perovskite films for efficient solar cells. Dalton Transactions, 2015, 44, 10582-10593.	1.6	154

#	Article	IF	Citations
243	Formation of organicâ€“inorganic mixed halide perovskite films by thermal evaporation of PbCl₂ and CH₃NH₃I compounds. RSC Advances, 2015, 5, 26175-26180.	1.7	47
244	Benefit of Grain Boundaries in Organicâ€“Inorganic Halide Planar Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2015, 6, 875-880.	2.1	422
245	Enhancement of photovoltaic properties of CH3NH3PbBr3 heterojunction solar cells by modifying mesoporous TiO2 surfaces with carboxyl groups. Journal of Materials Chemistry A, 2015, 3, 9264-9270.	5.2	69
246	Roles of Fullereneâ€Based Interlayers in Enhancing the Performance of Organometal Perovskite Thinâ€Film Solar Cells. Advanced Energy Materials, 2015, 5, 1402321.	10.2	289
247	Interfacial Control Toward Efficient and Lowâ€Voltage Perovskite Lightâ€Emitting Diodes. Advanced Materials, 2015, 27, 2311-2316.	11.1	631
248	Perovskite solar cells: film formation and properties. Journal of Materials Chemistry A, 2015, 3, 9032-9050.	5.2	392
249	Room temperature optical properties of organicâ€“inorganic lead halide perovskites. Solar Energy Materials and Solar Cells, 2015, 137, 253-257.	3.0	96
250	Navigating Organoâ€Lead Halide Perovskite Phase Space via Nucleation Kinetics toward a Deeper Understanding of Perovskite Phase Transformations and Structureâ€“Property Relationships. Small, 2015, 11, 3088-3096.	5.2	49
251	Room-temperature crystallization of hybrid-perovskite thin films via solventâ€“solvent extraction for high-performance solar cells. Journal of Materials Chemistry A, 2015, 3, 8178-8184.	5.2	385
252	Hotâ€Electron Injection in a Sandwiched TiO<i>_x</i>â€“Auâ€“TiO<i>_x</i> Structure for Highâ€Performance Planar Perovskite Solar Cells. Advanced Energy Materials, 2015, 5, 1500038.	10.2	119
253	Bifunctional alkyl chain barriers for efficient perovskite solar cells. Chemical Communications, 2015, 51, 7047-7050.	2.2	135
254	15.76% efficiency perovskite solar cells prepared under high relative humidity: importance of PbI₂ morphology in two-step deposition of CH₃NH₃PbI₃. Journal of Materials Chemistry A, 2015, 3, 8808-8815.	5.2	304
255	Once again, organometallic tri-halide perovskites. Materials Today, 2015, 18, 172-173.	8.3	13
256	Mechanical properties of organicâ€“inorganic halide perovskites, CH₃NH₃PbX₃(X = I, Br and Cl), by nanoindentation. Journal of Materials Chemistry A, 2015, 3, 18450-18455.	5.2	197
257	Optimizing Composition and Morphology for Large-Grain Perovskite Solar Cells via Chemical Control. Chemistry of Materials, 2015, 27, 5570-5576.	3.2	82
258	Molecular dynamics simulations of organohalide perovskite precursors: solvent effects in the formation of perovskite solar cells. Physical Chemistry Chemical Physics, 2015, 17, 22770-22777.	1.3	32
259	High-performance hybrid perovskite solar cells with open circuit voltage dependence on hole-transporting materials. Nano Energy, 2015, 16, 428-437.	8.2	124
260	Efficient and low-temperature processed perovskite solar cells based on a cross-linkable hybrid interlayer. Journal of Materials Chemistry A, 2015, 3, 18483-18491.	5.2	55

#	Article	IF	Citations
261	Efficient planar perovskite solar cells with large fill factor and excellent stability. Journal of Power Sources, 2015, 297, 53-58.	4.0	59
262	Screen printed cathode for non-aqueous lithiumâ€“oxygen batteries. Journal of Power Sources, 2015, 297, 174-180.	4.0	21
263	Influence of PbCl2 content in PbI2 solution of DMF on the absorption, crystal phase, morphology of lead halide thin films and photovoltaic performance in planar perovskite solar cells. Journal of Solid State Chemistry, 2015, 231, 20-24.	1.4	30
264	Non-wetting surface-driven high-aspect-ratio crystalline grain growth for efficient hybrid perovskite solar cells. Nature Communications, 2015, 6, 7747.	5.8	1,336
265	High efficiency stable inverted perovskite solar cells without current hysteresis. Energy and Environmental Science, 2015, 8, 2725-2733.	15.6	533
266	Solvent-assisted growth of organicâ€“inorganic hybrid perovskites with enhanced photovoltaic performances. Solar Energy Materials and Solar Cells, 2015, 143, 360-368.	3.0	14
267	Efficient Light Harvester Layer Prepared by Solid/Mist Interface Reaction for Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 16907-16912.	4.0	26
268	Interface engineering for high-performance perovskite hybrid solar cells. Journal of Materials Chemistry A, 2015, 3, 19205-19217.	5.2	145
269	Additive regulated crystallization and film formation of CH₃NH₃PbI_{3âˆ’x}Br_x for highly efficient planar-heterojunction solar cells. Journal of Materials Chemistry A, 2015, 3, 18514-18520.	5.2	49
270	Energetics and dynamics in organicâ€“inorganic halide perovskite photovoltaics and light emitters. Nanotechnology, 2015, 26, 342001.	1.3	75
271	Crystallization Dynamics of Organolead Halide Perovskite by Real-Time X-ray Diffraction. Nano Letters, 2015, 15, 5630-5634.	4.5	77
272	Photovoltaic performance and the energy landscape of CH₃NH₃PbI₃. Physical Chemistry Chemical Physics, 2015, 17, 22604-22615.	1.3	35
273	Ultrafast photoinduced dynamics of the organolead trihalide perovskite CH₃NH₃PbI₃ on mesoporous TiO₂ scaffolds in the 320â€“920 nm range. Physical Chemistry Chemical Physics, 2015, 17, 19238-19246.	1.3	54
274	Polyelectrolyte based hole-transporting materials for high performance solution processed planar perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 15024-15029.	5.2	107
275	Sputtered rear electrode with broadband transparency for perovskite solar cells. Solar Energy Materials and Solar Cells, 2015, 141, 407-413.	3.0	223
276	High-quality bulk hybrid perovskite single crystals within minutes by inverse temperature crystallization. Nature Communications, 2015, 6, 7586.	5.8	1,478
277	A mesoporous nickel counter electrode for printable and reusable perovskite solar cells. Nanoscale, 2015, 7, 13363-13368.	2.8	64
278	Effects of organic inorganic hybrid perovskite materials on the electronic properties and morphology of poly(3,4-ethylenedioxythiophene):poly(styrenesulfonate) and the photovoltaic performance of planar perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 15897-15904.	5.2	85

#	Article	IF	Citations
279	Evolution of Organicâ€"Inorganic Lead Halide Perovskite from Solid-State Iodoplumbate Complexes. Journal of Physical Chemistry C, 2015, 119, 17065-17073.	1.5	70
280	Perovskite Solar Cells with Near 100% Internal Quantum Efficiency Based on Large Single Crystalline Grains and Vertical Bulk Heterojunctions. Journal of the American Chemical Society, 2015, 137, 9210-9213.	6.6	246
281	Transparent conducting oxide free backside illuminated perovskite solar cells. Applied Physics Letters, 2015, 107, .	1.5	11
282	Reversible Halide Exchange Reaction of Organometal Trihalide Perovskite Colloidal Nanocrystals for Full-Range Band Gap Tuning. Nano Letters, 2015, 15, 5191-5199.	4.5	432
283	Efficient perovskite solar cells fabricated using an aqueous lead nitrate precursor. Chemical Communications, 2015, 51, 13294-13297.	2.2	76
284	Coreâ€"shell heterostructured metal oxide arrays enable superior light-harvesting and hysteresis-free mesoscopic perovskite solar cells. Nanoscale, 2015, 7, 12812-12819.	2.8	51
285	A large grain size perovskite thin film with a dense structure for planar heterojunction solar cells via spray deposition under ambient conditions. RSC Advances, 2015, 5, 60562-60569.	1.7	130
286	Ionic transport in hybrid lead iodide perovskite solar cells. Nature Communications, 2015, 6, 7497.	5.8	2,154
287	Rear side sphere gratings for improved light trapping in crystalline silicon single junction and silicon-based tandem solar cells. Solar Energy Materials and Solar Cells, 2015, 142, 60-65.	3.0	35
288	Unraveling the high performance of tri-iodide perovskite absorber based photovoltaics with a non-polar solvent washing treatment. Solar Energy Materials and Solar Cells, 2015, 141, 309-314.	3.0	72
289	Heterogeneous Charge Carrier Dynamics in Organicâ€"Inorganic Hybrid Materials: Nanoscale Lateral and Depth-Dependent Variation of Recombination Rates in Methylammonium Lead Halide Perovskite Thin Films. Nano Letters, 2015, 15, 4799-4807.	4.5	128
290	High-performance flexible perovskite solar cells exploiting Zn2SnO4 prepared in solution below 100â€‰Â°C. Nature Communications, 2015, 6, 7410.	5.8	417
291	Efficient fiber-shaped perovskite photovoltaics using silver nanowires as top electrode. Journal of Materials Chemistry A, 2015, 3, 19310-19313.	5.2	70
292	Enhancing Stability of Perovskite Solar Cells to Moisture by the Facile Hydrophobic Passivation. ACS Applied Materials & Interfaces, 2015, 7, 17330-17336.	4.0	302
293	Luminescent films for chemo- and biosensing. Chemical Society Reviews, 2015, 44, 6981-7009.	18.7	254
294	Lead iodide perovskite light-emitting field-effect transistor. Nature Communications, 2015, 6, 7383.	5.8	641
295	Dye adsorption mechanisms in TiO₂ films, and their effects on the photodynamic and photovoltaic properties in dye-sensitized solar cells. Physical Chemistry Chemical Physics, 2015, 17, 21974-21981.	1.3	32
296	Absorption Enhancement in Organicâ€"Inorganic Halide Perovskite Films with Embedded Plasmonic Gold Nanoparticles. Journal of Physical Chemistry C, 2015, 119, 18635-18640.	1.5	105

#	Article	IF	Citations
297	A triple-layered, hierarchical 1D coreâ€“shell nanostructure with a plasmonic Ag octahedral core for use in solid-state dye-sensitized solar cells. Journal of Materials Chemistry A, 2015, 3, 17644-17651.	5.2	15
298	Suppressing Charge Recombination in ZnO-Nanorod-Based Perovskite Solar Cells with Atomic-Layer-Deposition TiO ₂. Chinese Physics Letters, 2015, 32, 078401.	1.3	19
299	Observable Hysteresis at Low Temperature in â€œHysteresis Freeâ€•Organicâ€“Inorganic Lead Halide Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2015, 6, 3190-3194.	2.1	99
300	Aâ€“Dâ€“A-type S,N-heteropentacene-based hole transport materials for dopant-free perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 17738-17746.	5.2	105
301	Ultimate efficiency limit of single-junction perovskite and dual-junction perovskite/silicon two-terminal devices. Japanese Journal of Applied Physics, 2015, 54, 08KD04.	0.8	45
302	A multifunctional C + epoxy/Ag-paint cathode enables efficient and stable operation of perovskite solar cells in watery environments. Journal of Materials Chemistry A, 2015, 3, 16430-16434.	5.2	77
303	Under the spotlight: The organicâ€“inorganic hybrid halide perovskite for optoelectronic applications. Nano Today, 2015, 10, 355-396.	6.2	891
304	Enhanced Amplified Spontaneous Emission in Perovskites Using a Flexible Cholesteric Liquid Crystal Reflector. Nano Letters, 2015, 15, 4935-4941.	4.5	117
305	The optoelectronic role of chlorine in CH3NH3PbI3(Cl)-based perovskite solar cells. Nature Communications, 2015, 6, 7269.	5.8	404
306	Conjugated polyelectrolyte hole transport layer for inverted-type perovskite solar cells. Nature Communications, 2015, 6, 7348.	5.8	281
307	Sensitive, Fast, and Stable Perovskite Photodetectors Exploiting Interface Engineering. ACS Photonics, 2015, 2, 1117-1123.	3.2	292
308	Recent progress in efficient hybrid lead halide perovskite solar cells. Science and Technology of Advanced Materials, 2015, 16, 036004.	2.8	87
309	Transparent Conductive Oxide-Free Perovskite Solar Cells with PEDOT:PSS as Transparent Electrode. ACS Applied Materials & Interfaces, 2015, 7, 15314-15320.	4.0	201
310	Highly Reproducible Perovskite Solar Cells with Average Efficiency of 18.3% and Best Efficiency of 19.7% Fabricated via Lewis Base Adduct of Lead(II) Iodide. Journal of the American Chemical Society, 2015, 137, 8696-8699.	6.6	2,030
311	Facile route to freestanding CH3NH3PbI3 crystals using inverse solubility. Scientific Reports, 2015, 5, 11654.	1.6	112
312	Thermal-Induced Volmerâ€“Weber Growth Behavior for Planar Heterojunction Perovskites Solar Cells. Chemistry of Materials, 2015, 27, 5116-5121.	3.2	107
313	Perovskite Solar Cells with Large-Area CVD-Graphene for Tandem Solar Cells. Journal of Physical Chemistry Letters, 2015, 6, 2745-2750.	2.1	170
314	Enhanced efficiency of planar-heterojunction perovskite solar cells through a thermal gradient annealing process. RSC Advances, 2015, 5, 58041-58045.	1.7	11

#	Article	IF	Citations
315	Efficient, durable and flexible perovskite photovoltaic devices with Ag-embedded ITO as the top electrode on a metal substrate. Journal of Materials Chemistry A, 2015, 3, 14592-14597.	5.2	63
316	Low-temperature, solution processed metal sulfide as an electron transport layer for efficient planar perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 11750-11755.	5.2	122
317	A simple in situ tubular chemical vapor deposition processing of large-scale efficient perovskite solar cells and the research on their novel roll-over phenomenon in Jâ€“V curves. Journal of Materials Chemistry A, 2015, 3, 12443-12451.	5.2	69
318	A hybrid physicalâ€“chemical deposition process at ultra-low temperatures for high-performance perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 12436-12442.	5.2	49
319	Hybrid Perovskite Films by a New Variant of Pulsed Excimer Laser Deposition: A Room-Temperature Dry Process. Journal of Physical Chemistry C, 2015, 119, 9177-9185.	1.5	68
320	Unipolar self-doping behavior in perovskite CH3NH3PbBr3. Applied Physics Letters, 2015, 106, .	1.5	181
321	Planar CH₃NH₃PbI₃ Perovskite Solar Cells with Constant 17.2% Average Power Conversion Efficiency Irrespective of the Scan Rate. Advanced Materials, 2015, 27, 3424-3430.	11.1	435
322	Efficient inorganic solid solar cells composed of perovskite and PbS quantum dots. Nanoscale, 2015, 7, 9902-9907.	2.8	73
323	A dopant-free organic hole transport material for efficient planar heterojunction perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 11940-11947.	5.2	213
324	High-Performance Perovskite Photoanode Enabled by Ni Passivation and Catalysis. Nano Letters, 2015, 15, 3452-3457.	4.5	122
325	Efficient perovskite/fullerene planar heterojunction solar cells with enhanced charge extraction and suppressed charge recombination. Nanoscale, 2015, 7, 9771-9778.	2.8	102
326	Direct Crystallization Route to Methylammonium Lead Iodide Perovskite from an Ionic Liquid. Chemistry of Materials, 2015, 27, 3197-3199.	3.2	87
327	Solution Growth of Single Crystal Methylammonium Lead Halide Perovskite Nanostructures for Optoelectronic and Photovoltaic Applications. Journal of the American Chemical Society, 2015, 137, 5810-5818.	6.6	368
328	Smallâ€Bandgap Polymer Solar Cells with Unprecedented Shortâ€Circuit Current Density and High Fill Factor. Advanced Materials, 2015, 27, 3318-3324.	11.1	294
329	Laser-Scribing Patterning for the Production of Organometallic Halide Perovskite Solar Modules. IEEE Journal of Photovoltaics, 2015, 5, 1087-1092.	1.5	109
330	High-performance and high-durability perovskite photovoltaic devices prepared using ethylammonium iodide as an additive. Journal of Materials Chemistry A, 2015, 3, 9271-9277.	5.2	87
331	Ferroelectric solar cells based on inorganicâ€“organic hybrid perovskites. Journal of Materials Chemistry A, 2015, 3, 7699-7705.	5.2	103
332	Use of Anodic TiO₂ Nanotube Layers as Mesoporous Scaffolds for Fabricating CH₃NH₃PbI₃ Perovskiteâ€Based Solidâ€State Solar Cells. ChemElectroChem, 2015, 2, 824-828.	1.7	39

#	Article	IF	Citations
333	Niobium Doping Effects on TiO₂ Mesoscopic Electron Transport Layerâ€Based Perovskite Solar Cells. ChemSusChem, 2015, 8, 2392-2398.	3.6	139
334	Recent Progress on Holeâ€Transporting Materials for Emerging Organometal Halide Perovskite Solar Cells. Advanced Energy Materials, 2015, 5, 1500213.	10.2	418
335	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
336	Thin Films of Dendritic Anatase Titania Nanowires Enable Effective Holeâ€Blocking and Efficient Lightâ€Harvesting for Highâ€Performance Mesoscopic Perovskite Solar Cells. Advanced Functional Materials, 2015, 25, 3264-3272.	7.8	101
337	One-step, low-temperature deposited perovskite solar cell utilizing small molecule additive. Journal of Photonics for Energy, 2015, 5, 057405.	0.8	45
338	A dopant free linear acene derivative as a hole transport material for perovskite pigmented solar cells. Energy and Environmental Science, 2015, 8, 1816-1823.	15.6	202
339	Nanocolumnar 1-dimensional TiO₂ photoanodes deposited by PVD-OAD for perovskite solar cell fabrication. Journal of Materials Chemistry A, 2015, 3, 13291-13298.	5.2	24
340	Impact of Processing Temperature and Composition on the Formation of Methylammonium Lead Iodide Perovskites. Chemistry of Materials, 2015, 27, 4612-4619.	3.2	212
341	High Efficiency and Robust Performance of Organo Lead Perovskite Solar Cells with Large Grain Absorbers Prepared in Ambient Air Conditions. Chemistry Letters, 2015, 44, 321-323.	0.7	32
342	Planar perovskite solar cells with 15.75% power conversion efficiency by cathode and anode interfacial modification. Journal of Materials Chemistry A, 2015, 3, 13533-13539.	5.2	116
343	Facile preparation of smooth perovskite films for efficient meso/planar hybrid structured perovskite solar cells. Chemical Communications, 2015, 51, 10038-10041.	2.2	49
344	Enhanced efficiency of organic and perovskite photovoltaics from shape-dependent broadband plasmonic effects of silver nanoplates. Solar Energy Materials and Solar Cells, 2015, 140, 224-231.	3.0	77
345	Efficient Semitransparent Perovskite Solar Cells with Graphene Electrodes. Advanced Materials, 2015, 27, 3632-3638.	11.1	456
346	Investigating the charge carrier transport within the hole-transport material free perovskite solar cell processed in ambient air. Solar Energy Materials and Solar Cells, 2015, 140, 320-327.	3.0	52
347	Perovskite solar cells prepared by flash evaporation. Chemical Communications, 2015, 51, 7376-7378.	2.2	99
348	Layered Hybrid Perovskites with Micropores Created by Alkylammonium Functional Silsesquioxane Interlayers. Journal of the American Chemical Society, 2015, 137, 4158-4163.	6.6	44
349	Optoelectronic Studies of Methylammonium Lead Iodide Perovskite Solar Cells with Mesoporous TiO₂: Separation of Electronic and Chemical Charge Storage, Understanding Two Recombination Lifetimes, and the Evolution of Band Offsets during <i>J</i>â€"<i>V</i> Hysteresis. Journal of the American Chemical Society, 2015, 137, 5087-5099.	6.6	246
350	High-performance hole-transporting layer-free conventional perovskite/fullerene heterojunction thin-film solar cells. Journal of Materials Chemistry A, 2015, 3, 9128-9132.	5.2	52

#	Article	IF	Citations
351	Optical absorption, charge separation and recombination dynamics in Sn/Pb cocktail perovskite solar cells and their relationships to photovoltaic performances. Journal of Materials Chemistry A, 2015, 3, 9308-9316.	5.2	85
352	Charge selective contacts, mobile ions and anomalous hysteresis in organicâ€“inorganic perovskite solar cells. Materials Horizons, 2015, 2, 315-322.	6.4	366
353	The effect of carbon black in carbon counter electrode for CH₃NH₃PbI₃/TiO₂ heterojunction solar cells. RSC Advances, 2015, 5, 30192-30196.	1.7	43
354	Highâ€Performance Planar Perovskite Optoelectronic Devices: A Morphological and Interfacial Control by Polar Solvent Treatment. Advanced Materials, 2015, 27, 3492-3500.	11.1	205
355	A low cost azomethine-based hole transporting material for perovskite photovoltaics. Journal of Materials Chemistry A, 2015, 3, 12159-12162.	5.2	260
356	Perovskiteâ€“fullerene hybrid materials suppress hysteresis in planar diodes. Nature Communications, 2015, 6, 7081.	5.8	948
357	A scalable electrodeposition route to the low-cost, versatile and controllable fabrication of perovskite solar cells. Nano Energy, 2015, 15, 216-226.	8.2	207
358	Ultra low permittivity/loss CoFe2O4 and CoFe2O4â€“rGO nanohybrids by novel 1-hexanol assisted solvothermal process. Journal of Alloys and Compounds, 2015, 642, 78-82.	2.8	27
359	Fundamental physics behind high-efficiency organo-metal halide perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 15372-15385.	5.2	120
360	Recent Progress of Innovative Perovskite Hybrid Solar Cells. Israel Journal of Chemistry, 2015, 55, 966-977.	1.0	34
361	Metal-halide perovskites for photovoltaic and light-emitting devices. Nature Nanotechnology, 2015, 10, 391-402.	15.6	2,604
362	Perovskiteâ€“Hematite Tandem Cells for Efficient Overall Solar Driven Water Splitting. Nano Letters, 2015, 15, 3833-3839.	4.5	249
363	The Mechanism of Slow Hot-Hole Cooling in Lead-Iodide Perovskite: First-Principles Calculation on Carrier Lifetime from Electronâ€“Phonon Interaction. Nano Letters, 2015, 15, 3103-3108.	4.5	140
364	Interfacial Charge Transfer Anisotropy in Polycrystalline Lead Iodide Perovskite Films. Journal of Physical Chemistry Letters, 2015, 6, 1396-1402.	2.1	141
365	Hysteresis-less inverted CH₃NH₃PbI₃ planar perovskite hybrid solar cells with 18.1% power conversion efficiency. Energy and Environmental Science, 2015, 8, 1602-1608.	15.6	1,079
366	Polypyrrole/Silver Coaxial Nanowire Aero-Sponges for Temperature-Independent Stress Sensing and Stress-Triggered Joule Heating. ACS Nano, 2015, 9, 4244-4251.	7.3	175
367	Enhancement of solar cell efficiency using perovskite dyes deposited via a two-step process. RSC Advances, 2015, 5, 33515-33523.	1.7	6
368	The expanding world of hybrid perovskites: materials properties and emerging applications. MRS Communications, 2015, 5, 7-26.	0.8	132

#	Article	IF	Citations
369	Hybrid Halide Perovskite Solar Cell Precursors: Colloidal Chemistry and Coordination Engineering behind Device Processing for High Efficiency. Journal of the American Chemical Society, 2015, 137, 4460-4468.	6.6	586
370	Light Harvesting and Charge Recombination in CH₃NH₃PbI₃ Perovskite Solar Cells Studied by Hole Transport Layer Thickness Variation. ACS Nano, 2015, 9, 4200-4209.	7.3	205
371	Brightly Luminescent and Color-Tunable Colloidal CH₃NH₃PbX₃ (X = Br, I, Cl) Quantum Dots: Potential Alternatives for Display Technology. ACS Nano, 2015, 9, 4533-4542.	7.3	2,001
372	Effect of Mesostructured Layer upon Crystalline Properties and Device Performance on Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2015, 6, 1628-1637.	2.1	78
373	Efficient Solutionâ€Processed Bulk Heterojunction Perovskite Hybrid Solar Cells. Advanced Energy Materials, 2015, 5, 1402024.	10.2	99
374	Compatibility of amorphous triarylamine copolymers with solution-processed hole injecting metal oxide bottom contacts. Journal of Materials Chemistry C, 2015, 3, 4530-4536.	2.7	7
375	A two-step route to planar perovskite cells exhibiting reduced hysteresis. Applied Physics Letters, 2015, 106, .	1.5	80
376	Hierarchical iâ€“p and iâ€“n porous heterojunction in planar perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 10526-10535.	5.2	14
377	50 nm sized spherical TiO₂nanocrystals for highly efficient mesoscopic perovskite solar cells. Nanoscale, 2015, 7, 8898-8906.	2.8	68
378	Green light-emitting diode from bromine based organic-inorganic halide perovskite. Science China Materials, 2015, 58, 186-191.	3.5	58
379	Transition from the Tetragonal to Cubic Phase of Organohalide Perovskite: The Role of Chlorine in Crystal Formation of CH₃NH₃PbI₃ on TiO₂ Substrates. Journal of Physical Chemistry Letters, 2015, 6, 4379-4384.	2.1	91
380	Temperature Dependence of the Band Gap of CH₃NH₃PbI₃ Stabilized with PMMA: A Modulated Surface Photovoltage Study. Journal of Physical Chemistry C, 2015, 119, 23968-23972.	1.5	59
381	Kinetics of Ion Transport in Perovskite Active Layers and Its Implications for Active Layer Stability. Journal of the American Chemical Society, 2015, 137, 13130-13137.	6.6	394
382	Metal electrodeâ€“free perovskite solar cells with transfer-laminated conducting polymer electrode. Optics Express, 2015, 23, A83.	1.7	53
383	High-performance CH₃NH₃PbI₃ perovskite solar cells fabricated under ambient conditions with high relative humidity. Japanese Journal of Applied Physics, 2015, 54, 100305.	0.8	36
384	ZnO cathode buffer layers for inverted polymer solar cells. Energy and Environmental Science, 2015, 8, 3442-3476.	15.6	279
385	Carrier separation and transport in perovskite solar cells studied by nanometre-scale profiling of electrical potential. Nature Communications, 2015, 6, 8397.	5.8	205
386	High efficiency flexible perovskite solar cells using superior low temperature TiO₂. Energy and Environmental Science, 2015, 8, 3208-3214.	15.6	519

#	Article	IF	Citations
387	Chlorine-conducted defect repairment and seed crystal-mediated vapor growth process for controllable preparation of efficient and stable perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 22949-22959.	5.2	51
388	Room-temperature, solution-processable organic electron extraction layer for high-performance planar heterojunction perovskite solar cells. Nanoscale, 2015, 7, 17343-17349.	2.8	64
389	A repeated interdiffusion method for efficient planar formamidinium perovskite solar cells. Journal of Energy Chemistry, 2015, 24, 707-711.	7.1	17
390	A novel phenoxazine-based hole transport material for efficient perovskite solar cell. Journal of Energy Chemistry, 2015, 24, 698-706.	7.1	22
391	Interface and Composition Analysis on Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 26176-26183.	4.0	107
392	A Liquid Junction Photoelectrochemical Solar Cell Based on p-Type MeNH₃PbI₃ Perovskite with 1.05 V Open-Circuit Photovoltage. Journal of the American Chemical Society, 2015, 137, 14758-14764.	6.6	52
393	Mesoporous scaffolds based on TiO₂ nanorods and nanoparticles for efficient hybrid perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 24315-24321.	5.2	29
394	A general fabrication procedure for efficient and stable planar perovskite solar cells: Morphological and interfacial control by in-situ-generated layered perovskite. Nano Energy, 2015, 18, 165-175.	8.2	92
395	Retrograde solubility of formamidinium and methylammonium lead halide perovskites enabling rapid single crystal growth. Chemical Communications, 2015, 51, 17658-17661.	2.2	349
396	Engineering of hole-selective contact for low temperature-processed carbon counter electrode-based perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 24272-24280.	5.2	78
397	Mechanisms of Electron-Beam-Induced Damage in Perovskite Thin Films Revealed by Cathodoluminescence Spectroscopy. Journal of Physical Chemistry C, 2015, 119, 26904-26911.	1.5	153
398	Functional p-Type, Polymerized Organic Electrode Interlayer in CH₃NH₃PbI₃ Perovskite/Fullerene Planar Heterojunction Hybrid Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 24973-24981.	4.0	36
399	High-performance perovskite solar cells fabricated by vapor deposition with optimized PbI₂ precursor films. RSC Advances, 2015, 5, 95847-95853.	1.7	18
400	Band alignments at interface of ZnO/FAPbI3 heterojunction by X-ray photoelectron spectroscopy. Applied Surface Science, 2015, 357, 1743-1746.	3.1	8
401	Pushing efficiency limits for semitransparent perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 24071-24081.	5.2	95
402	Improved Crystallization of Perovskite Films by Optimized Solvent Annealing for High Efficiency Solar Cell. ACS Applied Materials & Interfaces, 2015, 7, 24008-24015.	4.0	257
403	Improvement of CH₃NH₃PbI₃ Formation for Efficient and Better Reproducible Mesoscopic Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 24726-24732.	4.0	44
404	Two different mechanisms of CH3NH3PbI3film formation in one-step deposition and its effect on photovoltaic properties of OPV-type perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 23964-23972.	5.2	72

#	Article	IF	Citations
405	Efficient and stable large-area perovskite solar cells with inorganic charge extraction layers. Science, 2015, 350, 944-948.	6.0	2,007
406	Chlorine Doping Reduces Electronâ€“Hole Recombination in Lead Iodide Perovskites: Time-Domain Ab Initio Analysis. Journal of Physical Chemistry Letters, 2015, 6, 4463-4469.	2.1	103
407	Wireless Solar Water Splitting Device with Robust Cobalt-Catalyzed, Dual-Doped BiVO₄ Photoanode and Perovskite Solar Cell in Tandem: A Dual Absorber Artificial Leaf. ACS Nano, 2015, 9, 11820-11829.	7.3	219
408	High-efficiency heterojunction crystalline Si solar cell and optical splitting structure fabricated by applying thin-film Si technology. Japanese Journal of Applied Physics, 2015, 54, 08KD15.	0.8	10
409	Microwave-assisted synthesis of titanium dioxide nanocrystalline for efficient dye-sensitized and perovskite solar cells. Solar Energy, 2015, 120, 345-356.	2.9	37
410	First-Principles Study of Ion Diffusion in Perovskite Solar Cell Sensitizers. Journal of the American Chemical Society, 2015, 137, 10048-10051.	6.6	582
411	Vividly colorful hybrid perovskite solar cells by doctor-blade coating with perovskite photonic nanostructures. Materials Horizons, 2015, 2, 578-583.	6.4	167
412	Fabrication and Properties of High-Efficiency Perovskite/PCBM Organic Solar Cells. Nanoscale Research Letters, 2015, 10, 1020.	3.1	61
413	The impact of precursor water content on solution-processed organometal halide perovskite films and solar cells. Journal of Materials Chemistry A, 2015, 3, 19123-19128.	5.2	55
414	Interfacial electronic structure at the CH3NH3PbI3/MoOx interface. Applied Physics Letters, 2015, 106, .	1.5	152
415	The influence of different mask aperture on the open-circuit voltage measurement of perovskite solar cells. Journal of Renewable and Sustainable Energy, 2015, 7, 043104.	0.8	13
416	Reliable solution processed planar perovskite hybrid solar cells with large-area uniformity by chloroform soaking and spin rinsing induced surface precipitation. AIP Advances, 2015, 5, 087125.	0.6	14
417	Stable semi-transparent CH₃NH₃PbI₃planar sandwich solar cells. Energy and Environmental Science, 2015, 8, 2922-2927.	15.6	109
418	The Significance of Ion Conduction in a Hybrid Organicâ€“Inorganic Leadâ€Iodideâ€Based Perovskite Photosensitizer. Angewandte Chemie - International Edition, 2015, 54, 7905-7910.	7.2	447
419	Interfacial engineering of self-assembled monolayer modified semi-roll-to-roll planar heterojunction perovskite solar cells on flexible substrates. Journal of Materials Chemistry A, 2015, 3, 24254-24260.	5.2	133
420	PbICl: A new precursor solution for efficient planar perovskite solar cell by vapor-assisted solution process. Applied Surface Science, 2015, 357, 2372-2377.	3.1	37
421	A modified sequential method used to prepare high quality perovskite on ZnO nanorods. Chemical Physics Letters, 2015, 639, 283-288.	1.2	26
422	In-situ fabrication of dual porous titanium dioxide films as anode for carbon cathode based perovskite solar cell. Journal of Energy Chemistry, 2015, 24, 736-743.	7.1	23

#	Article	IF	Citations
423	Antisolvent diffusion-induced growth, equilibrium behaviours in aqueous solution and optical properties of CH₃NH₃PbI₃ single crystals for photovoltaic applications. RSC Advances, 2015, 5, 85344-85349.	1.7	38
424	High efficiency methylammonium lead triiodide perovskite solar cells: the relevance of non-stoichiometric precursors. Energy and Environmental Science, 2015, 8, 3550-3556.	15.6	384
425	Intrinsic Thermal Instability of Methylammonium Lead Trihalide Perovskite. Advanced Energy Materials, 2015, 5, 1500477.	10.2	1,788
426	Chlorine Incorporation for Enhanced Performance of Planar Perovskite Solar Cell Based on Lead Acetate Precursor. ACS Applied Materials & Interfaces, 2015, 7, 23110-23116.	4.0	118
427	Wafer-scale growth of large arrays of perovskite microplate crystals for functional electronics and optoelectronics. Science Advances, 2015, 1, e1500613.	4.7	265
428	Multiscale morphology design of hybrid halide perovskites through a polymeric template. Nanoscale, 2015, 7, 18956-18963.	2.8	80
429	Highly luminescent perovskiteâ€"aluminum oxide composites. Journal of Materials Chemistry C, 2015, 3, 11286-11289.	2.7	63
430	The role of photonics in energy. Journal of Photonics for Energy, 2015, 5, 050997.	0.8	18
431	Graphene-Based Bulk-Heterojunction Solar Cells: A Review. Journal of Nanoscience and Nanotechnology, 2015, 15, 6237-6278.	0.9	71
432	Doping of TiO₂for sensitized solar cells. Chemical Society Reviews, 2015, 44, 8326-8349.	18.7	355
433	Efficiently photo-charging lithium-ion battery by perovskite solar cell. Nature Communications, 2015, 6, 8103.	5.8	261
434	Solvent engineering of spin-coating solutions for planar-structured high-efficiency perovskite solar cells. Chinese Journal of Catalysis, 2015, 36, 1183-1190.	6.9	47
435	Mixed perovskite based on methyl-ammonium and polymeric-ammonium for stable and reproducible solar cells. Chemical Communications, 2015, 51, 15430-15433.	2.2	91
436	Pseudohalide (SCN^{â€"})-Doped MAPbI₃ Perovskites: A Few Surprises. Journal of Physical Chemistry Letters, 2015, 6, 3483-3489.	2.1	108
437	Efficient charge-transport in hybrid lead iodide perovskite solar cells. Dalton Transactions, 2015, 44, 16914-16922.	1.6	20
438	Low-cost solution-processed copper iodide as an alternative to PEDOT:PSS hole transport layer for efficient and stable inverted planar heterojunction perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 19353-19359.	5.2	239
439	Improved charge transport and injection in a meso-superstructured solar cell by a tractable pre-spin-coating process. Physical Chemistry Chemical Physics, 2015, 17, 24092-24097.	1.3	14
440	Highly narrowband perovskite single-crystal photodetectors enabled by surface-charge recombination. Nature Photonics, 2015, 9, 679-686.	15.6	1,201

#	Article	IF	Citations
441	Temperature-Dependent Polarization in Field-Effect Transport and Photovoltaic Measurements of Methylammonium Lead Iodide. Journal of Physical Chemistry Letters, 2015, 6, 3565-3571.	2.1	105
442	Single-Walled Carbon Nanotube Film as Electrode in Indium-Free Planar Heterojunction Perovskite Solar Cells: Investigation of Electron-Blocking Layers and Dopants. Nano Letters, 2015, 15, 6665-6671.	4.5	179
443	Consecutive Morphology Controlling Operations for Highly Reproducible Mesostructured Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 20707-20713.	4.0	43
444	Smooth CH₃NH₃PbI₃from controlled solidâ€"gas reaction for photovoltaic applications. RSC Advances, 2015, 5, 73760-73766.	1.7	17
445	Highly stable and efficient solid-state solar cells based on methylammonium lead bromide (CH3NH3PbBr3) perovskite quantum dots. NPG Asia Materials, 2015, 7, e208-e208.	3.8	117
446	Effect of solvents on the growth of TiO₂nanorods and their perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 19476-19482.	5.2	63
447	Highly efficient perovskite solar cells based on mechanically durable molybdenum cathode. Nano Energy, 2015, 17, 131-139.	8.2	48
448	Crystal crosslinking. Nature Chemistry, 2015, 7, 684-685.	6.6	23
449	Improved performance and stability of perovskite solar cells by crystal crosslinking with alkylphosphonic acid Ï‰-ammonium chlorides. Nature Chemistry, 2015, 7, 703-711.	6.6	1,033
450	Influence of the Synthetic Procedures on the Structural and Optical Properties of Mixed-Halide (Br, I) Perovskite Films. Journal of Physical Chemistry C, 2015, 119, 21304-21313.	1.5	71
451	Photodecomposition and Morphology Evolution of Organometal Halide Perovskite Solar Cells. Journal of Physical Chemistry C, 2015, 119, 20810-20816.	1.5	88
452	Novel spiro-based hole transporting materials for efficient perovskite solar cells. Chemical Communications, 2015, 51, 15518-15521.	2.2	88
453	High-performance inverted planar perovskite solar cells without a hole transport layer via a solution process under ambient conditions. Journal of Materials Chemistry A, 2015, 3, 19294-19298.	5.2	35
454	A simple approach for the fabrication of perovskite solar cells in air. Journal of Power Sources, 2015, 297, 504-510.	4.0	59
455	Solvent-Mediated Crystallization of CH₃NH₃SnI₃ Films for Heterojunction Depleted Perovskite Solar Cells. Journal of the American Chemical Society, 2015, 137, 11445-11452.	6.6	598
456	Highly efficient planar perovskite solar cells with a TiO₂/ZnO electron transport bilayer. Journal of Materials Chemistry A, 2015, 3, 19288-19293.	5.2	145
457	The Renaissance of Halide Perovskites and Their Evolution as Emerging Semiconductors. Accounts of Chemical Research, 2015, 48, 2791-2802.	7.6	611
458	Room temperature fabrication of CH3NH3PbBr3 by anti-solvent assisted crystallization approach for perovskite solar cells with fast response and small Jâ€"V hysteresis. Nano Energy, 2015, 17, 269-278.	8.2	148

#	ARTICLE	IF	CITATIONS
459	Effects of Porosity and Amount of Surface Hydroxyl Groups of a Porous TiO₂ Layer on the Performance of a CH₃NH₃PbI₃ Perovskite Photovoltaic Cell. Journal of Physical Chemistry C, 2015, 119, 22304-22309.	1.5	18
460	Synthesis and optical properties of tetragonal CH3NH3PbIxBr3â^'x thin films. Materials Letters, 2015, 161, 484-487.	1.3	5
461	In-situ synthesis of metal nanoparticle-polymer composites and their application as efficient interfacial materials for both polymer and planar heterojunction perovskite solar cells. Organic Electronics, 2015, 27, 46-52.	1.4	23
462	Filterless narrowband visible photodetectors. Nature Photonics, 2015, 9, 687-694.	15.6	445
463	A facile one-pot synthesis of deep blue luminescent lead bromide perovskite microdisks. Chemical Communications, 2015, 51, 16385-16388.	2.2	131
464	A simple, low-cost CVD route to high-quality CH₃NH₃PbI₃perovskite thin films. CrystEngComm, 2015, 17, 7486-7489.	1.3	28
465	Ionic liquid-assisted growth of methylammonium lead iodide spherical nanoparticles by a simple spin-coating method and photovoltaic properties of perovskite solar cells. RSC Advances, 2015, 5, 77495-77500.	1.7	60
466	Hydrochloric acid accelerated formation of planar CH₃NH₃PbI₃ perovskite with high humidity tolerance. Journal of Materials Chemistry A, 2015, 3, 19674-19678.	5.2	117
467	High performance planar <i>p-i-n</i> perovskite solar cells with crown-ether functionalized fullerene and LiF as double cathode buffer layers. Applied Physics Letters, 2015, 107, .	1.5	42
468	Stability of organometal perovskites with organic overlayers. AIP Advances, 2015, 5, 087185.	0.6	11
469	Controlled reaction for improved CH3NH3PbI3transition in perovskite solar cells. Dalton Transactions, 2015, 44, 17841-17849.	1.6	15
470	Simple fabrication of perovskite solar cells using lead acetate as lead source at low temperature. Organic Electronics, 2015, 27, 12-17.	1.4	37
471	Polymer-Assisted Construction of Mesoporous TiO₂ Layers for Improving Perovskite Solar Cell Performance. Journal of Physical Chemistry C, 2015, 119, 22847-22854.	1.5	32
472	A solution-processed bathocuproine cathode interfacial layer for high-performance bromineâ€"iodine perovskite solar cells. Physical Chemistry Chemical Physics, 2015, 17, 26653-26658.	1.3	107
473	Semiconductive 3-D haloplumbate framework hybrids with high color rendering index white-light emission. Chemical Science, 2015, 6, 7222-7226.	3.7	172
474	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
475	Monitoring the stability of organometallic perovskite thin films. Journal of Materials Chemistry A, 2015, 3, 21940-21945.	5.2	13
476	Effects of 4-tert-butylpyridine on perovskite formation and performance of solution-processed perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 22191-22198.	5.2	85

#	Article	IF	Citations
477	Assessment of Hybrid Organicâ€“Inorganic Antimony Sulfides for Earth-Abundant Photovoltaic Applications. Journal of Physical Chemistry Letters, 2015, 6, 5009-5014.	2.1	47
478	Triazatruxene-Based Hole Transporting Materials for Highly Efficient Perovskite Solar Cells. Journal of the American Chemical Society, 2015, 137, 16172-16178.	6.6	321
479	Improving the efficiency of CH3NH3PbI3 based photovoltaics by tuning the work function of the PEDOT:PSS hole transport layer. Solar Energy, 2015, 122, 892-899.	2.9	43
480	High efficiency hysteresis-less inverted planar heterojunction perovskite solar cells with a solution-derived NiO_xhole contact layer. Journal of Materials Chemistry A, 2015, 3, 24495-24503.	5.2	130
481	Material Innovation in Advancing Organometal Halide Perovskite Functionality. Journal of Physical Chemistry Letters, 2015, 6, 4862-4872.	2.1	37
482	Modulating the Electronâ€“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
483	Low-temperature-processed efficient semi-transparent planar perovskite solar cells for bifacial and tandem applications. Nature Communications, 2015, 6, 8932.	5.8	398
484	Electro-spray deposition of a mesoporous TiO₂charge collection layer: toward large scale and continuous production of high efficiency perovskite solar cells. Nanoscale, 2015, 7, 20725-20733.	2.8	36
485	Spectral splitting photovoltaics using perovskite and wideband dye-sensitized solar cells. Nature Communications, 2015, 6, 8834.	5.8	122
486	Control of <i>I</i>â€“<i>V</i> Hysteresis in CH₃NH₃PbI₃ Perovskite Solar Cell. Journal of Physical Chemistry Letters, 2015, 6, 4633-4639.	2.1	430
487	High performance inverted structure perovskite solar cells based on a PCBM:polystyrene blend electron transport layer. Journal of Materials Chemistry A, 2015, 3, 9098-9102.	5.2	192
488	Low temperature processing of flexible planar perovskite solar cells with efficiency over 10%. Journal of Power Sources, 2015, 278, 325-331.	4.0	89
489	First-Principles Calculation of the Bulk Photovoltaic Effect in CH₃NH₃PbI₃ and CH₃NH₃PbI_{3â€“<i>x</i>}Cl_{<i>x</i>}. Journal of Physical Chemistry Letters, 2015, 6, 31-37.	2.1	177
490	Inkjet printing of CH₃NH₃PbI₃ on a mesoscopic TiO₂ film for highly efficient perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 9092-9097.	5.2	210
491	Emergence of Hysteresis and Transient Ferroelectric Response in Organo-Lead Halide Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2015, 6, 164-169.	2.1	283
492	The combination of a new organic Dâ€“Ï€â€“A dye with different organic hole-transport materials for efficient solid-state dye-sensitized solar cells. Journal of Materials Chemistry A, 2015, 3, 4420-4427.	5.2	45
493	Integrated Perovskite/Bulk-Heterojunction toward Efficient Solar Cells. Nano Letters, 2015, 15, 662-668.	4.5	145
494	Fully vacuumâ€“processed perovskite solar cells with high open circuit voltage using MoO3/NPB as hole extraction layers. Organic Electronics, 2015, 17, 102-106.	1.4	118

#	Article	IF	Citations
495	Perovskite-based solar cells: impact of morphology and device architecture on device performance. Journal of Materials Chemistry A, 2015, 3, 8943-8969.	5.2	522
496	Efficient, Semitransparent Neutral-Colored Solar Cells Based on Microstructured Formamidinium Lead Trihalide Perovskite. Journal of Physical Chemistry Letters, 2015, 6, 129-138.	2.1	173
497	Layerâ€byâ€Layer Growth of CH₃NH₃PbI_{3âˆ'<i>x</i>}Cl_{<i>x</i>} for Highly Efficient Planar Heterojunction Perovskite Solar Cells. Advanced Materials, 2015, 27, 1053-1059.	11.1	211
498	Effect of different lead precursors on perovskite solar cell performance and stability. Journal of Materials Chemistry A, 2015, 3, 9194-9200.	5.2	131
499	Perovskite Solar Cells: From Materials to Devices. Small, 2015, 11, 10-25.	5.2	1,210
500	Hole-transport materials with greatly-differing redox potentials give efficient TiO2â€"[CH3NH3][PbX3] perovskite solar cells. Physical Chemistry Chemical Physics, 2015, 17, 2335-2338.	1.3	57
501	Complex Refractive Index Spectra of CH₃NH₃PbI₃ Perovskite Thin Films Determined by Spectroscopic Ellipsometry and Spectrophotometry. Journal of Physical Chemistry Letters, 2015, 6, 66-71.	2.1	491
502	Hybrid interfacial layer leads to solid performance improvement of inverted perovskite solar cells. Energy and Environmental Science, 2015, 8, 629-640.	15.6	285
503	Optical Description of Mesostructured Organicâ€"Inorganic Halide Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2015, 6, 48-53.	2.1	59
504	An acid-free medium growth of rutile TiO₂nanorods arrays and their application in perovskite solar cells. Journal of Materials Chemistry C, 2015, 3, 729-733.	2.7	50
505	PbS colloidal quantum dots as an effective hole transporter for planar heterojunction perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 515-518.	5.2	139
506	Lowâ€Temperature Fabrication of Efficient Wideâ€Bandgap Organolead Trihalide Perovskite Solar Cells. Advanced Energy Materials, 2015, 5, 1401616.	10.2	134
507	Three-step sequential solution deposition of PbI₂-free CH₃NH₃PbI₃perovskite. Journal of Materials Chemistry A, 2015, 3, 9086-9091.	5.2	100
508	Enhanced Environmental Stability of Planar Heterojunction Perovskite Solar Cells Based on Bladeâ€Coating. Advanced Energy Materials, 2015, 5, 1401229.	10.2	303
509	Temperature-dependent hysteresis effects in perovskite-based solar cells. Journal of Materials Chemistry A, 2015, 3, 9074-9080.	5.2	121
510	Thermal Assisted Oxygen Annealing for High Efficiency Planar CH3NH3PbI3 Perovskite Solar Cells. Scientific Reports, 2014, 4, 6752.	1.6	100
511	Perovskite Thin Films via Atomic Layer Deposition. Advanced Materials, 2015, 27, 53-58.	11.1	204
512	Reversible photo-induced trap formation in mixed-halide hybrid perovskites for photovoltaics. Chemical Science, 2015, 6, 613-617.	3.7	1,682

#	ARTICLE	IF	CITATIONS
513	Dual nature of the excited state in organicâ€“inorganic lead halide perovskites. Energy and Environmental Science, 2015, 8, 208-215.	15.6	351
514	Efficiency enhancement of planar perovskite solar cells by adding zwitterion/LiF double interlayers for electron collection. Nanoscale, 2015, 7, 896-900.	2.8	127
515	Recent progress in organicâ€“inorganic halide perovskite solar cells: mechanisms and material design. Journal of Materials Chemistry A, 2015, 3, 8992-9010.	5.2	164
516	Opto-electronic properties of TiO₂nanohelices with embedded HC(NH₂)₂PbI₃perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 9179-9186.	5.2	67
517	Halide perovskite materials for solar cells: a theoretical review. Journal of Materials Chemistry A, 2015, 3, 8926-8942.	5.2	1,114
518	The roles of alkyl halide additives in enhancing perovskite solar cell performance. Journal of Materials Chemistry A, 2015, 3, 9058-9062.	5.2	147
519	Bulk heterojunctions push the photoresponse of perovskite solar cells to 970 nm. Journal of Materials Chemistry A, 2015, 3, 9063-9066.	5.2	96
520	The effect of carbon counter electrodes on fully printable mesoscopic perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 9165-9170.	5.2	207
521	Retarding charge recombination in perovskite solar cells using ultrathin MgO-coated TiO₂ nanoparticulate films. Journal of Materials Chemistry A, 2015, 3, 9160-9164.	5.2	167
522	Highly efficient and bending durable perovskite solar cells: toward a wearable power source. Energy and Environmental Science, 2015, 8, 916-921.	15.6	602
523	High efficiency photovoltaic module based on mesoscopic organometal halide perovskite. Progress in Photovoltaics: Research and Applications, 2016, 24, 436-445.	4.4	112
524	Optical Absorption, Charge Separation and Recombination Dynamics in Pb and Sn/Pb Cocktail Perovskite Solar Cells and Their Relationships to the Photovoltaic Properties. , 2016, , .		0
525	Investigation of Optical and Dielectric Constants of Organic-Inorganic CH3NH3PbI3 Perovskite Thin Films. Journal of Nanomedicine & Nanotechnology, 2016, 07, .	1.1	5
526	Optical, Excitonic, and Electronic Properties of CH3NH3PbI3 Thin Films and Their Application in Photovoltaics. , 0, , .		4
527	Effects of Solution-Based Fabrication Conditions on Morphology of Lead Halide Perovskite Thin Film Solar Cells. Advances in Materials Science and Engineering, 2016, 2016, 1-12.	1.0	11
528	Fullerene-Based Electron Transport Layers for Semi-Transparent MAPbBr3 Perovskite Films in Planar Perovskite Solar Cells. Coatings, 2016, 6, 53.	1.2	11
529	Fabrication and Characterization of CH3NH3PbI3â^’xâ^’yBrxCly Perovskite Solar Cells. Energies, 2016, 9, 376.	1.6	25
530	Crystal Structure Formation of CH3NH3PbI3-xClx Perovskite. Materials, 2016, 9, 123.	1.3	85

#	Article	IF	Citations
531	Annealing Effect on (FAPbI3)1âˆ’x(MAPbBr3)x Perovskite Films in Inverted-Type Perovskite Solar Cells. Materials, 2016, 9, 747.	1.3	35
532	Recent Advances in Interface Engineering for Planar Heterojunction Perovskite Solar Cells. Molecules, 2016, 21, 837.	1.7	28
533	Recent Prospects in the Inline Monitoring of Nanocomposites and Nanocoatings by Optical Technologies. Nanomaterials, 2016, 6, 150.	1.9	25
534	A Study of Inverted-Type Perovskite Solar Cells with Various Composition Ratios of (FAPbI3)1âˆ’x(MAPbBr3)x. Nanomaterials, 2016, 6, 183.	1.9	22
535	Partially Oxygen-Bridged Triphenylamines with a Quasiplanar Structure as a Key Scaffold for Hole-Transporting Materials. Yuki Gosei Kagaku Kyokaishi/Journal of Synthetic Organic Chemistry, 2016, 74, 1128-1135.	0.0	7
536	Recent Advances in Fabrication Techniques of Perovskite Solar Cells: A Review. American Journal of Applied Sciences, 2016, 13, 1290-1314.	0.1	3
537	Organometal halide perovskite quantum dots: synthesis, optical properties, and display applications. Chinese Chemical Letters, 2016, 27, 1124-1130.	4.8	65
538	Plasmon resonance scattering at perovskite CH₃NH₃PbI₃ coated single gold nanoparticles: evidence for electron transfer. Chemical Communications, 2016, 52, 9933-9936.	2.2	20
539	Probing the Photovoltage and Photocurrent in Perovskite Solar Cells with Nanoscale Resolution. Advanced Functional Materials, 2016, 26, 3048-3058.	7.8	79
540	Enhanced Stability of Perovskite Solar Cells with Lowâ€Temperature Hydrothermally Grown SnO₂ Electron Transport Layers. Advanced Functional Materials, 2016, 26, 6069-6075.	7.8	154
541	CH₃NH₃PbBr₃â€“CH₃NH₃PbI₃ Perovskiteâ€“Perovskite Tandem Solar Cells with Exceeding 2.2 V Open Circuit Voltage. Advanced Materials, 2016, 28, 5121-5125.	11.1	195
542	Overcoming the Interface Losses in Planar Heterojunction Perovskiteâ€Based Solar Cells. Advanced Materials, 2016, 28, 5112-5120.	11.1	188
543	Highly Active MnO Catalysts Integrated onto Fe₂O₃ Nanorods for Efficient Water Splitting. Advanced Materials Interfaces, 2016, 3, 1600176.	1.9	22
544	Nonhazardous Solvent Systems for Processing Perovskite Photovoltaics. Advanced Energy Materials, 2016, 6, 1600386.	10.2	158
545	Inverted Perovskite Solar Cells: Progresses and Perspectives. Advanced Energy Materials, 2016, 6, 1600457.	10.2	387
546	Dopantâ€Free Hole Transporting Polymers for High Efficiency, Environmentally Stable Perovskite Solar Cells. Advanced Energy Materials, 2016, 6, 1600502.	10.2	156
547	Control of Perovskite Crystal Growth by Methylammonium Lead Chloride Templating. Chemistry - an Asian Journal, 2016, 11, 1199-1204.	1.7	28
548	Stabilization of Organicâ€“Inorganic Perovskite Layers by Partial Substitution of Iodide by Bromide in Methylammonium Lead Iodide. ChemPhysChem, 2016, 17, 1505-1511.	1.0	49

#	Article	IF	Citations
549	Improved performance of perovskite solar cell by controlling CH3NH3PbI3â^'xClx film morphology with CH3NH3Cl-assisted method. Journal of Materials Science: Materials in Electronics, 2016, 27, 10869-10876.	1.1	15
550	Iodine Migration and its Effect on Hysteresis in Perovskite Solar Cells. Advanced Materials, 2016, 28, 2446-2454.	11.1	449
551	Photovoltaic Performance of Perovskite Solar Cells with Different Grain Sizes. Advanced Materials, 2016, 28, 917-922.	11.1	288
552	An Hydrophilic Anode Interlayer for Solution Processed Organohalide Perovskite Solar Cells. Advanced Materials Interfaces, 2016, 3, 1500420.	1.9	20
553	Lowâ€Pressure Hybrid Chemical Vapor Growth for Efficient Perovskite Solar Cells and Largeâ€Area Module. Advanced Materials Interfaces, 2016, 3, 1500849.	1.9	51
554	Understanding Interface Engineering for Highâ€Performance Fullerene/Perovskite Planar Heterojunction Solar Cells. Advanced Energy Materials, 2016, 6, 1501606.	10.2	180
555	Temperatureâ€Dependent Bias Poling and Hysteresis in Planar Organoâ€Metal Halide Perovskite Photovoltaic Cells. Advanced Energy Materials, 2016, 6, 1501994.	10.2	36
556	Humidity controlled crystallization of thin CH₃NH₃PbI₃ films for high performance perovskite solar cell. Physica Status Solidi - Rapid Research Letters, 2016, 10, 381-387.	1.2	39
557	Mechanochemical synthesis of methylammonium lead iodide perovskite. Journal of Materials Science, 2016, 51, 9123-9130.	1.7	35
558	Extending the environmental lifetime of unpackaged perovskite solar cells through interfacial design. Journal of Materials Chemistry A, 2016, 4, 11604-11610.	5.2	49
559	Wavelength conversion effect-assisted dye-sensitized solar cells for enhanced solar light harvesting. Journal of Materials Chemistry A, 2016, 4, 11908-11915.	5.2	17
560	Pyrolysis preparation of WO₃thin films using ammonium metatungstate DMF/water solution for efficient compact layers in planar perovskite solar cells. Journal of Semiconductors, 2016, 37, 033002.	2.0	12
561	Enhanced Efficiency and Stability of Inverted Perovskite Solar Cells Using Highly Crystalline SnO₂ Nanocrystals as the Robust Electronâ€Transporting Layer. Advanced Materials, 2016, 28, 6478-6484.	11.1	447
562	Empowering Semiâ€Transparent Solar Cells with Thermalâ€Mirror Functionality. Advanced Energy Materials, 2016, 6, 1502466.	10.2	68
563	Benzotrithiopheneâ€Based Holeâ€Transporting Materials for 18.2â€‰% Perovskite Solar Cells. Angewandte Chemie - International Edition, 2016, 55, 6270-6274.	7.2	188
564	Perovskite Photodetectors based on CH₃NH₃PbI₃ Single Crystals. Chemistry - an Asian Journal, 2016, 11, 2675-2679.	1.7	30
565	N-phenylindole-diketopyrrolopyrrole-containing narrow band-gap materials for dopant-free hole transporting layer of perovskite solar cell. Organic Electronics, 2016, 37, 134-140.	1.4	36
566	Enhanced performance of CH3NH3PbI3â^'x Cl x perovskite solar cells by CH3NH3I modification of TiO2-perovskite layer interface. Nanoscale Research Letters, 2016, 11, 316.	3.1	50

#	Article	IF	Citations
567	Low Cost and Solution Processed Interfacial Layer Based on Poly(2-ethyl-2-oxazoline) Nanodots for Inverted Perovskite Solar Cells. Chemistry of Materials, 2016, 28, 4879-4883.	3.2	45
568	Reversible Structural Swellâ€“Shrink and Recoverable Optical Properties in Hybrid Inorganicâ€“Organic Perovskite. ACS Nano, 2016, 10, 7031-7038.	7.3	68
569	High performance planar perovskite solar cells with a perovskite of mixed organic cations and mixed halides, MA_{1âˆ’x}FA_xPbI_{3âˆ’y}Cl_y. Journal of Materials Chemistry A, 2016, 4, 12543-12553.	5.2	64
570	Shuntâ€Blocking Layers for Semitransparent Perovskite Solar Cells. Advanced Materials Interfaces, 2016, 3, 1500837.	1.9	73
571	Critical Role of Grain Boundaries for Ion Migration in Formamidinium and Methylammonium Lead Halide Perovskite Solar Cells. Advanced Energy Materials, 2016, 6, 1600330.	10.2	360
572	Solutionâ€Grown Monocrystalline Hybrid Perovskite Films for Holeâ€Transporterâ€Free Solar Cells. Advanced Materials, 2016, 28, 3383-3390.	11.1	298
573	Exploring the Limiting Openâ€Circuit Voltage and the Voltage Loss Mechanism in Planar CH₃NH₃PbBr₃ Perovskite Solar Cells. Advanced Energy Materials, 2016, 6, 1600132.	10.2	71
574	Controlled Substitution of Chlorine for Iodine in Single-Crystal Nanofibers of Mixed Perovskite MAPbI₃₋<i>_x</i>Cl<i>_x</i>. Small, 2016, 12, 3780-3787.	5.2	20
575	Effective Improvement of the Photovoltaic Performance of Carbon-Based Perovskite Solar Cells by Additional Solvents. Nano-Micro Letters, 2016, 8, 347-357.	14.4	68
576	Ultrabroad Photoluminescence and Electroluminescence at New Wavelengths from Doped Organometal Halide Perovskites. Journal of Physical Chemistry Letters, 2016, 7, 2735-2741.	2.1	97
577	Laser Crystallization of Organicâ€“Inorganic Hybrid Perovskite Solar Cells. ACS Nano, 2016, 10, 7907-7914.	7.3	123
578	Effective control of crystal grain size in CH₃NH₃PbI₃perovskite solar cells with a pseudohalide Pb(SCN)₂additive. CrystEngComm, 2016, 18, 6090-6095.	1.3	87
579	Optical analysis of CH₃NH₃Sn_xPb_{1âˆ’x}I₃ absorbers: a roadmap for perovskite-on-perovskite tandem solar cells. Journal of Materials Chemistry A, 2016, 4, 11214-11221.	5.2	101
580	Enhanced performance of perovskite solar cells with solution-processed n-doping of the PCBM interlayer. RSC Advances, 2016, 6, 64962-64966.	1.7	6
581	Unraveling the Role of Monovalent Halides in Mixedâ€Halide Organicâ€“Inorganic Perovskites. ChemPhysChem, 2016, 17, 913-920.	1.0	13
582	Highâ€Performance Integrated Perovskite and Organic Solar Cells with Enhanced Fill Factors and Nearâ€Infrared Harvesting. Advanced Materials, 2016, 28, 3159-3165.	11.1	84
583	Enhanced Charge Collection with Passivation Layers in Perovskite Solar Cells. Advanced Materials, 2016, 28, 3966-3972.	11.1	152
584	Lateralâ€Structure Singleâ€Crystal Hybrid Perovskite Solar Cells via Piezoelectric Poling. Advanced Materials, 2016, 28, 2816-2821.	11.1	144

#	Article	IF	Citations
585	Electrohydrodynamically Assisted Deposition of Efficient Perovskite Photovoltaics. Advanced Materials Interfaces, 2016, 3, 1500762.	1.9	21
586	Toward Multifunctional Polymer Hybrid through Tunable Charge Transfer Interaction of Anthracene/Naphthalenediimide. Advanced Materials Interfaces, 2016, 3, 1600224.	1.9	6
587	Solvent Engineering Boosts the Efficiency of Paintable Carbonâ€Based Perovskite Solar Cells to Beyond 14%. Advanced Energy Materials, 2016, 6, 1502087.	10.2	306
588	Improved Efficiency in Inverted Perovskite Solar Cells Employing a Novel Diarylaminoâ€Substituted Molecule as PEDOT:PSS Replacement. Advanced Energy Materials, 2016, 6, 1502101.	10.2	78
589	Beneficial Effects of PbI₂ Incorporated in Organoâ€Lead Halide Perovskite Solar Cells. Advanced Energy Materials, 2016, 6, 1502104.	10.2	387
590	Ionic Reactivity at Contacts and Aging of Methylammonium Lead Triiodide Perovskite Solar Cells. Advanced Energy Materials, 2016, 6, 1502246.	10.2	281
591	Airâ€Stable, Efficient Mixedâ€Cation Perovskite Solar Cells with Cu Electrode by Scalable Fabrication of Active Layer. Advanced Energy Materials, 2016, 6, 1600372.	10.2	275
592	Bismuth Iodide Perovskite Materials for Solar Cell Applications: Electronic Structure, Optical Transitions, and Directional Charge Transport. Journal of Physical Chemistry C, 2016, 120, 29039-29046.	1.5	134
593	Low temperature processed, high-performance and stable NiOx based inverted planar perovskite solar cells via a poly(2-ethyl-2-oxazoline) nanodots cathode electron-extraction layer. Materials Today Energy, 2016, 1-2, 1-10.	2.5	30
594	Fulleropyrrolidinium Iodide As an Efficient Electron Transport Layer for Air-Stable Planar Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 34612-34619.	4.0	24
595	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
596	Efficient thermal conductance in organometallic perovskite CH3NH3PbI3 films. Applied Physics Letters, 2016, 108, 081902.	1.5	22
597	Research Update: Hybrid organic-inorganic perovskite (HOIP) thin films and solar cells by vapor phase reaction. APL Materials, 2016, 4, .	2.2	33
598	Research Update: Behind the high efficiency of hybrid perovskite solar cells. APL Materials, 2016, 4, .	2.2	47
599	Role of bromine doping on the photovoltaic properties and microstructures of CH3NH3PbI3 perovskite solar cells. AIP Conference Proceedings, 2016, , .	0.3	12
600	Abnormal thin film structures in vapor-phase deposited methylammonium lead iodide perovskite. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2016, 34, .	0.9	7
601	Morphology control of perovskite light-emitting diodes by using amino acid self-assembled monolayers. Applied Physics Letters, 2016, 108, .	1.5	69
602	Near IR sensitive Sn based perovskite solar cells with high current density reaching 30mA/cm². , 2016, , .		1

#	Article	IF	Citations
603	Evidence for ion migration in hybrid perovskite solar cells with minimal hysteresis. Nature Communications, 2016, 7, 13831.	5.8	616
604	Electronic and optical properties of mixed perovskites CsSnxPb(1â^'x)I3. AIP Advances, 2016, 6, 065213.	0.6	14
605	Diffusion length of photo-generated charge carriers in layers and powders of CH3NH3PbI3 perovskite. Applied Physics Letters, 2016, 109, .	1.5	33
606	Perovskite FA1-xMAxPbI3 for Solar Cells: Films Formation and Properties. Energy Procedia, 2016, 102, 87-95.	1.8	54
607	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
608	Highly stable solution processed metal-halide perovskite lasers on nanoimprinted distributed feedback structures. Applied Physics Letters, 2016, 109, .	1.5	82
609	High Performance Perovskite Solar Cells through Surface Modification, Mixed Solvent Engineering and Nanobowl-Assisted Light Harvesting. MRS Advances, 2016, 1, 3175-3184.	0.5	9
610	Characterization of perovskite solar cells: Towards a reliable measurement protocol. APL Materials, 2016, 4, .	2.2	94
611	The effect of grain improvement on carrier lifetime in perovskite solar devices. , 2016, , .		1
612	Improving the photovoltaic performance of perovskite solar cells with acetate. Scientific Reports, 2016, 6, 38670.	1.6	55
613	Mechanisms for light induced degradation in MAPbI3 perovskite thin films and solar cells. Applied Physics Letters, 2016, 109, .	1.5	198
614	Solution-processed BiI<inf>3</inf> solar cells. , 2016, , .		0
615	High-efficiency planar-structure perovskite solar cells via homemade chamber with low pressure and low temperature process. , 2016, , .		0
616	Tunable bandgap in hybrid perovskite CH3NH3Pb(Br3â^'yXy) single crystals and photodetector applications. AIP Advances, 2016, 6, .	0.6	64
617	Exploring a Leadâ€free Semiconducting Hybrid Ferroelectric with a Zeroâ€Dimensional Perovskiteâ€like Structure. Angewandte Chemie, 2016, 128, 12033-12037.	1.6	20
618	Perspective: Understanding of ripening growth model for minimum residual PbI2 and its limitation in the planar perovskite solar cells. APL Materials, 2016, 4, .	2.2	43
619	Iodine and Chlorine Element Evolution in CH₃NH₃PbI_{3â€“<i>x</i>}Cl_{<i>x</i>} Thin Films for Highly Efficient Planar Heterojunction Perovskite Solar Cells. Chemistry of Materials, 2016, 28, 2742-2749.	3.2	48
620	Facile synthesized organic hole transporting material for perovskite solar cell with efficiency of 19.8%. Nano Energy, 2016, 23, 138-144.	8.2	253

#	Article	IF	Citations
621	Coarsening of one-step deposited organolead triiodide perovskite films via Ostwald ripening for high efficiency planar-heterojunction solar cells. Dalton Transactions, 2016, 45, 7856-7865.	1.6	53
622	Understanding the Role of the Mesoporous Layer in the Thermal Crystallization of a Meso-Superstructured Perovskite Solar Cell. Journal of Physical Chemistry C, 2016, 120, 8559-8567.	1.5	10
623	Performance enhancement of perovskite solar cells with a modified TiO₂ electron transport layer using Zn-based additives. RSC Advances, 2016, 6, 35044-35050.	1.7	31
624	Efficient Perovskite Hybrid Photovoltaics via Alcoholâ€Vapor Annealing Treatment. Advanced Functional Materials, 2016, 26, 101-110.	7.8	117
625	Perovskite Solar Cells: Influence of Hole Transporting Materials on Power Conversion Efficiency. ChemSusChem, 2016, 9, 10-27.	3.6	267
626	Resolving the Physical Origin of Octahedral Tilting in Halide Perovskites. Chemistry of Materials, 2016, 28, 4259-4266.	3.2	211
627	Enhanced Air Stability in REPb3(RE = Rare Earths) by Dimensional Reduction Mediated Valence Transition. Inorganic Chemistry, 2016, 55, 5603-5611.	1.9	3
628	Large Grained Perovskite Solar Cells Derived from Single-Crystal Perovskite Powders with Enhanced Ambient Stability. ACS Applied Materials & Interfaces, 2016, 8, 14513-14520.	4.0	64
629	Quantification of spatial inhomogeneity in perovskite solar cells by hyperspectral luminescence imaging. Energy and Environmental Science, 2016, 9, 2286-2294.	15.6	102
630	Low thermal budget, photonic-cured compact TiO₂ layers for high-efficiency perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 9685-9690.	5.2	46
631	Hybrid Perovskite/Perovskite Heterojunction Solar Cells. ACS Nano, 2016, 10, 5999-6007.	7.3	276
632	Efficiency Enhancement of Perovskite Solar Cells by Pumping Away the Solvent of Precursor Film Before Annealing. Nanoscale Research Letters, 2016, 11, 248.	3.1	13
633	A controllable fabrication of grain boundary PbI2 nanoplates passivated lead halide perovskites for high performance solar cells. Nano Energy, 2016, 26, 50-56.	8.2	151
634	Enhancement of photovoltaic performance of perovskite solar cells by modification of the interface between the perovskite and mesoporous TiO2 film. Solar Energy Materials and Solar Cells, 2016, 155, 101-107.	3.0	51
635	Chlorobenzene vapor assistant annealing method for fabricating high quality perovskite films. Organic Electronics, 2016, 34, 97-103.	1.4	39
636	Ammonium-iodide-salt additives induced photovoltaic performance enhancement in one-step solution process for perovskite solar cells. Journal of Alloys and Compounds, 2016, 684, 84-90.	2.8	59
637	Progress in emerging solution-processed thin film solar cells â€" Part II: Perovskite solar cells. Renewable and Sustainable Energy Reviews, 2016, 62, 1012-1031.	8.2	111
638	Synthesis of Perfectly Oriented and Micrometer-Sized MAPbBr₃ Perovskite Crystals for Thin-Film Photovoltaic Applications. ACS Energy Letters, 2016, 1, 150-154.	8.8	103

#	Article	IF	Citations
639	Poly(3,4-ethylenedioxythiophene):poly(styrenesulfonate)(PEDOT:PSS)â€"molybdenum oxide composite films as hole conductors for efficient planar perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 9958-9966.	5.2	44
640	Carbon quantum dots as new hole transport material for perovskite solar cells. Synthetic Metals, 2016, 222, 17-22.	2.1	58
641	Morphology fixing agent for [6,6]-phenyl C₆₁-butyric acid methyl ester (PC₆₀BM) in planar-type perovskite solar cells for enhanced stability. RSC Advances, 2016, 6, 51513-51519.	1.7	10
642	Controllable growth of bulk cubic-phase CH₃NH₃PbI₃single crystal with exciting room-temperature stability. CrystEngComm, 2016, 18, 5257-5261.	1.3	51
643	Highly reproducible perovskite solar cells with excellent CH₃NH₃PbI_{3â^'x}Cl_x film morphology fabricated via high precursor concentration. RSC Advances, 2016, 6, 51279-51285.	1.7	9
644	Effect of heat treatment on the electrical properties of perovskite solar cells. Solar Energy Materials and Solar Cells, 2016, 157, 10-17.	3.0	31
645	Hole Conductor Free Perovskite-based Solar Cells. SpringerBriefs in Applied Sciences and Technology, 2016, , .	0.2	7
646	Hole Transport Material (HTM) Free Perovskite Solar Cell. SpringerBriefs in Applied Sciences and Technology, 2016, , 9-24.	0.2	0
647	Crystal growth engineering for high efficiency perovskite solar cells. CrystEngComm, 2016, 18, 5977-5985.	1.3	85
648	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
649	An ultra-thin, un-doped NiO hole transporting layer of highly efficient (16.4%) organicâ€"inorganic hybrid perovskite solar cells. Nanoscale, 2016, 8, 11403-11412.	2.8	307
650	Highly conductive Zinc-Tin-Oxide buffer layer for inverted polymer solar cells. Organic Electronics, 2016, 33, 156-163.	1.4	10
651	Enhanced performances of flexible ZnO/perovskite solar cells by piezo-phototronic effect. Nano Energy, 2016, 23, 27-33.	8.2	119
652	Two-Photon-Pumped Perovskite Semiconductor Nanocrystal Lasers. Journal of the American Chemical Society, 2016, 138, 3761-3768.	6.6	496
653	High performance perovskite solar cell via multi-cycle low temperature processing of lead acetate precursor solutions. Chemical Communications, 2016, 52, 4784-4787.	2.2	39
654	Formation of ultrasmooth perovskite films toward highly efficient inverted planar heterojunction solar cells by micro-flowing anti-solvent deposition in air. Journal of Materials Chemistry A, 2016, 4, 6295-6303.	5.2	61
655	Advancements in the stability of perovskite solar cells: degradation mechanisms and improvement approaches. RSC Advances, 2016, 6, 38079-38091.	1.7	154
656	Efficient and stable perovskite solar cells based on functional graphene-modified P3HT hole-transporting layer. RSC Advances, 2016, 6, 36356-36361.	1.7	41

#	Article	IF	Citations
657	Mechanism of biphasic charge recombination and accumulation in TiO₂mesoporous structured perovskite solar cells. Physical Chemistry Chemical Physics, 2016, 18, 12128-12134.	1.3	28
658	Increasing open circuit voltage by adjusting work function of hole-transporting materials in perovskite solar cells. Nano Research, 2016, 9, 1600-1608.	5.8	47
659	Two-dimensional modeling of TiO2 nanowire based organicâ€“inorganic hybrid perovskite solar cells. Solar Energy Materials and Solar Cells, 2016, 152, 111-117.	3.0	45
660	Wire-shaped perovskite solar cell based on TiO₂nanotubes. Nanotechnology, 2016, 27, 20LT01.	1.3	21
661	Ruddlesdenâ€“Popper Hybrid Lead Iodide Perovskite 2D Homologous Semiconductors. Chemistry of Materials, 2016, 28, 2852-2867.	3.2	1,607
662	The interaction between hybrid organicâ€“inorganic halide perovskite and selective contacts in perovskite solar cells: an infrared spectroscopy study. Physical Chemistry Chemical Physics, 2016, 18, 13583-13590.	1.3	55
663	Light-induced effects on Spiro-OMeTAD films and hybrid lead halide perovskite solar cells. Solar Energy Materials and Solar Cells, 2016, 158, 189-194.	3.0	124
664	The benefits of graphene for hybrid perovskite solar cells. Synthetic Metals, 2016, 222, 3-16.	2.1	52
665	Multilayered Perovskite Materials Based on Polymeric-Ammonium Cations for Stable Large-Area Solar Cell. Chemistry of Materials, 2016, 28, 3131-3138.	3.2	174
666	Well-Organized Mesoporous TiO₂ Photoanode by Using Amphiphilic Graft Copolymer for Efficient Perovskite Solar Cells. Journal of Physical Chemistry C, 2016, 120, 9619-9627.	1.5	43
667	CH₃NH₃PbI₃planar perovskite solar cells with antireflection and self-cleaning function layers. Journal of Materials Chemistry A, 2016, 4, 7573-7579.	5.2	78
668	Pathways toward high-performance perovskite solar cells: review of recent advances in organo-metal halide perovskites for photovoltaic applications. Journal of Photonics for Energy, 2016, 6, 022001.	0.8	218
669	High-performance cadmium sulphide-based planar perovskite solar cell and the cadmium sulphide/perovskite interfaces. Journal of Photonics for Energy, 2016, 6, 022002.	0.8	30
670	Three-dimensional self-branching anatase TiO2 nanorods with the improved carrier collection for SrTiO3-based perovskite solar cells. Journal of Alloys and Compounds, 2016, 679, 32-38.	2.8	18
671	Flexible Hybrid Organicâ€“Inorganic Perovskite Memory. ACS Nano, 2016, 10, 5413-5418.	7.3	464
672	Exceptional Morphology-Preserving Evolution of Formamidinium Lead Triiodide Perovskite Thin Films via Organic-Cation Displacement. Journal of the American Chemical Society, 2016, 138, 5535-5538.	6.6	178
673	Enhancing the planar heterojunction perovskite solar cell performance through tuning the precursor ratio. Journal of Materials Chemistry A, 2016, 4, 7943-7949.	5.2	86
674	p-i-n/n-i-p type planar hybrid structure of highly efficient perovskite solar cells towards improved air stability: synthetic strategies and the role of p-type hole transport layer (HTL) and n-type electron transport layer (ETL) metal oxides. Nanoscale, 2016, 8, 10528-10540.	2.8	125

#	Article	IF	Citations
675	Inverted thermal annealing of perovskite films: a method for enhancing photovoltaic device efficiency. RSC Advances, 2016, 6, 44034-44040.	1.7	8
676	High Open-Circuit Voltage: Fabrication of Formamidinium Lead Bromide Perovskite Solar Cells Using Fluoreneâ€"Dithiophene Derivatives as Hole-Transporting Materials. ACS Energy Letters, 2016, 1, 107-112.	8.8	105
677	State and prospects of solar cells based on perovskites. Applied Solar Energy (English Translation of) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	0.2	8
678	ZnO nanowalls grown at low-temperature for electron collection in high-efficiency perovskite solar cells. Solar Energy Materials and Solar Cells, 2016, 154, 18-22.	3.0	46
679	Non-injection gram-scale synthesis of cesium lead halide perovskite quantum dots with controllable size and composition. Nano Research, 2016, 9, 1994-2006.	5.8	93
680	Tailoring of Electron-Collecting Oxide Nanoparticulate Layer for Flexible Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2016, 7, 1845-1851.	2.1	93
681	Annealing-free perovskite films by instant crystallization for efficient solar cells. Journal of Materials Chemistry A, 2016, 4, 8548-8553.	5.2	103
682	Stable and durable CH₃NH₃PbI₃perovskite solar cells at ambient conditions. Nanotechnology, 2016, 27, 235404.	1.3	61
683	Optical characterization of voltage-accelerated degradation in CH_3NH_3PbI_3 perovskite solar cells. Optics Express, 2016, 24, A917.	1.7	26
684	Coordination engineering toward high performance organicâ€"inorganic hybrid perovskites. Coordination Chemistry Reviews, 2016, 320-321, 53-65.	9.5	34
685	Integrated Photoelectrolysis of Water Implemented On Organic Metal Halide Perovskite Photoelectrode. ACS Applied Materials & Interfaces, 2016, 8, 11904-11909.	4.0	72
686	Highly stable, luminescent coreâ€"shell type methylammoniumâ€"octylammonium lead bromide layered perovskite nanoparticles. Chemical Communications, 2016, 52, 7118-7121.	2.2	138
687	Absorption enhancement in CH₃NH₃PbI₃solar cell using a TiO₂/MoS₂nanocomposite electron selective contact. Materials Research Express, 2016, 3, 045022.	0.8	20
688	Compact layer influence on hysteresis effect in organicâ€"inorganic hybrid perovskite solar cells. Electrochemistry Communications, 2016, 68, 40-44.	2.3	18
689	Dopant-free polymeric hole transport materials for highly efficient and stable perovskite solar cells. Energy and Environmental Science, 2016, 9, 2326-2333.	15.6	317
690	Effect of Water Vapor, Temperature, and Rapid Annealing on Formamidinium Lead Triiodide Perovskite Crystallization. ACS Energy Letters, 2016, 1, 155-161.	8.8	27
691	Highly stable perovskite solar cells with an all-carbon hole transport layer. Nanoscale, 2016, 8, 11882-11888.	2.8	107
692	Room Temperature as a Goldilocks Environment for CH₃NH₃PbI₃ Perovskite Solar Cells: The Importance of Temperature on Device Performance. Journal of Physical Chemistry C, 2016, 120, 11382-11393.	1.5	58

#	Article	IF	Citations
693	Blending of n-type Semiconducting Polymer and PC₆₁BM for an Efficient Electron-Selective Material to Boost the Performance of the Planar Perovskite Solar Cell. ACS Applied Materials & Interfaces, 2016, 8, 12822-12829.	4.0	30
694	New fullerene design enables efficient passivation of surface traps in high performance p-i-n heterojunction perovskite solar cells. Nano Energy, 2016, 26, 7-15.	8.2	89
695	Interfacial Charge-Carrier Trapping in CH₃NH₃PbI₃-Based Heterolayered Structures Revealed by Time-Resolved Photoluminescence Spectroscopy. Journal of Physical Chemistry Letters, 2016, 7, 1972-1977.	2.1	58
696	Ultrasmooth metal halide perovskite thin films via solâ€“gel processing. Journal of Materials Chemistry A, 2016, 4, 8308-8315.	5.2	64
697	One-dimensional (1D) [6,6]-phenyl-C₆₁-butyric acid methyl ester (PCBM) nanorods as an efficient additive for improving the efficiency and stability of perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 8566-8572.	5.2	30
698	Efficient, high yield perovskite/fullerene planar-heterojunction solar cells via one-step spin-coating processing. RSC Advances, 2016, 6, 48449-48454.	1.7	10
699	Wavelength-dependent optical transition mechanisms for light-harvesting of perovskite MAPbI3 solar cells using first-principles calculations. Journal of Materials Chemistry C, 2016, 4, 5248-5254.	2.7	11
700	Efficient planar heterojunction perovskite solar cells fabricated via roller-coating. Solar Energy Materials and Solar Cells, 2016, 155, 14-19.	3.0	15
701	Bromide regulated film formation of CH3NH3PbI3 in low-pressure vapor-assisted deposition for efficient planar-heterojunction perovskite solar cells. Solar Energy Materials and Solar Cells, 2016, 157, 1026-1037.	3.0	27
702	Effects of Postsynthesis Thermal Conditions on Methylammonium Lead Halide Perovskite: Band Bending at Grain Boundaries and Its Impacts on Solar Cell Performance. Journal of Physical Chemistry C, 2016, 120, 21330-21335.	1.5	25
703	Influence of the mixed organic cation ratio in lead iodide based perovskite on the performance of solar cells. Physical Chemistry Chemical Physics, 2016, 18, 27148-27157.	1.3	75
704	A review of organic small molecule-based hole-transporting materials for meso-structured organicâ€“inorganic perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 15788-15822.	5.2	150
705	Film Grainâ€Size Related Longâ€Term Stability of Inverted Perovskite Solar Cells. ChemSusChem, 2016, 9, 2666-2672.	3.6	102
706	Perovskite Solar Cells Employing Molecularly Engineered Zn(II) Phthalocyanines as Hole-transporting Materials. Nano Energy, 2016, 30, 853-857.	8.2	52
707	Thermal Stability of CuSCN Hole Conductorâ€Based Perovskite Solar Cells. ChemSusChem, 2016, 9, 2592-2596.	3.6	154
708	Cross-Linkable, Solvent-Resistant Fullerene Contacts for Robust and Efficient Perovskite Solar Cells with Increased <i>J</i>_{SC} and <i>V</i>_{OC}. ACS Applied Materials & Interfaces, 2016, 8, 25896-25904.	4.0	45
709	High-quality perovskite in thick scaffold: a core issue for hole transport material-free perovskite solar cells. Science Bulletin, 2016, 61, 1680-1688.	4.3	17
710	Charge Stripe Formation in Molecular Ferroelectric Organohalide Perovskites for Efficient Charge Separation. Journal of Physical Chemistry C, 2016, 120, 23969-23975.	1.5	14

#	Article	IF	Citations
711	A perspective on the recent progress in solution-processed methods for highly efficient perovskite solar cells. Science and Technology of Advanced Materials, 2016, 17, 650-658.	2.8	41
712	Improving Process Efficiency by Waste Heat Recuperation. , 2016, , 475-498.		0
713	Holeâ€Transport Materials for Perovskite Solar Cells. Angewandte Chemie - International Edition, 2016, 55, 14522-14545.	7.2	786
714	Impact of sol aging on TiO2 compact layer and photovoltaic performance of perovskite solar cell. Science China Materials, 2016, 59, 710-718.	3.5	23
715	Synergistic Effect of PbI₂ Passivation and Chlorine Inclusion Yielding High Openâ€Circuit Voltage Exceeding 1.15 V in Both Mesoscopic and Inverted Planar CH3NH₃PbI₃(Cl)â€Based Perovskite Solar Cells. Advanced Functional Materials, 2016, 26, 8119-8127.	7.8	93
716	Engineering TiO₂/Perovskite Planar Heterojunction for Hysteresisâ€Less Solar Cells. Advanced Materials Interfaces, 2016, 3, 1600493.	1.9	24
717	Ionâ€Exchangeâ€Induced 2Dâ€"3D Conversion of HMA_{1â^{ˆ'}<i>x</i>}FA_{<i>x</i>}PbI₃Cl Perovskite into a Highâ€Quality MA_{1â^'<i>x</i>}FA_{<i>x</i>}PbI₃ Perovskite. Angewandte Chemie - International Edition, 2016, 55, 13460-13464.	7.2	80
718	Mesoscopic Perovskite Light-Emitting Diodes. ACS Applied Materials & Interfaces, 2016, 8, 26989-26997.	4.0	44
719	Encapsulation for long-term stability enhancement of perovskite solar cells. Nano Energy, 2016, 30, 162-172.	8.2	258
720	Preparation of 596Ânm-thick and full-coverage CH3NH3PbI3â^'xBrx thin films using 1.9ÂM PbI2Â·NMP complex solution in DMF. Superlattices and Microstructures, 2016, 100, 179-184.	1.4	9
721	Multiple-Stage Structure Transformation of Organic-Inorganic Hybrid Perovskite<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><mml:mn>3</mml:mn></m Physical Review X, 2016, 6, .	2.8	13
722	A two-step spin-spray deposition processing route for production of halide perovskite solar cell. Thin Solid Films, 2016, 616, 754-759.	0.8	8
723	Evolution in surface coverage of CH₃NH₃PbI_{3â^'X}Cl_Xvia heat assisted solvent vapour treatment and their effects on photovoltaic performance of devices. RSC Advances, 2016, 6, 94731-94738.	1.7	10
724	Preferential (100)-oriented CH₃NH₃PbI₃ perovskite film formation by flash drying and elucidation of formation mechanism. RSC Advances, 2016, 6, 94502-94509.	1.7	4
725	Efficiency enhancement of semi-transparent sandwich type CH₃NH₃PbI₃ perovskite solar cells with island morphology perovskite film by introduction of polystyrene passivation layer. Journal of Materials Chemistry A, 2016, 4, 16324-16329.	5.2	54
726	Optoelectronic properties and photo-physics of large grain hybrid perovskites. , 2016, , .		0
727	Hysteresis dependence on CH₃NH₃PbI₃ deposition method in perovskite solar cells. Proceedings of SPIE, 2016, , .	0.8	1
728	From Quantum Dots to Micro Crystals: Organolead Triiodide Perovskite Crystal Growth from Isopropanol Solution. ECS Journal of Solid State Science and Technology, 2016, 5, P614-P620.	0.9	6

#	Article	IF	Citations
729	Metal halide perovskite light emitters. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 11694-11702.	3.3	465
730	Investigation of moisture stability and PL characteristics of terpineol-passivated organicâ€“inorganic hybrid perovskite. Materials for Renewable and Sustainable Energy, 2016, 5, 1.	1.5	29
731	Enhanced Stability of Perovskite Solar Cells through Corrosionâ€Free Pyridine Derivatives in Holeâ€Transporting Materials. Advanced Materials, 2016, 28, 10738-10743.	11.1	147
732	The Effect of the Microstructure on Trapâ€Assisted Recombination and Light Soaking Phenomenon in Hybrid Perovskite Solar Cells. Advanced Functional Materials, 2016, 26, 8094-8102.	7.8	108
733	Mapping Morphological and Structural Properties of Lead Halide Perovskites by Scanning Nanofocus XRD. Advanced Functional Materials, 2016, 26, 8221-8230.	7.8	27
734	Ionâ€Exchangeâ€Induced 2Dâ€“3D Conversion of HMA_{1âˆ’<i>x</i>}FA_{<i>x</i>}PbI₃Cl Perovskite into a Highâ€Quality MA_{1âˆ’<i>x</i>}FA_{<i>x</i>}PbI₃ Perovskite. Angewandte Chemie, 2016, 128, 13658-13662.	1.6	9
735	Optical Probe Ion and Carrier Dynamics at the CH₃NH₃PbI₃ Interface with Electron and Hole Transport Materials. Advanced Materials Interfaces, 2016, 3, 1600467.	1.9	23
736	Progress of interface engineering in perovskite solar cells. Science China Materials, 2016, 59, 728-742.	3.5	43
737	Nearâ€Infrared Photoresponse of Oneâ€Sided Abrupt MAPbI₃/TiO₂ Heterojunction through a Tunneling Process. Advanced Functional Materials, 2016, 26, 8545-8554.	7.8	23
738	The Additive Coordination Effect on Hybrids Perovskite Crystallization and Highâ€Performance Solar Cell. Advanced Materials, 2016, 28, 9862-9868.	11.1	270
739	A solution processed nanostructured p-type NiO electrode for efficient inverted perovskite solar cells. Nanoscale, 2016, 8, 19189-19194.	2.8	45
740	Comparing the Effect of Mesoporous and Planar Metal Oxides on the Stability of Methylammonium Lead Iodide Thin Films. Chemistry of Materials, 2016, 28, 7344-7352.	3.2	45
741	Effect of polyelectrolyte interlayer on efficiency and stability of p-i-n perovskite solar cells. Solar Energy, 2016, 139, 190-198.	2.9	25
742	PbI₂â€“HMPA Complex Pretreatment for Highly Reproducible and Efficient CH₃NH₃PbI₃ Perovskite Solar Cells. Journal of the American Chemical Society, 2016, 138, 14380-14387.	6.6	107
743	Controllable lasing performance in solution-processed organicâ€“inorganic hybrid perovskites. Nanoscale, 2016, 8, 18483-18488.	2.8	26
744	Elucidating the charge carrier transport and extraction in planar heterojunction perovskite solar cells by Kelvin probe force microscopy. Journal of Materials Chemistry A, 2016, 4, 17464-17472.	5.2	43
745	Constructing water-resistant CH₃NH₃PbI₃perovskite films via coordination interaction. Journal of Materials Chemistry A, 2016, 4, 17018-17024.	5.2	89
746	Rb as an Alternative Cation for Templating Inorganic Lead-Free Perovskites for Solution Processed Photovoltaics. Chemistry of Materials, 2016, 28, 7496-7504.	3.2	249

#	Article	IF	Citations
747	Pore Size Dependent Hysteresis Elimination in Perovskite Solar Cells Based on Highly Porous TiO₂ Films with Widely Tunable Pores of 15â€“34 nm. Chemistry of Materials, 2016, 28, 7134-7144.	3.2	50
748	Ambient air-processed mixed-ion perovskites for high-efficiency solar cells. Journal of Materials Chemistry A, 2016, 4, 16536-16545.	5.2	55
749	Effects of Process Parameters on the Characteristics of Mixed-Halide Perovskite Solar Cells Fabricated by One-Step and Two-Step Sequential Coating. Nanoscale Research Letters, 2016, 11, 408.	3.1	57
750	Enhancing the photovoltaic performance of planar heterojunction perovskite solar cells by doping the perovskite layer with alkali metal ions. Journal of Materials Chemistry A, 2016, 4, 16546-16552.	5.2	143
751	Promoting crystalline grain growth and healing pinholes by water vapor modulated post-annealing for enhancing the efficiency of planar perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 13458-13467.	5.2	58
752	Efficient inverted planar formamidinium lead iodide perovskite solar cells via a post improved perovskite layer. RSC Advances, 2016, 6, 79952-79957.	1.7	27
753	Highly compact and uniform CH3NH3Sn0.5Pb0.5I3 films for efficient panchromatic planar perovskite solar cells. Science Bulletin, 2016, 61, 1558-1562.	4.3	25
754	Fatigue behavior of planar CH3NH3PbI3 perovskite solar cells revealed by light on/off diurnal cycling. Nano Energy, 2016, 27, 509-514.	8.2	76
755	Efficient Perovskite Solar Cells Depending on TiO₂ Nanorod Arrays. ACS Applied Materials & Interfaces, 2016, 8, 21358-21365.	4.0	126
756	Quantifying Hole Transfer Yield from Perovskite to Polymer Layer: Statistical Correlation of Solar Cell Outputs with Kinetic and Energetic Properties. ACS Photonics, 2016, 3, 1678-1688.	3.2	54
757	Charge Injection at the Heterointerface in Perovskite CH₃NH₃PbI₃ Solar Cells Studied by Simultaneous Microscopic Photoluminescence and Photocurrent Imaging Spectroscopy. Journal of Physical Chemistry Letters, 2016, 7, 3186-3191.	2.1	38
758	Thermally induced recrystallization of MAPbI₃ perovskite under methylamine atmosphere: an approach to fabricating large uniform crystalline grains. Chemical Communications, 2016, 52, 10743-10746.	2.2	39
759	Air-stable, hole-conductor-free high photocurrent perovskite solar cells with CH3NH3PbI3â€“NiO nanoparticles composite. Nano Energy, 2016, 27, 535-544.	8.2	73
760	Post-annealing of MAPbI₃ perovskite films with methylamine for efficient perovskite solar cells. Materials Horizons, 2016, 3, 548-555.	6.4	141
761	Copper Salts Doped Spiroâ€OMeTAD for Highâ€Performance Perovskite Solar Cells. Advanced Energy Materials, 2016, 6, 1601156.	10.2	205
762	Novel insight into the function of PC61BM in efficient planar perovskite solar cells. Nano Energy, 2016, 27, 561-568.	8.2	14
763	Organic Lasers: Recent Developments on Materials, Device Geometries, and Fabrication Techniques. Chemical Reviews, 2016, 116, 12823-12864.	23.0	595
764	Observation of Enhanced Hole Extraction in Br Concentration Gradient Perovskite Materials. Nano Letters, 2016, 16, 5756-5763.	4.5	91

#	Article	IF	Citations
765	Piezoresistive Sensor with High Elasticity Based on 3D Hybrid Network of Sponge@CNTs@Ag NPs. ACS Applied Materials & Interfaces, 2016, 8, 22374-22381.	4.0	176
766	Flexible and efficient ITO-free semitransparent perovskite solar cells. Solar Energy Materials and Solar Cells, 2016, 157, 660-665.	3.0	57
767	Interface studies of the planar heterojunction perovskite solar cells. Solar Energy Materials and Solar Cells, 2016, 157, 783-790.	3.0	42
768	Optimization of PbI₂/MAPbI₃ Perovskite Composites by Scanning Electrochemical Microscopy. Journal of Physical Chemistry C, 2016, 120, 19890-19895.	1.5	50
769	Indium tin oxide (ITO)-free, top-illuminated, flexible perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 14017-14024.	5.2	53
770	Enhanced Structural Stability and Photo Responsiveness of CH₃NH₃SnI₃ Perovskite via Pressureâ€Induced Amorphization and Recrystallization. Advanced Materials, 2016, 28, 8663-8668.	11.1	176
771	NiO<i>_x</i> Electrode Interlayer and CH₃NH₂/CH₃NH₃PbBr₃ Interface Treatment to Markedly Advance Hybrid Perovskiteâ€Based Lightâ€Emitting Diodes. Advanced Materials, 2016, 28, 8687-8694.	11.1	147
772	130ÂÂ°C CH 3 NH 3 I treatment temperature in vapor-assisted solution process for large grain and full-coverage perovskite thin films. Optical Materials, 2016, 60, 230-234.	1.7	12
773	Improvement of electron/hole injection balance based on nanowire/nanocube hybrid perovskite. Materials Letters, 2016, 184, 78-81.	1.3	6
774	Effective and reproducible method for preparing low defects perovskite film toward highly photoelectric properties with large fill factor by shaping capping layer. Solar Energy, 2016, 136, 505-514.	2.9	17
775	Hysteresis in organic-inorganic hybrid perovskite solar cells. Solar Energy Materials and Solar Cells, 2016, 157, 476-509.	3.0	146
776	Role of the Dopants on the Morphological and Transport Properties of Spiro-MeOTAD Hole Transport Layer. Chemistry of Materials, 2016, 28, 5702-5709.	3.2	194
777	High Performance Perovskite Solar Cells. Advanced Science, 2016, 3, 1500201.	5.6	105
778	Exceptionally Stable CH₃NH₃PbI₃ Films in Moderate Humid Environmental Condition. Advanced Science, 2016, 3, 1500262.	5.6	50
779	A PCBM Electron Transport Layer Containing Small Amounts of Dual Polymer Additives that Enables Enhanced Perovskite Solar Cell Performance. Advanced Science, 2016, 3, 1500353.	5.6	67
780	Ionic Liquid Control Crystal Growth to Enhance Planar Perovskite Solar Cells Efficiency. Advanced Energy Materials, 2016, 6, 1600767.	10.2	224
781	Efficient Perovskite Solar Cells Employing Inorganic Interlayers. ChemNanoMat, 2016, 2, 182-188.	1.5	49
782	Hysteresis Characteristics and Device Stability. , 2016, , 255-284.		3

#	Article	IF	Citations
783	Inverted Planar Structure of Perovskite Solar Cells. , 2016, , 307-324.		2
784	Defect Physics of CH3NH3PbX3 (XÂ=Âl, Br, Cl) Perovskites. , 2016, , 79-105.		19
785	Ionic Conductivity of Organicâ€“Inorganic Perovskites: Relevance for Long-Time and Low Frequency Behavior. , 2016, , 107-135.		5
786	Ion Migration in Hybrid Perovskite Solar Cells. , 2016, , 137-162.		16
787	Methodologies for high efficiency perovskite solar cells. Nano Convergence, 2016, 3, 15.	6.3	88
788	<i>Iâ€“V</i> hysteresis of methylammonium lead halide perovskite films on microstructured electrode arrays: Dependence on preparation route and voltage scale. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 38-45.	0.8	14
789	One-step fabrication of a mixed-halide perovskite film for a high-efficiency inverted solar cell and module. Journal of Materials Chemistry A, 2016, 4, 13525-13533.	5.2	90
790	Sub-100ÂÂ°C solution processed amorphous titania nanowire thin films for high-performance perovskite solar cells. Journal of Power Sources, 2016, 329, 17-22.	4.0	14
791	Ternary Halide Perovskites for Highly Efficient Solution-Processed Hybrid Solar Cells. ACS Energy Letters, 2016, 1, 712-718.	8.8	24
792	Insight into the effect of ion source for the solution processing of perovskite films. RSC Advances, 2016, 6, 85026-85029.	1.7	9
793	Minimizing optical losses in monolithic perovskite/c-Si tandem solar cells with a flat top cell. Optics Express, 2016, 24, A1288.	1.7	124
794	Leadâ€Free Inverted Planar Formamidinium Tin Triiodide Perovskite Solar Cells Achieving Power Conversion Efficiencies up to 6.22%. Advanced Materials, 2016, 28, 9333-9340.	11.1	636
795	Solvent Engineering for Ambient-Air-Processed, Phase-Stable CsPbI₃ in Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2016, 7, 3603-3608.	2.1	328
796	Efficient Biexciton Interaction in Perovskite Quantum Dots Under Weak and Strong Confinement. ACS Nano, 2016, 10, 8603-8609.	7.3	190
797	Advances in the Application of Atomic Layer Deposition for Organometal Halide Perovskite Solar Cells. Advanced Materials Interfaces, 2016, 3, 1600505.	1.9	18
798	Architecture of the Interface between the Perovskite and Holeâ€Transport Layers in Perovskite Solar Cells. ChemSusChem, 2016, 9, 2634-2639.	3.6	27
799	Ordered macroporous CH₃NH₃PbI₃ perovskite semitransparent film for high-performance solar cells. Journal of Materials Chemistry A, 2016, 4, 15662-15669.	5.2	54
800	Mixed-solvent-vapor annealing of perovskite for photovoltaic device efficiency enhancement. Nano Energy, 2016, 28, 417-425.	8.2	114

#	Article	IF	Citations
801	Effects of Organic Cation Additives on the Fast Growth of Perovskite Thin Films for Efficient Planar Heterojunction Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 24703-24711.	4.0	38
802	Solution-processed highly bright and durable cesium lead halide perovskite light-emitting diodes. Nanoscale, 2016, 8, 18021-18026.	2.8	160
803	Interplay of structural and compositional effects on carrier recombination in mixed-halide perovskites. RSC Advances, 2016, 6, 86947-86954.	1.7	20
804	Stable Lowâ€Bandgap Pbâ€"Sn Binary Perovskites for Tandem Solar Cells. Advanced Materials, 2016, 28, 8990-8997.	11.1	302
805	Ultrathin and flexible perovskite solar cells with graphene transparent electrodes. Nano Energy, 2016, 28, 151-157.	8.2	200
806	A balanced cation exchange reaction toward highly uniform and pure phase FA_{1âˆ'x}MA_xPbI₃ perovskite films. Journal of Materials Chemistry A, 2016, 4, 14437-14443.	5.2	64
807	A mesoporousâ€"planar hybrid architecture of methylammonium lead iodide perovskite based solar cells. Journal of Materials Chemistry A, 2016, 4, 14423-14429.	5.2	17
808	Recent progress on perovskite solar cells and our materials science. , 2016, , .		0
809	Nonradiative Relaxation in Real-Time Electronic Dynamics OSCF2: Organolead Triiodide Perovskite. Journal of Physical Chemistry A, 2016, 120, 6880-6887.	1.1	13
810	Efficiency-Enhanced Planar Perovskite Solar Cells via an Isopropanol/Ethanol Mixed Solvent Process. ACS Applied Materials & Interfaces, 2016, 8, 23837-23843.	4.0	53
811	Redox Chemistry Dominates the Degradation and Decomposition of Metal Halide Perovskite Optoelectronic Devices. ACS Energy Letters, 2016, 1, 595-602.	8.8	196
812	Multinuclear NMR as a tool for studying local order and dynamics in CH₃NH₃PbX₃(X = Cl, Br, I) hybrid perovskites. Physical Chemistry Chemical Physics, 2016, 18, 27133-27142.	1.3	78
813	HONH3Cl optimized CH3NH3PbI3 films for improving performance of planar heterojunction perovskite solar cells via a one-step route. Physical Chemistry Chemical Physics, 2016, 18, 26254-26261.	1.3	9
814	Impact of Conformality and Crystallinity for Ultrathin 4 nm Compact TiO₂ Layers in Perovskite Solar Cells. Advanced Materials Interfaces, 2016, 3, 1600580.	1.9	19
815	Surface Electronic Structure of Hybrid Organo Lead Bromide Perovskite Single Crystals. Journal of Physical Chemistry C, 2016, 120, 21710-21715.	1.5	58
816	Efficient, monolithic large area organohalide perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 13830-13836.	5.2	47
817	Low Temperature Solutionâ€Processed Sb:SnO₂ Nanocrystals for Efficient Planar Perovskite Solar Cells. ChemSusChem, 2016, 9, 2686-2691.	3.6	172
818	2D/3D perovskite hybrids as moisture-tolerant and efficient light absorbers for solar cells. Nanoscale, 2016, 8, 18309-18314.	2.8	224

#	Article	IF	Citations
819	Engineering of ambient processing conditions to control solvent induced intermediate phase in mixed halide organic-inorganic perovskite (CH<inf>3</inf>NH<inf>3</inf>PbI<inf>3â^'x</inf>Cl<inf>x</inf>) film for efficient planar perovskite solar cells. , 2016, , .		1
820	Interface modification for organic and perovskite solar cells. Science China Materials, 2016, 59, 743-756.	3.5	23
821	Surface optimization to eliminate hysteresis for record efficiency planar perovskite solar cells. Energy and Environmental Science, 2016, 9, 3071-3078.	15.6	870
822	Radiation Hardness and Selfâ€Healing of Perovskite Solar Cells. Advanced Materials, 2016, 28, 8726-8731.	11.1	195
823	n-Type Doping and Energy States Tuning in CH₃NH₃Pb_{1â€"<i>x</i>}Sb_{2<i>x</i>/3}I₃ Perovskite Solar Cells. ACS Energy Letters, 2016, 1, 535-541.	8.8	160
824	Exploring a Leadâ€free Semiconducting Hybrid Ferroelectric with a Zeroâ€Dimensional Perovskiteâ€like Structure. Angewandte Chemie - International Edition, 2016, 55, 11854-11858.	7.2	128
825	Hybrid perovskite as substituent of indium and gallium in light emitting diodes. Physica Status Solidi C: Current Topics in Solid State Physics, 2016, 13, 958-961.	0.8	5
826	Characteristics of Perovskite Solar Cells under Low-Illuminance Conditions. Journal of Physical Chemistry C, 2016, 120, 18986-18990.	1.5	43
827	High-Quality Perovskite Films Grown with a Fast Solvent-Assisted Molecule Inserting Strategy for Highly Efficient and Stable Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 22238-22245.	4.0	19
828	Alkali Metal Halide Salts as Interface Additives to Fabricate Hysteresis-Free Hybrid Perovskite-Based Photovoltaic Devices. ACS Applied Materials & Interfaces, 2016, 8, 23086-23094.	4.0	28
829	Thermal flow air post-treatment under high relative humidity for efficient and reproducible planar CH3NH3PbI3â^'xClx based perovskite solar cells. Optical and Quantum Electronics, 2016, 48, 1.	1.5	1
830	Interface Play between Perovskite and Hole Selective Layer on the Performance and Stability of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 34414-34421.	4.0	56
831	Crystalline Intermediates and Their Transformation Kinetics during the Formation of Methylammonium Lead Halide Perovskite Thin Films. Chemistry of Materials, 2016, 28, 9041-9048.	3.2	29
832	Carbon-Based CsPbBr₃ Perovskite Solar Cells: All-Ambient Processes and High Thermal Stability. ACS Applied Materials & Interfaces, 2016, 8, 33649-33655.	4.0	256
833	Flame-made ultra-porous TiO₂layers for perovskite solar cells. Nanotechnology, 2016, 27, 505403.	1.3	11
834	Crystal structure, stability, and optoelectronic properties of the organic-inorganic wide-band-gap perovskite <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>CH</mml:mi><mml:mn>3</mml:mn></m : Candidate for transparent conductor applications. Physical Review B, 2016, 94, .	1.1	43
835	Nanoimprinted Perovskite Nanograting Photodetector with Improved Efficiency. ACS Nano, 2016, 10, 10921-10928.	7.3	168
836	The Influence of Water Vapor on the Stability and Processing of Hybrid Perovskite Solar Cells Made from Nonâ€Stoichiometric Precursor Mixtures. ChemSusChem, 2016, 9, 2699-2707.	3.6	77

#	Article	IF	Citations
837	Room Temperature Phase Transition in Methylammonium Lead Iodide Perovskite Thin Films Induced by Hydrohalic Acid Additives. ChemSusChem, 2016, 9, 2656-2665.	3.6	47
838	Tuning PbI₂layers by n-butanol additive for improving CH₃NH₃PbI₃light harvesters of perovskite solar cells. RSC Advances, 2016, 6, 89609-89613.	1.7	12
839	Layered 2D alkyldiammonium lead iodide perovskites: synthesis, characterization, and use in solar cells. Journal of Materials Chemistry A, 2016, 4, 15638-15646.	5.2	170
840	Distribution of bromine in mixed iodideâ€“bromide organolead perovskites and its impact on photovoltaic performance. Journal of Materials Chemistry A, 2016, 4, 16191-16197.	5.2	29
841	Anatase and Brookite Electron Collectors from Binder-free Precursor Pastes for Low-temperature Solution-processed Perovskite Solar Cells. Chemistry Letters, 2016, 45, 143-145.	0.7	11
842	Tandem Architecture of Perovskite and Cu(In,Ga)(S,Se)₂ Created by Solution Processes for Solar Cells. Advanced Optical Materials, 2016, 4, 2102-2108.	3.6	14
843	Grain structure control and greatly enhanced carrier transport by CH3NH3PbCl3 interlayer in two-step solution processed planar perovskite solar cells. Organic Electronics, 2016, 38, 362-369.	1.4	11
844	Tuning the Fermi-level of TiO₂mesoporous layer by lanthanum doping towards efficient perovskite solar cells. Nanoscale, 2016, 8, 16881-16885.	2.8	103
845	A Strategy to Simplify the Preparation Process of Perovskite Solar Cells by Coâ€deposition of a Holeâ€Conductor and a Perovskite Layer. Advanced Materials, 2016, 28, 9648-9654.	11.1	150
846	Evidence for reduced charge recombination in carbon nanotube/perovskite-based active layers. Chemical Physics Letters, 2016, 662, 35-41.	1.2	43
847	Advances in Perovskite Solar Cells. Advanced Science, 2016, 3, 1500324.	5.6	482
848	Optimizing semiconductor thin films with smooth surfaces and well-interconnected networks for high-performance perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 12463-12470.	5.2	28
849	Perovskite Luminescent Materials. Topics in Current Chemistry, 2016, 374, 52.	3.0	20
850	Rejuvenation of perovskite solar cells. Journal of Materials Chemistry C, 2016, 4, 7595-7600.	2.7	19
851	Phosphorene and Phosphoreneâ€Based Materials â€" Prospects for Future Applications. Advanced Materials, 2016, 28, 8586-8617.	11.1	378
852	Efficient perovskite light-emitting diodes by film annealing temperature control. RSC Advances, 2016, 6, 71070-71075.	1.7	21
853	Enhanced Electron Collection in Perovskite Solar Cells Employing Thermoelectric NaCo₂O₄/TiO₂ Coaxial Nanofibers. Small, 2016, 12, 5146-5152.	5.2	22
854	Effect of Thermal and Structural Disorder on the Electronic Structure of Hybrid Perovskite Semiconductor CH₃NH₃PbI₃. Journal of Physical Chemistry Letters, 2016, 7, 3014-3021.	2.1	148

#	Article	IF	Citations
855	Unreacted PbI₂ 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
856	Optoelectronic and photovoltaic properties of the air-stable organohalide semiconductor (CH₃NH₃)₃Bi₂I₉. Journal of Materials Chemistry A, 2016, 4, 12504-12515.	5.2	151
857	Pseudomorphic Transformation of Organometal Halide Perovskite Using the Gaseous Hydrogen Halide Reaction. Chemistry of Materials, 2016, 28, 5530-5537.	3.2	39
858	Low-cost and Efficient Hole-Transport-Material-free perovskite solar cells employing controllable electron-transport layer based on P25 nanoparticles. Electrochimica Acta, 2016, 213, 83-88.	2.6	33
859			

#	Article	IF	Citations
873	Twoâ€Step Physical Deposition of a Compact CuI Holeâ€Transport Layer and the Formation of an Interfacial Species in Perovskite Solar Cells. ChemSusChem, 2016, 9, 1929-1937.	3.6	64
874	Perovskite Photodetectors Operating in Both Narrowband and Broadband Regimes. Advanced Materials, 2016, 28, 8144-8149.	11.1	260
875	Multifunctional Energy Storage and Conversion Devices. Advanced Materials, 2016, 28, 8344-8364.	11.1	420
876	Hierarchical Dualâ€Scaffolds Enhance Charge Separation and Collection for High Efficiency Semitransparent Perovskite Solar Cells. Advanced Materials Interfaces, 2016, 3, 1600484.	1.9	40
877	Efficient Semitransparent Perovskite Solar Cells for 23.0%â€Efficiency Perovskite/Silicon Fourâ€Terminal Tandem Cells. Advanced Energy Materials, 2016, 6, 1601128.	10.2	240
878	Highly Efficient, Reproducible, Uniform (CH₃NH₃)PbI₃ Layer by Processing Additive Dripping for Solutionâ€Processed Planar Heterojunction Perovskite Solar Cells. Chemistry - an Asian Journal, 2016, 11, 2399-2405.	1.7	5
879	Core-shell CuO-ZnO p-n heterojunction with high specific surface area for enhanced photoelectrochemical (PEC) energy conversion. Solar Energy, 2016, 136, 327-332.	2.9	47
880	Facile and Scalable Fabrication of Highly Efficient Lead Iodide Perovskite Thin-Film Solar Cells in Air Using Gas Pump Method. ACS Applied Materials & Interfaces, 2016, 8, 20067-20073.	4.0	88
881	Identifying the Molecular Structures of Intermediates for Optimizing the Fabrication of High-Quality Perovskite Films. Journal of the American Chemical Society, 2016, 138, 9919-9926.	6.6	249
882	The detrimental effect of excess mobile ions in planar CH₃NH₃PbI₃ perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 12748-12755.	5.2	55
883	Retarding Crystallization during Facile Single Coating of NaCl-Incorporated Precursor Solution for Efficient Large-Area Uniform Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 29419-29426.	4.0	37
884	High Performance of Perovskite Solar Cells via Catalytic Treatment in Two-Step Process: The Case of Solvent Engineering. ACS Applied Materials & Interfaces, 2016, 8, 30107-30115.	4.0	28
885	Room-temperature water-vapor annealing for high-performance planar perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 17267-17273.	5.2	58
886	Ultrastable, Highly Luminescent Organicâ€"Inorganic Perovskiteâ€"Polymer Composite Films. Advanced Materials, 2016, 28, 10710-10717.	11.1	400
887	Lochtransportmaterialien fÃ¼r Perowskitâ€Solarzellen. Angewandte Chemie, 2016, 128, 14740-14764.	1.6	72
888	Humidity controlled sol-gel Zr/TiO2 with optimized band alignment for efficient planar perovskite solar cells. Solar Energy, 2016, 139, 290-296.	2.9	27
889	Colloidal Precursor-Induced Growth of Ultra-Even CH3NH3PbI3 for High-Performance Paintable Carbon-Based Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 30184-30192.	4.0	53
890	Electronâ€"Phonon Scattering in Atomically Thin 2D Perovskites. ACS Nano, 2016, 10, 9992-9998.	7.3	215

#	Article	IF	Citations
891	Mesoporous materials for energy conversion and storage devices. Nature Reviews Materials, 2016, 1, .	23.3	1,031
892	Defective TiO2 with high photoconductive gain for efficient and stable planar heterojunction perovskite solar cells. Nature Communications, 2016, 7, 12446.	5.8	139
893	Polymer-templated nucleation and crystal growth of perovskite films for solar cells with efficiency greater thanÂ21%. Nature Energy, 2016, 1, .	19.8	1,719
894	Perovskite solar cells with 18.21% efficiency andÂarea over 1â€‰cm2 fabricated by heterojunctionÂengineering. Nature Energy, 2016, 1, .	19.8	555
895	Towards stable and commercially available perovskite solar cells. Nature Energy, 2016, 1, .	19.8	941
896	Frustrated Lewis pair-mediated recrystallization of CH₃NH₃PbI₃ for improved optoelectronic quality and high voltage planar perovskite solar cells. Energy and Environmental Science, 2016, 9, 3770-3782.	15.6	117
897	High-performance integrated perovskite and organic solar cells with efficient near-infrared harvesting. , 2016, , .		1
898	Triarylamine: Versatile Platform for Organic, Dye-Sensitized, and Perovskite Solar Cells. Chemical Reviews, 2016, 116, 14675-14725.	23.0	418
899	Photocurrent Mapping in Single-Crystal Methylammonium Lead Iodide Perovskite Nanostructures. Nano Letters, 2016, 16, 7710-7717.	4.5	56
900	Stabilized Wide Bandgap Perovskite Solar Cells by Tin Substitution. Nano Letters, 2016, 16, 7739-7747.	4.5	193
901	Photon Transport in One-Dimensional Incommensurately Epitaxial CsPbX₃ Arrays. Nano Letters, 2016, 16, 7974-7981.	4.5	124
902	Morphology Evolution of High Efficiency Perovskite Solar Cells via Vapor Induced Intermediate Phases. Journal of the American Chemical Society, 2016, 138, 15710-15716.	6.6	102
903	High coverage solution-processed planar perovskite solar cell grown based on the Stranskiâ€“Krastanov mechanism at low temperature and short time. RSC Advances, 2016, 6, 112677-112685.	1.7	17
904	Solar photovoltaics: current state and trends. Physics-Uspekhi, 2016, 59, 727-772.	0.8	79
905	Facet-Dependent Property of Sequentially Deposited Perovskite Thin Films: Chemical Origin and Self-Annihilation. ACS Applied Materials & Interfaces, 2016, 8, 32366-32375.	4.0	19
906	Reduced voltage losses yield 10% efficient fullerene free organic solar cells with >1 V open circuit voltages. Energy and Environmental Science, 2016, 9, 3783-3793.	15.6	477
907	Semiconductor Nanowires for Energy Harvesting. Semiconductors and Semimetals, 2016, 94, 297-368.	0.4	9
908	Efficient Perovskite Solar Cells Based on Multilayer Transparent Electrodes through Morphology Control. Journal of Physical Chemistry C, 2016, 120, 26703-26709.	1.5	12

#	Article	IF	Citations
909	Pure crystal orientation and anisotropic charge transport in large-area hybrid perovskite films. Nature Communications, 2016, 7, 13407.	5.8	170
910	Radio Frequency Magnetron Sputtering Deposition of TiO2 Thin Films and Their Perovskite Solar Cell Applications. Scientific Reports, 2016, 5, 17684.	1.6	81
911	Multipass inkjet printed planar methylammonium lead iodide perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 19207-19213.	5.2	112
912	Intrinsic and Extrinsic Stability of Formamidinium Lead Bromide Perovskite Solar Cells Yielding High Photovoltage. Nano Letters, 2016, 16, 7155-7162.	4.5	104
913	Improved Phase Stability of Formamidinium Lead Triiodide Perovskite by Strain Relaxation. ACS Energy Letters, 2016, 1, 1014-1020.	8.8	367
914	TiO₂â€“ZnS Cascade Electron Transport Layer for Efficient Formamidinium Tin Iodide Perovskite Solar Cells. Journal of the American Chemical Society, 2016, 138, 14998-15003.	6.6	220
915	Solution-Processible Crystalline NiO Nanoparticles for High-Performance Planar Perovskite Photovoltaic Cells. Scientific Reports, 2016, 6, 30759.	1.6	166
916	Improving the Performance of Formamidinium and Cesium Lead Triiodide Perovskite Solar Cells using Lead Thiocyanate Additives. ChemSusChem, 2016, 9, 3288-3297.	3.6	178
917	Controlled Synthesis of Lead-Free and Stable Perovskite Derivative Cs₂SnI₆ Nanocrystals via a Facile Hot-Injection Process. Chemistry of Materials, 2016, 28, 8132-8140.	3.2	310
918	Controlled growth of organicâ€“inorganic hybrid CH₃NH₃PbI₃ perovskite thin films from phase-controlled crystalline powders. RSC Advances, 2016, 6, 104359-104365.	1.7	16
919	Doping and alloying for improved perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 17623-17635.	5.2	157
920	Enhanced performance and light soaking stability of planar perovskite solar cells using an amine-based fullerene interfacial modifier. Journal of Materials Chemistry A, 2016, 4, 18509-18515.	5.2	62
921	Colloidal Organometal Halide Perovskite (MAPbBrxI3â^’x, 0â‰xâ‰3) Quantum Dots: Controllable Synthesis and Tunable Photoluminescence. Scientific Reports, 2016, 6, 35931.	1.6	22
922	Low cost and solution-processable zinc phthalocyanine as alternative hole transport material for perovskite solar cells. RSC Advances, 2016, 6, 107723-107731.	1.7	21
923	Enhanced photovoltaic performance of planar perovskite solar cells fabricated in ambient air by solvent annealing treatment method. Japanese Journal of Applied Physics, 2016, 55, 122301.	0.8	16
924	Enhanced performance of perovskite solar cells by modulating the Lewis acidâ€“base reaction. Nanoscale, 2016, 8, 19804-19810.	2.8	62
925	A Universal Deposition Protocol for Planar Heterojunction Solar Cells with High Efficiency Based on Hybrid Lead Halide Perovskite Families. Advanced Materials, 2016, 28, 10701-10709.	11.1	100
926	Facile fabrication of large-grain CH3NH3PbI3â^’xBrx films for high-efficiency solar cells via CH3NH3Br-selective Ostwald ripening. Nature Communications, 2016, 7, 12305.	5.8	444

#	Article	IF	Citations
927	Enhancing stability and efficiency of perovskite solar cells with crosslinkable silane-functionalized and doped fullerene. Nature Communications, 2016, 7, 12806.	5.8	350
928	Structural engineering using rubidium iodide as a dopant under excess lead iodide conditions for high efficiency and stable perovskites. Nano Energy, 2016, 30, 330-340.	8.2	133
929	Polyethyleneimine High-Energy Hydrophilic Surface Interfacial Treatment toward Efficient and Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 32574-32580.	4.0	52
930	Efficient and stable perovskite solar cells prepared in ambient air irrespective of the humidity. Nature Communications, 2016, 7, 11105.	5.8	488
931	Specific cation interactions as the cause of slow dynamics and hysteresis in dye and perovskite solar cells: a small-perturbation study. Physical Chemistry Chemical Physics, 2016, 18, 31033-31042.	1.3	89
932	Role of Isopropyl Alcohol Solvent in the Synthesis of Organicâ€“Inorganic Halide CH(NH₂)₂PbI_{<i>x</i>}Br_{3â€“<i>x</i>} Perovskite Thin Films by a Two-Step Method. Journal of Physical Chemistry C, 2016, 120, 25371-25377.	1.5	12
933	Improved Performance and Stability of Inverted Planar Perovskite Solar Cells Using Fulleropyrrolidine Layers. ACS Applied Materials & Interfaces, 2016, 8, 31426-31432.	4.0	60
934	Size-dependent phase transition in methylammonium lead iodide perovskite microplate crystals. Nature Communications, 2016, 7, 11330.	5.8	206
935	Light-activated photocurrent degradation and self-healing in perovskite solar cells. Nature Communications, 2016, 7, 11574.	5.8	584
936	Selective dissolution of halide perovskites as a step towards recycling solar cells. Nature Communications, 2016, 7, 11735.	5.8	129
937	Correlation of energy disorder and open-circuit voltage in hybrid perovskite solar cells. Nature Energy, 2016, 1, .	19.8	646
938	Assessing the toxicity of Pb- and Sn-based perovskite solar cells in model organism Danio rerio. Scientific Reports, 2016, 6, 18721.	1.6	396
939	Enhancing performance and uniformity of CH3NH3PbI3âˆ’xClx perovskite solar cells by air-heated-oven assisted annealing under various humidities. Scientific Reports, 2016, 6, 21257.	1.6	26
940	Investigation of the Hydrolysis of Perovskite Organometallic Halide CH3NH3PbI3 in Humidity Environment. Scientific Reports, 2016, 6, 21976.	1.6	100
941	Stable and null current hysteresis perovskite solar cells based nitrogen doped graphene oxide nanoribbons hole transport layer. Scientific Reports, 2016, 6, 27773.	1.6	34
942	Unravelling the low-temperature metastable state in perovskite solar cells by noise spectroscopy. Scientific Reports, 2016, 6, 34675.	1.6	32
943	Influence of the substrate on the bulk properties of hybrid lead halide perovskite films. Journal of Materials Chemistry A, 2016, 4, 18153-18163.	5.2	52
944	Study of the interaction of PSS-PEDOT, PCBM and Sprio-OMeTAD with MAPbI3 crystal facets using molecular dynamics simulation. , 2016, , .		0

#	Article	IF	Citations
945	High-quality CH3NH3PbI3 thin film fabricated via intramolecular exchange for efficient planar heterojunction perovskite solar cells. Organic Electronics, 2016, 39, 304-310.	1.4	27
946	Achieving high-performance planar perovskite solar cells with co-sputtered Co-doping NiO_xhole transport layers by efficient extraction and enhanced mobility. Journal of Materials Chemistry C, 2016, 4, 10839-10846.	2.7	98
947	Color tunable nanopaper solar cells using hybrid CH3NH3PbI3â^'xBrx perovskite. Solar Energy, 2016, 139, 458-466.	2.9	33
948	Analysis of the Hysteresis Behavior of Perovskite Solar Cells with Interfacial Fullerene Self-Assembled Monolayers. Journal of Physical Chemistry Letters, 2016, 7, 4622-4628.	2.1	68
949	Evaluating the Optoelectronic Quality of Hybrid Perovskites by Conductive Atomic Force Microscopy with Noise Spectroscopy. ACS Applied Materials & Interfaces, 2016, 8, 30985-30991.	4.0	54
950	Improved efficiency of solution-processed bulk-heterojunction organic solar cells and planar-heterojunction perovskite solar cells with efficient hole-extracting Si nanocrystals. RSC Advances, 2016, 6, 104962-104968.	1.7	0
951	Improved efficiency and stability of Pbâ€“Sn binary perovskite solar cells by Cs substitution. Journal of Materials Chemistry A, 2016, 4, 17939-17945.	5.2	151
952	A discussion on the origin and solutions of hysteresis in perovskite hybrid solar cells. Journal Physics D: Applied Physics, 2016, 49, 473001.	1.3	45
953	Reduced graphene oxide-assisted crystallization of perovskite via solution-process for efficient and stable planar solar cells with module-scales. Nano Energy, 2016, 30, 667-676.	8.2	56
954	Manipulating multicrystalline grain size in CH3NH3PbI3 thin films for application in photovoltaics. Solar Energy, 2016, 139, 518-523.	2.9	18
955	Solvent annealing of PbI₂for the high-quality crystallization of perovskite films for solar cells with efficiencies exceeding 18%. Nanoscale, 2016, 8, 19654-19661.	2.8	82
956	Fast dipping treatment for dense perovskite thin films. , 2016, , .		0
957	Photovoltaic and Amplified Spontaneous Emission Studies of Highâ€Quality Formamidinium Lead Bromide Perovskite Films. Advanced Functional Materials, 2016, 26, 2846-2854.	7.8	66
958	Evaporative Selfâ€Assembly of Gold Nanorods into Macroscopic 3D Plasmonic Superlattice Arrays. Advanced Materials, 2016, 28, 2511-2517.	11.1	160
959	Crosslinked Remoteâ€Doped Holeâ€Extracting Contacts Enhance Stability under Accelerated Lifetime Testing in Perovskite Solar Cells. Advanced Materials, 2016, 28, 2807-2815.	11.1	108
960	â€œLiquid Knifeâ€•to Fabricate Patterning Singleâ€Crystalline Perovskite Microplates toward Highâ€Performance Laser Arrays. Advanced Materials, 2016, 28, 3732-3741.	11.1	149
961	Hysteresisâ€Suppressed Highâ€Efficiency Flexible Perovskite Solar Cells Using Solidâ€State Ionicâ€Liquids for Effective Electron Transport. Advanced Materials, 2016, 28, 5206-5213.	11.1	387
962	Employing Lead Thiocyanate Additive to Reduce the Hysteresis and Boost the Fill Factor of Planar Perovskite Solar Cells. Advanced Materials, 2016, 28, 5214-5221.	11.1	487

#	Article	IF	Citations
963	A Lowâ€Temperature, Solution Processable Tin Oxide Electronâ€Transporting Layer Prepared by the Dualâ€Fuel Combustion Method for Efficient Perovskite Solar Cells. Advanced Materials Interfaces, 2016, 3, 1600122.	1.9	107
964	Holeâ€Transporting Materials in Inverted Planar Perovskite Solar Cells. Advanced Energy Materials, 2016, 6, 1600474.	10.2	243
965	Perovskite materials in energy storage and conversion. Asia-Pacific Journal of Chemical Engineering, 2016, 11, 338-369.	0.8	81
966	Efficient Holeâ€Transporting Materials with Triazole Core for Highâ€Efficiency Perovskite Solar Cells. Chemistry - an Asian Journal, 2016, 11, 548-554.	1.7	19
967	Structureâ€Tuned Lead Halide Perovskite Nanocrystals. Advanced Materials, 2016, 28, 566-573.	11.1	215
968	Bandgap Engineering of Leadâ€Halide Perovskiteâ€Type Ferroelectrics. Advanced Materials, 2016, 28, 2579-2586.	11.1	298
969	Perovskite Photovoltaics with Outstanding Performance Produced by Chemical Conversion of Bilayer Mesostructured Lead Halide/TiO₂ Films. Advanced Materials, 2016, 28, 2964-2970.	11.1	144
970	Heterostructured WS₂/CH₃NH₃PbI₃ Photoconductors with Suppressed Dark Current and Enhanced Photodetectivity. Advanced Materials, 2016, 28, 3683-3689.	11.1	396
971	Growth Engineering of CH₃NH₃PbI₃ Structures for Highâ€Efficiency Solar Cells. Advanced Energy Materials, 2016, 6, 1501358.	10.2	36
972	Enhanced Efficiency and Stability of Perovskite Solar Cells Through Ndâ€Doping of Mesostructured TiO₂. Advanced Energy Materials, 2016, 6, 1501868.	10.2	157
973	Benzotrithiopheneâ€Based Holeâ€Transporting Materials for 18.2â€‰% Perovskite Solar Cells. Angewandte Chemie, 2016, 128, 6378-6382.	1.6	54
974	Energy Landscape of Molecular Motion in Cubic Methylammonium Lead Iodide from First-Principles. Journal of Physical Chemistry C, 2016, 120, 12403-12410.	1.5	57
975	Acetate Salts as Nonhalogen Additives To Improve Perovskite Film Morphology for High-Efficiency Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 15333-15340.	4.0	56
976	Enhanced Photovoltaic Performance of Perovskite Solar Cells Using Polymer P(VDF-TrFE) as a Processed Additive. Journal of Physical Chemistry C, 2016, 120, 12980-12988.	1.5	81
977	Crystallisation dynamics in wide-bandgap perovskite films. Journal of Materials Chemistry A, 2016, 4, 10524-10531.	5.2	29
978	A vacuum flashâ€“assisted solution process for high-efficiency large-area perovskite solar cells. Science, 2016, 353, 58-62.	6.0	1,636
979	Hybrid nanostructures of TiO₂ nanorod array/Cu₂O with a CH₃NH₃PbI₃ interlayer for enhanced photocatalytic activity and photoelectrochemical performance. RSC Advances, 2016, 6, 57695-57700.	1.7	5
980	The control of surface texture for planar CH3NH3PbI3â^'xClx film and its effect on photovoltaic performance. Journal of Materials Science: Materials in Electronics, 2016, 27, 9384-9390.	1.1	3

#	Article	IF	Citations
981	Modulating carrier dynamics through perovskite film engineering. Physical Chemistry Chemical Physics, 2016, 18, 27119-27123.	1.3	33
982	Soft-cover deposition of scaling-up uniform perovskite thin films for high cost-performance solar cells. Energy and Environmental Science, 2016, 9, 2295-2301.	15.6	173
983	Earth abundant CuSbS₂ thin films solution processed from thiolâ€œamine mixtures. Journal of Materials Chemistry C, 2016, 4, 6230-6233.	2.7	53
984	Curing of degraded MAPbI₃perovskite films. RSC Advances, 2016, 6, 60620-60625.	1.7	15
985	The rising star in photovoltaics-perovskite solar cells: The past, present and future. Science China Technological Sciences, 2016, 59, 989-1006.	2.0	33
986	Color-Pure Violet-Light-Emitting Diodes Based on Layered Lead Halide Perovskite Nanoplates. ACS Nano, 2016, 10, 6897-6904.	7.3	378
987	A 19.0% efficiency achieved in CuOx-based inverted CH3NH3PbI3âˆ’xClx solar cells by an effective Cl doping method. Nano Energy, 2016, 27, 51-57.	8.2	222
988	Perovskite energy funnels for efficient light-emitting diodes. Nature Nanotechnology, 2016, 11, 872-877.	15.6	1,868
989	Size-controlled synthesis of highly luminescent organometal halide perovskite quantum dots. Journal of Alloys and Compounds, 2016, 687, 506-513.	2.8	52
990	High-performance flexible and air-stable perovskite solar cells with a large active area based on poly(3-hexylthiophene) nanofibrils. Journal of Materials Chemistry A, 2016, 4, 11307-11316.	5.2	51
991	Reduced graphene oxide (rGO) grafted zinc stannate (Zn2SnO4) nanofiber scaffolds for highly efficient mixed-halide perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 12158-12169.	5.2	65
992	Controlled growth of textured perovskite films towards high performance solar cells. Nano Energy, 2016, 27, 17-26.	8.2	123
993	Colorimetric polarity chemosensor based on a organometal halide perovskite functional dye. Dyes and Pigments, 2016, 133, 73-78.	2.0	10
994	Room temperature, air crystallized perovskite film for high performance solar cells. Journal of Materials Chemistry A, 2016, 4, 10231-10240.	5.2	60
995	A new layered nano hybrid perovskite film with enhanced resistance to moisture-induced degradation. Chemical Physics Letters, 2016, 658, 71-75.	1.2	23
996	Understanding the relationship between ion migration and the anomalous hysteresis in high-efficiency perovskite solar cells: A fresh perspective from halide substitution. Nano Energy, 2016, 26, 620-630.	8.2	167
997	Investigation of chlorine-mediated microstructural evolution of CH3NH3PbI3(Cl) grains for high optoelectronic responses. Nano Energy, 2016, 25, 91-99.	8.2	41
998	Improving the efficiency of inverted mixed-organic-cation perovskite absorber based photovoltaics by tailing the surface roughness of PEDOT: PSS thin film. Solar Energy, 2016, 134, 445-451.	2.9	35

#	Article	IF	Citations
999	Solution processed perovskite solar cells using highly conductive PEDOT:PSS interfacial layer. Solar Energy Materials and Solar Cells, 2016, 157, 318-325.	3.0	69
1000	High performance planar-heterojunction perovskite solar cells using amino-based fulleropyrrolidine as the electron transporting material. Journal of Materials Chemistry A, 2016, 4, 10130-10134.	5.2	44
1001	Initiating crystal growth kinetics of Î±-HC(NH2)2PbI3 for flexible solar cells with long-term stability. Nano Energy, 2016, 26, 438-445.	8.2	35
1002	Nanoconfined Crystallization of MAPbI₃ to Probe Crystal Evolution and Stability. Crystal Growth and Design, 2016, 16, 4744-4751.	1.4	24
1003	The effect of transparent conductive oxide on the performance CH3NH3PbI3 perovskite solar cell without electron/hole selective layers. Solar Energy, 2016, 135, 654-661.	2.9	27
1004	Controlled crystallization of CH3NH3PbI3 films for perovskite solar cells by various PbI2(X) complexes. Solar Energy Materials and Solar Cells, 2016, 155, 331-340.	3.0	43
1005	Mechanical integrity of solution-processed perovskite solar cells. Extreme Mechanics Letters, 2016, 9, 353-358.	2.0	150
1006	Solvent effect on the hole-conductor-free fully printable perovskite solar cells. Nano Energy, 2016, 27, 130-137.	8.2	141
1007	Exploration of fabrication methods for planar CH3NH3PbI3 perovskite solar cells. Nano Energy, 2016, 27, 175-184.	8.2	35
1008	Inhibition of Ion Migration for Reliable Operation of Organolead Halide Perovskiteâ€Based Metal/Semiconductor/Metal Broadband Photodetectors. Advanced Functional Materials, 2016, 26, 4213-4222.	7.8	112
1009	Highâ€Performance Inverted Planar Heterojunction Perovskite Solar Cells Based on Lead Acetate Precursor with Efficiency Exceeding 18%. Advanced Functional Materials, 2016, 26, 3508-3514.	7.8	176
1010	Highâ€Efficiency Flexible Solar Cells Based on Organometal Halide Perovskites. Advanced Materials, 2016, 28, 4532-4540.	11.1	102
1011	Oxidized Ni/Au Transparent Electrode in Efficient CH₃NH₃PbI₃ Perovskite/Fullerene Planar Heterojunction Hybrid Solar Cells. Advanced Materials, 2016, 28, 3290-3297.	11.1	57
1012	Highâ€Performance Perovskite Solar Cells with Enhanced Environmental Stability Based on Amphiphileâ€Modified CH₃NH₃PbI₃. Advanced Materials, 2016, 28, 2910-2915.	11.1	258
1013	Organometal Halide Perovskite Artificial Synapses. Advanced Materials, 2016, 28, 5916-5922.	11.1	319
1014	High Performance of Planar Perovskite Solar Cells Produced from PbI₂(DMSO) and PbI₂(NMP) Complexes by Intramolecular Exchange. Advanced Materials Interfaces, 2016, 3, 1500768.	1.9	206
1015	Solventâ€Mediated Dimension Tuning of Semiconducting Oxide Nanostructures as Efficient Charge Extraction Thin Films for Perovskite Solar Cells with Efficiency Exceeding 16%. Advanced Energy Materials, 2016, 6, 1502027.	10.2	52
1016	Is Excess PbI₂ Beneficial for Perovskite Solar Cell Performance?. Advanced Energy Materials, 2016, 6, 1502206.	10.2	322

#	Article	IF	Citations
1017	Advances in the structure and materials of perovskite solar cells. Research on Chemical Intermediates, 2016, 42, 625-639.	1.3	11
1018	Improved morphology and enhanced stability via solvent engineering for planar heterojunction perovskite solar cells. Organic Electronics, 2016, 31, 142-148.	1.4	37
1019	Direct Conversion of Perovskite Thin Films into Nanowires with Kinetic Control for Flexible Optoelectronic Devices. Nano Letters, 2016, 16, 871-876.	4.5	164
1020	Rapid growth of high quality perovskite crystal by solvent mixing. CrystEngComm, 2016, 18, 1184-1189.	1.3	6
1021	Solution-induced morphology change of organic-inorganic hybrid perovskite films for high efficiency inverted planar heterojunction solar cells. Electrochimica Acta, 2016, 191, 750-757.	2.6	27
1022	A Long-Term View on Perovskite Optoelectronics. Accounts of Chemical Research, 2016, 49, 339-346.	7.6	189
1023	Vapor phase conversion of PbI₂to CH₃NH₃PbI₃: spectroscopic evidence for formation of an intermediate phase. Journal of Materials Chemistry A, 2016, 4, 2630-2642.	5.2	98
1024	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
1025	Impacts of Heterogeneous TiO₂ and Al₂O₃ Composite Mesoporous Scaffold on Formamidinium Lead Trihalide Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 4608-4615.	4.0	36
1026	Dark-blue mirror-like perovskite dense films for efficient organicâ€"inorganic hybrid solar cells. Journal of Materials Chemistry A, 2016, 4, 3689-3696.	5.2	8
1027	Recent progress in electron transport layers for efficient perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 3970-3990.	5.2	472
1028	Unraveling the hidden function of a stabilizer in a precursor in improving hybrid perovskite film morphology for high efficiency solar cells. Energy and Environmental Science, 2016, 9, 867-872.	15.6	62
1029	High-performance, stable and low-cost mesoscopic perovskite (CH3NH3PbI3) solar cells based on poly(3-hexylthiophene)-modified carbon nanotube cathodes. Frontiers of Optoelectronics, 2016, 9, 71-80.	1.9	42
1030	Investigating relation of photovoltaic factors with properties of perovskite films based on various solvents. Nano Energy, 2016, 21, 51-61.	8.2	64
1031	Perovskites for Photovoltaics in the Spotlight: Photoinduced Physical Changes and Their Implications. Accounts of Chemical Research, 2016, 49, 320-329.	7.6	57
1032	Photophysical Analysis of the Formation of Organicâ€"Inorganic Trihalide Perovskite Films: Identification and Characterization of Crystal Nucleation and Growth. Journal of Physical Chemistry C, 2016, 120, 3071-3076.	1.5	23
1033	Making and Breaking of Lead Halide Perovskites. Accounts of Chemical Research, 2016, 49, 330-338.	7.6	571
1034	Novel Surface Passivation Technique for Low-Temperature Solution-Processed Perovskite PV Cells. ACS Applied Materials & Interfaces, 2016, 8, 4644-4650.	4.0	83

#	Article	IF	Citations
1035	Identification and characterization of the intermediate phase in hybrid organicâ€“inorganic MAPbI₃perovskite. Dalton Transactions, 2016, 45, 3806-3813.	1.6	283
1036	Recent progress and challenges of organometal halide perovskite solar cells. Reports on Progress in Physics, 2016, 79, 026501.	8.1	107
1037	Dynamic Growth of Pinhole-Free Conformal CH3NH3PbI3 Film for Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 4684-4690.	4.0	50
1038	Systematic analysis of the unique band gap modulation of mixed halide perovskites. Physical Chemistry Chemical Physics, 2016, 18, 4423-4428.	1.3	26
1039	Modulating crystal grain size and optoelectronic properties of perovskite films for solar cells by reaction temperature. Nanoscale, 2016, 8, 3816-3822.	2.8	179
1040	Charge Transfer Dynamics between Carbon Nanotubes and Hybrid Organic Metal Halide Perovskite Films. Journal of Physical Chemistry Letters, 2016, 7, 418-425.	2.1	83
1041	Flexible, hole transporting layer-free and stable CH 3 NH 3 PbI 3 /PC 61 BM planar heterojunction perovskite solar cells. Organic Electronics, 2016, 30, 281-288.	1.4	69
1042	Fabrication and Characterization of Mesoscopic Perovskite Photodiodes. IEEE Nanotechnology Magazine, 2016, 15, 255-260.	1.1	29
1043	N-type polymers as electron extraction layers in hybrid perovskite solar cells with improved ambient stability. Journal of Materials Chemistry A, 2016, 4, 2419-2426.	5.2	100
1044	Influence of void-free perovskite capping layer on the charge recombination process in high performance CH₃NH₃PbI₃perovskite solar cells. Nanoscale, 2016, 8, 4181-4193.	2.8	28
1045	Influence of growth temperature on bulk and surface defects in hybrid lead halide perovskite films. Nanoscale, 2016, 8, 1627-1634.	2.8	69
1046	Enhancing the crystallization and optimizing the orientation of perovskite films via controlling nucleation dynamics. Journal of Materials Chemistry A, 2016, 4, 223-232.	5.2	75
1047	Crystal organometal halide perovskites with promising optoelectronic applications. Journal of Materials Chemistry C, 2016, 4, 11-27.	2.7	185
1048	A two-terminal perovskite/perovskite tandem solar cell. Journal of Materials Chemistry A, 2016, 4, 1208-1213.	5.2	139
1049	Effects of Precursor Ratios and Annealing on Electronic Structure and Surface Composition of CH₃NH₃PbI₃ Perovskite Films. Journal of Physical Chemistry C, 2016, 120, 215-220.	1.5	108
1050	Impact of Antisolvent Treatment on Carrier Density in Efficient Hole-Conductor-Free Perovskite-Based Solar Cells. Journal of Physical Chemistry C, 2016, 120, 142-147.	1.5	61
1051	Polar molecules modify perovskite surface to reduce recombination in perovskite solar cells. RSC Advances, 2016, 6, 9090-9095.	1.7	25
1052	SiO₂/TiO₂based hollow nanostructures as scaffold layers and Al-doping in the electron transfer layer for efficient perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 1306-1311.	5.2	42

#	Article	IF	Citations
1053	Nanophotonic perovskite solar cell architecture with a three-dimensional TiO₂ nanodendrite scaffold for light trapping and electron collection. Journal of Materials Chemistry A, 2016, 4, 1119-1125.	5.2	30
1054	Organicâ€“inorganic hybrid lead halide perovskites for optoelectronic and electronic applications. Chemical Society Reviews, 2016, 45, 655-689.	18.7	1,285
1055	Planar heterojunction type perovskite solar cells based on TiOxcompact layer fabricated by chemical bath deposition. , 2016, , .		4
1056	Dielectric properties of hybrid perovskites and drift-diffusion modeling of perovskite cells. Proceedings of SPIE, 2016, , .	0.8	8
1057	Perovskite Solar Cells Based on Low-Temperature Processed Indium Oxide Electron Selective Layers. ACS Applied Materials & Interfaces, 2016, 8, 8460-8466.	4.0	128
1058	High-performance planar green light-emitting diodes based on a PEDOT:PSS/CH₃NH₃PbBr₃/ZnO sandwich structure. Nanoscale, 2016, 8, 10035-10042.	2.8	93
1059	MAPbI_{3â^'x}Br_xmixed halide perovskites for fully printable mesoscopic solar cells with enhanced efficiency and less hysteresis. Nanoscale, 2016, 8, 8839-8846.	2.8	57
1060	Perovskite type oxide-supported Ni catalysts for the production of 2,5-dimethylfuran from biomass-derived 5-hydroxymethylfurfural. Green Chemistry, 2016, 18, 3858-3866.	4.6	79
1061	Achieving long-term stable perovskite solar cells via ion neutralization. Energy and Environmental Science, 2016, 9, 1258-1263.	15.6	279
1062	Parameters that control and influence the organo-metal halide perovskite crystallization and morphology. Frontiers of Optoelectronics, 2016, 9, 44-52.	1.9	50
1063	Application of benzodithiophene based Aâ€“Dâ€“A structured materials in efficient perovskite solar cells and organic solar cells. Nano Energy, 2016, 23, 40-49.	8.2	59
1064	Structural Phase- and Degradation-Dependent Thermal Conductivity of CH₃NH₃PbI₃ Perovskite Thin Films. Journal of Physical Chemistry C, 2016, 120, 6394-6401.	1.5	53
1065	Efficient lead acetate sourced planar heterojunction perovskite solar cells with enhanced substrate coverage via one-step spin-coating. Organic Electronics, 2016, 33, 194-200.	1.4	48
1066	High Efficiency Tandem Thin-Perovskite/Polymer Solar Cells with a Graded Recombination Layer. ACS Applied Materials & Interfaces, 2016, 8, 7070-7076.	4.0	111
1067	Structure and Growth Control of Organicâ€“Inorganic Halide Perovskites for Optoelectronics: From Polycrystalline Films to Single Crystals. Advanced Science, 2016, 3, 1500392.	5.6	193
1068	Copolymers based on thiazolothiazole-dithienosilole as hole-transporting materials for high efficient perovskite solar cells. Organic Electronics, 2016, 33, 142-149.	1.4	29
1069	How Lead Halide Complex Chemistry Dictates the Composition of Mixed Halide Perovskites. Journal of Physical Chemistry Letters, 2016, 7, 1368-1373.	2.1	160
1070	Composition-controlled organometal halide perovskite via CH₃NH₃I pressure in a vacuum co-deposition process. Journal of Materials Chemistry A, 2016, 4, 5663-5668.	5.2	31

#	Article	IF	Citations
1071	A Photonic Crystal Laser from Solution Based Organo-Lead Iodide Perovskite Thin Films. ACS Nano, 2016, 10, 3959-3967.	7.3	238
1072	Efficiency enhancement of MAPbI Cl3â^' based perovskite solar cell by modifying the TiO2 interface with Silver Nanowires. Solar Energy, 2016, 130, 273-280.	2.9	28
1073	Fundamental Study on the Fabrication of Inverted Planar Perovskite Solar Cells Using Two-Step Sequential Substrate Vibration-Assisted Spray Coating (2S-SVASC). Nanoscale Research Letters, 2016, 11, 71.	3.1	58
1074	Organohalide Lead Perovskites for Photovoltaic Applications. Journal of Physical Chemistry Letters, 2016, 7, 851-866.	2.1	159
1075	Origin of <i><i>J</i>â€"<i>V</i></i> Hysteresis in Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2016, 7, 905-917.	2.1	631
1076	Reproducible formation of uniform CH3NH3PbI3â^'xClx mixed halide perovskite film by separation of the powder formation and spin-coating process. Journal of Power Sources, 2016, 310, 130-136.	4.0	23
1077	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
1078	Hydrophobic Organic Hole Transporters for Improved Moisture Resistance in Metal Halide Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 5981-5989.	4.0	184
1079	Bipyridine type Co-complexes as hole-transporting material dopants in perovskite solar cells. RSC Advances, 2016, 6, 17354-17359.	1.7	10
1080	Easily accessible polymer additives for tuning the crystal-growth of perovskite thin-films for highly efficient solar cells. Nanoscale, 2016, 8, 5552-5558.	2.8	83
1081	Overcoming Short-Circuit in Lead-Free CH₃NH₃SnI₃ Perovskite Solar Cells via Kinetically Controlled Gasâ€"Solid Reaction Film Fabrication Process. Journal of Physical Chemistry Letters, 2016, 7, 776-782.	2.1	290
1082	Bulk heterojunction perovskiteâ€"PCBM solar cells with high fill factor. Nature Photonics, 2016, 10, 196-200.	15.6	559
1083	Experimental Evidence of Localized Shallow States in Orthorhombic Phase of CH₃NH₃PbI₃ Perovskite Thin Films Revealed by Photocurrent Beat Spectroscopy. Journal of Physical Chemistry C, 2016, 120, 5347-5352.	1.5	33
1084	Reversible Healing Effect of Water Molecules on Fully Crystallized Metalâ€"Halide Perovskite Film. Journal of Physical Chemistry C, 2016, 120, 4759-4765.	1.5	55
1085	Reduced graphene oxide as efficient and stable hole transporting material in mesoscopic perovskite solar cells. Nano Energy, 2016, 22, 349-360.	8.2	166
1086	Planar versus mesoscopic perovskite microstructures: The influence of CH3NH3PbI3 morphology on charge transport and recombination dynamics. Nano Energy, 2016, 22, 439-452.	8.2	76
1087	Surface Properties of CH₃NH₃PbI₃ for Perovskite Solar Cells. Accounts of Chemical Research, 2016, 49, 554-561.	7.6	145
1088	Working from Both Sides: Composite Metallic Semitransparent Top Electrode for High Performance Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 4523-4531.	4.0	56

#	Article	IF	Citations
1089	UV Reduced Graphene Oxide PEDOT:PSS Nanocomposite for Perovskite Solar Cells. IEEE Nanotechnology Magazine, 2016, 15, 725-730.	1.1	19
1090	Crystallinity and defect state engineering in organo-lead halide perovskite for high-efficiency solar cells. Journal of Materials Chemistry A, 2016, 4, 3806-3812.	5.2	76
1091	Critical kinetic control of non-stoichiometric intermediate phase transformation for efficient perovskite solar cells. Nanoscale, 2016, 8, 12892-12899.	2.8	98
1092	Ionic polarization-induced currentâ€“voltage hysteresis in CH3NH3PbX3 perovskite solar cells. Nature Communications, 2016, 7, 10334.	5.8	602
1093	Efficient charge extraction and slow recombination in organicâ€“inorganic perovskites capped with semiconducting single-walled carbon nanotubes. Energy and Environmental Science, 2016, 9, 1439-1449.	15.6	126
1094	Plasmonic nanostructures for organic photovoltaic devices. Journal of Optics (United Kingdom), 2016, 18, 033001.	1.0	38
1095	Organic Photovoltaics for Energy Efficiency in Buildings. , 2016, , 321-355.		2
1096	Graphene-based materials with tailored nanostructures for energy conversion and storage. Materials Science and Engineering Reports, 2016, 102, 1-72.	14.8	221
1097	Ligand-Stabilized Reduced-Dimensionality Perovskites. Journal of the American Chemical Society, 2016, 138, 2649-2655.	6.6	1,157
1098	Photonic flash-annealing of lead halide perovskite solar cells in 1 ms. Journal of Materials Chemistry A, 2016, 4, 3471-3476.	5.2	95
1099	A general non-CH₃NH₃X (X = I, Br) one-step deposition of CH₃NH₃PbX₃ perovskite for high performance solar cells. Journal of Materials Chemistry A, 2016, 4, 3245-3248.	5.2	47
1100	Influence of the composition of hybrid perovskites on their performance in solar cells. Journal of Materials Chemistry A, 2016, 4, 4353-4364.	5.2	56
1101	Solvent-extraction crystal growth for highly efficient carbon-based mesoscopic perovskite solar cells free of hole conductors. Journal of Materials Chemistry A, 2016, 4, 3872-3878.	5.2	69
1102	Organohalide Perovskites for Solar Energy Conversion. Accounts of Chemical Research, 2016, 49, 545-553.	7.6	135
1103	Lasing in robust cesium lead halide perovskite nanowires. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 1993-1998.	3.3	668
1104	An efficient electron transport material of tin oxide for planar structure perovskite solar cells. Journal of Power Sources, 2016, 307, 891-897.	4.0	76
1105	Spatially Non-uniform Trap State Densities in Solution-Processed Hybrid Perovskite Thin Films. Journal of Physical Chemistry Letters, 2016, 7, 715-721.	2.1	160
1106	A modified sequential deposition method for fabrication of perovskite solar cells. Solar Energy, 2016, 126, 243-251.	2.9	38

#	Article	IF	Citations
1107	Spectral Features and Charge Dynamics of Lead Halide Perovskites: Origins and Interpretations. Accounts of Chemical Research, 2016, 49, 294-302.	7.6	159
1108	Novel CdS Hole-Blocking Layer for Photostable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 4226-4232.	4.0	72
1109	sec-Butyl alcohol assisted pinhole-free perovskite film growth for high-performance solar cells. Journal of Materials Chemistry A, 2016, 4, 3438-3445.	5.2	46
1110	Preparation of flexible perovskite solar cells by a gas pump drying method on a plastic substrate. Journal of Materials Chemistry A, 2016, 4, 3704-3710.	5.2	87
1111	Electrochemical recycling of lead from hybrid organicâ€“inorganic perovskites using deep eutectic solvents. Green Chemistry, 2016, 18, 2946-2955.	4.6	62
1112	Interface engineering of hybrid perovskite solar cells with poly(3-thiophene acetic acid) under ambient conditions. Physical Chemistry Chemical Physics, 2016, 18, 10182-10190.	1.3	49
1113	Fine control of perovskite-layered morphology and composition via sequential deposition crystallization process towards improved perovskite solar cells. Journal of Power Sources, 2016, 311, 130-136.	4.0	25
1114	Nature inspiring processing route toward high throughput production of perovskite photovoltaics. Journal of Materials Chemistry A, 2016, 4, 6989-6997.	5.2	32
1115	Room-temperature solution-processed and metal oxide-free nano-composite for the flexible transparent bottom electrode of perovskite solar cells. Nanoscale, 2016, 8, 5946-5953.	2.8	83
1116	Effects of formamidinium and bromide ion substitution in methylammonium lead triiodide toward high-performance perovskite solar cells. Nano Energy, 2016, 22, 328-337.	8.2	180
1117	Phase transition kinetics and surface binding states of methylammonium lead iodide perovskite. Physical Chemistry Chemical Physics, 2016, 18, 7284-7292.	1.3	94
1118	Hybrid Organicâ€“Inorganic Coordination Complexes as Tunable Optical Response Materials. Inorganic Chemistry, 2016, 55, 3393-3400.	1.9	31
1119	Solvent-molecule-mediated manipulation of crystalline grains for efficient planar binary lead and tin triiodide perovskite solar cells. Nanoscale, 2016, 8, 7621-7630.	2.8	65
1120	Cross-stacked superaligned carbon nanotube electrodes for efficient hole conductor-free perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 5569-5577.	5.2	92
1121	A novel dimethylformamide (DMF) free bar-cast method to deposit organolead perovskite thin films with improved stability. Chemical Communications, 2016, 52, 4301-4304.	2.2	19
1122	Semitransparent Perovskite Solar Cell With Sputtered Front and Rear Electrodes for a Four-Terminal Tandem. IEEE Journal of Photovoltaics, 2016, 6, 679-687.	1.5	80
1123	Light management: porous 1-dimensional nanocolumnar structures as effective photonic crystals for perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 4962-4970.	5.2	19
1124	Carrier injection and recombination processes in perovskite CH₃NH₃PbI₃solar cells studied by electroluminescence spectroscopy. Proceedings of SPIE, 2016, , .	0.8	1

#	Article	IF	Citations
1125	Photovoltaic and optical properties of perovskite thin films fabricated using Marangoni flow assisted electrospraying. , 2016, , .		0
1126	Molecular design and photovoltaic performance of a novel thiocyanate-based layered organometal perovskite material. Synthetic Metals, 2016, 215, 56-63.	2.1	31
1127	Solvent washing with toluene enhances efficiency and increases reproducibility in perovskite solar cells. RSC Advances, 2016, 6, 26606-26611.	1.7	36
1128	Enhancing the grain size of organic halide perovskites by sulfonate-carbon nanotube incorporation in high performance perovskite solar cells. Chemical Communications, 2016, 52, 5674-5677.	2.2	77
1129	Rational Strategies for Efficient Perovskite Solar Cells. Accounts of Chemical Research, 2016, 49, 562-572.	7.6	311
1130	Ultrafast Dynamics of Hole Injection and Recombination in Organometal Halide Perovskite Using Nickel Oxide as p-Type Contact Electrode. Journal of Physical Chemistry Letters, 2016, 7, 1096-1101.	2.1	97
1131	Effects of interfacial chemical states on the performance of perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 4392-4397.	5.2	25
1132	Graphene in perovskite solar cells: device design, characterization and implementation. Journal of Materials Chemistry A, 2016, 4, 6185-6235.	5.2	185
1133	Thermodynamic Origin of Photoinstability in the CH₃NH₃Pb(I_{1â€“<i>x</i>}Br_{<i>x</i>})₃ Hybrid Halide Perovskite Alloy. Journal of Physical Chemistry Letters, 2016, 7, 1083-1087.	2.1	298
1134	Self limiting atomic layer deposition of Al₂O₃ on perovskite surfaces: a reality?. Nanoscale, 2016, 8, 7459-7465.	2.8	28
1135	Fabrication of perovskite films using an electrostatic assisted spray technique: the effect of the electric field on morphology, crystallinity and solar cell performance. Nanoscale, 2016, 8, 6792-6800.	2.8	40
1136	Fabrication of Efficient Formamidinium Tin Iodide Perovskite Solar Cells through SnF₂â€“Pyrazine Complex. Journal of the American Chemical Society, 2016, 138, 3974-3977.	6.6	658
1137	Design, fabrication and modification of metal oxide semiconductor for improving conversion efficiency of excitonic solar cells. Coordination Chemistry Reviews, 2016, 320-321, 193-215.	9.5	56
1138	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
1139	TiO₂ Sub-microsphere Film as Scaffold Layer for Efficient Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 8162-8167.	4.0	44
1140	Highly reproducible, efficient hysteresis-less CH₃NH₃PbI_{3â^’x}Cl_xplanar hybrid solar cells without requiring heat-treatment. Nanoscale, 2016, 8, 2554-2560.	2.8	75
1141	Optoelectronic Quality and Stability of Hybrid Perovskites from MAPbI₃ to MAPbI₂Br Using Composition Spread Libraries. Journal of Physical Chemistry C, 2016, 120, 893-902.	1.5	65
1142	Boosting the efficiency and the stability of low cost perovskite solar cells by using CuPc nanorods as hole transport material and carbon as counter electrode. Nano Energy, 2016, 20, 108-116.	8.2	240

#	Article	IF	Citations
1143	Efficient hysteresis-less bilayer type CH₃NH₃PbI₃perovskite hybrid solar cells. Nanotechnology, 2016, 27, 024004.	1.3	13
1144	Intermixing-seeded growth for high-performance planar heterojunction perovskite solar cells assisted by precursor-capped nanoparticles. Energy and Environmental Science, 2016, 9, 1282-1289.	15.6	157
1145	Designing nanobowl arrays of mesoporous TiO₂as an alternative electron transporting layer for carbon cathode-based perovskite solar cells. Nanoscale, 2016, 8, 6393-6402.	2.8	89
1146	Novel spherical TiO 2 aggregates with diameter of 100 nm for efficient mesoscopic perovskite solar cells. Nano Energy, 2016, 20, 272-282.	8.2	50
1147	A polymer scaffold for self-healing perovskite solar cells. Nature Communications, 2016, 7, 10228.	5.8	532
1148	Highly efficient low temperature solution processable planar type CH₃NH₃PbI₃ perovskite flexible solar cells. Journal of Materials Chemistry A, 2016, 4, 1572-1578.	5.2	223
1149	Cubic: Column composite structure (NH2CH=NH2)x(CH3NH3)1-xPbI3 for efficient hole-transport material-free and insulation layer free perovskite solar cells with high stability. Electrochimica Acta, 2016, 190, 775-779.	2.6	41
1150	Transformative Evolution of Organolead Triiodide Perovskite Thin Films from Strong Room-Temperature Solidâ€"Gas Interaction between HPbI₃-CH₃NH₂ Precursor Pair. Journal of the American Chemical Society, 2016, 138, 750-753.	6.6	156
1151	Organic solvent vapor treatment of lead iodide layers in the two-step sequential deposition of CH₃NH₃PbI₃-based perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 1947-1952.	5.2	58
1152	Recent Advances in the Inverted Planar Structure of Perovskite Solar Cells. Accounts of Chemical Research, 2016, 49, 155-165.	7.6	559
1153	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
1154	14.7% efficient mesoscopic perovskite solar cells using single walled carbon nanotubes/carbon composite counter electrodes. Nanoscale, 2016, 8, 6379-6385.	2.8	151
1155	A facile way to prepare nanoporous PbI₂ films and their application in fast conversion to CH₃NH₃PbI₃. RSC Advances, 2016, 6, 1611-1617.	1.7	36
1156	Hybrid Perovskite Quantum Nanostructures Synthesized by Electrospray Antisolventâ€"Solvent Extraction and Intercalation. ACS Applied Materials & Interfaces, 2016, 8, 854-861.	4.0	49
1157	Synergistic improvements in stability and performance of lead iodide perovskite solar cells incorporating salt additives. Journal of Materials Chemistry A, 2016, 4, 1591-1597.	5.2	183
1158	A mixed-cation lead mixed-halide perovskite absorber for tandem solar cells. Science, 2016, 351, 151-155.	6.0	2,514
1159	Effects of hole-transporting layers of perovskite-based solar cells. Japanese Journal of Applied Physics, 2016, 55, 02BF01.	0.8	16
1160	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

#	Article	IF	Citations
1161	Perovskite solar cells based on bottom-fused TiO₂nanocones. Journal of Materials Chemistry A, 2016, 4, 1520-1530.	5.2	36
1162	Rapid combinatorial screening of inkjet-printed alkyl-ammonium cations in perovskite solar cells. Materials Letters, 2016, 164, 472-475.	1.3	71
1163	Amazing stable open-circuit voltage in perovskite solar cells using AgAl alloy electrode. Solar Energy Materials and Solar Cells, 2016, 146, 35-43.	3.0	76
1164	Graphene oxide/PEDOT:PSS composite hole transport layer for efficient and stable planar heterojunction perovskite solar cells. Nanoscale, 2016, 8, 1513-1522.	2.8	156
1165	Spectroscopic study on the impact of methylammonium iodide loading time on the electronic properties in perovskite thin films. Journal of Materials Chemistry A, 2016, 4, 561-567.	5.2	50
1166	Boosting the performance of planar heterojunction perovskite solar cell by controlling the precursor purity of perovskite materials. Journal of Materials Chemistry A, 2016, 4, 887-893.	5.2	137
1167	Piezoelectric properties of CH₃NH₃PbI₃perovskite thin films and their applications in piezoelectric generators. Journal of Materials Chemistry A, 2016, 4, 756-763.	5.2	130
1168	A halide exchange engineering for CH3NH3PbI3âˆ'Br perovskite solar cells with high performance and stability. Nano Energy, 2016, 19, 17-26.	8.2	123
1169	Entropic stabilization of mixed A-cation ABX₃ metal halide perovskites for high performance perovskite solar cells. Energy and Environmental Science, 2016, 9, 656-662.	15.6	1,077
1170	Organometal halide perovskite thin films and solar cells by vapor deposition. Journal of Materials Chemistry A, 2016, 4, 6693-6713.	5.2	210
1171	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
1172	Carbon nanotubes as an efficient hole collector for high voltage methylammonium lead bromide perovskite solar cells. Nanoscale, 2016, 8, 6352-6360.	2.8	88
1173	Room-temperature mixed-solvent-vapor annealing for high performance perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 321-326.	5.2	96
1174	Influence of organic cations on high-performance CH 3 NH 3 PbI 3 based photovoltaics. Solar Energy Materials and Solar Cells, 2016, 145, 375-381.	3.0	39
1175	Effect of relative humidity on crystal growth, device performance and hysteresis in planar heterojunction perovskite solar cells. Nanoscale, 2016, 8, 6300-6307.	2.8	113
1176	Growth and evolution of solution-processed CH3NH3PbI3-xClx layer for highly efficient planar-heterojunction perovskite solar cells. Journal of Power Sources, 2016, 301, 242-250.	4.0	39
1177	Monolithic perovskite/silicon-heterojunction tandem solar cells processed at low temperature. Energy and Environmental Science, 2016, 9, 81-88.	15.6	536
1178	Perovskite as an effective V oc switcher for high efficiency polymer solar cells. Nano Energy, 2016, 20, 126-133.	8.2	22

#	Article	IF	Citations
1179	Improved air stability of perovskite solar cells via solution-processed metal oxide transport layers. Nature Nanotechnology, 2016, 11, 75-81.	15.6	1,890
1180	Planar heterojunction organometal halide perovskite solar cells: roles of interfacial layers. Energy and Environmental Science, 2016, 9, 12-30.	15.6	449
1181	A dual-functional asymmetric squaraine-based low band gap hole transporting material for efficient perovskite solar cells. Nanoscale, 2016, 8, 6335-6340.	2.8	32
1182	Interfacial modification of hole transport layers for efficient large-area perovskite solar cells achieved via blade-coating. Solar Energy Materials and Solar Cells, 2016, 144, 309-315.	3.0	81
1183	Ultrathin efficient perovskite solar cells employing a periodic structure of a composite hole conductor for elevated plasmonic light harvesting and hole collection. Nanoscale, 2016, 8, 6290-6299.	2.8	69
1184	Chemical bath deposited rutile TiO 2 compact layer toward efficient planar heterojunction perovskite solar cells. Applied Surface Science, 2017, 391, 337-344.	3.1	76
1185	Enhancement of the efficiency and stability of planar p-i-n perovskite solar cells via incorporation of an amine-modified fullerene derivative as a cathode buffer layer. Science China Chemistry, 2017, 60, 136-143.	4.2	25
1186	Enhanced Performance of Perovskite Light-Emitting Devices With Improved Perovskite Crystallization. IEEE Photonics Journal, 2017, 9, 1-8.	1.0	2
1187	Tailoring interface of lead-halide perovskite solar cells. Nano Research, 2017, 10, 1471-1497.	5.8	39
1188	Room-temperature processible TiO2 electron selective layers with controllable crystallinity for high efficiency perovskite photovoltaics. Solar Energy Materials and Solar Cells, 2017, 163, 15-22.	3.0	14
1189	Ultrasmooth Perovskite Film via Mixed Anti-Solvent Strategy with Improved Efficiency. ACS Applied Materials & Interfaces, 2017, 9, 3667-3676.	4.0	98
1190	Vacancies in functional materials for clean energy storage and harvesting: the perfect imperfection. Chemical Society Reviews, 2017, 46, 1693-1706.	18.7	234
1191	Accelerated formation and improved performance of CH₃NH₃PbI₃-based perovskite solar cells via solvent coordination and anti-solvent extraction. Journal of Materials Chemistry A, 2017, 5, 4190-4198.	5.2	65
1192	Roomâ€Temperature Formation of Highly Crystalline Multication Perovskites for Efficient, Lowâ€Cost Solar Cells. Advanced Materials, 2017, 29, 1606258.	11.1	124
1193	Acoustic-optical phonon up-conversion and hot-phonon bottleneck in lead-halide perovskites. Nature Communications, 2017, 8, 14120.	5.8	330
1194	Management of perovskite intermediates for highly efficient inverted planar heterojunction perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 3193-3202.	5.2	113
1195	Novel Direct Nanopatterning Approach to Fabricate Periodically Nanostructured Perovskite for Optoelectronic Applications. Advanced Functional Materials, 2017, 27, 1606525.	7.8	101
1196	Modeling optical properties of polymerâ€"solvent complexes: the chloroform influence on the P3HT and N2200 absorption spectra. Journal of Molecular Modeling, 2017, 23, 37.	0.8	0

#	Article	IF	Citations
1197	Multilayer light emitting devices with organometal halide perovskite: Polymer composite emission layer: The relationship of device performance with the compositions of emission layer and device configurations. Organic Electronics, 2017, 43, 167-174.	1.4	29
1198	Efficiency enhancement in perovskite solar cell utilizing solution-processable phthalocyanine hole transport layer with thermal annealing. Organic Electronics, 2017, 43, 156-161.	1.4	39
1199	Design of Lead-Free Inorganic Halide Perovskites for Solar Cells via Cation-Transmutation. Journal of the American Chemical Society, 2017, 139, 2630-2638.	6.6	714
1200	Solution-processed semiconductors for next-generation photodetectors. Nature Reviews Materials, 2017, 2, .	23.3	992
1201	Solvent engineering for forming stonehenge-like PbI₂nano-structures towards efficient perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 4376-4383.	5.2	59
1202	Formation, location and beneficial role of PbI₂ in lead halide perovskite solar cells. Sustainable Energy and Fuels, 2017, 1, 119-126.	2.5	99
1203	Twoâ€Step Sequential Deposition of Organometal Halide Perovskite for Photovoltaic Application. Advanced Functional Materials, 2017, 27, 1605654.	7.8	120
1204	2D homologous organic-inorganic hybrids as light-absorbers for planer and nanorod-based perovskite solar cells. Solar Energy Materials and Solar Cells, 2017, 162, 93-102.	3.0	81
1205	Synthesis and Properties of a Lead-Free Hybrid Double Perovskite: (CH₃NH₃)₂AgBiBr₆. Chemistry of Materials, 2017, 29, 1089-1094.	3.2	290
1206	Keggin-Type PMo₁₁V as a P-type Dopant for Enhancing the Efficiency and Reproducibility of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 2378-2386.	4.0	37
1207	Electrochemical Doping of Halide Perovskites with Ion Intercalation. ACS Nano, 2017, 11, 1073-1079.	7.3	118
1209	Identification and characterization of a new intermediate to obtain high quality perovskite films with hydrogen halides as additives. Inorganic Chemistry Frontiers, 2017, 4, 473-480.	3.0	23
1210	Flexible photovoltaic power systems: integration opportunities, challenges and advances. Flexible and Printed Electronics, 2017, 2, 013001.	1.5	41
1211	Highly Efficient and Stable Perovskite Solar Cells by Interfacial Engineering Using Solution-Processed Polymer Layer. Journal of Physical Chemistry C, 2017, 121, 1562-1568.	1.5	166
1212	High Defect Tolerance in Lead Halide Perovskite CsPbBr₃. Journal of Physical Chemistry Letters, 2017, 8, 489-493.	2.1	899
1213	In Situ Identification of Photo- and Moisture-Dependent Phase Evolution of Perovskite Solar Cells. ACS Energy Letters, 2017, 2, 342-348.	8.8	62
1214	Migration of cations induces reversible performance losses over day/night cycling in perovskite solar cells. Energy and Environmental Science, 2017, 10, 604-613.	15.6	525
1215	Embedding Perovskite Nanocrystals into a Polymer Matrix for Tunable Luminescence Probes in Cell Imaging. Advanced Functional Materials, 2017, 27, 1604382.	7.8	328

#	Article	IF	Citations
1216	The novel dopant for hole-transporting material opens a new processing route to efficiently reduce hysteresis and improve stability of planar perovskite solar cells. Journal of Power Sources, 2017, 342, 886-895.	4.0	76
1217	Growing large columnar grains of CH3NH3PbI3 using the solid-state reaction method enhanced by less-crystallized nanoporous PbI2 films. Journal of Power Sources, 2017, 344, 46-55.	4.0	10
1218	Controlling Nucleation and Growth of Metal Halide Perovskite Thin Films for Highâ€Efficiency Perovskite Solar Cells. Small, 2017, 13, 1602808.	5.2	36
1219	Design, synthesis and application of a Ï€-conjugated, non-spiro molecular alternative as hole-transport material for highly efficient dye-sensitized solar cells and perovskite solar cells. Journal of Power Sources, 2017, 344, 11-14.	4.0	49
1220	Moving into the domain of perovskite sensitized solar cell. Renewable and Sustainable Energy Reviews, 2017, 72, 907-915.	8.2	20
1221	Nucleation mediated interfacial precipitation for architectural perovskite films with enhanced photovoltaic performance. Nanoscale, 2017, 9, 2569-2578.	2.8	27
1222	Antisolvent-assisted powder engineering for controlled growth of hybrid CH3NH3PbI3 perovskite thin films. APL Materials, 2017, 5, .	2.2	25
1223	Efficient and stable solution-processed planar perovskite solar cells via contact passivation. Science, 2017, 355, 722-726.	6.0	2,019
1224	Fast and Controllable Electricâ€Fieldâ€Assisted Reactive Deposited Stable and Annealingâ€Free Perovskite toward Applicable Highâ€Performance Solar Cells. Advanced Functional Materials, 2017, 27, 1606156.	7.8	28
1225	Leadâ€Free Organicâ€"Inorganic Hybrid Perovskites for Photovoltaic Applications: Recent Advances and Perspectives. Advanced Materials, 2017, 29, 1605005.	11.1	568
1226	Improved Reproducibility for Perovskite Solar Cells with 1 cm² Active Area by a Modified Two-Step Process. ACS Applied Materials & Interfaces, 2017, 9, 5974-5981.	4.0	41
1227	A TiO₂nanotube network electron transport layer for high efficiency perovskite solar cells. Physical Chemistry Chemical Physics, 2017, 19, 4956-4961.	1.3	33
1228	Textured CH3NH3PbI3 thin film with enhanced stability for high performance perovskite solar cells. Nano Energy, 2017, 33, 485-496.	8.2	74
1229	Performance enhancement of perovskite solar cells using a La-doped BaSnO₃ electron transport layer. Journal of Materials Chemistry A, 2017, 5, 3675-3682.	5.2	90
1230	Controllable Crystallization of CH₃NH₃Sn_{0.25}Pb_{0.75}I₃ Perovskites for Hysteresisâ€Free Solar Cells with Efficiency Reaching 15.2%. Advanced Functional Materials, 2017, 27, 1605469.	7.8	84
1231	Effect on the morphology and optical properties of CH 3 NH 3 PbI 3 with additive of NH 4 Cl. Optical Materials, 2017, 64, 461-467.	1.7	6
1232	Inverted CH₃NH₃PbI₃ perovskite hybrid solar cells with improved flexibility by introducing a polymeric electron conductor. Journal of Materials Chemistry C, 2017, 5, 2883-2891.	2.7	20
1233	An optical dynamic study of MAPbBr₃ single crystals passivated with MAPbCl₃/I₃-MAPbBr₃ heterojunctions. Physical Chemistry Chemical Physics, 2017, 19, 4516-4521.	1.3	42

#	Article	IF	Citations
1234	Do grain boundaries dominate non-radiative recombination in CH₃NH₃PbI₃ perovskite thin films?. Physical Chemistry Chemical Physics, 2017, 19, 5043-5050.	1.3	161
1235	Black Phosphorus Quantum Dots for Hole Extraction of Typical Planar Hybrid Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2017, 8, 591-598.	2.1	191
1236	Efficient perovskite light-emitting diodes featuring nanometre-sized crystallites. Nature Photonics, 2017, 11, 108-115.	15.6	1,175
1237	High performance perovskite solar cells fabricated under high relative humidity conditions. Solar Energy Materials and Solar Cells, 2017, 163, 38-42.	3.0	29
1238	Thermal engineering of FAPbI3 perovskite material via radiative thermal annealing and in situ XRD. Nature Communications, 2017, 8, 14075.	5.8	149
1239	Morphology modification of perovskite film by a simple post-treatment process in perovskite solar cell. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2017, 217, 18-25.	1.7	45
1240	Predicting the Morphology of Perovskite Thin Films Produced by Sequential Deposition Method: A Crystal Growth Dynamics Study. Chemistry of Materials, 2017, 29, 1165-1174.	3.2	31
1241	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
1242	Graphene quantum dot incorporated perovskite films: passivating grain boundaries and facilitating electron extraction. Physical Chemistry Chemical Physics, 2017, 19, 6057-6063.	1.3	92
1243	Toward All Roomâ€Temperature, Solutionâ€Processed, Highâ€Performance Planar Perovskite Solar Cells: A New Scheme of Pyridineâ€Promoted Perovskite Formation. Advanced Materials, 2017, 29, 1604695.	11.1	178
1244	Controlled growth of CH3NH3PbI3 films towards efficient perovskite solar cells by varied-stoichiometric intermediate adduct. Applied Surface Science, 2017, 403, 572-577.	3.1	25
1245	Covalently Connecting Crystal Grains with Polyvinylammonium Carbochain Backbone To Suppress Grain Boundaries for Long-Term Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 6064-6071.	4.0	33
1246	Efficient perovskite solar cells by combination use of Au nanoparticles and insulating metal oxide. Nanoscale, 2017, 9, 2852-2864.	2.8	59
1247	GeP₃: A Small Indirect Band Gap 2D Crystal with High Carrier Mobility and Strong Interlayer Quantum Confinement. Nano Letters, 2017, 17, 1833-1838.	4.5	338
1248	Facile Face-Down Annealing Triggered Remarkable Texture Development in CH₃NH₃PbI₃ Films for High-Performance Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 6104-6113.	4.0	67
1249	Efficient planar n-i-p type heterojunction flexible perovskite solar cells with sputtered TiO₂electron transporting layers. Nanoscale, 2017, 9, 3095-3104.	2.8	92
1250	Solution-processed chalcopyriteâ€"perovskite tandem solar cells in bandgap-matched two- and four-terminal architectures. Journal of Materials Chemistry A, 2017, 5, 3214-3220.	5.2	23
1251	Tailoring the Mesoscopic TiO2 Layer: Concomitant Parameters for Enabling High-Performance Perovskite Solar Cells. Nanoscale Research Letters, 2017, 12, 57.	3.1	21

#	Article	IF	Citations
1252	Effect of Precursor Solution Aging on the Crystallinity and Photovoltaic Performance of Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1602159.	10.2	130
1253	Carbonâ€Based Perovskite Solar Cells without Hole Transport Materials: The Front Runner to the Market?. Advanced Materials, 2017, 29, 1603994.	11.1	261
1254	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
1255	Quantification of re-absorption and re-emission processes to determine photon recycling efficiency in perovskite single crystals. Nature Communications, 2017, 8, 14417.	5.8	189
1256	Recent advances in perovskite solar cells: efficiency, stability and lead-free perovskite. Journal of Materials Chemistry A, 2017, 5, 11462-11482.	5.2	378
1257	Effect of the Microstructure of the Functional Layers on the Efficiency of Perovskite Solar Cells. Advanced Materials, 2017, 29, 1601715.	11.1	104
1258	Crack-free perovskite layers for high performance and reproducible devices via improved control of ambient conditions during fabrication. Applied Surface Science, 2017, 407, 427-433.	3.1	18
1259	Ascorbic acid as an effective antioxidant additive to enhance the efficiency and stability of Pb/Sn-based binary perovskite solar cells. Nano Energy, 2017, 34, 392-398.	8.2	162
1260	Simulation calculations of efficiencies and silicon consumption for CH3NH3PbI3â^'xâ^'y Br x Cl y /crystalline silicon tandem solar cells. Journal Physics D: Applied Physics, 2017, 50, 155102.	1.3	3
1261	Deep level trapped defect analysis in CH₃NH₃PbI₃ perovskite solar cells by deep level transient spectroscopy. Energy and Environmental Science, 2017, 10, 1128-1133.	15.6	206
1262	Origins and mechanisms of hysteresis in organometal halide perovskites. Journal of Physics Condensed Matter, 2017, 29, 193001.	0.7	55
1263	Fabrication of {CH(NH₂)₂}_{1â^'}<i>_x</i>Cs<i>_x</i>PbI₃ Perovskite Thin Films by Two-step Method and Its Application to Thin Film Solar Cells. Chemistry Letters, 2017, 46, 612-615.	0.7	5
1264	Low-temperature (75 Â°C) solid-state reaction enhanced by less-crystallized nanoporous PbI2 films for efficient CH3NH3PbI3 perovskite solar cells. Applied Surface Science, 2017, 405, 412-419.	3.1	9
1265	Fabrication of CH3NH3PbI3 perovskite-based solar cells: Developing various new solvents for CuSCN hole transport material. Solar Energy Materials and Solar Cells, 2017, 164, 56-62.	3.0	44
1266	Changes from Bulk to Surface Recombination Mechanisms between Pristine and Cycled Perovskite Solar Cells. ACS Energy Letters, 2017, 2, 681-688.	8.8	122
1267	A pure and stable intermediate phase is key to growing aligned and vertically monolithic perovskite crystals for efficient PIN planar perovskite solar cells with high processibility and stability. Nano Energy, 2017, 34, 58-68.	8.2	151
1268	Highly Efficient Electronâ€Selective Layer Free Perovskite Solar Cells by Constructing Effective pâ€"n Heterojunction. Solar Rrl, 2017, 1, 1600027.	3.1	82
1269	Synthesis and characterization of NaSbS 2 thin film for potential photodetector and photovoltaic application. Chinese Chemical Letters, 2017, 28, 881-887.	4.8	21

#	Article	IF	Citations
1270	Stable monolithic hole-conductor-free perovskite solar cells using TiO 2 nanoparticle binding carbon films. Organic Electronics, 2017, 45, 131-138.	1.4	49
1271	Efficient and Stable Perovskite Solar Cells Prepared in Ambient Air Based on Surface-Modified Perovskite Layer. Journal of Physical Chemistry C, 2017, 121, 6546-6553.	1.5	84
1272	Perovskite Solar Cells: The Birth of a New Era in Photovoltaics. ACS Energy Letters, 2017, 2, 822-830.	8.8	305
1273	Effect of halide-mixing on the switching behaviors of organic-inorganic hybrid perovskite memory. Scientific Reports, 2017, 7, 43794.	1.6	103
1274	Highly efficient and stable perovskite solar cell prepared from an in situ pre-wetted PbI₂ nano-sheet array film. Sustainable Energy and Fuels, 2017, 1, 1056-1064.	2.5	8
1275	Preparation and characterization of mixed formamidinium lead iodide/methyl ammonium lead bromide layers. Monatshefte FÃ¼r Chemie, 2017, 148, 827-833.	0.9	2
1276	Efficiency enhancement in planar CH 3 NH 3 PbI 3â^'x Cl x perovskite solar cells by processing with bidentate halogenated additives. Solar Energy Materials and Solar Cells, 2017, 165, 36-44.	3.0	32
1277	Benign Interfacial Iodine Vacancies in Perovskite Solar Cells. Journal of Physical Chemistry C, 2017, 121, 5905-5913.	1.5	36
1278	Synergy of ammonium chloride and moisture on perovskite crystallization for efficient printable mesoscopic solar cells. Nature Communications, 2017, 8, 14555.	5.8	270
1279	Colloidal metal oxide nanocrystals as charge transporting layers for solution-processed light-emitting diodes and solar cells. Chemical Society Reviews, 2017, 46, 1730-1759.	18.7	99
1280	Continuous Size Tuning of Monodispersed ZnO Nanoparticles and Its Size Effect on the Performance of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 9785-9794.	4.0	43
1281	Recent progress in stability of perovskite solar cells. Journal of Semiconductors, 2017, 38, 011002.	2.0	89
1282	Study of ethoxyethane deposition time and Co (III) complex doping on the performance of mesoscopic perovskite based solar cells. Solar Energy Materials and Solar Cells, 2017, 163, 224-230.	3.0	14
1283	Alleviating hysteresis and improving device stability of perovskite solar cells via alternate voltage sweeps. Chinese Physics B, 2017, 26, 018401.	0.7	5
1284	Polymer strategies in perovskite solar cells. Journal of Polymer Science, Part B: Polymer Physics, 2017, 55, 549-568.	2.4	27
1285	Potassium Incorporation for Enhanced Performance and Stability of Fully Inorganic Cesium Lead Halide Perovskite Solar Cells. Nano Letters, 2017, 17, 2028-2033.	4.5	463
1286	Effect of Interfacial Molecular Orientation on Power Conversion Efficiency of Perovskite Solar Cells. Journal of the American Chemical Society, 2017, 139, 3378-3386.	6.6	61
1287	Effect of precursor components on the photovoltaic performance of MA_{1â^'x}FA_xPbI_{3â^'y}Br_y films prepared via a one-step method. Inorganic Chemistry Frontiers, 2017, 4, 850-859.	3.0	6

#	Article	IF	Citations
1288	Impact of synthetic routes on the structural and physical properties of butyl-1,4-diammonium lead iodide semiconductors. Journal of Materials Chemistry A, 2017, 5, 11730-11738.	5.2	37
1289	Enhanced perovskite electronic properties via a modified lead(<scp>ii</scp>) chloride Lewis acidâ€“base adduct and their effect in high-efficiency perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 5195-5203.	5.2	128
1290	The rapid evolution of highly efficient perovskite solar cells. Energy and Environmental Science, 2017, 10, 710-727.	15.6	942
1291	High-quality CsPbBr₃ perovskite nanocrystals for quantum dot light-emitting diodes. RSC Advances, 2017, 7, 10391-10396.	1.7	202
1292	Unveiling a Key Intermediate in Solvent Vapor Postannealing to Enlarge Crystalline Domains of Organometal Halide Perovskite Films. Advanced Functional Materials, 2017, 27, 1604944.	7.8	107
1293	Charge Injection Mechanism at Heterointerfaces in CH₃NH₃PbI₃ Perovskite Solar Cells Revealed by Simultaneous Time-Resolved Photoluminescence and Photocurrent Measurements. Journal of Physical Chemistry Letters, 2017, 8, 954-960.	2.1	91
1294	CH₃NH₂ gas induced (110) preferred cesium-containing perovskite films with reduced PbI₆ octahedron distortion and enhanced moisture stability. Journal of Materials Chemistry A, 2017, 5, 4803-4808.	5.2	33
1295	Electrospray technique in fabricating perovskite-based hybrid solar cells under ambient conditions. RSC Advances, 2017, 7, 10985-10991.	1.7	18
1296	Perovskite Solar Cells on the Way to Their Radiative Efficiency Limit â€" Insights Into a Success Story of High Openâ€Circuit Voltage and Low Recombination. Advanced Energy Materials, 2017, 7, 1602358.	10.2	430
1297	Direct Evidence of Ion Diffusion for the Silverâ€Electrodeâ€Induced Thermal Degradation of Inverted Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1602922.	10.2	277
1298	Highly efficient and stable inverted planar solar cells from (FAI)x(MABr)1âˆ'xPbI2 perovskites. Nano Energy, 2017, 35, 62-70.	8.2	32
1299	A Triarylamine-Based Anode Modifier for Efficient Organohalide Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 9096-9101.	4.0	10
1300	Multifold Emission Enhancement in Nanoimprinted Hybrid Perovskite Metasurfaces. ACS Photonics, 2017, 4, 728-735.	3.2	131
1301	Nonuniform Effect of Carrier Separation Efficiency and Light Absorption in Type-II Perovskite Nanowire Solar Cells. Nanoscale Research Letters, 2017, 12, 160.	3.1	11
1302	Solution-Processed Cu(In, Ga)(S, Se)2 Nanocrystal as Inorganic Hole-Transporting Material for Efficient and Stable Perovskite Solar Cells. Nanoscale Research Letters, 2017, 12, 159.	3.1	38
1303	Progress in Tandem Solar Cells Based on Hybrid Organicâ€“Inorganic Perovskites. Advanced Energy Materials, 2017, 7, 1602400.	10.2	130
1304	Simulation of perovskite solar cell with P₃HT hole-transporting materials. Journal of Nanophotonics, 2017, 11, 032510.	0.4	34
1305	Effect of Selective Contacts on the Thermal Stability of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 7148-7153.	4.0	203

#	Article	IF	Citations
1306	Simplification of device structures for low-cost, high-efficiency perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 4756-4773.	5.2	57
1307	The investigation of an amidine-based additive in the perovskite films and solar cells. Journal of Semiconductors, 2017, 38, 014001.	2.0	6
1308	Simple post annealing-free method for fabricating uniform, large grain-sized, and highly crystalline perovskite films. Nano Energy, 2017, 34, 181-187.	8.2	50
1309	Low-temperature electrodeposited crystalline SnO2 as an efficient electron-transporting layer for conventional perovskite solar cells. Solar Energy Materials and Solar Cells, 2017, 164, 47-55.	3.0	75
1310	Time-Resolved Infrared Spectroscopy Directly Probes Free and Trapped Carriers in Organo-Halide Perovskites. ACS Energy Letters, 2017, 2, 651-658.	8.8	43
1311	High-Performance Regular Perovskite Solar Cells Employing Low-Cost Poly(ethylenedioxythiophene) as a Hole-Transporting Material. Scientific Reports, 2017, 7, 42564.	1.6	52
1312	Material nucleation/growth competition tuning towards highly reproducible planar perovskite solar cells with efficiency exceeding 20%. Journal of Materials Chemistry A, 2017, 5, 6840-6848.	5.2	149
1313	Metal Acetylacetonate Series in Interface Engineering for Full Lowâ€Temperatureâ€Processed, Highâ€Performance, and Stable Planar Perovskite Solar Cells with Conversion Efficiency over 16% on 1 cm² Scale. Advanced Materials, 2017, 29, 1603923.	11.1	190
1314	Crystal Growth and Dissolution of Methylammonium Lead Iodide Perovskite in Sequential Deposition: Correlation between Morphology Evolution and Photovoltaic Performance. ACS Applied Materials & Interfaces, 2017, 9, 8623-8633.	4.0	45
1315	Enhanced Efficiency and Stability of Perovskite Solar Cells via Anti-Solvent Treatment in Two-Step Deposition Method. ACS Applied Materials & Interfaces, 2017, 9, 7224-7231.	4.0	97
1316	A facile one-pot synthesis of hyper-branched carbazole-based polymer as a hole-transporting material for perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 6613-6621.	5.2	42
1317	Achieving Largeâ€Area Planar Perovskite Solar Cells by Introducing an Interfacial Compatibilizer. Advanced Materials, 2017, 29, 1606363.	11.1	153
1318	Multichannel Interdiffusion Driven FASnI₃ Film Formation Using Aqueous Hybrid Salt/Polymer Solutions toward Flexible Leadâ€Free Perovskite Solar Cells. Advanced Materials, 2017, 29, 1606964.	11.1	137
1319	CH 3 NH 3 PbI 3âˆ'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
1320	Device stability of perovskite solar cells â€" A review. Renewable and Sustainable Energy Reviews, 2017, 77, 131-146.	8.2	345
1321	Crystallographic orientation propagation in metal halide perovskite thin films. Journal of Materials Chemistry A, 2017, 5, 7796-7800.	5.2	57
1322	Polymorphic Phase Control Mechanism of Organicâ€"Inorganic Hybrid Perovskite Engineered by Dual-Site Alloying. Journal of Physical Chemistry C, 2017, 121, 9508-9515.	1.5	16
1323	Efficient Top-Illuminated Organic-Quantum Dots Hybrid Tandem Solar Cells with Complementary Absorption. ACS Photonics, 2017, 4, 1172-1177.	3.2	17

#	Article	IF	Citations
1324	Mechanosynthesis of pure phase mixed-cation MA_xFA_{1âˆ'x}PbI₃hybrid perovskites: photovoltaic performance and electrochemical properties. Sustainable Energy and Fuels, 2017, 1, 689-693.	2.5	78
1325	Thermoresponsive Emission Switching via Lower Critical Solution Temperature Behavior of Organicâ€"Inorganic Perovskite Nanoparticles. Advanced Materials, 2017, 29, 1700047.	11.1	11
1326	Insights into the Hole Blocking Layer Effect on the Perovskite Solar Cell Performance and Impedance Response. Journal of Physical Chemistry C, 2017, 121, 9131-9141.	1.5	69
1327	Hybrid perovskite solar cells: <i>In situ</i> investigation of solution-processed PbI₂ reveals metastable precursors and a pathway to producing porous thin films. Journal of Materials Research, 2017, 32, 1899-1907.	1.2	26
1328	Selfâ€Organized Fullerene Interfacial Layer for Efficient and Lowâ€Temperature Processed Planar Perovskite Solar Cells with High UVâ€Light Stability. Advanced Science, 2017, 4, 1700018.	5.6	47
1329	A Printable Organic Electron Transport Layer for Lowâ€Temperatureâ€Processed, Hysteresisâ€Free, and Stable Planar Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1700226.	10.2	46
1330	Controlled Growth of CH₃NH₃PbI₃ Using a Dynamically Dispensed Spinâ€Coating Method: Improving Efficiency with a Reproducible PbI₂ Blocking Layer. ChemSusChem, 2017, 10, 2677-2684.	3.6	17
1331	Graphene oxide as an efficient hole-transporting material for high-performance perovskite solar cells with enhanced stability. Journal of Materials Chemistry A, 2017, 5, 9852-9858.	5.2	87
1332	Anti-solvent dependent device performance in CH₃NH₃PbI₃ solar cells: the role of intermediate phase content in the as-prepared thin films. Sustainable Energy and Fuels, 2017, 1, 1041-1048.	2.5	35
1333	Cuâ€"In Halide Perovskite Solar Absorbers. Journal of the American Chemical Society, 2017, 139, 6718-6725.	6.6	316
1334	New insight into solvent engineering technology from evolution of intermediates via one-step spin-coating approach. Science China Materials, 2017, 60, 392-398.	3.5	53
1335	Up-Conversion Perovskite Nanolaser with Single Mode and Low Threshold. Journal of Physical Chemistry C, 2017, 121, 10071-10077.	1.5	30
1336	Electrical Stress Influences the Efficiency of CH₃NH₃PbI₃ Perovskite Light Emitting Devices. Advanced Materials, 2017, 29, 1605317.	11.1	105
1337	Development of electron and hole selective contact materials for perovskite solar cells. Chinese Chemical Letters, 2017, 28, 1144-1152.	4.8	20
1338	Cost-effective sustainable-engineering of CH3NH3PbI3 perovskite solar cells through slicing and restacking of 2D layers. Nano Energy, 2017, 36, 295-302.	8.2	30
1339	It Takes Two to Tangoâ€"Double-Layer Selective Contacts in Perovskite Solar Cells for Improved Device Performance and Reduced Hysteresis. ACS Applied Materials & Interfaces, 2017, 9, 17245-17255.	4.0	107
1340	Facile preparation of high-quality perovskites for efficient solar cells via a fast conversion of wet PbI₂precursor films. RSC Advances, 2017, 7, 22492-22500.	1.7	20
1341	Exploring the orthorhombicâ€"tetragonal phase transition in CH3NH3PbI3: the role of atom kinetics. Nanoscale, 2017, 9, 5896-5903.	2.8	22

#	Article	IF	Citations
1342	Eliminated hysteresis and stabilized power output over 20% in planar heterojunction perovskite solar cells by compositional and surface modifications to the low-temperature-processed TiO₂ layer. Journal of Materials Chemistry A, 2017, 5, 9402-9411.	5.2	127
1343	Chemical Reduction of Intrinsic Defects in Thicker Heterojunction Planar Perovskite Solar Cells. Advanced Materials, 2017, 29, 1606774.	11.1	318
1344	Lowâ€Temperature Modification of ZnO Nanoparticles Film for Electronâ€Transport Layers in Perovskite Solar Cells. ChemSusChem, 2017, 10, 2425-2430.	3.6	31
1345	Simultaneously enhancing dissociation and suppressing recombination in perovskite solar cells. Nano Energy, 2017, 36, 95-101.	8.2	27
1346	High-performance gas sensors based on a thiocyanate ion-doped organometal halide perovskite. Physical Chemistry Chemical Physics, 2017, 19, 12876-12881.	1.3	78
1347	Synergetic Effect of Chloride Doping and CH₃NH₃PbCl₃ on CH₃NH₃PbI_{3â^’<i>x</i>}Cl_{<i>x</i>} Perovskiteâ€Based Solar Cells. ChemSusChem, 2017, 10, 2365-2369.	3.6	53
1348	Infiltration of methylammonium metal halide in highly porous membranes using sol-gel-derived coating method. Applied Surface Science, 2017, 416, 96-102.	3.1	10
1349	Halide Perovskites for Tandem Solar Cells. Journal of Physical Chemistry Letters, 2017, 8, 1999-2011.	2.1	47
1350	Impact of moisture on efficiency-determining electronic processes in perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 10917-10927.	5.2	95
1351	Electrosprayâ€Assisted Fabrication of Moistureâ€Resistant and Highly Stable Perovskite Solar Cells at Ambient Conditions. Advanced Energy Materials, 2017, 7, 1700210.	10.2	51
1352	Controlled Crystal Grain Growth in Mixed Cationâ€“Halide Perovskite by Evaporated Solvent Vapor Recycling Method for High Efficiency Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 18739-18747.	4.0	42
1353	High-performance piezoelectric nanogenerators composed of formamidinium lead halide perovskite nanoparticles and poly(vinylidene fluoride). Nano Energy, 2017, 37, 126-135.	8.2	164
1354	A Breakthrough Efficiency of 19.9% Obtained in Inverted Perovskite Solar Cells by Using an Efficient Trap State Passivator Cu(thiourea)I. Journal of the American Chemical Society, 2017, 139, 7504-7512.	6.6	330
1355	Improved Performance and Stability of Allâ€Inorganic Perovskite Lightâ€Emitting Diodes by Antisolvent Vapor Treatment. Advanced Functional Materials, 2017, 27, 1700338.	7.8	221
1356	Lead-free organicâ€“inorganic hybrid perovskite heterojunction composites for photocatalytic applications. Catalysis Science and Technology, 2017, 7, 2753-2762.	2.1	33
1357	Additive engineering for highly efficient organicâ€“inorganic halide perovskite solar cells: recent advances and perspectives. Journal of Materials Chemistry A, 2017, 5, 12602-12652.	5.2	303
1358	Bright and efficient light-emitting diodes based on MA/Cs double cation perovskite nanocrystals. Journal of Materials Chemistry C, 2017, 5, 6123-6128.	2.7	67
1359	Function Follows Form: Correlation between the Growth and Local Emission of Perovskite Structures and the Performance of Solar Cells. Advanced Functional Materials, 2017, 27, 1701433.	7.8	26

#	Article	IF	Citations
1360	Fully Printable Organic and Perovskite Solar Cells with Transfer-Printed Flexible Electrodes. ACS Applied Materials & Interfaces, 2017, 9, 18730-18738.	4.0	19
1361	Spontaneous Passivation of Hybrid Perovskite by Sodium Ions from Glass Substrates: Mysterious Enhancement of Device Efficiency Revealed. ACS Energy Letters, 2017, 2, 1400-1406.	8.8	143
1362	High-Temperatureâ€“Short-Time Annealing Process for High-Performance Large-Area Perovskite Solar Cells. ACS Nano, 2017, 11, 6057-6064.	7.3	142
1363	An efficient and thickness insensitive cathode interface material for high performance inverted perovskite solar cells with 17.27% efficiency. Journal of Materials Chemistry C, 2017, 5, 5949-5955.	2.7	24
1364	Enhanced nonlinear spectroscopy for monolayers and thin films in near-Brewsterâ€™s angle reflection pump-probe geometry. Journal of Chemical Physics, 2017, 146, .	1.2	28
1365	Flexible perovskite solar cells with ultrathin Au anode and vapour-deposited perovskite film. Solar Energy Materials and Solar Cells, 2017, 169, 8-12.	3.0	41
1366	Ultrathin Cs₃Bi₂I₉ Nanosheets as an Electronic Memory Material for Flexible Memristors. Advanced Materials Interfaces, 2017, 4, 1700131.	1.9	90
1367	Efficient Plastic Perovskite Solar Cell with a Lowâ€Temperature Processable Electrodeposited TiO₂ Compact Layer and a Brookite TiO₂ Scaffold. Advanced Energy Materials, 2017, 7, 1700169.	10.2	26
1368	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
1369	A new binaphthol based hole-transporting materials for perovskite solar cells. Tetrahedron, 2017, 73, 3398-3405.	1.0	9
1370	Improved Performance and Reproducibility of Perovskite Solar Cells by Well-Soluble Tris(pentafluorophenyl)borane as a p-Type Dopant. ACS Applied Materials & Interfaces, 2017, 9, 17923-17931.	4.0	73
1371	Realizing a new class of hybrid organicâ€“inorganic multifunctional perovskite. Journal of Materials Chemistry A, 2017, 5, 10640-10650.	5.2	26
1372	Recent progress in hybrid perovskite solar cells based on n-type materials. Journal of Materials Chemistry A, 2017, 5, 10092-10109.	5.2	136
1373	Unraveling the multifunctional capabilities of PCBM thin films in inverted-type CH 3 NH 3 PbI 3 based photovoltaics. Solar Energy Materials and Solar Cells, 2017, 169, 40-46.	3.0	21
1374	Temperature-modulated crystal growth and performance for highly reproducible and efficient perovskite solar cells. Physical Chemistry Chemical Physics, 2017, 19, 13147-13152.	1.3	18
1375	Synthesis of a nanostructured rutile TiO₂ electron transporting layer via an etching process for efficient perovskite solar cells: impact of the structural and crystalline properties of TiO₂. Journal of Materials Chemistry A, 2017, 5, 12340-12353.	5.2	25
1376	Multistep Photoluminescence Decay Reveals Dissociation of Geminate Charge Pairs in Organolead Trihalide Perovskites. Advanced Energy Materials, 2017, 7, 1700405.	10.2	8
1377	Junction Propagation in Organometal Halide Perovskiteâ€“Polymer Composite Thin Films. Journal of Physical Chemistry Letters, 2017, 8, 2412-2419.	2.1	30

#	Article	IF	Citations
1378	Fast oxygen diffusion and iodide defects mediate oxygen-induced degradation of perovskite solar cells. Nature Communications, 2017, 8, 15218.	5.8	917
1379	MgO Nanoparticle Modified Anode for Highly Efficient SnO₂â€Based Planar Perovskite Solar Cells. Advanced Science, 2017, 4, 1700031.	5.6	175
1380	Functionalization of transparent conductive oxide electrode for TiO₂-free perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 11882-11893.	5.2	56
1381	Matching Charge Extraction Contact for Wideâ€Bandgap Perovskite Solar Cells. Advanced Materials, 2017, 29, 1700607.	11.1	178
1382	Recent progress and remaining challenges in organometallic halides based perovskite solar cells. Renewable and Sustainable Energy Reviews, 2017, 78, 1-14.	8.2	49
1383	Low temperature solution processed indium oxide thin films with reliable photoelectrochemical stability for efficient and stable planar perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 9641-9648.	5.2	53
1384	Tailoring the Energy Landscape in Quasi-2D Halide Perovskites Enables Efficient Green-Light Emission. Nano Letters, 2017, 17, 3701-3709.	4.5	409
1385	Determination of the complex refractive index and optical bandgap of CH3NH3PbI3 thin films. Journal of Applied Physics, 2017, 121, .	1.1	38
1386	Increased Efficiency for Perovskite Photovoltaics Based on Aluminum-Doped Zinc Oxide Transparent Electrodes via Surface Modification. Journal of Physical Chemistry C, 2017, 121, 10282-10288.	1.5	14
1387	The effect of illumination on the formation of metal halide perovskite films. Nature, 2017, 545, 208-212.	13.7	242
1388	ITIC surface modification to achieve synergistic electron transport layer enhancement for planar-type perovskite solar cells with efficiency exceeding 20%. Journal of Materials Chemistry A, 2017, 5, 9514-9522.	5.2	103
1389	To probe the performance of perovskite memory devices: defects property and hysteresis. Journal of Materials Chemistry C, 2017, 5, 5810-5817.	2.7	63
1390	Environmental benefits of reduced electricity use exceed impacts from lead use for perovskite based tandem solar cell. Renewable Energy, 2017, 111, 906-913.	4.3	38
1391	Spin-coating free fabrication for highly efficient perovskite solar cells. Solar Energy Materials and Solar Cells, 2017, 168, 165-171.	3.0	70
1392	Synergistic Effects of Lead Thiocyanate Additive and Solvent Annealing on the Performance of Wide-Bandgap Perovskite Solar Cells. ACS Energy Letters, 2017, 2, 1177-1182.	8.8	190
1393	Enhanced planar perovskite solar cells with efficiency exceeding 16% via reducing the oxygen vacancy defect state in titanium oxide electrode. Physical Chemistry Chemical Physics, 2017, 19, 13679-13686.	1.3	46
1396	Hydrazine solution processed CuSbSe2: Temperature dependent phase and crystal orientation evolution. Solar Energy Materials and Solar Cells, 2017, 168, 112-118.	3.0	23
1397	Tuning the crystal growth of perovskite thin-films by adding the 2-pyridylthiourea additive for highly efficient and stable solar cells prepared in ambient air. Journal of Materials Chemistry A, 2017, 5, 13448-13456.	5.2	96

#	Article	IF	Citations
1398	Considerations for Upscaling of Organohalide Perovskite Solar Cells. Advanced Optical Materials, 2017, 5, 1600819.	3.6	18
1399	One step spray-coated TiO₂ electron-transport layers for decent perovskite solar cells on large and flexible substrates. Nanotechnology, 2017, 28, 01LT02.	1.3	16
1400	Material Parameters and Perspectives for Efficiency Improvements in Perovskite Solar Cells Obtained by Analytical Modeling. IEEE Journal of Photovoltaics, 2017, 7, 206-213.	1.5	19
1401	Controlling crystal growth by chloride-assisted synthesis: Towards optimized charge transport in hybrid halide perovskites. Solar Energy Materials and Solar Cells, 2017, 166, 269-275.	3.0	8
1402	Profiling the organic cation-dependent degradation of organolead halide perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 1103-1111.	5.2	155
1403	The Origin of Lower Hole Carrier Concentration in Methylammonium Tin Halide Films Grown by a Vapor-Assisted Solution Process. ACS Energy Letters, 2017, 2, 22-28.	8.8	102
1404	Pressureâ€Induced Bandgap Optimization in Leadâ€Based Perovskites with Prolonged Carrier Lifetime and Ambient Retainability. Advanced Functional Materials, 2017, 27, 1604208.	7.8	167
1405	Perovskite solar cells: An integrated hybrid lifecycle assessment and review in comparison with other photovoltaic technologies. Renewable and Sustainable Energy Reviews, 2017, 80, 1321-1344.	8.2	240
1406	Inverted planar solar cells based on perovskite/graphene oxide hybrid composites. Journal of Materials Chemistry A, 2017, 5, 13957-13965.	5.2	80
1407	A Short Progress Report on High-Efficiency Perovskite Solar Cells. Nanoscale Research Letters, 2017, 12, 410.	3.1	89
1408	Selective Organic Contacts for Methyl Ammonium Lead Iodide (MAPI) Perovskite Solar Cells: Influence of Layer Thickness on Carriers Extraction and Carriers Lifetime. ACS Applied Materials & Interfaces, 2017, 9, 21599-21605.	4.0	22
1409	Degradation in perovskite solar cells stored under different environmental conditions. Journal Physics D: Applied Physics, 2017, 50, 325105.	1.3	19
1410	Efficient bifacial semitransparent perovskite solar cells with silver thin film electrode. Solar Energy Materials and Solar Cells, 2017, 170, 278-286.	3.0	55
1411	Air-processed organo-metal halide perovskite solar cells and their air stability. Journal of Materials Science, 2017, 52, 10886-10897.	1.7	11
1412	Room-Temperature Processed Nb₂O₅ as the Electron-Transporting Layer for Efficient Planar Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 23181-23188.	4.0	120
1413	Rapid Crystallization of All-Inorganic CsPbBr3 Perovskite for High-Brightness Light-Emitting Diodes. ACS Omega, 2017, 2, 2757-2764.	1.6	28
1414	Secondary Hydrothermally Processed Engineered Titanium Dioxide Nanostructures for Efficient Perovskite Solar Cells. Energy Technology, 2017, 5, 1775-1787.	1.8	6
1415	In Situ Observation of Crystallization of Methylammonium Lead Iodide Perovskite from Microdroplets. Small, 2017, 13, 1604125.	5.2	39

#	Article	IF	Citations
1416	Optimization of ITO glass/TiO2 based DSSC photo-anodes through electrophoretic deposition and sintering techniques. Ceramics International, 2017, 43, 10540-10545.	2.3	28
1417	Enhancing efficiency and stability of perovskite solar cells via a high mobility p-type PbS buffer layer. Nano Energy, 2017, 38, 1-11.	8.2	65
1418	Nanoscale Mapping of Bromide Segregation on the Cross Sections of Complex Hybrid Perovskite Photovoltaic Films Using Secondary Electron Hyperspectral Imaging in a Scanning Electron Microscope. ACS Omega, 2017, 2, 2126-2133.	1.6	16
1419	Formation of bright-green-color-emitting perovskite CsPbBr 3 in a bulk state using a simple recrystallization process. Dyes and Pigments, 2017, 144, 151-157.	2.0	9
1420	Thermally Stable MAPbI₃ Perovskite Solar Cells with Efficiency of 19.19% and Area over 1 cm² achieved by Additive Engineering. Advanced Materials, 2017, 29, 1701073.	11.1	541
1421	High-current perovskite solar cells fabricated with optically enhanced transparent conductive oxides. Applied Physics Express, 2017, 10, 062301.	1.1	7
1422	Understanding the limit and potential in emerging perovskite solar cells. , 2017, , .		1
1423	Enhancing the c-TiO2 based perovskite solar cell performance via modification by a serial of boronic acid derivative self-assembled monolayers. Applied Surface Science, 2017, 423, 521-527.	3.1	22
1424	Radiative Thermal Annealing/in Situ X-ray Diffraction Study of Methylammonium Lead Triiodide: Effect of Antisolvent, Humidity, Annealing Temperature Profile, and Film Substrates. Chemistry of Materials, 2017, 29, 5931-5941.	3.2	35
1425	In situ dynamic observations of perovskite crystallisation and microstructure evolution intermediated from [PbI6]4âˆ’ cage nanoparticles. Nature Communications, 2017, 8, 15688.	5.8	191
1426	Enhanced long-term stability of perovskite solar cells using a double-layer hole transport material. Journal of Materials Chemistry A, 2017, 5, 14881-14886.	5.2	34
1427	[C₅H₁₂N]CdCl₃: an ABX₃ perovskite-type semiconducting switchable dielectric phase transition material. Inorganic Chemistry Frontiers, 2017, 4, 1485-1492.	3.0	44
1428	Optimization of a compact layer of TiO₂via atomic-layer deposition for high-performance perovskite solar cells. Sustainable Energy and Fuels, 2017, 1, 1533-1540.	2.5	59
1429	Coherent Light Emitters From Solution Chemistry: Inorganic IIâ€“VI Nanocrystals and Organometallic Perovskites. IEEE Journal of Selected Topics in Quantum Electronics, 2017, 23, 1-14.	1.9	3
1430	Deciphering the NH₄PbI₃ Intermediate Phase for Simultaneous Improvement on Nucleation and Crystal Growth of Perovskite. Advanced Functional Materials, 2017, 27, 1701804.	7.8	117
1431	Fabrication of compact and stable perovskite films with optimized precursor composition in the fast-growing procedure. Science China Materials, 2017, 60, 608-616.	3.5	12
1432	Air free fast solution annealing method for perovskite solar cells. Materials Letters, 2017, 205, 130-133.	1.3	13
1433	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

#	Article	IF	Citations
1434	Citric Acid Modulated Growth of Oriented Lead Perovskite Crystals for Efficient Solar Cells. Journal of the American Chemical Society, 2017, 139, 9598-9604.	6.6	77
1435	20â€2: Mixedâ€Cation Perovskite Lightâ€Emitting Diodes with High Brightness and High Current Efficiency. Digest of Technical Papers SID International Symposium, 2017, 48, 276-279.	0.1	0
1436	Broadband Light Absorption and Efficient Charge Separation Using a Light Scattering Layer with Mixed Cavities for Highâ€Performance Perovskite Photovoltaic Cells with Stability. Small, 2017, 13, 1700418.	5.2	13
1437	PbCl2-tuned inorganic cubic CsPbBr3(Cl) perovskite solar cells with enhanced electron lifetime, diffusion length and photovoltaic performance. Journal of Power Sources, 2017, 360, 11-20.	4.0	84
1438	Viscosity effect of ionic liquid-assisted controlled growth of CH3NH3PbI3 nanoparticle-based planar perovskite solar cells. Organic Electronics, 2017, 48, 147-153.	1.4	30
1439	PVDF-HFP additive for visible-light-semitransparent perovskite films yielding enhanced photovoltaic performance. Solar Energy Materials and Solar Cells, 2017, 170, 178-186.	3.0	45
1440	Efficient electron transfer layer based on Al 2 O 3 passivated TiO 2 nanorod arrays for high performance evaporation-route deposited FAPbI 3 perovskite solar cells. Solar Energy Materials and Solar Cells, 2017, 170, 187-196.	3.0	31
1441	The Interplay between Trap Density and Hysteresis in Planar Heterojunction Perovskite Solar Cells. Nano Letters, 2017, 17, 4270-4276.	4.5	226
1442	Magnetic Field-Assisted Perovskite Film Preparation for Enhanced Performance of Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 21756-21762.	4.0	27
1443	Ultra-bright and highly efficient inorganic based perovskite light-emitting diodes. Nature Communications, 2017, 8, 15640.	5.8	669
1444	Experimental evaluation of room temperature crystallization and phase evolution of hybrid perovskite materials. CrystEngComm, 2017, 19, 3834-3843.	1.3	43
1445	Accurate and fast evaluation of perovskite solar cells with least hysteresis. Applied Physics Express, 2017, 10, 076601.	1.1	12
1446	High-efficiency perovskite solar cells employing a conjugated donorâ€"acceptor co-polymer as a hole-transporting material. RSC Advances, 2017, 7, 27189-27197.	1.7	27
1447	Hybrid Perovskites: Effective Crystal Growth for Optoelectronic Applications. Advanced Energy Materials, 2017, 7, 1602596.	10.2	62
1448	Theoretical Treatment of CH₃NH₃PbI₃ Perovskite Solar Cells. Angewandte Chemie - International Edition, 2017, 56, 15806-15817.	7.2	107
1449	Reduced Interfaceâ€Mediated Recombination for High Openâ€Circuit Voltages in CH₃NH₃PbI₃ Solar Cells. Advanced Materials, 2017, 29, 1700159.	11.1	210
1450	Single-Walled Carbon Nanotubes Enhance the Efficiency and Stability of Mesoscopic Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 19945-19954.	4.0	49
1451	Understanding perovskite formation through the intramolecular exchange method in ambient conditions. Journal of Photonics for Energy, 2017, 7, 022002.	0.8	12

#	Article	IF	Citations
1452	Theoretische Abhandlung Ã¼ber CH₃NH₃PbI₃â€Perowskitâ€Solarzellen. Angewandte Chemie, 2017, 129, 16014-16026.	1.6	5
1453	Energy-Down-Shift CsPbCl₃:Mn Quantum Dots for Boosting the Efficiency and Stability of Perovskite Solar Cells. ACS Energy Letters, 2017, 2, 1479-1486.	8.8	221
1454	CH3NH3PbI3 based solar cell: Modified by antisolvent treatment. AIP Conference Proceedings, 2017, , .	0.3	10
1455	Origin of Open-Circuit Voltage Loss in Polymer Solar Cells and Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 19988-19997.	4.0	30
1456	Recent advances in hierarchical three-dimensional titanium dioxide nanotree arrays for high-performance solar cells. Journal of Materials Chemistry A, 2017, 5, 12699-12717.	5.2	52
1457	Temperature Dependent Characteristics of Perovskite Solar Cells. ChemistrySelect, 2017, 2, 4469-4477.	0.7	24
1458	High Efficient Planar-heterojunction Perovskite Solar Cell Based on Two-step Deposition Process. Energy Procedia, 2017, 105, 793-798.	1.8	18
1459	Sequential Dip-spin Coating Method: Fully Infiltration of MAPbI3-xClx into Mesoporous TiO2 for Stable Hybrid Perovskite Solar Cells. Electrochimica Acta, 2017, 245, 734-741.	2.6	14
1460	Broadly tunable metal halide perovskites for solid-state light-emission applications. Materials Today, 2017, 20, 413-424.	8.3	204
1461	One-Year stable perovskite solar cells by 2D/3D interface engineering. Nature Communications, 2017, 8, 15684.	5.8	1,625
1462	Charge transport in a two-dimensional hybrid metal halide thiocyanate compound. Journal of Materials Chemistry C, 2017, 5, 5930-5938.	2.7	37
1463	Highly efficient and stable low-temperature processed ZnO solar cells with triple cation perovskite absorber. Journal of Materials Chemistry A, 2017, 5, 13439-13447.	5.2	86
1464	From spin coating to rollâ€toâ€roll: investigating the challenge of upscaling lead halide perovskite solar cells. IET Renewable Power Generation, 2017, 11, 546-549.	1.7	25
1465	Computational study of structural, optoelectronic and nonlinear optical properties of dynamic solid-state chalcone derivatives. Journal of Molecular Graphics and Modelling, 2017, 75, 355-364.	1.3	16
1466	Ultraviolet-ozone surface modification for non-wetting hole transport materials based inverted planar perovskite solar cells with efficiency exceeding 18%. Journal of Power Sources, 2017, 360, 157-165.	4.0	106
1467	Perovskite solar cells - An overview of critical issues. Progress in Quantum Electronics, 2017, 53, 1-37.	3.5	132
1468	Cesium Doped NiO<i>_x</i> as an Efficient Hole Extraction Layer for Inverted Planar Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1700722.	10.2	353
1469	Ternary oxide BaSnO3 nanoparticles as an efficient electron-transporting layer for planar perovskite solar cells. Journal of Alloys and Compounds, 2017, 722, 196-206.	2.8	32

#	Article	IF	Citations
1470	Enhanced Crystalline Phase Purity of CH₃NH₃PbI_{3â€"<i>x</i>}Cl<i>_x</i> Film for High-Efficiency Hysteresis-Free Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 23141-23151.	4.0	41
1471	A PbI_{2â^'x}Cl_x seed layer for obtaining efficient planar-heterojunction perovskite solar cells via an interdiffusion process. Nanoscale, 2017, 9, 9396-9403.	2.8	15
1472	First determination of the valence band dispersion of CH₃NH₃PbI₃hybrid organicâ€"inorganic perovskite. Journal Physics D: Applied Physics, 2017, 50, 26LT02.	1.3	33
1473	Current state and perspectives for organo-halide perovskite solar cells. Part 1. Crystal structures and thin film formation, morphology, processing, degradation, stability improvement by carbon nanotubes. A review. Modern Electronic Materials, 2017, 3, 1-25.	0.2	29
1474	Recent efficient strategies for improving the moisture stability of perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 15447-15459.	5.2	125
1475	Room-Temperature Synthesis of Widely Tunable Formamidinium Lead Halide Perovskite Nanocrystals. Chemistry of Materials, 2017, 29, 5713-5719.	3.2	112
1476	Unveiling the Crystal Formation of Cesium Lead Mixed-Halide Perovskites for Efficient and Stable Solar Cells. Journal of Physical Chemistry Letters, 2017, 8, 2936-2940.	2.1	169
1477	Enhanced Efficiency and Stability of an Aqueous Lead-Nitrate-Based Organometallic Perovskite Solar Cell. ACS Applied Materials & Interfaces, 2017, 9, 14023-14030.	4.0	30
1478	Preferential CH₃NH₃⁺ Alignment and Octahedral Tilting Affect Charge Localization in Cubic Phase CH₃NH₃PbI₃. Journal of Physical Chemistry C, 2017, 121, 8319-8326.	1.5	24
1479	Annealing effects on CsPbI₃-based planar heterojunction perovskite solar cells formed by vacuum deposition method. Japanese Journal of Applied Physics, 2017, 56, 04CS11.	0.8	35
1480	Structure formation and evolution in semiconductor films for perovskite and organic photovoltaics. Journal of Materials Research, 2017, 32, 1798-1824.	1.2	16
1481	Effects of precursor concentration and annealing temperature on CH 3 NH 3 PbI 3 film crystallization and photovoltaic performance. Journal of Physics and Chemistry of Solids, 2017, 107, 55-61.	1.9	6
1482	Enhanced Performance of Planar Perovskite Solar Cells Using Low-Temperature Solution-Processed Al-Doped SnO2 as Electron Transport Layers. Nanoscale Research Letters, 2017, 12, 238.	3.1	66
1483	Ligandâ€Controlled Formation and Photoluminescence Properties of CH₃NH₃PbBr₃ Nanocubes and Nanowires. ChemNanoMat, 2017, 3, 303-310.	1.5	57
1484	Effective hot-air annealing for improving the performance of perovskite solar cells. Solar Energy, 2017, 146, 359-367.	2.9	20
1485	A critical review on tin halide perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 11518-11549.	5.2	463
1486	Luminescence spectroscopy of lead-halide perovskites: materials properties and application as photovoltaic devices. Journal of Materials Chemistry C, 2017, 5, 3427-3437.	2.7	111
1487	Impact of White Light Illumination on the Electronic and Chemical Structures of Mixed Halide and Single Crystal Perovskites. Advanced Optical Materials, 2017, 5, 1700139.	3.6	136

#	Article	IF	Citations
1488	Ag-Incorporated Organicâ€“Inorganic Perovskite Films and Planar Heterojunction Solar Cells. Nano Letters, 2017, 17, 3231-3237.	4.5	149
1489	Improved carriers injection capacity in perovskite solar cells by introducing A-site interstitial defects. Journal of Materials Chemistry A, 2017, 5, 7905-7911.	5.2	99
1490	From Nano- to Micrometer Scale: The Role of Antisolvent Treatment on High Performance Perovskite Solar Cells. Chemistry of Materials, 2017, 29, 3490-3498.	3.2	234
1491	Single-Crystal-like Perovskite for High-Performance Solar Cells Using the Effective Merged Annealing Method. ACS Applied Materials & Interfaces, 2017, 9, 12382-12390.	4.0	41
1492	Rapid, stable and self-powered perovskite detectors via a fast chemical vapor deposition process. RSC Advances, 2017, 7, 18224-18230.	1.7	57
1493	Thermochromic Perovskite Inks for Reversible Smart Window Applications. Chemistry of Materials, 2017, 29, 3367-3370.	3.2	130
1494	Colloidal Synthesis of Air-Stable CH₃NH₃PbI₃ Quantum Dots by Gaining Chemical Insight into the Solvent Effects. Chemistry of Materials, 2017, 29, 3793-3799.	3.2	199
1495	Amine-Based Passivating Materials for Enhanced Optical Properties and Performance of Organicâ€“Inorganic Perovskites in Light-Emitting Diodes. Journal of Physical Chemistry Letters, 2017, 8, 1784-1792.	2.1	220
1496	Thin Films and Solar Cells Based on Semiconducting Two-Dimensional Ruddlesdenâ€“Popper (CH₃(CH₂)₃NH₃)₂(CH₃NH₃)<sub><i>n</i> Perovskites. ACS Energy Letters, 2017, 2, 982-990.	8.8	345
1497	Organicâ€“Inorganic Copper(II)-Based Material: A Low-Toxic, Highly Stable Light Absorber for Photovoltaic Application. Journal of Physical Chemistry Letters, 2017, 8, 1804-1809.	2.1	103
1498	FAPb_{1â^'x}Sn_xI₃mixed metal halide perovskites with improved light harvesting and stability for efficient planar heterojunction solar cells. Journal of Materials Chemistry A, 2017, 5, 9097-9106.	5.2	56
1499	Enhanced interfacial electron transfer of inverted perovskite solar cells by introduction of CoSe into the electron-transporting-layer. Journal of Power Sources, 2017, 353, 123-130.	4.0	22
1500	Synthesis and characterization of perovskite FAPbBr3â^'x I x thin films for solar cells. Monatshefte FÃ¼r Chemie, 2017, 148, 835-844.	0.9	23
1501	Luminescence control in hybrid perovskites and their applications. Journal of Materials Chemistry C, 2017, 5, 4098-4110.	2.7	14
1502	Enhanced optoelectronic quality of perovskite films with excess CH₃NH₃I for high-efficiency solar cells in ambient air. Nanotechnology, 2017, 28, 205401.	1.3	18
1503	Poly(4â€Vinylpyridine)â€Based Interfacial Passivation to Enhance Voltage and Moisture Stability of Lead Halide Perovskite Solar Cells. ChemSusChem, 2017, 10, 2473-2479.	3.6	157
1504	Insights into the Influence of Work Functions of Cathodes on Efficiencies of Perovskite Solar Cells. Small, 2017, 13, 1700007.	5.2	36
1505	Bulk heterojunction perovskite solar cells based on room temperature deposited hole-blocking layer: Suppressed hysteresis and flexible photovoltaic application. Journal of Power Sources, 2017, 351, 123-129.	4.0	71

#	Article	IF	Citations
1506	Fast preparation of compact and stable perovskite films derived from PbCl 2 and Pb(Ac) 2 Â·3H 2 O mixed-lead-halide precursors. Solar Energy Materials and Solar Cells, 2017, 167, 1-6.	3.0	17
1507	Colloidally prepared La-doped BaSnO ₃ electrodes for efficient, photostable perovskite solar cells. Science, 2017, 356, 167-171.	6.0	1,045
1508	Effect of Blend Composition on Bulk Heterojunction Organic Solar Cells: A Review. Solar Rrl, 2017, 1, 1700035.	3.1	29
1509	Chemical Distribution of Multiple Cation (Rb⁺, Cs⁺, MA⁺, and) Tj ETQq1 1 0.784314 rgBT /Overl 29, 3589-3596.	3.2	175
1510	Rheological and physical characterization of <scp>PEDOT</scp>: <scp>PSS</scp>/graphene oxide nanocomposites for perovskite solar cells. Polymer Engineering and Science, 2017, 57, 546-552.	1.5	25
1511	A simple method using citric acid as the template agent to improve photocatalytic performance of BiFeO3 nanoparticles. Materials Letters, 2017, 196, 57-60.	1.3	39
1512	The role of solvent and structure in the kinetics of the excitons in porphyrin-based hybrid solar cells. Solar Energy, 2017, 146, 368-378.	2.9	12
1513	Enhanced morphology and stability of high-performance perovskite solar cells with ultra-smooth surface and high fill factor via crystal growth engineering. Sustainable Energy and Fuels, 2017, 1, 907-914.	2.5	30
1514	Dualâ€Source Precursor Approach for Highly Efficient Inverted Planar Heterojunction Perovskite Solar Cells. Advanced Materials, 2017, 29, 1604758.	11.1	142
1515	Modified Fullerenes for Efficient Electron Transport Layerâ€Free Perovskite/Fullerene Blendâ€Based Solar Cells. ChemSusChem, 2017, 10, 2023-2029.	3.6	79
1516	High-Performance Formamidinium-Based Perovskite Solar Cells via Microstructure-Mediated Î´-to-Î± Phase Transformation. Chemistry of Materials, 2017, 29, 3246-3250.	3.2	99
1517	Full coverage of perovskite layer onto ZnO nanorods via a modified sequential two-step deposition method for efficiency enhancement in perovskite solar cells. Applied Surface Science, 2017, 410, 393-400.	3.1	47
1518	Temperature-Dependent Electric Field Poling Effects in CH3NH3PbI3 Optoelectronic Devices. Journal of Physical Chemistry Letters, 2017, 8, 1429-1435.	2.1	10
1519	Elucidating the role of chlorine in perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 7423-7432.	5.2	95
1520	Moisture-driven phase transition for improved perovskite solar cells with reduced trap-state density. Nano Research, 2017, 10, 1413-1422.	5.8	20
1521	Modulated CH3NH3PbI3â^’xBrx film for efficient perovskite solar cells exceeding 18%. Scientific Reports, 2017, 7, 44603.	1.6	60
1522	Structure of Organometal Halide Perovskite Films as Determined with Grazingâ€Incidence Xâ€Ray Scattering Methods. Advanced Energy Materials, 2017, 7, 1700131.	10.2	113
1523	Compositionâ€Dependent Hot Carrier Relaxation Dynamics in Cesium Lead Halide (CsPbX₃,) Tj ETQq1 1 0.784314 rgBT /O	7.2	141

#	Article	IF	Citations
1524	Cesium Iodide Interface Modification for High Efficiency, High Stability and Low Hysteresis Perovskite Solar Cells. Electrochimica Acta, 2017, 236, 122-130.	2.6	34
1525	1-dimensional TiO2 nano-forests as photoanodes for efficient and stable perovskite solar cells fabrication. Nano Energy, 2017, 35, 215-222.	8.2	34
1526	Perovskite ink with wide processing window for scalable high-efficiency solar cells. Nature Energy, 2017, 2, .	19.8	499
1527	Current status of electron transport layers in perovskite solar cells: materials and properties. RSC Advances, 2017, 7, 17044-17062.	1.7	317
1528	Metal/TiO₂ hierarchical nanocomposite arrays for the remarkable enhancement of photocatalytic activity. RSC Advances, 2017, 7, 16535-16541.	1.7	6
1529	Enhancement in efficiency and optoelectronic quality of perovskite thin films annealed in MACl vapor. Sustainable Energy and Fuels, 2017, 1, 755-766.	2.5	77
1530	Tuning CH₃NH₃Pb(I_{1âˆ'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
1531	Compositionâ€Dependent Hot Carrier Relaxation Dynamics in Cesium Lead Halide (CsPbX₃,) Tj ETQq1 1 0.784314 rgBT /O	1.6	29
1532	Gold and iodine diffusion in large area perovskite solar cells under illumination. Nanoscale, 2017, 9, 4700-4706.	2.8	133
1533	Ternary solvent for CH₃NH₃PbI₃ perovskite films with uniform domain size. Physical Chemistry Chemical Physics, 2017, 19, 1143-1150.	1.3	29
1534	Large-area high-efficiency perovskite solar cells based on perovskite films dried by the multi-flow air knife method in air. Journal of Materials Chemistry A, 2017, 5, 1548-1557.	5.2	115
1535	Electron injection and scaffold effects in perovskite solar cells. Journal of Materials Chemistry C, 2017, 5, 634-644.	2.7	58
1536	The Influence of Morphology and PbI₂ on the Intrinsic Trap State Distribution in Perovskite Films Determined by Using Temperatureâ€Dependent Fluorescence Spectroscopy. ChemPhysChem, 2017, 18, 310-317.	1.0	7
1537	Dual Interfacial Modifications Enable High Performance Semitransparent Perovskite Solar Cells with Large Open Circuit Voltage and Fill Factor. Advanced Energy Materials, 2017, 7, 1602333.	10.2	209
1538	Interface engineering of high efficiency perovskite solar cells based on ZnO nanorods using atomic layer deposition. Nano Research, 2017, 10, 1092-1103.	5.8	134
1539	Molten Salt-Assisted Growth of Perovskite Films with Submillimeter-Sized Grains. Industrial & Engineering Chemistry Research, 2017, 56, 524-529.	1.8	3
1540	Sequential Introduction of Cations Deriving Largeâ€Grain Cs<i>_x</i>FA_{1âˆ'}<i>_x</i>PbI₃ Thin Film for Planar Hybrid Solar Cells: Insight into Phaseâ€Segregation and Thermalâ€Healing Behavior. Small, 2017, 13, 1603225.	5.2	69
1541	Holeâ€extraction layer dependence of defect formation and operation of planar CH₃NH₃PbI₃ perovskite solar cells. Physica Status Solidi - Rapid Research Letters, 2017, 11, 1600395.	1.2	14

#	Article	IF	Citations
1542	Enhanced Grain Size, Photoluminescence, and Photoconversion Efficiency with Cadmium Addition during the Two-Step Growth of CH₃NH₃PbI₃. ACS Applied Materials & Interfaces, 2017, 9, 2334-2341.	4.0	45
1543	Graphene Interface Engineering for Perovskite Solar Modules: 12.6% Power Conversion Efficiency over 50 cm² Active Area. ACS Energy Letters, 2017, 2, 279-287.	8.8	196
1544	Controlled Deposition and Performance Optimization of Perovskite Solar Cells Using Ultrasonic Sprayâ€Coating of Photoactive Layers. ChemSusChem, 2017, 10, 1405-1412.	3.6	62
1545	Tunable band structure and effective mass of disordered chalcopyrite. Frontiers of Physics, 2017, 12, 1.	2.4	2
1546	A facile deposition method for CuSCN: Exploring the influence of CuSCN on J-V hysteresis in planar perovskite solar cells. Nano Energy, 2017, 32, 310-319.	8.2	44
1547	High Efficiency Inverted Planar Perovskite Solar Cells with Solution-Processed NiO_{<i>x</i>} Hole Contact. ACS Applied Materials & Interfaces, 2017, 9, 2439-2448.	4.0	139
1548	Highly Efficient and Stable Perovskite Solar Cells Based on Monolithically Grained CH₃NH₃PbI₃ Film. Advanced Energy Materials, 2017, 7, 1602017.	10.2	291
1549	Functionality-Directed Screening of Pb-Free Hybrid Organicâ€“Inorganic Perovskites with Desired Intrinsic Photovoltaic Functionalities. Chemistry of Materials, 2017, 29, 524-538.	3.2	135
1550	Fast preparation of uniform large grain size perovskite thin film in air condition via spray deposition method for high efficient planar solar cells. Solar Energy Materials and Solar Cells, 2017, 162, 13-20.	3.0	57
1551	Stability issues pertaining large area perovskite and dye-sensitized solar cells and modules. Journal Physics D: Applied Physics, 2017, 50, 033001.	1.3	42
1552	Kinetic Control of Perovskite Thin-Film Morphology and Application in Printable Light-Emitting Diodes. ACS Energy Letters, 2017, 2, 81-87.	8.8	16
1553	A highly efficient self-power pack system integrating supercapacitors and photovoltaics with an area-saving monolithic architecture. Journal of Materials Chemistry A, 2017, 5, 1906-1912.	5.2	43
1554	Efficient hybrid solution strategy to fabricate Cu(In,Ga)(S,Se)2 solar cells. Journal of Alloys and Compounds, 2017, 696, 884-890.	2.8	4
1555	Mayer Bond Order as a Metric of Complexation Effectiveness in Lead Halide Perovskite Solutions. Chemistry of Materials, 2017, 29, 2435-2444.	3.2	82
1556	Reproducible Planar Heterojunction Solar Cells Based on One-Step Solution-Processed Methylammonium Lead Halide Perovskites. Chemistry of Materials, 2017, 29, 462-473.	3.2	35
1557	2-Methoxyethanol as a new solvent for processing methylammonium lead halide perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 2346-2354.	5.2	92
1558	Optimization of perovskite by 3D twisted diketopyrrolopyrrole for efficient perovskite solar cells. Materials Chemistry Frontiers, 2017, 1, 1179-1184.	3.2	12
1559	W-doped TiO2 mesoporous electron transport layer for efficient hole transport material free perovskite solar cells employing carbon counter electrodes. Journal of Power Sources, 2017, 342, 489-494.	4.0	71

#	Article	IF	Citations
1560	Crystallization Kinetics of Lead Halide Perovskite Film Monitored by In Situ Terahertz Spectroscopy. Journal of Physical Chemistry Letters, 2017, 8, 401-406.	2.1	36
1561	Effect of the solvent used for fabrication of perovskite films by solvent dropping on performance of perovskite light-emitting diodes. Nanoscale, 2017, 9, 2088-2094.	2.8	61
1562	Enhancement of photocurrent in an ultra-thin perovskite solar cell by Ag nanoparticles deposited at low temperature. RSC Advances, 2017, 7, 1206-1214.	1.7	36
1563	Controllable intermediates by molecular self-assembly for optimizing the fabrication of large-grain perovskite films via one-step spin-coating. Journal of Alloys and Compounds, 2017, 705, 205-210.	2.8	52
1564	Integrated planar and bulk dual heterojunctions capable of efficient electron and hole extraction for perovskite solar cells with >17% efficiency. Nano Energy, 2017, 32, 187-194.	8.2	23
1565	BiVO₄/WO₃/SnO₂ Double-Heterojunction Photoanode with Enhanced Charge Separation and Visible-Transparency for Bias-Free Solar Water-Splitting with a Perovskite Solar Cell. ACS Applied Materials & Interfaces, 2017, 9, 1479-1487.	4.0	158
1566	High-efficiency perovskite solar cells prepared by using a sandwich structure MAIâ€“PbI₂â€“MAI precursor film. Nanoscale, 2017, 9, 4691-4699.	2.8	27
1567	Enhanced Efficiency of Hotâ€Cast Largeâ€Area Planar Perovskite Solar Cells/Modules Having Controlled Chloride Incorporation. Advanced Energy Materials, 2017, 7, 1601660.	10.2	191
1568	Solution-Processed Nb:SnO₂ Electron Transport Layer for Efficient Planar Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 2421-2429.	4.0	315
1569	Analysis of Photoinduced Carrier Recombination Kinetics in Flat and Mesoporous Lead Perovskite Solar Cells. ACS Energy Letters, 2017, 2, 182-187.	8.8	35
1570	Rapid crystallization in ambient air for planar heterojunction perovskite solar cells. Electronic Materials Letters, 2017, 13, 72-76.	1.0	19
1571	High-Efficiency and Air-Stable Perovskite Quantum Dots Light-Emitting Diodes with an All-Inorganic Heterostructure. Nano Letters, 2017, 17, 313-321.	4.5	402
1572	Annealing-free perovskite films based on solvent engineering for efficient solar cells. Journal of Materials Chemistry C, 2017, 5, 842-847.	2.7	63
1573	Morphology Engineering: A Route to Highly Reproducible and High Efficiency Perovskite Solar Cells. ChemSusChem, 2017, 10, 1624-1630.	3.6	46
1574	Spacer improvement for efficient and fully printable mesoscopic perovskite solar cells. RSC Advances, 2017, 7, 10118-10123.	1.7	19
1575	A perylene diimide based polymer: a dual function interfacial material for efficient perovskite solar cells. Materials Chemistry Frontiers, 2017, 1, 1079-1086.	3.2	51
1576	Enhancement of the Performance of Perovskite Solar Cells, LEDs, and Optical Amplifiers by Antiâ€Solvent Additive Deposition. Advanced Materials, 2017, 29, 1604056.	11.1	63
1577	High efficiency CH3NH3PbI3:CdS perovskite solar cells with CuInS2 as the hole transporting layer. Journal of Power Sources, 2017, 341, 396-403.	4.0	62

#	Article	IF	Citations
1578	CuGaO₂: A Promising Inorganic Holeâ€Transporting Material for Highly Efficient and Stable Perovskite Solar Cells. Advanced Materials, 2017, 29, 1604984.	11.1	282
1579	Importance of Reducing Vapor Atmosphere in the Fabrication of Tin-Based Perovskite Solar Cells. Journal of the American Chemical Society, 2017, 139, 836-842.	6.6	470
1580	First principles modelling of perovskite solar cells based on TiO₂ and Al₂O₃: stability and interfacial electronic structure. Journal of Materials Chemistry A, 2017, 5, 2339-2345.	5.2	34
1581	Systematically Optimized Bilayered Electron Transport Layer for Highly Efficient Planar Perovskite Solar Cells (Î· = 21.1%). ACS Energy Letters, 2017, 2, 2667-2673.	8.8	180
1582	Di-isopropyl ether assisted crystallization of organicâ€“inorganic perovskites for efficient and reproducible perovskite solar cells. Nanoscale, 2017, 9, 17893-17901.	2.8	20
1583	A chemical approach to perovskite solar cells: control of electron-transporting mesoporous TiO₂and utilization of nanocarbon materials. Dalton Transactions, 2017, 46, 15615-15627.	1.6	20
1584	Synergistic effect of caprolactam as lewis base and interface engineering for efficient and stable planar perovskite solar cells. Nano Energy, 2017, 42, 222-231.	8.2	38
1585	Molecular Insights into Early Nuclei and Interfacial Mismatch during Vapor Deposition of Hybrid Perovskites on Titanium Dioxide Substrate. Crystal Growth and Design, 2017, 17, 6201-6211.	1.4	7
1586	Lead Halide Perovskites as Charge Generation Layers for Electron Mobility Measurement in Organic Semiconductors. ACS Applied Materials & Interfaces, 2017, 9, 42011-42019.	4.0	5
1587	Intermediate Phase Intermolecular Exchange Triggered Defect Elimination in CH3NH3PbI3 toward Room-Temperature Fabrication of Efficient Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 40378-40385.	4.0	14
1588	Printing-friendly sequential deposition via intra-additive approach for roll-to-roll process of perovskite solar cells. Nano Energy, 2017, 41, 443-451.	8.2	91
1589	High-Performance Simple-Structured Planar Heterojunction Perovskite Solar Cells Achieved by Precursor Optimization. ACS Omega, 2017, 2, 6250-6258.	1.6	19
1590	Numerical simulation and experimental validation of inverted planar perovskite solar cells based on NiO x hole transport layer. Superlattices and Microstructures, 2017, 112, 383-393.	1.4	26
1591	Thermal conductivity modeling of hybrid organic-inorganic crystals and superlattices. Nano Energy, 2017, 41, 394-407.	8.2	32
1592	Perovskite Nanowire Extrusion. Nano Letters, 2017, 17, 6557-6563.	4.5	42
1593	Sequential solvent processing with hole transport materials for improving efficiency of traditionally-structured perovskite solar cells. Nano Energy, 2017, 41, 591-599.	8.2	27
1594	Guanidinium thiocyanate selective Ostwald ripening induced large grain for high performance perovskite solar cells. Nano Energy, 2017, 41, 476-487.	8.2	184
1595	Improved performance of pure formamidinium lead iodide perovskite light-emitting diodes by moisture treatment. Journal of Materials Chemistry C, 2017, 5, 11121-11127.	2.7	8

#	Article	IF	Citations
1596	Controlling morphology of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si4.gif" display="inline" id="mml4" overflow="scroll"><mml:msub><mml:mrow><mml:mi mathvariant="normal">CH</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msub><mml:msub><mml: mathvariant="normal">NH</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msub><mml:msub><mml: mathvariant="normal">PbI</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msub></mm. Nano Structures Nano Objects, 2017, 12, 106-112.	1.9	21
1597	Colloidal engineering for monolayer CH₃NH₃PbI₃ films toward high performance perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 24168-24177.	5.2	87
1598	2D black phosphorous nanosheets as a hole transporting material in perovskite solar cells. Journal of Power Sources, 2017, 371, 156-161.	4.0	52
1599	Synthesis, Crystal and Electronic Structures, and Optical Properties of (CH₃NH₃)₂CdX₄ (X = Cl, Br, I). Inorganic Chemistry, 2017, 56, 13878-13888.	1.9	78
1600	Adjustment of Conduction Band Edge of Compact TiO₂ Layer in Perovskite Solar Cells Through TiCl₄ Treatment. ACS Applied Materials & Interfaces, 2017, 9, 36708-36714.	4.0	35
1601	Hydrazinium Salt as Additive To Improve Film Morphology and Carrier Lifetime for High-Efficiency Planar-Heterojunction Perovskite Solar Cells via One-Step Method. ACS Applied Materials & Interfaces, 2017, 9, 36810-36816.	4.0	28
1602	Critical Intermediate Structure That Directs the Crystalline Texture and Surface Morphology of Organo-Lead Trihalide Perovskite. ACS Applied Materials & Interfaces, 2017, 9, 36897-36906.	4.0	20
1603	High-Performance and Hysteresis-Free Planar Solar Cells with PC₇₁BM and C₆₀ Composed Structure Prepared Irrespective of Humidity. ACS Sustainable Chemistry and Engineering, 2017, 5, 9718-9724.	3.2	11
1604	Coaxial hybrid perovskite fibers: Synthesis and encapsulation <i>in situ</i> via electrospinning. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2017, 35, .	0.6	7
1605	Ba2+ Doped CH3NH3PbI3 to Tune the Energy State and Improve the Performance of Perovskite Solar Cells. Electrochimica Acta, 2017, 254, 165-171.	2.6	44
1606	Solution-Processed Ultrathin TiO₂ Compact Layer Hybridized with Mesoporous TiO₂ for High-Performance Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 36865-36874.	4.0	51
1607	Slowâ€Photonâ€Effectâ€Induced Photoelectricalâ€Conversion Efficiency Enhancement for Carbonâ€Quantumâ€Dotâ€Sensitized Inorganic CsPbBr₃ Inverse Opal Perovskite Solar Cells. Advanced Materials, 2017, 29, 1703682.	11.1	133
1608	Low Pressure Vapor-assisted Solution Process for Tunable Band Gap Pinhole-free Methylammonium Lead Halide Perovskite Films. Journal of Visualized Experiments, 2017, , .	0.2	0
1609	Enhanced Photovoltaic Performance of the Inverted Planar Perovskite Solar Cells by Using Mixed-Phase Crystalline Perovskite Film with Trace Amounts of PbI₂ as an Absorption Layer. Journal of Physical Chemistry C, 2017, 121, 22607-22620.	1.5	11
1610	High-Performance CH₃NH₃PbI₃-Inverted Planar Perovskite Solar Cells with Fill Factor Over 83% via Excess Organic/Inorganic Halide. ACS Applied Materials & Interfaces, 2017, 9, 35871-35879.	4.0	40
1611	Ultrathin high band gap solar cells with improved efficiencies from the worldâ€™s oldest photovoltaic material. Nature Communications, 2017, 8, 682.	5.8	94
1612	Organometal Trihalide Perovskites with Intriguing Ferroelectric and Piezoelectric Properties. Advanced Functional Materials, 2017, 27, 1702207.	7.8	37
1613	Investigation on the role of Lewis bases in the ripening process of perovskite films for highly efficient perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 20874-20881.	5.2	117

#	Article	IF	Citations
1614	Stabilizing the Ag Electrode and Reducing <i>J</i>â€"<i>V</i> Hysteresis through Suppression of Iodide Migration in Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 36338-36349.	4.0	129
1615	Unravelling additive-based nanocrystal pinning for high efficiency organic-inorganic halide perovskite light-emitting diodes. Nano Energy, 2017, 42, 157-165.	8.2	98
1616	Impact of metal electrode work function of CH 3 NH 3 PbI 3 /p-Si planar heterojunction perovskite solar cells. Solar Energy, 2017, 158, 424-431.	2.9	28
1617	Photoluminescenceâ€"Voltage (PLâ€"<i>V</i>) Hysteresis of Perovskite Solar Cells. Journal of Physical Chemistry C, 2017, 121, 24389-24396.	1.5	16
1618	Junction Quality of SnO₂-Based Perovskite Solar Cells Investigated by Nanometer-Scale Electrical Potential Profiling. ACS Applied Materials & Interfaces, 2017, 9, 38373-38380.	4.0	56
1619	Thermal Stability-Enhanced and High-Efficiency Planar Perovskite Solar Cells with Interface Passivation. ACS Applied Materials & Interfaces, 2017, 9, 38467-38476.	4.0	76
1620	Additive engineering for high-performance room-temperature-processed perovskite absorbers with micron-size grains and microsecond-range carrier lifetimes. Energy and Environmental Science, 2017, 10, 2365-2371.	15.6	157
1621	Synergetic effect of double-step blocking layer for the perovskite solar cell. Journal of Applied Physics, 2017, 122, .	1.1	17
1622	Slow hot carrier cooling in cesium lead iodide perovskites. Applied Physics Letters, 2017, 111, .	1.5	56
1623	Unraveling current hysteresis effects in regular-type C₆₀-CH₃NH₃PbI₃heterojunction solar cells. Nanoscale, 2017, 9, 17802-17806.	2.8	13
1624	Thermal nanoimprint to improve the morphology of MAPbX3 (MAâ€‰=â€‰methylammonium, Xâ€‰=â€‰I or Br). Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2017, 35, .	0.6	20
1625	Structure-Performance Relationships of Hole-Transporting Materials in Perovskite Solar Cells: Minor Structural Discrepancy Effects on the Efficiency. Electrochimica Acta, 2017, 257, 380-387.	2.6	15
1626	Unveiling the Influence of pH on the Crystallization of Hybrid Perovskites, Delivering Low Voltage Loss Photovoltaics. Joule, 2017, 1, 328-343.	11.7	148
1627	First-Principles Screening of Lead-Free Methylammonium Metal Iodine Perovskites for Photovoltaic Application. Journal of Physical Chemistry C, 2017, 121, 24359-24364.	1.5	25
1628	Influence of the Grain Size on the Properties of CH₃NH₃PbI₃ Thin Films. ACS Applied Materials & Interfaces, 2017, 9, 38428-38435.	4.0	25
1629	Observation of strain-induced phonon mode splitting in the tetragonal hybrid halide perovskite. Japanese Journal of Applied Physics, 2017, 56, 110307.	0.8	1
1630	ABX3 Perovskites for Tandem Solar Cells. Joule, 2017, 1, 769-793.	11.7	176
1631	Additiveâ€Assisted Crystallization Dynamics in Twoâ€Step Fabrication of Perovskite Solar Cells. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1700509.	0.8	20

#	Article	IF	Citations
1632	Caesium â^'Methyl Ammonium Mixed-Cation Lead Iodide Perovskite Crystals: Analysis and Application for Perovskite Solar Cells. Electrochimica Acta, 2017, 257, 267-280.	2.6	25
1633	Enhanced performance of perovskite solar cells by strengthening a self-embedded solvent annealing effect in perovskite precursor films. RSC Advances, 2017, 7, 49144-49150.	1.7	11
1634	Thermally evaporated hybrid perovskite for hetero-structured green light-emitting diodes. Applied Physics Letters, 2017, 111, .	1.5	18
1635	Using Bulk Heterojunctions and Selective Electron Trapping to Enhance the Responsivity of Perovskiteâ€"Graphene Photodetectors. Advanced Functional Materials, 2017, 27, 1704173.	7.8	79
1636	Efficient and stable perovskite solar cells based on high-quality CH₃NH₃PbI_{3â^'x}Cl_x films modified by V₂O_x additives. Journal of Materials Chemistry A, 2017, 5, 24282-24291.	5.2	27
1637	Enzymeâ€Driven Hasselbackâ€Like DNAâ€Based Inorganic Superstructures. Advanced Functional Materials, 2017, 27, 1704213.	7.8	33
1638	Recent progress in solid-state electrolytes for alkali-ion batteries. Science Bulletin, 2017, 62, 1473-1490.	4.3	86
1639	Electronic structure of organicâ€"inorganic lanthanide iodide perovskite solar cell materials. Journal of Materials Chemistry A, 2017, 5, 23131-23138.	5.2	28
1640	Effects of water on the forward and backward conversions of lead(<scp>ii</scp>) iodide to methylammonium lead perovskite. Journal of Materials Chemistry A, 2017, 5, 23815-23821.	5.2	15
1641	Enhanced performance by organic electron transporting layers compared with inorganic layers for peroskite solar cells. Molecular Crystals and Liquid Crystals, 2017, 651, 259-264.	0.4	0
1642	Progress in Theoretical Study of Metal Halide Perovskite Solar Cell Materials. Advanced Energy Materials, 2017, 7, 1701136.	10.2	257
1643	An isopropanol-assisted fabrication strategy of pinhole-free perovskite films in air for efficient and stable planar perovskite solar cells. Journal of Power Sources, 2017, 363, 317-326.	4.0	20
1644	Solvent engineering for high-quality perovskite solar cell with an efficiency approaching 20%. Journal of Power Sources, 2017, 365, 1-6.	4.0	63
1645	In situ fabrication of halide perovskite nanocrystals embedded in polymer composites via microfluidic spinning microreactors. Journal of Materials Chemistry C, 2017, 5, 9398-9404.	2.7	115
1646	Monolithic tandem solar cells comprising electrodeposited CuInSe₂ and perovskite solar cells with a nanoparticulate ZnO buffer layer. Journal of Materials Chemistry A, 2017, 5, 19439-19446.	5.2	45
1647	Effects of surface morphology on the ionic capacitance and performance of perovskite solar cells. Japanese Journal of Applied Physics, 2017, 56, 090305.	0.8	7
1648	Confining metal-halide perovskites in nanoporous thin films. Science Advances, 2017, 3, e1700738.	4.7	103
1649	Electrodeposition of SnO2 on FTO and its Application in Planar Heterojunction Perovskite Solar Cells as an Electron Transport Layer. Nanoscale Research Letters, 2017, 12, 498.	3.1	29

#	Article	IF	Citations
1650	Recent Advances in Metal Halideâ€Based Perovskite Lightâ€Emitting Diodes. Energy Technology, 2017, 5, 1734-1749.	1.8	79
1651	Selection of anti-solvent and optimization of dropping volume for the preparation of large area sub-module perovskite solar cells. Solar Energy Materials and Solar Cells, 2017, 172, 368-375.	3.0	59
1652	Enhanced Endurance Organolead Halide Perovskite Resistive Switching Memories Operable under an Extremely Low Bending Radius. ACS Applied Materials & Interfaces, 2017, 9, 30764-30771.	4.0	135
1653	Ion Migration Heals Trapping Centers in CH₃NH₃PbBr₃ Perovskite. ACS Energy Letters, 2017, 2, 2133-2139.	8.8	51
1654	Temperature-assisted rapid nucleation: a facile method to optimize the film morphology for perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 20327-20333.	5.2	148
1655	Temperature-dependent charge transport in solution-processed perovskite solar cells with tunable trap concentration and charge recombination. Journal of Materials Chemistry C, 2017, 5, 9376-9382.	2.7	44
1656	Unraveling the Impact of Rubidium Incorporation on the Transport-Recombination Mechanisms in Highly Efficient Perovskite Solar Cells by Small-Perturbation Techniques. Journal of Physical Chemistry C, 2017, 121, 24903-24908.	1.5	42
1657	Polymer-modified halide perovskite films for efficient and stable planar heterojunction solar cells. Science Advances, 2017, 3, e1700106.	4.7	588
1658	Fabrication of perovskite solar cells using sputter-processed CH₃NH₃PbI₃ films. Applied Physics Express, 2017, 10, 094101.	1.1	19
1659	Graded Heterojunction Engineering for Holeâ€Conductorâ€Free Perovskite Solar Cells with High Hole Extraction Efficiency and Conductivity. Advanced Materials, 2017, 29, 1701221.	11.1	80
1660	Regulated Film Quality with Methylammonium Bromide Addition in a Twoâ€Step Sequential Deposition to Improve the Performance of Perovskite Solar Cells. Energy Technology, 2017, 5, 1873-1879.	1.8	5
1661	Postsynthetic, Reversible Cation Exchange between Pb²⁺ and Mn²⁺ in Cesium Lead Chloride Perovskite Nanocrystals. Journal of Physical Chemistry C, 2017, 121, 20387-20395.	1.5	63
1662	Oxasmaragdyrins as New and Efficient Hole-Transporting Materials for High-Performance Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 31950-31958.	4.0	26
1663	Pressure-induced dramatic changes in organicâ€“inorganic halide perovskites. Chemical Science, 2017, 8, 6764-6776.	3.7	74
1664	Singleâ€Mode Distributed Feedback Laser Operation in Solutionâ€Processed Halide Perovskite Alloy System. Advanced Optical Materials, 2017, 5, 1700545.	3.6	28
1665	Elucidating the Key Role of a Lewis Base Solvent in the Formation of Perovskite Films Fabricated from the Lewis Adduct Approach. ACS Applied Materials & Interfaces, 2017, 9, 32868-32875.	4.0	47
1666	Influence of processing temperature and precursor composition on phase region of solution processed methylammonium lead iodide perovskite. Materials Research Express, 2017, 4, 096201.	0.8	1
1667	Enhanced photovoltaic performance and stability with a new type of hollow 3D perovskite {en}FASnI₃. Science Advances, 2017, 3, e1701293.	4.7	325

#	Article	IF	Citations
1668	Fabrication of Leadâ€Free (CH₃NH₃)₃Bi₂I₉ Perovskite Photovoltaics in Ethanol Solvent. ChemSusChem, 2017, 10, 3994-3998.	3.6	36
1669	Improved performance of mesoscopic perovskite solar cell using an accelerated crystalline formation method. Journal of Power Sources, 2017, 365, 169-178.	4.0	17
1670	Enhanced Electronic Properties of SnO₂ <i>via</i> Electron Transfer from Graphene Quantum Dots for Efficient Perovskite Solar Cells. ACS Nano, 2017, 11, 9176-9182.	7.3	302
1671	Reduction of intrinsic defects in hybrid perovskite films via precursor purification. Chemical Communications, 2017, 53, 10548-10551.	2.2	25
1672	Simple synthesis and molecular engineering of low-cost and star-shaped carbazole-based hole transporting materials for highly efficient perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 20263-20276.	5.2	92
1673	Enhanced efficiency and stability of inverted perovskite solar cells by interfacial engineering with alkyl bisphosphonic molecules. RSC Advances, 2017, 7, 42105-42112.	1.7	13
1674	Improved perovskite film quality and solar cell performances using dual single solution coating. Journal of Applied Physics, 2017, 122, .	1.1	13
1675	Stabilizing the Î±-Phase of CsPbI3 Perovskite by Sulfobetaine Zwitterions in One-Step Spin-Coating Films. Joule, 2017, 1, 371-382.	11.7	442
1676	Fluorinated fused nonacyclic interfacial materials for efficient and stable perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 21414-21421.	5.2	59
1677	Solar cell device simulations. , 2017, , .		0
1678	Resonant halide perovskite nanoparticles. AIP Conference Proceedings, 2017, , .	0.3	0
1679	Effects of High Temperature and Thermal Cycling on the Performance of Perovskite Solar Cells: Acceleration of Charge Recombination and Deterioration of Charge Extraction. ACS Applied Materials & Interfaces, 2017, 9, 35018-35029.	4.0	62
1680	Highly efficient perovskite solar cells incorporating NiO nanotubes: increased grain size and enhanced charge extraction. Journal of Materials Chemistry A, 2017, 5, 21750-21756.	5.2	23
1681	Control of Film Morphology for High-Performance Perovskite Solar Cells. Series on Chemistry, Energy and the Environment, 2017, , 27-43.	0.3	0
1682	Plasmonic Effects of Metallic Nanoparticles on Enhancing Performance of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 34821-34832.	4.0	100
1683	Tuning the A-site cation composition of FA perovskites for efficient and stable NiO-based pâ€“iâ€“n perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 21858-21865.	5.2	39
1684	Reversible air-induced optical and electrical modulation of methylammonium lead bromide (MAPbBr3) single crystals. Applied Physics Letters, 2017, 111, .	1.5	19
1685	Fluorescence Enhancement of Metal-Capped Perovskite CH ₃ NH ₃ PbI ₃ Thin Films. Chinese Physics Letters, 2017, 34, 096801.	1.3	5

#	Article	IF	Citations
1686	Efficient and thermally stable inverted perovskite solar cells by introduction of non-fullerene electron transporting materials. Journal of Materials Chemistry A, 2017, 5, 20615-20622.	5.2	74
1687	Improvement and Regeneration of Perovskite Solar Cells via Methylamine Gas Postâ€Treatment. Advanced Functional Materials, 2017, 27, 1703060.	7.8	89
1688	Highly Efficient Perovskite Solar Cells Using Nonâ€Toxic Industry Compatible Solvent System. Solar Rrl, 2017, 1, 1700091.	3.1	62
1689	Thin Films of Tin Oxide Nanosheets Used as the Electron Transporting Layer for Improved Performance and Ambient Stability of Perovskite Photovoltaics. Solar Rrl, 2017, 1, 1700117.	3.1	69
1690	Highly Efficient and Stable Planar Perovskite Solar Cells With Largeâ€Scale Manufacture of Eâ€Beam Evaporated SnO₂ Toward Commercialization. Solar Rrl, 2017, 1, 1700118.	3.1	75
1691	Understanding and Tailoring Grain Growth of Lead-Halide Perovskite for Solar Cell Application. ACS Applied Materials & Interfaces, 2017, 9, 33925-33933.	4.0	39
1692	Highly stable CsPbBr₃ quantum dots coated with alkyl phosphate for white light-emitting diodes. Nanoscale, 2017, 9, 15286-15290.	2.8	230
1693	Engineering interface structures between lead halide perovskite and copper phthalocyanine for efficient and stable perovskite solar cells. Energy and Environmental Science, 2017, 10, 2109-2116.	15.6	169
1694	Efficient perovskite solar cells employing a simply-processed CdS electron transport layer. Journal of Materials Chemistry C, 2017, 5, 10023-10028.	2.7	24
1695	A Cytop Insulating Tunneling Layer for Efficient Perovskite Solar Cells. Small Methods, 2017, 1, 1700244.	4.6	42
1696	Tracking the maximum power point of hysteretic perovskite solar cells using a predictive algorithm. Journal of Materials Chemistry C, 2017, 5, 10152-10157.	2.7	18
1697	Improved performance of hole-transporting layer-free perovskite solar cells by using graphene oxide sheets as the nucleation centers. RSC Advances, 2017, 7, 45320-45326.	1.7	9
1698	Three-dimensional titanium oxide nanoarrays for perovskite photovoltaics: surface engineering for cascade charge extraction and beneficial surface passivation. Sustainable Energy and Fuels, 2017, 1, 1960-1967.	2.5	13
1699	Hole Conductor Free Organometal Halide Perovskite Solar Cells: Properties and Different Architectures. Series on Chemistry, Energy and the Environment, 2017, , 111-146.	0.3	0
1700	Effect of Formamidinium/Cesium Substitution and PbI₂ on the Longâ€Term Stability of Tripleâ€Cation Perovskites. ChemSusChem, 2017, 10, 3804-3809.	3.6	28
1701	First principles study on mixed orthorhombic perovskite <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:msub><mml:mrow><mml:mi mathvariant="normal">CH</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msub><mml:msub><mm mathvariant="normal">NH</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msub><mml:mi mathvariant="normal">Pb</mml:mi><mml:msub><mml:mrow><mml:mo		

#	Article	IF	Citations
1704	Analysis of crystalline phases and integration modelling of charge quenching yields in hybrid lead halide perovskite solar cell materials. Nano Energy, 2017, 40, 596-606.	8.2	17
1705	Solvent-Mediated Intragranular-Coarsening of CH₃NH₃PbI₃ Thin Films toward High-Performance Perovskite Photovoltaics. ACS Applied Materials & Interfaces, 2017, 9, 31959-31967.	4.0	23
1706	Current progress and scientific challenges in the advancement of organicâ€“inorganic lead halide perovskite solar cells. New Journal of Chemistry, 2017, 41, 10508-10527.	1.4	21
1707	A solvent- and vacuum-free route to large-area perovskite films for efficient solar modules. Nature, 2017, 550, 92-95.	13.7	618
1708	Effect of Excess PbI₂ in Fully Printable Carbonâ€based Perovskite Solar Cells. Energy Technology, 2017, 5, 1880-1886.	1.8	30
1709	Multiphoton Absorption Coefficients of Organicâ€“Inorganic Lead Halide Perovskites CH₃NH₃PbX₃ (X = Cl, Br, I) Single Crystals. Chemistry of Materials, 2017, 29, 6876-6882.	3.2	86
1710	A gradient engineered hole-transporting material for monolithic series-type large-area perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 21161-21168.	5.2	35
1711	Enhanced efficiency and environmental stability of planar perovskite solar cells by suppressing photocatalytic decomposition. Journal of Materials Chemistry A, 2017, 5, 17368-17378.	5.2	72
1712	Multi-Influences of Ionic Migration on Illumination-Dependent Electrical Performances of Inverted Perovskite Solar Cells. Journal of Physical Chemistry C, 2017, 121, 16051-16057.	1.5	25
1713	Effect of BCP buffer layer on eliminating charge accumulation for high performance of inverted perovskite solar cells. RSC Advances, 2017, 7, 35819-35826.	1.7	115
1714	Investigating the feasibility of symmetric guanidinium based plumbate perovskites in prototype solar cell devices. Japanese Journal of Applied Physics, 2017, 56, 08MC05.	0.8	19
1715	Laserâ€Induced Localized Growth of Methylammonium Lead Halide Perovskite Nanoâ€and Microcrystals on Substrates. Advanced Functional Materials, 2017, 27, 1701613.	7.8	38
1716	High Quality Hybrid Perovskite Semiconductor Thin Films with Remarkably Enhanced Luminescence and Defect Suppression via Quaternary Alkyl Ammonium Salt Based Treatment. Advanced Materials Interfaces, 2017, 4, 1700562.	1.9	32
1717	Chemical surface treatment with toluene to enhance sensitivity ofÂNO 2 Âgas sensors based on CuPcTs/Alq 3 thin films. Journal of Science: Advanced Materials and Devices, 2017, 2, 301-308.	1.5	11
1718	Magnetron sputtered ZnO buffer layer for Sb2Se3 thin film solar cells. Solar Energy Materials and Solar Cells, 2017, 172, 74-81.	3.0	70
1719	Investigation of Thermally Induced Degradation in CH3NH3PbI3 Perovskite Solar Cells using In-situ Synchrotron Radiation Analysis. Scientific Reports, 2017, 7, 4645.	1.6	177
1720	Recent advances in interfacial engineering of perovskite solar cells. Journal Physics D: Applied Physics, 2017, 50, 373002.	1.3	129
1721	Effects of gas blowing condition on formation of mixed halide perovskite layer on organic scaffolds. Journal of Materials Research, 2017, 32, 2700-2706.	1.2	5

#	Article	IF	Citations
1722	Scaling behavior and morphology evolution of CH₃NH₃PbI₃perovskite thin films grown by thermal evaporation. Materials Research Express, 2017, 4, 075510.	0.8	6
1723	TiO₂ Nanocrystal/Perovskite Bilayer for Highâ€Performance Photodetectors. Advanced Electronic Materials, 2017, 3, 1700251.	2.6	39
1724	Two dimethoxyphenylamine-substituted carbazole derivatives as hole-transporting materials for efficient inorganic-organic hybrid perovskite solar cells. Dyes and Pigments, 2017, 146, 589-595.	2.0	24
1725	A Strategy to Produce High Efficiency, High Stability Perovskite Solar Cells Using Functionalized Ionic Liquidâ€Dopants. Advanced Materials, 2017, 29, 1702157.	11.1	115
1726	Updating the road map to metal-halide perovskites for photovoltaics. Journal of Materials Chemistry A, 2017, 5, 17135-17150.	5.2	33
1727	Vertically Oriented 2D Layered Perovskite Solar Cells with Enhanced Efficiency and Good Stability. Small, 2017, 13, 1700611.	5.2	212
1728	High-Performance Rigid and Flexible Perovskite Solar Cells with Low-Temperature Solution-Processable Binary Metal Oxide Hole-Transporting Materials. Solar Rrl, 2017, 1, 1700058.	3.1	69
1729	Facile synthesis of organicâ€"inorganic hybrid perovskite CH3NH3PbI3 microcrystals. Journal of Alloys and Compounds, 2017, 725, 270-274.	2.8	15
1730	Achieving mixed halide perovskite via halogen exchange during vapor-assisted solution process for efficient and stable perovskite solar cells. Organic Electronics, 2017, 50, 33-42.	1.4	23
1731	Investigation of high performance TiO₂nanorod array perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 15970-15980.	5.2	64
1732	Synergic Interface Optimization with Green Solvent Engineering in Mixed Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1700576.	10.2	240
1733	Perovskite solar cells from small scale spin coating process towards roll-to-roll printing: Optical and Morphological studies. Materials Today: Proceedings, 2017, 4, 5082-5089.	0.9	31
1734	Emerging Semitransparent Solar Cells: Materials and Device Design. Advanced Materials, 2017, 29, 1700192.	11.1	200
1735	Correlation between Electronic Defect States Distribution and Device Performance of Perovskite Solar Cells. Advanced Science, 2017, 4, 1700183.	5.6	117
1736	Metal Oxides as Efficient Charge Transporters in Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1602803.	10.2	147
1737	Role of Microstructure in Oxygen Induced Photodegradation of Methylammonium Lead Triiodide Perovskite Films. Advanced Energy Materials, 2017, 7, 1700977.	10.2	183
1738	Dimensional Engineering of a Graded 3Dâ€"2D Halide Perovskite Interface Enables Ultrahigh <i>V</i>_{oc} Enhanced Stability in the pâ€iâ€n Photovoltaics. Advanced Energy Materials, 2017, 7, 1701038.	10.2	319
1739	Quinoidal 2,2â€²,6,6â€²â€Tetraphenylâ€Dipyranylidene as a Dopantâ€Free Holeâ€Transport Material for Stable and Costâ€Effective Perovskite Solar Cells. Energy Technology, 2017, 5, 1852-1858.	1.8	16

#	Article	IF	Citations
1740	Identifying the charge generation dynamics in Cs⁺-based triple cation mixed perovskite solar cells. Physical Chemistry Chemical Physics, 2017, 19, 22905-22914.	1.3	50
1741	Thermodynamically self-organized hole transport layers for high-efficiency inverted-planar perovskite solar cells. Nanoscale, 2017, 9, 12677-12683.	2.8	18
1742	Rational Solvent Annealing for Perovskite Film Formation in Air Condition (July 2017). IEEE Journal of Photovoltaics, 2017, 7, 1338-1341.	1.5	2
1743	Temperature-Induced Large Broadening and Blue Shift in the Electronic Band Structure and Optical Absorption of Methylammonium Lead Iodide Perovskite. Journal of Physical Chemistry Letters, 2017, 8, 3720-3725.	2.1	29
1744	Stabilizing and scaling up carbon-based perovskite solar cells. Journal of Materials Research, 2017, 32, 3011-3020.	1.2	30
1745	Stitching triple cation perovskite by a mixed anti-solvent process for high performance perovskite solar cells. Nano Energy, 2017, 39, 616-625.	8.2	194
1746	Enhanced planar heterojunction perovskite solar cell performance and stability using PDDA polyelectrolyte capping agent. Solar Energy Materials and Solar Cells, 2017, 172, 133-139.	3.0	22
1747	Enhancing the Photovoltaic Performance of Perovskite Solar Cells with a Down-Conversion Eu-Complex. ACS Applied Materials & Interfaces, 2017, 9, 26958-26964.	4.0	80
1748	Origin of Hysteresis in CH₃NH₃PbI₃ Perovskite Thin Films. Advanced Functional Materials, 2017, 27, 1701924.	7.8	86
1749	Oneâ€step Solutionâ€Processed Formamidinium Lead Tribromide Formation for Better Reproducible Planar Perovskite Solar Cells. Energy Technology, 2017, 5, 1807-1813.	1.8	10
1750	Dynamic Disorder and Potential Fluctuation in Two-Dimensional Perovskite. Journal of Physical Chemistry Letters, 2017, 8, 3875-3880.	2.1	31
1751	Charge Injection, Carriers Recombination and HOMO Energy Level Relationship in Perovskite Solar Cells. Scientific Reports, 2017, 7, 6101.	1.6	93
1752	Dual-Function Au@Y2O3:Eu3+ Smart Film for Enhanced Power Conversion Efficiency and Long-Term Stability of Perovskite Solar Cells. Scientific Reports, 2017, 7, 6849.	1.6	35
1753	Boundary layer tuning induced fast and high performance perovskite film precipitation by facile one-step solution engineering. Journal of Materials Chemistry A, 2017, 5, 18120-18127.	5.2	21
1754	Inside Perovskites: Quantum Luminescence from Bulk Cs₄PbBr₆ Single Crystals. Chemistry of Materials, 2017, 29, 7108-7113.	3.2	200
1755	Improved Morphology and Efficiency of nâ€“iâ€“p Planar Perovskite Solar Cells by Processing with Glycol Ether Additives. ACS Energy Letters, 2017, 2, 1960-1968.	8.8	47
1756	Superior stability for perovskite solar cells with 20% efficiency using vacuum co-evaporation. Nanoscale, 2017, 9, 12316-12323.	2.8	169
1757	Two-dimensional GaGeTe film: a promising graphene-like material with tunable band structure and high carrier mobility. Journal of Materials Chemistry C, 2017, 5, 8847-8853.	2.7	26

#	Article	IF	Citations
1758	Polymer assisted growth of high-quality perovskite films by Lewis acid-base adduct for efficient planar-heterojunction solar cells. Materials Research Bulletin, 2017, 95, 216-222.	2.7	9
1759	Role of Methylammonium Orientation in Ion Diffusion and Currentâ€"Voltage Hysteresis in the CH₃NH₃PbI₃ Perovskite. ACS Energy Letters, 2017, 2, 1997-2004.	8.8	68
1760	Paintable Carbonâ€Based Perovskite Solar Cells with Engineered Perovskite/Carbon Interface Using Carbon Nanotubes Dripping Method. Small, 2017, 13, 1701225.	5.2	91
1761	Solvent-assisted crystallization via a delayed-annealing approach for highly efficient hybrid mesoscopic/planar perovskite solar cells. Solar Energy Materials and Solar Cells, 2017, 172, 270-276.	3.0	14
1762	Reduction in the Interfacial Trap Density of Mechanochemically Synthesized MAPbI₃. ACS Applied Materials & Interfaces, 2017, 9, 28418-28425.	4.0	73
1763	An ultrafast-temporally-responsive flexible photodetector with high sensitivity based on high-crystallinity organicâ€"inorganic perovskite nanoflake. Nanoscale, 2017, 9, 12718-12726.	2.8	83
1764	Enhancing the crystallinity of HC(NH2)2PbI3 film by incorporating methylammonium halide intermediate for efficient and stable perovskite solar cells. Nano Energy, 2017, 40, 248-257.	8.2	72
1765	Perovskite-based photodetectors: materials and devices. Chemical Society Reviews, 2017, 46, 5204-5236.	18.7	709
1766	Peroptronic devices: perovskite-based light-emitting solar cells. Energy and Environmental Science, 2017, 10, 1950-1957.	15.6	41
1767	Combining theory and experiment in the design of a lead-free ((CH₃NH₃)₂AgBiI₆) double perovskite. New Journal of Chemistry, 2017, 41, 9598-9601.	1.4	72
1768	An Investigation into Electric Field-Modulated Photoluminescence of Perovskite solar cells. MRS Advances, 2017, 2, 3099-3104.	0.5	0
1769	Contact Engineering: Electrode Materials for Highly Efficient and Stable Perovskite Solar Cells. Solar Rrl, 2017, 1, 1700082.	3.1	50
1770	A copper-doped nickel oxide bilayer for enhancing efficiency and stability of hysteresis-free inverted mesoporous perovskite solar cells. Nano Energy, 2017, 40, 155-162.	8.2	147
1771	PCBM-blended chlorobenzene hybrid anti-solvent engineering for efficient planar perovskite solar cells. Journal of Materials Chemistry C, 2017, 5, 10143-10151.	2.7	18
1772	Small molecule-driven directional movement enabling pin-hole free perovskite film via fast solution engineering. Nanoscale, 2017, 9, 15778-15785.	2.8	2
1773	Cooperative effect of carbon black and dimethyl sulfoxide on PEDOT:PSS hole transport layer for inverted planar perovskite solar cells. Solar Energy, 2017, 157, 125-132.	2.9	31
1774	Shallow trapping vs. deep polarons in a hybrid lead halide perovskite, CH₃NH₃PbI₃. Physical Chemistry Chemical Physics, 2017, 19, 27184-27190.	1.3	18
1775	Recombination at high carrier density in methylammonium lead iodide studied using time-resolved microwave conductivity. Journal of Applied Physics, 2017, 122, .	1.1	27

#	Article	IF	Citations
1776	Resonant silicon nanoparticles for enhancement of light absorption and photoluminescence from hybrid perovskite films and metasurfaces. Nanoscale, 2017, 9, 12486-12493.	2.8	58
1777	Solvent Toolkit for Electrochemical Characterization of Hybrid Perovskite Films. Analytical Chemistry, 2017, 89, 9649-9653.	3.2	14
1778	Synthesis and use of a hyper-connecting cross-linking agent in the hole-transporting layer of perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 19267-19279.	5.2	38
1779	Quasi-Phase Diagrams at Air/Oil Interfaces and Bulk Oil Phases for Crystallization of Small-Molecular Semiconductors by Adjusting Gibbs Adsorption. Langmuir, 2017, 33, 8906-8913.	1.6	2
1780	Interfaces in Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1700623.	10.2	276
1781	Improved Reproducibility and Intercalation Control of Efficient Planar Inorganic Perovskite Solar Cells by Simple Alternate Vacuum Deposition of PbI₂ and CsI. ACS Omega, 2017, 2, 4464-4469.	1.6	49
1782	Synthetic Manipulation of Hybrid Perovskite Systems in Search of New and Enhanced Functionalities. ChemSusChem, 2017, 10, 3722-3739.	3.6	11
1783	Synthesis and characterization of stable electrochromic polyimides with quinolin-8-yloxy-substituted triphenylamine units. Journal of Electroanalytical Chemistry, 2017, 801, 388-394.	1.9	11
1784	Efficient ambient-air-stable solar cells with 2Dâ€“3D heterostructured butylammonium-caesium-formamidinium lead halide perovskites. Nature Energy, 2017, 2, .	19.8	1,169
1785	Simultaneously enhanced J_{sc} and FF by employing two solution-processed interfacial layers for inverted planar perovskite solar cells. RSC Advances, 2017, 7, 39523-39529.	1.7	13
1786	TiO2/SnOxCly double layer for highly efficient planar perovskite solar cells. Organic Electronics, 2017, 50, 485-490.	1.4	17
1787	Ultrathin Layers of PdPX (X=S, Se): Two Dimensional Semiconductors for Photocatalytic Water Splitting. Chemistry - A European Journal, 2017, 23, 13612-13616.	1.7	66
1788	Overcoming the Challenges of Large-Area High-Efficiency Perovskite Solar Cells. ACS Energy Letters, 2017, 2, 1978-1984.	8.8	130
1789	Exploring the effects of interfacial carrier transport layers on device performance and optoelectronic properties of planar perovskite solar cells. Journal of Materials Chemistry C, 2017, 5, 8819-8827.	2.7	106
1790	Effects of the additives <i>n</i>-propylammonium or <i>n</i>-butylammonium iodide on the performance of perovskite solar cells. RSC Advances, 2017, 7, 55986-55992.	1.7	12
1791	Inverted Planar Perovskite Solar Cells with a High Fill Factor and Negligible Hysteresis by the Dual Effect of NaCl-Doped PEDOT:PSS. ACS Applied Materials & Interfaces, 2017, 9, 43902-43909.	4.0	149
1792	Large guanidinium cation mixed with methylammonium in lead iodide perovskites for 19% efficient solar cells. Nature Energy, 2017, 2, 972-979.	19.8	445
1793	Enhanced Performance of Perovskite Solar Cells with Zinc Chloride Additives. ACS Applied Materials & Interfaces, 2017, 9, 42875-42882.	4.0	104

#	Article	IF	Citations
1794	Zero-dimensional methylammonium iodo bismuthate solar cells and synergistic interactions with silicon nanocrystals. Nanoscale, 2017, 9, 18759-18771.	2.8	25
1795	High-Performance Green Light-Emitting Diodes Based on MAPbBr₃â€"Polymer Composite Films Prepared by Gas-Assisted Crystallization. ACS Applied Materials & Interfaces, 2017, 9, 44106-44113.	4.0	24
1796	Laser post-processing of halide perovskites for enhanced photoluminescence and absorbance. Journal of Physics: Conference Series, 2017, 917, 062002.	0.3	6
1797	Enhanced efficiency and stability of carbon based perovskite solar cells using terephthalic acid additive. Electrochimica Acta, 2017, 258, 1262-1272.	2.6	30
1798	Memory effect behavior with respect to the crystal grain size in the organic-inorganic hybrid perovskite nonvolatile resistive random access memory. Scientific Reports, 2017, 7, 16586.	1.6	53
1799	Operating Mechanisms of Mesoscopic Perovskite Solar Cells through Impedance Spectroscopy and <i>J</i>â€"<i>V</i> Modeling. Journal of Physical Chemistry Letters, 2017, 8, 6073-6079.	2.1	69
1800	Donorâ€"Acceptor-Type <i>S</i>,<i>N</i>-Heteroacene-Based Hole-Transporting Materials for Efficient Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 44423-44428.	4.0	31
1801	Thin single crystal perovskite solar cells to harvest below-bandgap light absorption. Nature Communications, 2017, 8, 1890.	5.8	467
1802	Spatial Inhomogeneity of Methylammonium Lead-Mixed Halide Perovskite Examined by Space- and Time-Resolved Microwave Conductivity. ACS Omega, 2017, 2, 8020-8026.	1.6	4
1803	Ion Implantation-Modified Fluorine-Doped Tin Oxide by Zirconium with Continuously Tunable Work Function and Its Application in Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 42029-42034.	4.0	13
1804	High-performance planar perovskite solar cells: Influence of solvent upon performance. Applied Materials Today, 2017, 9, 598-604.	2.3	66
1805	Effect of Rubidium Incorporation on the Structural, Electrical, and Photovoltaic Properties of Methylammonium Lead Iodide-Based Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 41898-41905.	4.0	51
1806	Efficient Planar Structured Perovskite Solar Cells with Enhanced Open-Circuit Voltage and Suppressed Charge Recombination Based on a Slow Grown Perovskite Layer from Lead Acetate Precursor. ACS Applied Materials & Interfaces, 2017, 9, 41937-41944.	4.0	23
1807	Efficacious engineering on charge extraction for realizing highly efficient perovskite solar cells. Energy and Environmental Science, 2017, 10, 2570-2578.	15.6	155
1808	Annealing induced semiconductor-metal transition in Ge+ITO film. Applied Physics Letters, 2017, 111, 172104.	1.5	3
1809	The influence of additives in the stoichiometry of hybrid lead halide perovskites. AIP Advances, 2017, 7, .	0.6	7
1810	Room-Temperature and Solution-Processable Cu-Doped Nickel Oxide Nanoparticles for Efficient Hole-Transport Layers of Flexible Large-Area Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 41887-41897.	4.0	171
1811	Ultrasound-spray deposition of multi-walled carbon nanotubes on NiO nanoparticles-embedded perovskite layers for high-performance carbon-based perovskite solar cells. Nano Energy, 2017, 42, 322-333.	8.2	82

#	Article	IF	Citations
1812	Revealing the Influence of Doping and Surface Treatment on the Surface Carrier Dynamics in Hematite Nanorod Photoanodes. ACS Applied Materials & Interfaces, 2017, 9, 41265-41272.	4.0	45
1813	Colour selective control of terahertz radiation using two-dimensional hybrid organic inorganic lead-trihalide perovskites. Nature Communications, 2017, 8, 1328.	5.8	35
1814	Electrochemical and atomic force microscopy investigations of the effect of CdS on the local electrical properties of CH₃NH₃PbI₃:CdS perovskite solar cells. Journal of Materials Chemistry C, 2017, 5, 12112-12120.	2.7	16
1815	<i>Jâ€“V</i> and <i>Câ€“V</i> investigation of the effect of small molecular fullerene and non-fullerene acceptors for CH₃NH₃PbI₃ perovskite solar cell. Journal Physics D: Applied Physics, 2017, 50, 475303.	1.3	6
1816	Understanding the Effect of Delay Time of Solvent Washing on the Performances of Perovskite Solar Cells. ACS Omega, 2017, 2, 7666-7671.	1.6	22
1817	A low temperature processed fused-ring electron transport material for efficient planar perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 24820-24825.	5.2	46
1818	Promises and challenges of perovskite solar cells. Science, 2017, 358, 739-744.	6.0	1,510
1819	Layer-by-Layer Degradation of Methylammonium Lead Tri-iodide Perovskite Microplates. Joule, 2017, 1, 548-562.	11.7	199
1820	Simultaneous Evolution of Uniaxially Oriented Grains and Ultralow-Density Grain-Boundary Network in CH₃NH₃PbI₃ Perovskite Thin Films Mediated by Precursor Phase Metastability. ACS Energy Letters, 2017, 2, 2727-2733.	8.8	82
1821	Predictive Modeling of Ion Migration Induced Degradation in Perovskite Solar Cells. ACS Nano, 2017, 11, 11505-11512.	7.3	63
1822	New Type of 2D Perovskites with Alternating Cations in the Interlayer Space, (C(NH₂)₃)(CH₃NH₃)_{<i>n</i>}Pb_{<i>n</i>}I<sub>3<i>n</i> Structure, Properties, and Photovoltaic Performance. Journal of the American Chemical Society, 2017, 139, 16297-16309.	6.6	374
1823	Cathodoluminescence of Self-Organized Heterogeneous Phases in Multidimensional Perovskite Thin Films. Chemistry of Materials, 2017, 29, 10088-10094.	3.2	30
1824	Humidity resistant fabrication of CH3NH3PbI3 perovskite solar cells and modules. Nano Energy, 2017, 39, 60-68.	8.2	197
1825	Defect passivation in hybrid perovskite solar cells using quaternary ammonium halide anions andÂcations. Nature Energy, 2017, 2, .	19.8	1,694
1826	An amino-substituted perylene diimide polymer for conventional perovskite solar cells. Materials Chemistry Frontiers, 2017, 1, 2078-2084.	3.2	26
1827	Capturing the Sun: A Review of the Challenges and Perspectives of Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1700264.	10.2	295
1828	Carbon materials for enhancing charge transport in the advancements of perovskite solar cells. Journal of Power Sources, 2017, 361, 259-275.	4.0	66
1829	Moisture annealing effect on CH3NH3PbI3 films deposited by solvent engineering method. Thin Solid Films, 2017, 636, 664-670.	0.8	10

#	Article	IF	Citations
1830	Surface-activation modified perovskite crystallization for improving photovoltaic performance. Materials Today Energy, 2017, 5, 173-180.	2.5	31
1831	Effects of deposition methods and processing techniques on band gap, interband electronic transitions, and optical absorption in perovskite CH3NH3PbI3 films. Applied Physics Letters, 2017, 111, .	1.5	10
1832	Photoluminescence quantum yield exceeding 80% in low dimensional perovskite thin-films via passivation control. Chemical Communications, 2017, 53, 8707-8710.	2.2	47
1833	Strategies for Improving Efficiency and Stability of Perovskite Solar Cells. MRS Advances, 2017, 2, 3051-3060.	0.5	3
1834	The Role of Synthesis Parameters on Crystallization and Grain Size in Hybrid Halide Perovskite Solar Cells. Journal of Physical Chemistry C, 2017, 121, 17053-17061.	1.5	30
1835	Size effects of a graphene quantum dot modified-blocking TiO2layer for efficient planar perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 16834-16842.	5.2	65
1836	Power output and carrier dynamics studies of perovskite solar cells under working conditions. Physical Chemistry Chemical Physics, 2017, 19, 19922-19927.	1.3	4
1837	Improved efficiency of NiOx-based p-i-n perovskite solar cells by using PTEG-1 as electron transport layer. APL Materials, 2017, 5, .	2.2	20
1838	Mechanisms of Lithium Intercalation and Conversion Processes in Organicâ€“Inorganic Halide Perovskites. ACS Energy Letters, 2017, 2, 1818-1824.	8.8	111
1839	Photocarrier Recombination and Injection Dynamics in Long-Term Stable Lead-Free CH₃NH₃SnI₃ Perovskite Thin Films and Solar Cells. Journal of Physical Chemistry C, 2017, 121, 16158-16165.	1.5	90
1840	Directing nucleation and growth kinetics in solution-processed hybrid perovskite thin-films. Science China Materials, 2017, 60, 617-628.	3.5	64
1841	Perovskite solar cells prepared by a new 3-step method including a PbI 2 scavenging step. Materials Science in Semiconductor Processing, 2017, 71, 1-6.	1.9	5
1842	Progress on Perovskite Materials and Solar Cells with Mixed Cations and Halide Anions. ACS Applied Materials & Interfaces, 2017, 9, 30197-30246.	4.0	453
1843	CH₃NH₃I post-treatment improves the performance of perovskite solar cells via eliminating the impure phases. Functional Materials Letters, 2017, 10, 1750049.	0.7	4
1844	Enhanced photovoltaic performance and stability in mixed-cation perovskite solar cells via compositional modulation. Electrochimica Acta, 2017, 247, 460-467.	2.6	41
1845	Novel Perovskite Solar Cell Architecture Featuring Efficient Light Capture and Ultrafast Carrier Extraction. ACS Applied Materials & Interfaces, 2017, 9, 23624-23634.	4.0	8
1846	Exsolution trends and co-segregation aspects of self-grown catalyst nanoparticles in perovskites. Nature Communications, 2017, 8, 15967.	5.8	305
1847	Chlorinated fluorine doped tin oxide electrodes with high work function for highly efficient planar perovskite solar cells. Applied Physics Letters, 2017, 110, .	1.5	6

#	Article	IF	Citations
1848	PbI₂ platelets for inverted planar organolead Halide Perovskite solar cells via ultrasonic spray deposition. Semiconductor Science and Technology, 2017, 32, 074003.	1.0	18
1849	Impact of Structural Dynamics on the Optical Properties of Methylammonium Lead Iodide Perovskites. Advanced Energy Materials, 2017, 7, 1700286.	10.2	52
1850	Very thin thermally stable TiO2 blocking layers with enhanced electron transfer for solar cells. Applied Materials Today, 2017, 9, 122-129.	2.3	13
1851	Microscopic Analysis of Inherent Void Passivation in Perovskite Solar Cells. ACS Energy Letters, 2017, 2, 1705-1710.	8.8	14
1852	Reducing hole transporter use and increasing perovskite solar cell stability with dual-role polystyrene microgel particles. Nanoscale, 2017, 9, 10126-10137.	2.8	19
1853	Semiconductor plasmon-sensitized broadband upconversion and its enhancement effect on the power conversion efficiency of perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 16559-16567.	5.2	70
1854	Iodide management in formamidinium-lead-halideâ€“based perovskite layers for efficient solar cells. Science, 2017, 356, 1376-1379.	6.0	4,721
1855	In Situ Fabrication of Highly Luminescent Bifunctional Amino Acid Crosslinked 2D/3D NH₃C₄H₉COO(CH₃NH₃PbBr₃)<i>_n</i> Perovskite Films. Advanced Functional Materials, 2017, 27, 1603568.	7.8	126
1856	Efficient Indiumâ€Doped TiO<i>_x</i> Electron Transport Layers for Highâ€Performance Perovskite Solar Cells and Perovskiteâ€Silicon Tandems. Advanced Energy Materials, 2017, 7, 1601768.	10.2	167
1857	Complete Conversion of PbI 2 to Methyl Ammonium PbI 3 Improves Perovskite Solar Cell Efficiency. ChemPhysChem, 2017, 18, 47-50.	1.0	10
1858	Near-neutral-colored semitransparent perovskite films using a combination of colloidal self-assembly and plasma etching. Solar Energy Materials and Solar Cells, 2017, 160, 193-202.	3.0	47
1859	Photocurrent hysteresis related to ion motion in metal-organic perovskites. Science China Chemistry, 2017, 60, 396-404.	4.2	19
1860	Methylammonium cation deficient surface for enhanced binding stability at TiO2/CH3NH3PbI3 interface. Nano Research, 2017, 10, 483-490.	5.8	8
1861	Organic and perovskite solar cells: Working principles, materials and interfaces. Journal of Colloid and Interface Science, 2017, 488, 373-389.	5.0	163
1862	Effect of temperature annealing treatments and acceptors in CH3NH3PbI3 perovskite solar cell fabrication. Journal of Alloys and Compounds, 2017, 695, 2453-2457.	2.8	9
1863	Enhanced electron extraction using SnO2 for high-efficiency planar-structure HC(NH2)2PbI3-based perovskite solar cells. Nature Energy, 2017, 2, .	19.8	1,633
1864	Improved performance and thermal stability of perovskite solar cells prepared via a modified sequential deposition process. Organic Electronics, 2017, 41, 266-273.	1.4	21
1865	Inducing swift nucleation morphology control for efficient planar perovskite solar cells by hot-air quenching. Journal of Materials Chemistry A, 2017, 5, 3812-3818.	5.2	61

#	Article	IF	Citations
1866	Light Illumination Induced Photoluminescence Enhancement and Quenching in Lead Halide Perovskite. Solar Rrl, 2017, 1, 1600001.	3.1	109
1867	Controlling nucleation, growth, and orientation of metal halide perovskite thin films with rationally selected additives. Journal of Materials Chemistry A, 2017, 5, 113-123.	5.2	115
1868	Interplay between nucleation and crystal growth during the formation of CH3NH3PbI3 thin films and their application in solar cells. Solar Energy Materials and Solar Cells, 2017, 159, 583-589.	3.0	54
1869	Synthesis and Properties of Inorganic Organic Chloride Based Perovskite. Springer Proceedings in Physics, 2017, , 433-437.	0.1	0
1870	CH3NH3PbI3 crystal orientation and photovoltaic performance of planar heterojunction perovskite solar cells. Solar Energy Materials and Solar Cells, 2017, 160, 77-84.	3.0	39
1871	High-temperature shaping perovskite film crystallization for solar cell fast preparation. Solar Energy Materials and Solar Cells, 2017, 160, 60-66.	3.0	27
1872	Acid Additives Enhancing the Conductivity of Spiroâ€OMeTAD Toward Highâ€Efficiency and Hysteresisâ€Less Planar Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1601451.	10.2	123
1873	Mesoscopic CH₃NH₃PbI₃ perovskite solar cells using TiO₂ inverse opal electron-conducting scaffolds. Journal of Materials Chemistry A, 2017, 5, 1972-1977.	5.2	39
1874	Long-term stability of organicâ€“inorganic hybrid perovskite solar cells with high efficiency under high humidity conditions. Journal of Materials Chemistry A, 2017, 5, 1374-1379.	5.2	75
1875	Spiro[fluorene-9,9â€²-xanthene]-based hole transporting materials for efficient perovskite solar cells with enhanced stability. Materials Chemistry Frontiers, 2017, 1, 100-110.	3.2	84
1876	Transamidation of dimethylformamide during alkylammonium lead triiodide film formation for perovskite solar cells. Journal of Materials Research, 2017, 32, 45-55.	1.2	37
1877	Chlorine Incorporation in the CH₃NH₃PbI₃ Perovskite: Small Concentration, Big Effect. Inorganic Chemistry, 2017, 56, 74-83.	1.9	40
1878	A low viscosity, low boiling point, clean solvent system for the rapid crystallisation of highly specular perovskite films. Energy and Environmental Science, 2017, 10, 145-152.	15.6	319
1879	Numerical analysis of a hysteresis model in perovskite solar cells. Computational Materials Science, 2017, 126, 22-28.	1.4	13
1880	<i>In situ</i> sulfurization to generate Sb₂(Se_{1â€‰â^’â€‰<i>x</i>}S<i>_x</i>)₃ alloyed films and their application for photovoltaics. Progress in Photovoltaics: Research and Applications, 2017, 25, 113-122.	4.4	70
1881	Crack-free CH3NH3PbI3 layer via continuous dripping method for high-performance mesoporous perovskite solar cells. Applied Surface Science, 2017, 392, 960-965.	3.1	24
1882	Clean and flexible synthesis of TiO2 nanocrystallites for dye-sensitized and perovskite solar cells. Solar Energy Materials and Solar Cells, 2017, 159, 336-344.	3.0	8
1883	Beyond methylammonium lead iodide: prospects for the emergent field of ns²containing solar absorbers. Chemical Communications, 2017, 53, 20-44.	2.2	357

#	Article	IF	Citations
1884	Vertically aligned ZnCdS nanowire arrays/P3HT heterojunctions for solar cell applications. Journal of Colloid and Interface Science, 2017, 487, 73-79.	5.0	12
1885	Efficient planar heterojunction perovskite solar cells with weak hysteresis fabricated via bar coating. Solar Energy Materials and Solar Cells, 2017, 159, 412-417.	3.0	41
1886	Organic-inorganic halide perovskite solar cell with CH3NH3PbI2Br as hole conductor. Journal of Power Sources, 2017, 339, 61-67.	4.0	33
1887	Non-precious transition metals as counter electrode of perovskite solar cells. Energy Storage Materials, 2017, 7, 40-47.	9.5	56
1888	The Effect of Thermal Annealing on Charge Transport in Organolead Halide Perovskite Microplate Fieldâ€Effect Transistors. Advanced Materials, 2017, 29, 1601959.	11.1	91
1889	Multifunctional Benzoquinone Additive for Efficient and Stable Planar Perovskite Solar Cells. Advanced Materials, 2017, 29, 1603808.	11.1	135
1890	The characterization of defects states and charge injection barriers in perovskite solar cells. , 2017, , .		3
1891	Effect of Cs-Incorporated NiO_{<i>x</i>} on the Performance of Perovskite Solar Cells. ACS Omega, 2017, 2, 9074-9079.	1.6	43
1892	Photoluminescence Study of the Photoinduced Phase Separation in Mixed-Halide Hybrid Perovskite CH3NH3Pb(BrxI1âˆ’x)3 Crystals Synthesized via a Solvothermal Method. Scientific Reports, 2017, 7, 17695.	1.6	18
1893	Investigations on the role of mixed-solvent for improved efficiency in perovskite solar cell. Journal of Applied Physics, 2017, 122, .	1.1	21
1894	Enhancing the efficiency of planar heterojunction perovskite solar cells via interfacial engineering with 3-aminopropyl trimethoxy silane hydrolysate. Royal Society Open Science, 2017, 4, 170980.	1.1	15
1896	Charge separation and carrier dynamics in donor-acceptor heterojunction photovoltaic systems. Structural Dynamics, 2017, 4, 061503.	0.9	13
1897	Improved perovskite morphology and crystallinity using porous PbI2 layers for efficient planar heterojunction solar cells. Applied Physics Letters, 2017, 111, .	1.5	13
1898	Hybrid Perovskite Photoconductivity Visible Region Detector with High Speed and Stability. Nano, 2017, 12, 1750150.	0.5	6
1899	Hybrid UV-Ozone-Treated rGO-PEDOT:PSS as an Efficient Hole Transport Material in Inverted Planar Perovskite Solar Cells. Nanoscale Research Letters, 2017, 12, 619.	3.1	15
1900	Effective methods for improving device performances of P-I-N perovskite solar cells. , 2017, , .		0
1901	Methylamine Gas Based Synthesis and Healing Process Toward Upscaling of Perovskite Solar Cells: Progress and Perspective. Solar Rrl, 2017, 1, 1700076.	3.1	40
1902	(Invited) Nanoimprinted perovskite for optoelectronics. , 2017, , .		0

#	Article	IF	Citations
1903	Deterministic Nucleation for Halide Perovskite Thin Films with Large and Uniform Grains. Advanced Functional Materials, 2017, 27, 1702180.	7.8	27
1904	Microwave Application to Efficient Annealing Process of CH₃NH₃PbI₃ Perovskite Crystalline Films. Electrochemistry, 2017, 85, 236-240.	0.6	8
1905	Highâ€Resolution Spinâ€onâ€Patterning of Perovskite Thin Films for a Multiplexed Image Sensor Array. Advanced Materials, 2017, 29, 1702902.	11.1	148
1906	Free Carrier Emergence and Onset of Electronâ€“Phonon Coupling in Methylammonium Lead Halide Perovskite Films. Journal of the American Chemical Society, 2017, 139, 18262-18270.	6.6	78
1907	Switchable photovoltaic windows enabled by reversible photothermal complex dissociation from methylammonium lead iodide. Nature Communications, 2017, 8, 1722.	5.8	107
1908	Enhancing the Crystalline of Planar-Structure CH3NH3PbI3 Perovskite Solar Cells via Sandwich Evaporation Technique. , 2017, , .		0
1909	Integrated perovskite lasers on a silicon nitride waveguide platform by cost-effective high throughput fabrication. Optics Express, 2017, 25, 13199.	1.7	55
1910	Nanoimprinted perovskite metasurface for enhanced photoluminescence. Optics Express, 2017, 25, A1162.	1.7	35
1911	Solvent-induced textured structure and improved crystallinity for high performance perovskite solar cells. Optical Materials Express, 2017, 7, 2150.	1.6	29
1912	Investigation of Structural and Electronic Properties of CH3NH3PbI3 Stabilized by Varying Concentrations of Poly(Methyl Methacrylate) (PMMA). Coatings, 2017, 7, 115.	1.2	8
1913	Effects of Annealing Conditions on Mixed Lead Halide Perovskite Solar Cells and Their Thermal Stability Investigation. Materials, 2017, 10, 837.	1.3	30
1914	Morphology Analysis and Optimization: Crucial Factor Determining the Performance of Perovskite Solar Cells. Molecules, 2017, 22, 520.	1.7	20
1915	One-Dimensional Electron Transport Layers for Perovskite Solar Cells. Nanomaterials, 2017, 7, 95.	1.9	41
1916	Overcoming the Intrinsic Difference between Hydrophilic CH3NH3PbI3 and Hydrophobic C60 Thin Films to Improve the Photovoltaic Performance. Nanomaterials, 2017, 7, 166.	1.9	7
1917	Hole-Transporting Materials for Printable Perovskite Solar Cells. Materials, 2017, 10, 1087.	1.3	94
1918	Defect-Free Large-Area (25 cm2) Light Absorbing Perovskite Thin Films Made by Spray Coating. Coatings, 2017, 7, 42.	1.2	50
1919	Anti-Solvent Crystallization Strategies for Highly Efficient Perovskite Solar Cells. Crystals, 2017, 7, 291.	1.0	144
1920	The Effect of Solvents on the Performance of CH3NH3PbI3 Perovskite Solar Cells. Energies, 2017, 10, 599.	1.6	40

#	Article	IF	Citations
1921	Probing Temperature-Dependent Recombination Kinetics in Polymer:Fullerene Solar Cells by Electric Noise Spectroscopy. Energies, 2017, 10, 1490.	1.6	7
1922	A PCBM-Modified TiO₂ Blocking Layer towards Efficient Perovskite Solar Cells. International Journal of Photoenergy, 2017, 2017, 1-9.	1.4	20
1923	Semitransparent and flexible perovskite solar cell with high visible transmittance based on ultrathin metallic electrodes. Optics Letters, 2017, 42, 1958.	1.7	32
1924	Unprecedented phase transition sequence in the perovskite Li_{0.2}Na_{0.8}NbO₃. IUCrJ, 2017, 4, 215-222.	1.0	9
1925	A State Space Average Model for Dynamic Microgrid Based Space Station Simulations. , 2017, , .		6
1926	Short-circuit current-density enhancement of silicon solar cells using plasmonics antireflective coating and luminescent downshifting. , 2017, , .		0
1927	Perovskite Solar Cells Fabricated by Using an Environmental Friendly Aprotic Polar Additive of 1,3-Dimethyl-2-imidazolidinone. Nanoscale Research Letters, 2017, 12, 632.	3.1	19
1928	Spectroscopic Ellipsometry Study of Organic-Inorganic Halide: FAPbIxBr3âˆ’x Perovskite Thin Films by Two-Step Method. , 2017, , .		1
1929	Recent Research Progress on Lead-free or Less-lead Perovskite Solar Cells. International Journal of Electrochemical Science, 2017, , 4915-4927.	0.5	2
1930	Recent Progresses in Perovskite Solar Cells. , 2017, , .		3
1931	Preparation of High-Crystallinity and Large-Grain Br-doped Methylammonium Lead Iodide Thin Films at the Temperature Range of 100~140Â°C. International Journal of Electrochemical Science, 2017, , 11446-11454.	0.5	1
1932	First-Principles Density Functional Theory Calculation of Metal-Substituted Lead Halide Perovskite. , 2017, , .		0
1933	NREL's Cell and Module Performance group's asymptotic Pmax protocol for perovskite devices. , 2017, , .		7
1934	Compact TiO₂ films with sandwiched Ag nanoparticles as electron-collecting layer in planar type perovskite solar cells: improvement in efficiency and stability. RSC Advances, 2018, 8, 7847-7854.	1.7	26
1935	Hybrid Dionâ€“Jacobson 2D Lead Iodide Perovskites. Journal of the American Chemical Society, 2018, 140, 3775-3783.	6.6	686
1936	Progress in fullerene-based hybrid perovskite solar cells. Journal of Materials Chemistry C, 2018, 6, 2635-2651.	2.7	114
1937	Improved fill factor in inverted planar perovskite solar cells with zirconium acetate as the hole-and-ion-blocking layer. Physical Chemistry Chemical Physics, 2018, 20, 7395-7400.	1.3	7
1938	Organic/Inorganic Metal Halide Perovskite Optoelectronic Devices beyond Solar Cells. Advanced Science, 2018, 5, 1700780.	5.6	144

#	Article	IF	Citations
1939	Lead Acetate Based Hybrid Perovskite Through Hot Casting for Planar Heterojunction Solar Cells. Electronic Materials Letters, 2018, 14, 155-160.	1.0	20
1940	Electrical bistability of sol-gel derived Cu 2 ZnSnS 4 thin films. Materials Letters, 2018, 220, 285-288.	1.3	10
1941	Influence of Synthesis Conditions on the Morphology and Spectral-Luminescent Properties of Films of Organic-Inorganic Perovskite CH3NH3PbI2.98Cl0.02. Russian Journal of General Chemistry, 2018, 88, 114-119.	0.3	6
1942	Insulated Interlayer for Efficient and Photostable Electron-Transport-Layer-Free Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 10132-10140.	4.0	32
1943	420 nm thick ${m{CH}}_{3}{m{NH}}_{3}{m{PbI}}_{3-{{x}}}{m{Br}}_{{{x}}}$ capping layers for efficient TiO 2 nanorod array perovskite solar cells. Chinese Physics B, 2018, 27, 018804.	0.7	3
1944	Graphene Oxide for DSSC, OPV and Perovskite Stability. , 2018, , 503-531.		3
1945	Synthesis by Low Temperature Solution Processing of Ferroelectric Perovskite Oxide Thin Films as Candidate Materials for Photovoltaic Applications. , 2018, , 45-81.		2
1946	Oxide Hole Transport Materials in Inverted Planar Perovskite Solar Cells. , 2018, , 117-158.		2
1947	Efficient and Stable Perovskite Solar Cells via Dual Functionalization of Dopamine Semiquinone Radical with Improved Trap Passivation Capabilities. Advanced Functional Materials, 2018, 28, 1707444.	7.8	94
1948	From Nanostructural Evolution to Dynamic Interplay ofÂConstituents: Perspectives for Perovskite Solar Cells. Advanced Materials, 2018, 30, e1704208.	11.1	54
1949	Entire mirror-like perovskite films for high-performance perovskite solar cells: The role of polar anti-solvent sec-pentyl alcohol. Organic Electronics, 2018, 57, 133-139.	1.4	17
1950	Competition between Metallic and Vacancy Defect Conductive Filaments in a CH₃NH₃PbI₃-Based Memory Device. Journal of Physical Chemistry C, 2018, 122, 6431-6436.	1.5	115
1951	Effects of organic solvents for the phenyl-C61-butyric acid methyl ester layer on the performance of inverted perovskite solar cells. Organic Electronics, 2018, 56, 247-253.	1.4	5
1952	Slot die coated planar perovskite solar cells via blowing and heating assisted one step deposition. Solar Energy Materials and Solar Cells, 2018, 179, 80-86.	3.0	104
1953	Post-treatment of perovskite film with phenylalkylammonium iodide for hysteresis-less perovskite solar cells. Solar Energy Materials and Solar Cells, 2018, 179, 57-65.	3.0	81
1954	Single-crystal-like optoelectronic-properties of MAPbI₃ perovskite polycrystalline thin films. Journal of Materials Chemistry A, 2018, 6, 4822-4828.	5.2	46
1955	Renaissance of graphene-related materials in photovoltaics due to the emergence of metal halide perovskite solar cells. Energy and Environmental Science, 2018, 11, 1030-1061.	15.6	56
1956	Creation and annealing of metastable defect states in CH3NH3PbI3 at low temperatures. Applied Physics Letters, 2018, 112, .	1.5	10

#	Article	IF	Citations
1957	Recent Progress on the Longâ€Term Stability of Perovskite Solar Cells. Advanced Science, 2018, 5, 1700387.	5.6	348
1958	Evaporation-Induced Self-Assembly of Semi-Crystalline PbI2(DMSO) Complex Films as a Facile Route to Reproducible and Efficient Planar p-i-n Perovskite Solar Cells. MRS Advances, 2018, 3, 1807-1817.	0.5	2
1959	Morphology-Tuned Phase Transitions of Horseshoe Shaped BaTiO₃ Nanomaterials under High Pressure. Journal of Physical Chemistry C, 2018, 122, 5188-5194.	1.5	14
1960	[6,6]-Phenyl-C₆₁-Butyric Acid Methyl Ester/Cerium Oxide Bilayer Structure as Efficient and Stable Electron Transport Layer for Inverted Perovskite Solar Cells. ACS Nano, 2018, 12, 2403-2414.	7.3	114
1961	Mixed halide hybrid perovskites: a paradigm shift in photovoltaics. Journal of Materials Chemistry A, 2018, 6, 5507-5537.	5.2	104
1962	Highâ€Speed, Sensitive Planar Perovskite Photodetector Based on Interdigitated Pt and Au Electrodes. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1700822.	0.8	12
1963	Highâ€crystallinity and largeâ€grain CH ₃ NH ₃ PbI ₃ thin films for efficient TiO ₂ nanorod array perovskite solar cells. Micro and Nano Letters, 2018, 13, 131-134.	0.6	3
1964	Lead-Free Perovskite Nanocrystals for Light-Emitting Devices. Journal of Physical Chemistry Letters, 2018, 9, 1573-1583.	2.1	167
1965	Bending Durable and Recyclable Mesostructured Perovskite Solar Cells Based on Superaligned ZnO Nanorod Electrode. Solar Rrl, 2018, 2, 1700194.	3.1	25
1966	Delayed Annealing Treatment for High-Quality CuSCN: Exploring Its Impact on Bifacial Semitransparent n-i-p Planar Perovskite Solar Cells. ACS Applied Energy Materials, 2018, 1, 1575-1584.	2.5	30
1967	Solvent-Assisted Thermal-Pressure Strategy for Constructing High-Quality CH₃NH₃PbI_{3â€“<i>x</i>}Cl_{<i>x</i>} Films as High-Performance Perovskite Photodetectors. ACS Applied Materials & Interfaces, 2018, 10, 8393-8398.	4.0	16
1968	Enhanced performance of perovskite solar cells <i>via</i> anti-solvent nonfullerene Lewis base IT-4F induced trap-passivation. Journal of Materials Chemistry A, 2018, 6, 5919-5925.	5.2	127
1969	Novel hole transport layer of nickel oxide composite with carbon for high-performance perovskite solar cells. Chinese Physics B, 2018, 27, 017305.	0.7	31
1971	Evolution of organometal halide solar cells. Journal of Photochemistry and Photobiology C: Photochemistry Reviews, 2018, 35, 74-107.	5.6	32
1972	Characterising degradation of perovskite solar cells through in-situ and operando electron microscopy. Nano Energy, 2018, 47, 243-256.	8.2	67
1973	Processing Dependent Influence of the Hole Transport Layer Ionization Energy on Methylammonium Lead Iodide Perovskite Photovoltaics. ACS Applied Materials & Interfaces, 2018, 10, 15548-15557.	4.0	17
1974	Synchronized-pressing fabrication of cost-efficient crystalline perovskite solar cells <i>via</i> intermediate engineering. Nanoscale, 2018, 10, 9628-9633.	2.8	8
1975	Perovskiteâ€“Gold Nanorod Hybrid Photodetector with High Responsivity and Low Driving Voltage. Advanced Optical Materials, 2018, 6, 1701397.	3.6	36

#	Article	IF	Citations
1976	Influence of hole transport material/metal contact interface on perovskite solar cells. Nanotechnology, 2018, 29, 255201.	1.3	13
1977	Optimizing the efficiency of perovskite solar cells by a sub-nanometer compact titanium oxide electron transport layer. Nano Energy, 2018, 49, 230-236.	8.2	15
1978	Crystallization of CH₃NH₃PbI_{3âˆ’x}Br_x perovskite from micro-droplets of lead acetate precursor solution. CrystEngComm, 2018, 20, 3058-3065.	1.3	5
1979	Continuous Grain-Boundary Functionalization for High-Efficiency Perovskite Solar Cells with Exceptional Stability. CheM, 2018, 4, 1404-1415.	5.8	165
1980	ZnO/SnO₂ Double Electron Transport Layer Guides Improved Open Circuit Voltage for Highly Efficient CH₃NH₃PbI₃-Based Planar Perovskite Solar Cells. ACS Applied Energy Materials, 2018, 1, 2215-2221.	2.5	59
1981	Perovskite seeding growth of formamidinium-lead-iodide-based perovskites for efficient and stable solar cells. Nature Communications, 2018, 9, 1607.	5.8	309
1982	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
1983	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
1984	Controlled surface decomposition derived passivation and energy-level alignment behaviors for high performance perovskite solar cells. Journal of Materials Chemistry A, 2018, 6, 9397-9401.	5.2	20
1985	Material challenges for solar cells in the twenty-first century: directions in emerging technologies. Science and Technology of Advanced Materials, 2018, 19, 336-369.	2.8	162
1986	Mixed 3Dâ€“2D Passivation Treatment for Mixedâ€Cation Lead Mixedâ€Halide Perovskite Solar Cells for Higher Efficiency and Better Stability. Advanced Energy Materials, 2018, 8, 1703392.	10.2	289
1987	Improving the Performance of Perovskite Solar Cells Through Solvent Vapor Annealingâ€based Morphology Control of the Holeâ€Transport Layer. Energy Technology, 2018, 6, 1283-1289.	1.8	9
1988	All-inorganic perovskite CsPbBr₃-based self-powered light-emitting photodetectors with ZnO hollow balls as an ultraviolet response center. Journal of Materials Chemistry C, 2018, 6, 5113-5121.	2.7	36
1989	Room temperature ferroelectricity of hybrid organicâ€“inorganic perovskites with mixed iodine and bromine. Journal of Materials Chemistry A, 2018, 6, 9665-9676.	5.2	26
1990	Perovskite-sensitized solar cells-based Gaâ€“TiO2 nanodiatom-like photoanode: the improvement of performance by perovskite crystallinity refinement. Applied Physics A: Materials Science and Processing, 2018, 124, 1.	1.1	13
1991	The electronic structure and band interface of cesium bismuth iodide on a titania heterostructure using hard X-ray spectroscopy. Journal of Materials Chemistry A, 2018, 6, 9498-9505.	5.2	19
1992	Efficient blue emission from ambient processed all-inorganic CsPbBr2Cl perovskite cubes. AIP Conference Proceedings, 2018, , .	0.3	4
1993	Enhancement of photocurrent extraction and electron injection in dual-functional CH₃NH₃PbBr₃ perovskite-based optoelectronic devices via interfacial engineering. Nanotechnology, 2018, 29, 275704.	1.3	12

#	Article	IF	Citations
1994	Slot-Die Coated Perovskite Films Using Mixed Lead Precursors for Highly Reproducible and Large-Area Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 16133-16139.	4.0	92
1995	Controlled Homoepitaxial Growth of Hybrid Perovskites. Advanced Materials, 2018, 30, e1705992.	11.1	82
1996	Phase Transition Control for High Performance Ruddlesdenâ€"Popper Perovskite Solar Cells. Advanced Materials, 2018, 30, e1707166.	11.1	244
1997	Performance Enhancement of Perovskite Solar Cells Induced by Lead Acetate as an Additive. Solar Rrl, 2018, 2, 1800066.	3.1	94
1998	Synthesis of SnO₂ nanofibers and nanobelts electron transporting layer for efficient perovskite solar cells. Nanoscale, 2018, 10, 8275-8284.	2.8	51
1999	Photovoltaic performances of mono- and mixed-halide structures for perovskite solar cell: A review. Renewable and Sustainable Energy Reviews, 2018, 90, 248-274.	8.2	50
2000	Enhancing Photovoltaic Performance of Inverted Planar Perovskite Solar Cells by Cobalt-Doped Nickel Oxide Hole Transport Layer. ACS Applied Materials & Interfaces, 2018, 10, 14153-14159.	4.0	71
2001	Toward high-efficiency, hysteresis-less, stable perovskite solar cells: unusual doping of a hole-transporting material using a fluorine-containing hydrophobic Lewis acid. Energy and Environmental Science, 2018, 11, 2035-2045.	15.6	217
2002	A review of perovskite solar cells with a focus on wire-shaped devices. Renewable Energy Focus, 2018, 25, 17-23.	2.2	9
2003	Engineered optical and electrical performance of rfâ€"sputtered undoped nickel oxide thin films for inverted perovskite solar cells. Scientific Reports, 2018, 8, 5590.	1.6	47
2004	High switchable dielectric phase transition originating from distortion in inorganicâ€"organic hybrid materials (H₂dabco-C₂H₅) [M^{II}Cl₄] (M =) Tj ETQq0 0 0 rgBT /Overlock	1.6	21
2005	The Deposition Environment Controlling Method: A Vapor-Phase Solvent-Assisted Approach to Fabricate High-Quality Crystalline Perovskite. IEEE Journal of Photovoltaics, 2018, , 1-6.	1.5	1
2006	Optimized interface and recrystallized grains by CsBr treatment for enhanced photovoltaic performance of perovskite solar cells. Journal of Power Sources, 2018, 389, 50-55.	4.0	10
2007	Mixed cation perovskite solar cells by stack-sequence chemical vapor deposition with self-passivation and gradient absorption layer. Nano Energy, 2018, 48, 536-542.	8.2	70
2008	Nanoscale photocurrent mapping in perovskite solar cells. Nano Energy, 2018, 48, 543-550.	8.2	19
2009	Synergistic effect of anions and cations in additives for highly efficient and stable perovskite solar cells. Journal of Materials Chemistry A, 2018, 6, 9264-9270.	5.2	58
2010	Eliminating J-V hysteresis in perovskite solar cells via defect controlling. Organic Electronics, 2018, 58, 283-289.	1.4	29
2011	Improving the Performance of Inverted Formamidinium Tin Iodide Perovskite Solar Cells by Reducing the Energy-Level Mismatch. ACS Energy Letters, 2018, 3, 1116-1121.	8.8	105

#	Article	IF	Citations
2012	High-performance and scalable metal-chalcogenide semiconductors and devices via chalco-gel routes. Science Advances, 2018, 4, eaap9104.	4.7	53
2013	Surfaces modification of MAPbI3 films with hydrophobic Î²-NaYF4:Yb,Er up-conversion ultrathin layers for improving the performance of perovskite solar cells. Applied Surface Science, 2018, 448, 145-153.	3.1	21
2014	Cadmium sulfide as an efficient electron transport material for inverted planar perovskite solar cells. Chemical Communications, 2018, 54, 3170-3173.	2.2	41
2015	Molecular Engineering Using an Anthanthrone Dye for Lowâ€Cost Hole Transport Materials: A Strategy for Dopantâ€Free, Highâ€Efficiency, and Stable Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1703007.	10.2	154
2016	CsSnI₃ Solar Cells via an Evaporationâ€Assisted Solution Method. Solar Rrl, 2018, 2, 1700224.	3.1	68
2017	The role of Cs+ inclusion in formamidinium lead triiodide-based perovskite solar cell. Chemical Papers, 2018, 72, 1645-1650.	1.0	11
2018	Performance improvement of Ru II complexes pyridinyl backbone on dye-sensitized solar cells (DSSC). Inorganica Chimica Acta, 2018, 474, 81-88.	1.2	12
2019	One-step roll-to-roll air processed high efficiency perovskite solar cells. Nano Energy, 2018, 46, 185-192.	8.2	271
2020	Inkjet manipulated homogeneous large size perovskite grains for efficient and large-area perovskite solar cells. Nano Energy, 2018, 46, 203-211.	8.2	155
2021	Enhancing thermoelectric performance of the CH3NH3PbI3 polycrystalline thin films by using the excited state on photoexcitation. Organic Electronics, 2018, 55, 90-96.	1.4	24
2022	Efficient and stable planar heterojunction perovskite solar cells fabricated under ambient conditions with high humidity. Organic Electronics, 2018, 55, 140-145.	1.4	39
2023	Oxygen doping in nickel oxide for highly efficient planar perovskite solar cells. Journal of Materials Chemistry A, 2018, 6, 4721-4728.	5.2	57
2024	Stable and Efficient Organoâ€Metal Halide Hybrid Perovskite Solar Cells via Ï€â€Conjugated Lewis Base Polymer Induced Trap Passivation and Charge Extraction. Advanced Materials, 2018, 30, e1706126.	11.1	241
2025	Aromatic Alkylammonium Spacer Cations for Efficient Twoâ€Dimensional Perovskite Solar Cells with Enhanced Moisture and Thermal Stability. Solar Rrl, 2018, 2, 1700215.	3.1	55
2026	A disposable immunosensor using ITO based electrode modified by a star-shaped polymer for analysis of tumor suppressor protein p53 in human serum. Biosensors and Bioelectronics, 2018, 107, 1-9.	5.3	62
2027	Preventing Hysteresis in Perovskite Solar Cells by Undoped Charge Blocking Layers. ACS Applied Energy Materials, 2018, 1, 676-683.	2.5	35
2028	Enhancement of Morphological and Optoelectronic Properties of Perovskite Films by CH₃NH₃Cl Treatment for Efficient Solar Minimodules. ACS Applied Energy Materials, 2018, 1, 1047-1052.	2.5	31
2029	Bifunctional Hydroxylamine Hydrochloride Incorporated Perovskite Films for Efficient and Stable Planar Perovskite Solar Cells. ACS Applied Energy Materials, 2018, 1, 900-909.	2.5	81

#	Article	IF	Citations
2030	Improved performance and stability of perovskite solar cells with bilayer electron-transporting layers. RSC Advances, 2018, 8, 5897-5901.	1.7	34
2031	Solvent-modulated reaction between mesoporous PbI2 film and CH3NH3I for enhancement of photovoltaic performances of perovskite solar cells. Electrochimica Acta, 2018, 266, 118-129.	2.6	17
2032	High performance perovskite solar cells using TiO2 nanospindles as ultrathin mesoporous layer. Journal of Energy Chemistry, 2018, 27, 951-956.	7.1	29
2033	Mixed antisolvents assisted treatment of perovskite for photovoltaic device efficiency enhancement. Organic Electronics, 2018, 56, 59-67.	1.4	16
2034	The influence of perovskite precursor composition on the morphology and photovoltaic performance of mixed halide MAPbI3-xClx solar cells. Solar Energy, 2018, 163, 215-223.	2.9	36
2035	Grain Boundary Engineering of Halide Perovskite CH₃NH₃PbI₃ Solar Cells with Photochemically Active Additives. Journal of Physical Chemistry C, 2018, 122, 4817-4821.	1.5	31
2036	Addressing the Function of Easily Synthesized Hole Transporters in Direct and Inverted Perovskite Solar Cells. ACS Applied Energy Materials, 2018, 1, 1069-1076.	2.5	33
2037	Perovskite Solar Cells Prepared by Advanced Three-Step Method Using Additional HC(NH₂)₂I Spin-Coating: Efficiency Improvement with Multiple Bandgap Structure. ACS Applied Energy Materials, 2018, 1, 1389-1394.	2.5	7
2038	Connecting the solution chemistry of PbI₂ and MAI: a cyclodextrin-based supramolecular approach to the formation of hybrid halide perovskites. Chemical Science, 2018, 9, 3200-3208.	3.7	55
2039	Flexible perovskite solar cells based on green, continuous roll-to-roll printing technology. Journal of Energy Chemistry, 2018, 27, 971-989.	7.1	55
2040	Rietveld refinement of the crystal structure of perovskite solar cells using CH3NH3PbI3 and other compounds. AIP Conference Proceedings, 2018, , .	0.3	3
2041	Ultrasonic vibration imposed on nanoparticle-based ZnO film improves the performance of the ensuing perovskite solar cell. Materials Research Express, 2018, 5, 026404.	0.8	12
2042	Influence of coating steps of perovskite on low-temperature amorphous compact TiO<i> _x </i> upon the morphology, crystallinity, and photovoltaic property correlation in planar perovskite solar cells. Japanese Journal of Applied Physics, 2018, 57, 03EJ06.	0.8	8
2043	Orientation Regulation of Phenylethylammonium Cation Based 2D Perovskite Solar Cell with Efficiency Higher Than 11%. Advanced Energy Materials, 2018, 8, 1702498.	10.2	313
2044	Efficient and Reproducible CH₃NH₃PbI₃ Perovskite Layer Prepared Using a Binary Solvent Containing a Cyclic Urea Additive. ACS Applied Materials & Interfaces, 2018, 10, 9390-9397.	4.0	31
2045	Manipulation of the crystallization of perovskite films induced by a rotating magnetic field during blade coating in air. Journal of Materials Chemistry A, 2018, 6, 3986-3995.	5.2	13
2046	Low-dimensional halide perovskites: review and issues. Journal of Materials Chemistry C, 2018, 6, 2189-2209.	2.7	165
2047	Self-assembly monolayers boosting organicâ€"inorganic halide perovskite solar cell performance. Journal of Materials Research, 2018, 33, 387-400.	1.2	38

#	Article	IF	Citations
2048	High-Quality CH₃NH₃PbI₃ Films Obtained via a Pressure-Assisted Space-Confined Solvent-Engineering Strategy for Ultrasensitive Photodetectors. Nano Letters, 2018, 18, 1213-1220.	4.5	35
2049	The germanium telluride monolayer: a two dimensional semiconductor with high carrier mobility for photocatalytic water splitting. Journal of Materials Chemistry A, 2018, 6, 4119-4125.	5.2	87
2050	Low-temperature processed non-TiO₂ electron selective layers for perovskite solar cells. Journal of Materials Chemistry A, 2018, 6, 4572-4589.	5.2	65
2051	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
2052	Revealing the detailed path of sequential deposition for metal halide perovskite formation. Science Advances, 2018, 4, e1701402.	4.7	85
2053	Unraveling surface and bulk trap states in lead halide perovskite solar cells using impedance spectroscopy. Journal Physics D: Applied Physics, 2018, 51, 095501.	1.3	21
2054	Co-Solvent Effect in the Processing of the Perovskite:Fullerene Blend Films for Electron Transport Layer-Free Solar Cells. Journal of Physical Chemistry C, 2018, 122, 2512-2520.	1.5	19
2055	Highly Bendable Flexible Perovskite Solar Cells on a Nanoscale Surface Oxide Layer of Titanium Metal Plates. ACS Applied Materials & Interfaces, 2018, 10, 4697-4704.	4.0	45
2056	Research progress on organicâ€“inorganic halide perovskite materials and solar cells. Journal Physics D: Applied Physics, 2018, 51, 093001.	1.3	56
2057	Inorganic Perovskite Solar Cells: A Rapidly Growing Field. Solar Rrl, 2018, 2, 1700188.	3.1	193
2058	Green Antiâ€Solvent Processed Planar Perovskite Solar Cells with Efficiency Beyond 19%. Solar Rrl, 2018, 2, 1700213.	3.1	91
2059	Electrodeposition of organicâ€“inorganic tri-halide perovskites solar cell. Journal of Power Sources, 2018, 378, 717-731.	4.0	36
2060	Oneâ€Step Inkjet Printed Perovskite in Air for Efficient Light Harvesting. Solar Rrl, 2018, 2, 1700217.	3.1	90
2061	Ultrafast selective extraction of hot holes from cesium lead iodide perovskite films. Journal of Energy Chemistry, 2018, 27, 1170-1174.	7.1	23
2062	Progress and Perspective in Lowâ€Dimensional Metal Halide Perovskites for Optoelectronic Applications. Solar Rrl, 2018, 2, 1700186.	3.1	98
2063	Highly Efficient and Stable Flexible Perovskite Solar Cells with Metal Oxides Nanoparticle Charge Extraction Layers. Small, 2018, 14, e1702775.	5.2	111
2064	Electro-optic Response in Germanium Halide Perovskites. Journal of Physical Chemistry Letters, 2018, 9, 1018-1027.	2.1	39
2065	Efficient green light-emitting diodes based on quasi-two-dimensional composition and phase engineered perovskite with surface passivation. Nature Communications, 2018, 9, 570.	5.8	763

#	Article	IF	Citations
2066	RF plasma-enhanced grapheneâ€“polymer composites as hole transport materials for perovskite solar cells. Polymer Bulletin, 2018, 75, 4531-4545.	1.7	11
2067	ZnO-PCBM bilayers as electron transport layers in low-temperature processed perovskite solar cells. Science Bulletin, 2018, 63, 343-348.	4.3	33
2068	Allâ€Inorganic CsPbI₃ Perovskite Phaseâ€Stabilized by Poly(ethylene oxide) for Redâ€Lightâ€Emitting Diodes. Advanced Functional Materials, 2018, 28, 1706401.	7.8	156
2069	Methodologies toward Highly Efficient Perovskite Solar Cells. Small, 2018, 14, e1704177.	5.2	315
2070	Nanoporous p-type NiOx electrode for p-i-n inverted perovskite solar cell toward air stability. Materials Today, 2018, 21, 483-500.	8.3	99
2071	Amideâ€Catalyzed Phaseâ€Selective Crystallization Reduces Defect Density in Wideâ€Bandgap Perovskites. Advanced Materials, 2018, 30, e1706275.	11.1	80
2072	Arylamine polymers prepared via facile paraldehyde addition condensation: an effective holeâ€transporting material for perovskite solar cells. Polymer International, 2018, 67, 670-674.	1.6	10
2073	Metal Oxides in Photovoltaics: All-Oxide, Ferroic, and Perovskite Solar Cells. , 2018, , 267-356.		34
2074	Engineering the Emission of Broadband 2D Perovskites by Polymer Distributed Bragg Reflectors. ACS Photonics, 2018, 5, 867-874.	3.2	38
2075	In Situ Realâ€Time Study of the Dynamic Formation and Conversion Processes of Metal Halide Perovskite Films. Advanced Materials, 2018, 30, 1706401.	11.1	52
2076	Perovskite Thin Film Synthesised from Sputtered Lead Sulphide. Scientific Reports, 2018, 8, 1563.	1.6	56
2077	A Universal Strategy to Utilize Polymeric Semiconductors for Perovskite Solar Cells with Enhanced Efficiency and Longevity. Advanced Functional Materials, 2018, 28, 1706377.	7.8	134
2078	Roomâ€Temperature Vapor Deposition of Cobalt Nitride Nanofilms for Mesoscopic and Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1703114.	10.2	29
2079	Halide Perovskites for Applications beyond Photovoltaics. Small Methods, 2018, 2, 1700310.	4.6	94
2080	Organic Cation Substitution in Hybrid Perovskite CH₃NH₃PbI₃ with Hydroxylammonium (NH₃OH⁺): A First-Principles Study. Journal of Physical Chemistry C, 2018, 122, 3548-3557.	1.5	13
2081	Light-Emitting Halide Perovskite Nanoantennas. Nano Letters, 2018, 18, 1185-1190.	4.5	132
2082	Fabrication of Perovskite Films with Large Columnar Grains via Solvent-Mediated Ostwald Ripening for Efficient Inverted Perovskite Solar Cells. ACS Applied Energy Materials, 2018, 1, 868-875.	2.5	58
2083	Subdiffraction Infrared Imaging of Mixed Cation Perovskites: Probing Local Cation Heterogeneities. ACS Energy Letters, 2018, 3, 469-475.	8.8	54

#	Article	IF	Citations
2084	An additive dripping technique using diphenyl ether for tuning perovskite crystallization for high-efficiency solar cells. Nano Research, 2018, 11, 2648-2657.	5.8	11
2085	Î²-NaYF4:Yb3+, Tm3+@TiO2 core-shell nanoparticles incorporated into the mesoporous layer for high efficiency perovskite solar cells. Electrochimica Acta, 2018, 261, 14-22.	2.6	36
2086	Design Growth of MAPbI₃ Single Crystal with (220) Facets Exposed and Its Superior Optoelectronic Properties. Journal of Physical Chemistry Letters, 2018, 9, 216-221.	2.1	64
2087	Forming Intermediate Phase on the Surface of PbI₂ Precursor Films by Short-Time DMSO Treatment for High-Efficiency Planar Perovskite Solar Cells via Vapor-Assisted Solution Process. ACS Applied Materials & Interfaces, 2018, 10, 1781-1791.	4.0	41
2088	MAPbI₃ Solar Cells with Absorber Deposited by Resonant Infrared Matrix-Assisted Pulsed Laser Evaporation. ACS Energy Letters, 2018, 3, 270-275.	8.8	32
2089	Efficient and stable CH 3 NH 3 PbI 3-x (SCN) x planar perovskite solar cells fabricated in ambient air with low-temperature process. Journal of Power Sources, 2018, 377, 52-58.	4.0	53
2090	Water Splitting by Using Electrochemical Properties of Material. Energy, Environment, and Sustainability, 2018, , 135-153.	0.6	5
2091	Lowâ€Temperature Processed Nanostructured Rutile TiO₂ Array Films for Perovskite Solar Cells With High Efficiency and Stability. Solar Rrl, 2018, 2, 1700164.	3.1	18
2092	Solvent-Engineering Method to Deposit Compact Bismuth-Based Thin Films: Mechanism and Application to Photovoltaics. Chemistry of Materials, 2018, 30, 336-343.	3.2	87
2093	Photovoltaic Performance of Vapor-Assisted Solution-Processed Layer Polymorph of Cs₃Sb₂I₉. ACS Applied Materials & Interfaces, 2018, 10, 2566-2573.	4.0	137
2094	Exploring the transposition effects on the electronic and optical properties of Cs₂AgSbCl₆<i>via</i> a combined computational-experimental approach. Journal of Materials Chemistry A, 2018, 6, 2346-2352.	5.2	100
2095	<i>N</i>â€Annulated Peryleneâ€Based Hole Transporters for Perovskite Solar Cells: The Significant Influence of Lateral Substituents. ChemSusChem, 2018, 11, 672-680.	3.6	17
2096	The Dawn of Leadâ€Free Perovskite Solar Cell: Highly Stable Double Perovskite Cs₂AgBiBr₆ Film. Advanced Science, 2018, 5, 1700759.	5.6	363
2097	Oriented Grains with Preferred Lowâ€Angle Grain Boundaries in Halide Perovskite Films by Pressureâ€Induced Crystallization. Advanced Energy Materials, 2018, 8, 1702369.	10.2	74
2098	Grapheneâ€Based Inverted Planar Perovskite Solar Cells: Advancements, Fundamental Challenges, and Prospects. Chemistry - an Asian Journal, 2018, 13, 240-249.	1.7	16
2099	Development of organic-inorganic double hole-transporting material for high performance perovskite solar cells. Journal of Power Sources, 2018, 378, 98-104.	4.0	24
2100	<i>In situ</i> simultaneous photovoltaic and structural evolution of perovskite solar cells during film formation. Energy and Environmental Science, 2018, 11, 383-393.	15.6	77
2101	One step facile synthesis of a novel anthanthrone dye-based, dopant-free hole transporting material for efficient and stable perovskite solar cells. Journal of Materials Chemistry C, 2018, 6, 3699-3708.	2.7	61

#	Article	IF	Citations
2102	Scanning Probe Microscopy Applied to Organicâ€“Inorganic Halide Perovskite Materials and Solar Cells. Small Methods, 2018, 2, 1700295.	4.6	57
2103	Boosting the Efficiency of Perovskite Solar Cells with CsBrâ€Modified Mesoporous TiO₂ Beads as Electronâ€Selective Contact. Advanced Functional Materials, 2018, 28, 1705763.	7.8	115
2104	Exploring AgBixI3x+1 semiconductor thin films for lead-free perovskite solar cells. Materials and Design, 2018, 141, 81-87.	3.3	40
2105	Carbon-sandwiched perovskite solar cell. Journal of Materials Chemistry A, 2018, 6, 1382-1389.	5.2	98
2106	Electronâ€Transportâ€Layerâ€Assisted Crystallization of Perovskite Films for Highâ€Efficiency Planar Heterojunction Solar Cells. Advanced Functional Materials, 2018, 28, 1706317.	7.8	77
2107	Alkali Metal Doping for Improved CH₃NH₃PbI₃ Perovskite Solar Cells. Advanced Science, 2018, 5, 1700131.	5.6	227
2108	Enhancing efficiency of planar structure perovskite solar cells using Sn-doped TiO2 as electron transport layer at low temperature. Electrochimica Acta, 2018, 261, 227-235.	2.6	74
2109	Elucidating the Roles of TiCl₄ and PCBM Fullerene Treatment on TiO₂ Electron Transporting Layer for Highly Efficient Planar Perovskite Solar Cells. Journal of Physical Chemistry C, 2018, 122, 1044-1053.	1.5	57
2110	Oxygen-induced defects at the lead halide perovskite/graphene oxide interfaces. Journal of Materials Chemistry A, 2018, 6, 1423-1442.	5.2	26
2111	Enhancing the efficiency of low-temperature planar perovskite solar cells by modifying the interface between perovskite and hole transport layer with polymers. Electrochimica Acta, 2018, 261, 445-453.	2.6	46
2112	Spinel Co₃O₄ nanomaterials for efficient and stable large area carbon-based printed perovskite solar cells. Nanoscale, 2018, 10, 2341-2350.	2.8	106
2113	A Ga-doped SnO₂ mesoporous contact for UV stable highly efficient perovskite solar cells. Journal of Materials Chemistry A, 2018, 6, 1850-1857.	5.2	129
2114	Fully metal oxide charge selective layers for n-i-p perovskite solar cells employing nickel oxide nanoparticles. Electrochimica Acta, 2018, 263, 338-345.	2.6	35
2115	Very efficient green light-emitting diodes based on polycrystalline CH(NH3)2PbBr3 film achieved by regulating precursor concentration and employing novel anti-solvent. Organic Electronics, 2018, 55, 35-41.	1.4	13
2116	An efficient, flexible perovskite solar module exceeding 8% prepared with an ultrafast PbI2 deposition rate. Scientific Reports, 2018, 8, 442.	1.6	35
2117	Solution-Processed, Silver-Doped NiO_{<i>x</i>} as Hole Transporting Layer for High-Efficiency Inverted Perovskite Solar Cells. ACS Applied Energy Materials, 2018, 1, 561-570.	2.5	95
2118	Tuning Charge Carrier Dynamics and Surface Passivation in Organolead Halide Perovskites with Capping Ligands and Metal Oxide Interfaces. Advanced Optical Materials, 2018, 6, 1701203.	3.6	18
2119	Highâ€Responsivity Photodetectors Based on Formamidinium Lead Halide Perovskite Quantum Dotâ€“Graphene Hybrid. Particle and Particle Systems Characterization, 2018, 35, 1700304.	1.2	46

#	Article	IF	Citations
2120	Highâ€Performance Singleâ€Crystalline Perovskite Thinâ€Film Photodetector. Advanced Materials, 2018, 30, 1704333.	11.1	225
2121	Toward scale-up of perovskite solar cells: Annealing-free perovskite layer by low-cost ultrasonic substrate vibration of wet films. Materials Today Communications, 2018, 14, 151-159.	0.9	35
2122	Performance enhancement of perovskite solar cells using NH4I additive in a solution processing method. Solar Energy, 2018, 162, 8-13.	2.9	11
2123	Copper Iodide Based Hybrid Phosphors for Energyâ€Efficient General Lighting Technologies. Advanced Functional Materials, 2018, 28, 1705593.	7.8	184
2124	A selection rule of solvent for highly aligned diketopyrrolopyrrole-based conjugated polymer film for high performance organic field-effect transistors. Organic Electronics, 2018, 55, 6-14.	1.4	33
2125	Incorporating 4-<i>tert</i>-Butylpyridine in an Antisolvent: A Facile Approach to Obtain Highly Efficient and Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 3602-3608.	4.0	56
2126	A Selfâ€Powered and Flexible Organometallic Halide Perovskite Photodetector with Very High Detectivity. Advanced Materials, 2018, 30, 1704611.	11.1	339
2127	Interface engineering of compact-TiOx in planar perovskite solar cells using low-temperature processable high-mobility fullerene derivative. Solar Energy Materials and Solar Cells, 2018, 178, 1-7.	3.0	29
2128	Crystallization manipulation and morphology evolution for highly efficient perovskite solar cell fabrication <i>via</i> hydration water induced intermediate phase formation under heat assisted spin-coating. Journal of Materials Chemistry A, 2018, 6, 3012-3021.	5.2	40
2129	Mixed (5-AVA)_xMA_{1â^'x}PbI_{3â^'y}(BF₄)_y perovskites enhance the photovoltaic performance of hole-conductor-free printable mesoscopic solar cells. Journal of Materials Chemistry A, 2018, 6, 2360-2364.	5.2	40
2130	Perovskite-based solar cells with inorganic inverted hybrid planar heterojunction structure. AIP Advances, 2018, 8, .	0.6	20
2131	Highly Efficient Perovskite Solar Modules by Scalable Fabrication and Interconnection Optimization. ACS Energy Letters, 2018, 3, 322-328.	8.8	143
2132	Diarylfluorene-based nano-molecules as dopant-free hole-transporting materials without post-treatment process for flexible p-i-n type perovskite solar cells. Nano Energy, 2018, 46, 241-248.	8.2	54
2133	New-generation integrated devices based on dye-sensitized and perovskite solar cells. Energy and Environmental Science, 2018, 11, 476-526.	15.6	364
2134	Mechanism and effect of Î³-butyrolactone solvent vapor post-annealing on the performance of a mesoporous perovskite solar cell. RSC Advances, 2018, 8, 724-731.	1.7	27
2135	Graphene oxide as an additive to improve perovskite film crystallization and morphology forÂhigh-efficiency solar cells. RSC Advances, 2018, 8, 987-993.	1.7	39
2136	Enhanced crystallinity of CH₃NH₃PbI₃ by the pre-coordination of PbI₂â€"DMSO powders for highly reproducible and efficient planar heterojunction perovskite solar cells. RSC Advances, 2018, 8, 1005-1013.	1.7	33
2137	Effects of Perovskite Monovalent Cation Composition on the High and Low Frequency Impedance Response of Efficient Solar Cells. Journal of Physical Chemistry C, 2018, 122, 1973-1981.	1.5	33

#	Article	IF	Citations
2138	Amorphous Metal Oxide Blocking Layers for Highly Efficient Low-Temperature Brookite TiO₂-Based Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 2224-2229.	4.0	104
2139	Mixed Sulfur and Iodide-Based Lead-Free Perovskite Solar Cells. Journal of the American Chemical Society, 2018, 140, 872-875.	6.6	126
2140	A strategic review on processing routes towards highly efficient perovskite solar cells. Journal of Materials Chemistry A, 2018, 6, 2406-2431.	5.2	179
2141	Facile synthesis of CsPbBr₃/PbSe composite clusters. Science and Technology of Advanced Materials, 2018, 19, 10-17.	2.8	23
2142	Compositionally Graded Absorber for Efficient and Stable Nearâ€Infraredâ€Transparent Perovskite Solar Cells. Advanced Science, 2018, 5, 1700675.	5.6	65
2143	A Solutionâ€Processed Transparent NiO Holeâ€Extraction Layer for Highâ€Performance Inverted Perovskite Solar Cells. Chemistry - A European Journal, 2018, 24, 2845-2849.	1.7	54
2144	Effect of Interfacial Energetics on Charge Transfer from Lead Halide Perovskite to Organic Hole Conductors. Journal of Physical Chemistry C, 2018, 122, 1326-1332.	1.5	32
2145	High-Performance Photodetectors Based on Solution-Processed Epitaxial Grown Hybrid Halide Perovskites. Nano Letters, 2018, 18, 994-1000.	4.5	105
2146	<i>In situ</i> induced core/shell stabilized hybrid perovskites <i>via</i> gallium(<scp>iii</scp>) acetylacetonate intermediate towards highly efficient and stable solar cells. Energy and Environmental Science, 2018, 11, 286-293.	15.6	79
2147	Graphene assisted effective hole-extraction on In2O3:H/CH3NH3PbI3 interface: Studied by modulated surface spectroscopy. Applied Physics Letters, 2018, 112, 011604.	1.5	1
2148	Progress in hole-transporting materials for perovskite solar cells. Journal of Energy Chemistry, 2018, 27, 650-672.	7.1	90
2149	A comprehensive device modelling of perovskite solar cell with inorganic copper iodide as hole transport material. Semiconductor Science and Technology, 2018, 33, 035001.	1.0	129
2150	Alternative Perovskites for Photovoltaics. Advanced Energy Materials, 2018, 8, 1703120.	10.2	85
2151	Triphenylamine 3,6-carbazole derivative as hole-transporting material for mixed cation perovskite solar cells. Chemical Papers, 2018, 72, 1779-1787.	1.0	15
2152	Cyclic Utilization of Lead in Carbon-Based Perovskite Solar Cells. ACS Sustainable Chemistry and Engineering, 2018, 6, 7558-7564.	3.2	30
2153	A Bi-functional additive for linking PI 2 and decreasing defects in organo-halide perovskites. Journal of Alloys and Compounds, 2018, 758, 171-176.	2.8	12
2154	Introducing paired electric dipole layers for efficient and reproducible perovskite solar cells. Energy and Environmental Science, 2018, 11, 1742-1751.	15.6	76
2155	Scalable Deposition of High-Efficiency Perovskite Solar Cells by Spray-Coating. ACS Applied Energy Materials, 2018, 1, 1853-1857.	2.5	78

#	Article	IF	Citations
2156	Microstructures, optical and photovoltaic properties of CH₃NH₃PbI_{3(1âˆ’<i>x</i>)}Cl_{<i>x</i>} perovskite films with CuSCN additive. Materials Research Express, 2018, 5, 055504.	0.8	11
2157	A Lewis Baseâ€Assisted Passivation Strategy Towards Highly Efficient and Stable Perovskite Solar Cells. Solar Rrl, 2018, 2, 1800055.	3.1	83
2158	Improved Stability in Perovskite Solar Cells by Solution-Processed Fluorocarbon Passivation. IEEE Electron Device Letters, 2018, 39, 843-846.	2.2	5
2159	Ultrafast frequency-agile terahertz devices using methylammonium lead halide perovskites. Science Advances, 2018, 4, eaar7353.	4.7	56
2160	Enhanced Crystallization by Methanol Additive in Antisolvent for Achieving Highâ€Quality MAPbI₃ Perovskite Films in Humid Atmosphere. ChemSusChem, 2018, 11, 2348-2357.	3.6	70
2161	Improved performance of solâ€“gel ZnO-based perovskite solar cells via TiCl4 interfacial modification. Solar Energy Materials and Solar Cells, 2018, 183, 157-163.	3.0	38
2162	Electron extraction mechanism in low hysteresis perovskite solar cells using single crystal TiO2 nanorods. Solar Energy, 2018, 167, 251-257.	2.9	10
2163	A Combined Electrochemicalâ€Microfluidic Strategy for the Microscaleâ€Sized Selective Modification of Transparent Conductive Oxides. Advanced Materials Interfaces, 2018, 5, 1701222.	1.9	1
2164	Greener, Nonhalogenated Solvent Systems for Highly Efficient Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1800177.	10.2	106
2165	Enhancing photovoltaic performance of perovskite solar cells with silica nanosphere antireflection coatings. Solar Energy, 2018, 169, 128-135.	2.9	51
2166	Controlling Thin-Film Stress and Wrinkling during Perovskite Film Formation. ACS Energy Letters, 2018, 3, 1225-1232.	8.8	148
2167	High-Performance Photodetectors Based on Single All-Inorganic CsPbBr₃ Perovskite Microwire. ACS Photonics, 2018, 5, 2113-2119.	3.2	61
2168	The effect of oxygen on the efficiency of planar pâ€“iâ€“n metal halide perovskite solar cells with a PEDOT:PSS hole transport layer. Journal of Materials Chemistry A, 2018, 6, 6882-6890.	5.2	27
2169	The effect of SrI₂ substitution on perovskite film formation and its photovoltaic properties <i>via</i> two different deposition methods. Inorganic Chemistry Frontiers, 2018, 5, 1354-1364.	3.0	15
2170	Moleculeâ€Doped Nickel Oxide: Verified Charge Transfer and Planar Inverted Mixed Cation Perovskite Solar Cell. Advanced Materials, 2018, 30, e1800515.	11.1	287
2171	Light-current-induced acceleration of degradation of methylammonium lead iodide perovskite solar cells. Journal of Power Sources, 2018, 384, 303-311.	4.0	9
2172	Water-Induced Dimensionality Reduction in Metal-Halide Perovskites. Journal of Physical Chemistry C, 2018, 122, 14128-14134.	1.5	78
2173	Semitransparent CH₃NH₃PbI₃ Films Achieved by Solvent Engineering for Annealingâ€•and Electron Transport Layerâ€Free Planar Perovskite Solar Cells. Solar Rrl, 2018, 2, 1700222.	3.1	22

#	Article	IF	Citations
2174	Secondary crystal growth for efficient planar perovskite solar cells in ambient atmosphere. Organic Electronics, 2018, 58, 119-125.	1.4	3
2175	Progress towards highly stable and lead-free perovskite solar cells. Materials for Renewable and Sustainable Energy, 2018, 7, 1.	1.5	31
2176	Spray coating of the PCBM electron transport layer significantly improves the efficiency of p-i-n planar perovskite solar cells. Nanoscale, 2018, 10, 11342-11348.	2.8	76
2177	Discerning recombination mechanisms and ideality factors through impedance analysis of high-efficiency perovskite solar cells. Nano Energy, 2018, 48, 63-72.	8.2	103
2178	Enormously improved CH3NH3PbI3 film surface for environmentally stable planar perovskite solar cells with PCE exceeding 19.9%. Nano Energy, 2018, 48, 10-19.	8.2	61
2179	Efficient Planar Perovskite Solar Cells with Improved Fill Factor via Interface Engineering with Graphene. Nano Letters, 2018, 18, 2442-2449.	4.5	195
2180	Efficient Planar Perovskite Solar Cells Using Passivated Tin Oxide as an Electron Transport Layer. Advanced Science, 2018, 5, 1800130.	5.6	120
2181	Solvent engineering for efficient inverted perovskite solar cells based on inorganic CsPbI2Br light absorber. Materials Today Energy, 2018, 8, 125-133.	2.5	121
2182	Boosting Visible Light Absorption of Metal-Oxide-Based Phototransistors via Heterogeneous Inâ€"Gaâ€"Znâ€"O and CH₃NH₃PbI₃ Films. ACS Applied Materials & Interfaces, 2018, 10, 12854-12861.	4.0	45
2183	Blade-Coated Hybrid Perovskite Solar Cells with Efficiency > 17%: An In Situ Investigation. ACS Energy Letters, 2018, 3, 1078-1085.	8.8	171
2184	Elucidating the Impact of Thin Film Texture on Charge Transport and Collection in Perovskite Solar Cells. ACS Omega, 2018, 3, 3522-3529.	1.6	8
2185	Control of PbI2 nucleation and crystallization: towards efficient perovskite solar cells based on vapor-assisted solution process. Materials Research Express, 2018, 5, 045507.	0.8	3
2186	Scalable fabrication of perovskite solar cells. Nature Reviews Materials, 2018, 3, .	23.3	764
2187	CaI₂: a more effective passivator of perovskite films than PbI₂ for high efficiency and long-term stability of perovskite solar cells. Journal of Materials Chemistry A, 2018, 6, 7903-7912.	5.2	69
2188	Pd₂Se₃monolayer: a novel two-dimensional material with excellent electronic, transport, and optical properties. Journal of Materials Chemistry C, 2018, 6, 4494-4500.	2.7	36
2189	Benefits of fullerene/SnO 2 bilayers as electron transport layer for efficient planar perovskite solar cells. Organic Electronics, 2018, 58, 294-300.	1.4	26
2190	Factors influencing the performance of paintable carbon-based perovskite solar cells fabricated in ambient air. Chinese Physics B, 2018, 27, 038402.	0.7	2
2191	Investigation of Hole-Transporting Poly(triarylamine) on Aggregation and Charge Transport for Hysteresisless Scalable Planar Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 11633-11641.	4.0	86

#	Article	IF	Citations
2192	Effect of Fullerene Passivation on the Charging and Discharging Behavior of Perovskite Solar Cells: Reduction of Bound Charges and Ion Accumulation. ACS Applied Materials & Interfaces, 2018, 10, 11722-11731.	4.0	24
2193	Effects of anti-solvent (iodobenzene) volume on the formation of CH 3 NH 3 PbI 3 thin films and their application in photovoltaic cells. Applied Surface Science, 2018, 445, 24-29.	3.1	41
2194	Thermo-mechanical behavior of organic-inorganic halide perovskites for solar cells. Scripta Materialia, 2018, 150, 36-41.	2.6	100
2195	Minimizing the energy loss of perovskite solar cells with Cu+ doped NiOx processed at room temperature. Solar Energy Materials and Solar Cells, 2018, 182, 128-135.	3.0	28
2196	Investigation on the structural, morphological, electronic and photovoltaic properties of a perovskite thin film by introducing lithium halide. RSC Advances, 2018, 8, 11455-11461.	1.7	4
2197	Excess iodine as the interface recombination center limiting the open-circuit voltage of CuI-based perovskite planar solar cell. Journal of Materials Science: Materials in Electronics, 2018, 29, 8838-8846.	1.1	9
2198	Improved performance of mesostructured perovskite solar cells via an anti-solvent method. Journal of Crystal Growth, 2018, 491, 66-72.	0.7	6
2199	Polarized Optoelectronics of CsPbX₃ (X = Cl, Br, I) Perovskite Nanoplates with Tunable Size and Thickness. Advanced Functional Materials, 2018, 28, 1800283.	7.8	63
2200	Understanding the Doping Effect on NiO: Toward Highâ€Performance Inverted Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1703519.	10.2	286
2201	Revealing the Selfâ€Degradation Mechanisms in Methylammonium Lead Iodide Perovskites in Dark and Vacuum. ChemPhysChem, 2018, 19, 1507-1513.	1.0	56
2202	Perovskite Solar Absorbers: Materials by Design. Small Methods, 2018, 2, 1700316.	4.6	95
2203	Crystallisation behaviour of CH3NH3PbI3 films: The benefits of sub-second flash lamp annealing. Thin Solid Films, 2018, 653, 204-214.	0.8	11
2204	Fabrication and characterization of a solution-processed electron transport layer for organic-inorganic hybrid halide perovskite photovoltaics. Thin Solid Films, 2018, 660, 789-796.	0.8	2
2205	Improving the photovoltaic performance of planar heterojunction perovskite solar cells by mixed solvent vapor treatment. RSC Advances, 2018, 8, 11574-11579.	1.7	8
2206	Hansen theory applied to the identification of nonhazardous solvents for hybrid perovskite thin-films processing. Polyhedron, 2018, 147, 9-14.	1.0	13
2207	Large tunable photoeffect on ion conduction in halide perovskites and implications for photodecomposition. Nature Materials, 2018, 17, 445-449.	13.3	410
2208	Thermodynamically Selfâ€Healing 1Dâ€“3D Hybrid Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1703421.	10.2	158
2209	Surface passivation engineering strategy to fully-inorganic cubic CsPbI3 perovskites for high-performance solar cells. Nature Communications, 2018, 9, 1076.	5.8	507

#	Article	IF	Citations
2210	15% efficient carbon based planar-heterojunction perovskite solar cells using a TiO₂/SnO₂bilayer as the electron transport layer. Journal of Materials Chemistry A, 2018, 6, 7409-7419.	5.2	85
2211	Enhanced photocurrent density of HTM-free perovskite solar cells by carbon quantum dots. Applied Surface Science, 2018, 430, 625-631.	3.1	68
2212	Engineering Interface Structure to Improve Efficiency and Stability of Organometal Halide Perovskite Solar Cells. Journal of Physical Chemistry B, 2018, 122, 511-520.	1.2	68
2213	Perowskitâ€Solarzellen: atomare Ebene, SchichtqualitÃt und LeistungsfÃhigkeit der Zellen. Angewandte Chemie, 2018, 130, 2582-2598.	1.6	37
2214	Perovskite Solar Cells: From the Atomic Level to Film Quality and Device Performance. Angewandte Chemie - International Edition, 2018, 57, 2554-2569.	7.2	413
2215	Highly Ï€-extended copolymer as additive-free hole-transport material for perovskite solar cells. Nano Research, 2018, 11, 185-194.	5.8	24
2216	Limits and possible solutions in quantum dot organic solar cells. Renewable and Sustainable Energy Reviews, 2018, 82, 1551-1564.	8.2	33
2217	Recent progress in perovskite solar cells. Renewable and Sustainable Energy Reviews, 2018, 81, 2812-2822.	8.2	153
2218	Improvement of photovoltaic performance of the inverted planar perovskite solar cells by using CH3NH3PbI3âˆ'xBrx films with solvent annealing. Superlattices and Microstructures, 2018, 113, 1-12.	1.4	9
2219	Effect of excessive Pb content in the precursor solutions on the properties of the lead acetate derived CH3NH3PbI3 perovskite solar cells. Solar Energy Materials and Solar Cells, 2018, 174, 478-484.	3.0	31
2220	Vapor assisted deposition of alkaline doped perovskites: Pure phase formation of CsxMA1âˆ'xPbI3. Electrochimica Acta, 2018, 259, 485-491.	2.6	16
2221	Characterization of Low-Frequency Excess Noise in CH₃NH₃PbI₃-Based Solar Cells Grown by Solution and Hybrid Chemical Vapor Deposition Techniques. ACS Applied Materials & Interfaces, 2018, 10, 371-380.	4.0	22
2222	Recent Advances in Spiroâ€MeOTAD Hole Transport Material and Its Applications in Organicâ€"Inorganic Halide Perovskite Solar Cells. Advanced Materials Interfaces, 2018, 5, 1700623.	1.9	316
2223	A non-fullerene small molecule processed with green solvent as an electron transporting material for high efficiency p-i-n perovskite solar cells. Organic Electronics, 2018, 52, 200-205.	1.4	40
2224	Fast fabricated high performance antisolvent-free perovskite solar cells via dual-flash process. Electrochimica Acta, 2018, 259, 402-409.	2.6	10
2225	Perovskite Solar Cells: From the Laboratory to the Assembly Line. Chemistry - A European Journal, 2018, 24, 3083-3100.	1.7	118
2226	Scalable solution coating of the absorber for perovskite solar cells. Journal of Energy Chemistry, 2018, 27, 1101-1110.	7.1	44
2227	Inorganicâ€"organic halide perovskites for new photovoltaic technology. National Science Review, 2018, 5, 559-576.	4.6	49

#	Article	IF	Citations
2228	A mixed-cation lead iodide MA1âˆ'EA PbI3 absorber for perovskite solar cells. Journal of Energy Chemistry, 2018, 27, 215-218.	7.1	25
2229	Advances and challenges to the commercialization of organicâ€"inorganic halide perovskite solar cell technology. Materials Today Energy, 2018, 7, 169-189.	2.5	231
2230	Organic hole-transporting materials for efficient perovskite solar cells. Materials Today Energy, 2018, 7, 208-220.	2.5	100
2231	Reviewâ€"Light Emission from Thin Film Solar Cell Materials: An Emerging Infrared and Visible Light Emitter. ECS Journal of Solid State Science and Technology, 2018, 7, R3102-R3110.	0.9	12
2232	Deposition of Methylammonium Lead Triiodide by Resonant Infrared Matrix-Assisted Pulsed Laser Evaporation. Journal of Electronic Materials, 2018, 47, 917-926.	1.0	19
2233	ZnO/ZnS core-shell composites for low-temperature-processed perovskite solar cells. Journal of Energy Chemistry, 2018, 27, 1461-1467.	7.1	26
2234	Extrinsic Movable Ions in MAPbI₃ Modulate Energy Band Alignment in Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1701981.	10.2	62
2235	Structures of a Complex Hydrazinium Lead Iodide, (N₂H₅)₁₅Pb₃I₂₁, Possessing [Pb₂I₉]^{5âˆ'}, [PbI₆]^{4âˆ'}, and I^{âˆ'} Ions and Î±â€•and Î²â€(N₂H₅)PbI₃. Chemistry - A European Journal, 2018, 24, 222-229.	1.7	19
2236	Enhanced crystallization and performance of formamidinium lead triiodide perovskite solar cells through PbI2-SrCl2 modulation. Materials Today Energy, 2018, 7, 239-245.	2.5	10
2237	Effect of temperature on light induced degradation in methylammonium lead iodide perovskite thin films and solar cells. Solar Energy Materials and Solar Cells, 2018, 174, 566-571.	3.0	97
2238	Enhancing efficiency of perovskite solar cells by reducing defects through imidazolium cation incorporation. Materials Today Energy, 2018, 7, 161-168.	2.5	47
2239	Facile fabrication method of small-sized crystal silicon solar cells for ubiquitous applications and tandem device with perovskite solar cells. Materials Today Energy, 2018, 7, 190-198.	2.5	19
2240	Insights on the correlation of precursor solution, morphology of the active layer and performance of the pervoskite solar cells. Journal of Alloys and Compounds, 2018, 731, 375-380.	2.8	12
2241	Harvesting Energy from Human Activity: Ferroelectric Energy Harvesters for Portable, Implantable, and Biomedical Electronics. Energy Technology, 2018, 6, 791-812.	1.8	49
2242	Substitutional Growth of Methylammonium Lead Iodide Perovskites in Alcohols. Advanced Energy Materials, 2018, 8, 1701726.	10.2	28
2243	Methylammonium lead mixed halide films processed with a new composition for planar perovskite solar cells. Applied Surface Science, 2018, 427, 421-426.	3.1	6
2244	Fully printable perovskite solar cells with highly-conductive, low-temperature, perovskite-compatible carbon electrode. Carbon, 2018, 129, 830-836.	5.4	79
2245	The effect of strontium and barium doping on perovskite-structured energy materials for photovoltaic applications. Applied Surface Science, 2018, 429, 9-15.	3.1	45

#	Article	IF	Citations
2246	Diketopyrrolopyrrole based D-Ï€-A-Ï€-D type small organic molecules as hole transporting materials for perovskite solar cells. Journal of Energy Chemistry, 2018, 27, 1175-1182.	7.1	13
2247	Stability of Molecular Devices: Halide Perovskite Solar Cells. Green Chemistry and Sustainable Technology, 2018, , 477-531.	0.4	1
2248	Hybrid Organic/Inorganic and Perovskite Solar Cells. Green Chemistry and Sustainable Technology, 2018, , 187-227.	0.4	2
2249	Application of mixed-organic-cation for high performance hole-conductor-free perovskite solar cells. Journal of Colloid and Interface Science, 2018, 510, 118-126.	5.0	11
2250	Molecular Interlayers in Hybrid Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1701544.	10.2	80
2251	Perovskite solar cells: Materials, configurations and stability. Renewable and Sustainable Energy Reviews, 2018, 82, 2471-2489.	8.2	109
2252	Prediction on electronic structure of CH 3 NH 3 PbI 3 /Fe 3 O 4 interfaces. Solid State Communications, 2018, 269, 90-95.	0.9	3
2253	Bilayer photoanode approach for efficient In2O3 based planar heterojunction perovskite solar cells. Journal of Alloys and Compounds, 2018, 735, 938-944.	2.8	28
2254	The architecture of the electron transport layer for a perovskite solar cell. Journal of Materials Chemistry C, 2018, 6, 682-712.	2.7	172
2255	Photocatalytic CO2 reduction promoted by uniform perovskite hydroxide CoSn(OH)6 nanocubes. Applied Catalysis B: Environmental, 2018, 224, 1009-1016.	10.8	100
2256	Performance enhancement of perovskite solar cells by employing TiO2 nanorod arrays decorated with CuInS2 quantum dots. Journal of Colloid and Interface Science, 2018, 513, 693-699.	5.0	32
2257	On the performance of polymer:organometal halide perovskite composite light emitting devices: The effects of polymer additives. Organic Electronics, 2018, 52, 350-355.	1.4	27
2258	A crystal engineering approach for scalable perovskite solar cells and module fabrication: a full out of glove box procedure. Journal of Materials Chemistry A, 2018, 6, 659-671.	5.2	50
2259	Degradation of encapsulated perovskite solar cells driven by deep trap states and interfacial deterioration. Journal of Materials Chemistry C, 2018, 6, 162-170.	2.7	91
2260	Pseudohalideâ€Induced Recrystallization Engineering for CH₃NH₃PbI₃ Film and Its Application in Highly Efficient Inverted Planar Heterojunction Perovskite Solar Cells. Advanced Functional Materials, 2018, 28, 1704836.	7.8	112
2261	Influence of Solvent Coordination on Hybrid Organicâ€“Inorganic Perovskite Formation. ACS Energy Letters, 2018, 3, 92-97.	8.8	273
2262	Applications of Phosphorene and Black Phosphorus in Energy Conversion and Storage Devices. Advanced Energy Materials, 2018, 8, 1702093.	10.2	385
2263	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

#	Article	IF	Citations
2264	Improving Uniformity and Reproducibility of Hybrid Perovskite Solar Cells via a Low-Temperature Vacuum Deposition Process for NiO<i>_x</i> Hole Transport Layers. ACS Applied Materials & Interfaces, 2018, 10, 534-540.	4.0	49
2265	Rietveld refinement of crystal structure of perovskite CH₃NH₃Pb(Sb)I₃ solar cells. Japanese Journal of Applied Physics, 2018, 57, 02CE02.	0.8	11
2266	Metal ions diffusion at heterojunction chromium Oxide/CH 3 NH 3 PbI 3 interface on the stability of perovskite solar cells. Surfaces and Interfaces, 2018, 10, 93-99.	1.5	31
2267	Preparation of mixed-ion and inorganic perovskite films using water and isopropanol as solvents for solar cell applications. Sustainable Energy and Fuels, 2018, 2, 606-615.	2.5	29
2268	Heterojunction Engineering for High Efficiency Cesium Formamidinium Doubleâ€Cation Lead Halide Perovskite Solar Cells. ChemSusChem, 2018, 11, 837-842.	3.6	61
2269	High performance planar perovskite solar cells based on CH3NH3PbI3-x(SCN)x perovskite film and SnO2 electron transport layer prepared in ambient air with 70% humility. Electrochimica Acta, 2018, 260, 468-476.	2.6	27
2270	Manufacturing Techniques of Perovskite Solar Cells. Energy, Environment, and Sustainability, 2018, , 341-364.	0.6	14
2271	Enhanced electrical properties of Liâ€"doped NiO x hole extraction layer in pâ€"iâ€"n type perovskite solar cells. Current Applied Physics, 2018, 18, S55-S59.	1.1	27
2272	First principles investigation on pressure induced phase transition and photocatalytic properties in RbPbCl3. Computational Materials Science, 2018, 143, 403-410.	1.4	11
2273	High-efficiency perovskite solar cells based on MAI(PbI2)1â^'x(FeCl2)x absorber layers. Solar Energy, 2018, 159, 786-793.	2.9	23
2274	Electron transport layer driven to improve the open-circuit voltage of CH3NH3PbI3 planar perovskite solar cells. Science China Materials, 2018, 61, 65-72.	3.5	12
2275	Three in situ-synthesized novel inorganicâ€"organic hybrid materials based on metal (M = Bi, Pb) iodide and organoamine using one-pot reactions: structures, band gaps and optoelectronic properties. New Journal of Chemistry, 2018, 42, 699-707.	1.4	7
2276	The mixing effect of organic cations on the structural, electronic and optical properties of FA_xMA_{1â^'x}PbI₃perovskites. Physical Chemistry Chemical Physics, 2018, 20, 941-950.	1.3	24
2277	Facile fabrication of perovskite layers with large grains through a solvent exchange approach. Inorganic Chemistry Frontiers, 2018, 5, 348-353.	3.0	34
2278	Inorganic Holeâ€Transporting Materials for Perovskite Solar Cells. Small Methods, 2018, 2, 1700280.	4.6	141
2279	Highly reproducible perovskite solar cells based on solution coating from mixed solvents. Journal of Materials Science, 2018, 53, 3590-3602.	1.7	12
2280	Improving device performance of perovskite solar cells by microâ€"nanoscale composite mesoporous TiO2. Japanese Journal of Applied Physics, 2018, 57, 02CE01.	0.8	2
2281	Efficient Yttrium(III) Chlorideâ€Treated TiO₂ Electron Transfer Layers for Performanceâ€Improved and Hysteresisâ€Less Perovskite Solar Cells. ChemSusChem, 2018, 11, 171-177.	3.6	36

#	Article	IF	Citations
2282	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
2283	A strategy toward air-stable and high-performance ZnO-based perovskite solar cells fabricated under ambient conditions. Chemical Engineering Journal, 2018, 336, 732-740.	6.6	32
2284	Cation engineering on lead iodide perovskites for stable and high-performance photovoltaic applications. Journal of Energy Chemistry, 2018, 27, 1017-1039.	7.1	37
2285	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
2286	Perovskite Solar Cells with ZnO Electronâ€Transporting Materials. Advanced Materials, 2018, 30, 1703737.	11.1	319
2287	Photoconductive noise microscopy revealing quantitative effect of localized electronic traps on the perovskite-based solar cell performance. Nano Energy, 2018, 43, 29-36.	8.2	16
2288	Interactions between molecules and perovskites in halide perovskite solar cells. Solar Energy Materials and Solar Cells, 2018, 175, 1-19.	3.0	66
2289	Flexible Perovskite Solar Cells onto Plastic Substrate Exceeding 13% Efficiency Owing to the Optimization of CH₃NH₃PbI_{3â€“<i>x</i>}Cl_{<i>x</i>} Film via H₂O Additive. ACS Sustainable Chemistry and Engineering, 2018, 6, 1083-1090.	3.2	21
2290	Silver bismuth iodides in various compositions as potential Pb-free light absorbers for hybrid solar cells. Sustainable Energy and Fuels, 2018, 2, 294-302.	2.5	81
2291	Regulations of silver halide nanostructure and composites on photocatalysis. Advanced Composites and Hybrid Materials, 2018, 1, 269-299.	9.9	27
2292	The influence of DMSO and ether via fast-dipping treatment for a perovskite solar cell. Solar Energy Materials and Solar Cells, 2018, 180, 386-395.	3.0	23
2293	Atmospheric Processing of Perovskite Solar Cells Using Intense Pulsed Light Sintering. Journal of Electronic Materials, 2018, 47, 1285-1292.	1.0	12
2294	Reducing Carrier Density in Formamidinium Tin Perovskites and Its Beneficial Effects on Stability and Efficiency of Perovskite Solar Cells. ACS Energy Letters, 2018, 3, 46-53.	8.8	158
2295	Leadâ€Free Hybrid Perovskite Absorbers for Viable Application: Can We Eat the Cake and Have It too?. Advanced Science, 2018, 5, 1700331.	5.6	233
2296	Congeneric Incorporation of CsPbBr₃ Nanocrystals in a Hybrid Perovskite Heterojunction for Photovoltaic Efficiency Enhancement. ACS Energy Letters, 2018, 3, 30-38.	8.8	106
2297	Combination of Hybrid CVD and Cation Exchange for Upscaling Csâ€Substituted Mixed Cation Perovskite Solar Cells with High Efficiency and Stability. Advanced Functional Materials, 2018, 28, 1703835.	7.8	158
2298	Theoretical investigations on crystal crosslinking in perovskite solar cells. Journal of Materials Chemistry C, 2018, 6, 234-241.	2.7	14
2299	Recent Progress in Singleâ€Crystalline Perovskite Research Including Crystal Preparation, Property Evaluation, and Applications. Advanced Science, 2018, 5, 1700471.	5.6	223

#	Article	IF	Citations
2300	Recent progress in organohalide lead perovskites for photovoltaic and optoelectronic applications. Coordination Chemistry Reviews, 2018, 373, 258-294.	9.5	67
2301	Structure-performance relationship on the asymmetric methoxy substituents of spiro-OMeTAD for perovskite solar cells. Solar Energy Materials and Solar Cells, 2018, 176, 318-323.	3.0	18
2302	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
2303	Electrochemical deposition of PbI2 for perovskite solar cells. Solar Energy, 2018, 159, 300-305.	2.9	21
2304	Deciphering perovskite crystal growth in interdiffusion protocol for planar heterojunction photovoltaic devices. Organic Electronics, 2018, 53, 88-95.	1.4	2
2305	Recent progress on perovskite materials in photovoltaic and water splitting applications. Materials Today Energy, 2018, 7, 246-259.	2.5	84
2306	The role of grain boundaries in perovskite solar cells. Materials Today Energy, 2018, 7, 149-160.	2.5	209
2307	Photonic Single Crystal Heterostructures based on Perovskites/Molybdenum disulfide. , 2018, , .		0
2308	Design and Optimization of Perovskite Solar Cell with Thin ZnO Insulator Layer as Electron Transport. , 2018, , .		8
2309	BIOKINETIC MODEL DEVELOPMENT OF RADIOIODINE-131 VIA IN VIVO GAMMA CAMERA/8-SLICE CT TECHNIQUE: CASE-CONTROL STUDY OF FELINE HYPERTHYROIDISM. Journal of Mechanics in Medicine and Biology, 2018, 18, 1840035.	0.3	3
2310	Study of CsPbBr3 Nanocrystals and Their Agglomerates by Combined Scanning Probe Microscopy and Optical Spectrometry. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2018, 125, 858-863.	0.2	2
2311	THE FIRST ATTEMPT OF THE BIOKINETIC GA-67 MODEL APPLICATION TO CANINE LIVER CARCINOMA: CASE-CONTROL STUDY VIA<i>IN-VIVO</i>GAMMA CAMERA/8-SLICE CT TECHNIQUE. Journal of Mechanics in Medicine and Biology, 2018, 18, 1840019.	0.3	2
2312	Surface Topography Control Using Blended Washing Process for Efficient Perovskite Solar Cells. , 2018, , .		0
2313	Exploring the Recombination Mechanism Induced by Carrier Transport Layers in Perovskite Solar Cells. , 2018, , .		2
2314	A radial microfluidic platform for higher throughput chemotaxis studies with individual gradient control. Lab on A Chip, 2018, 18, 3855-3864.	3.1	34
2315	Narrow band gap and high mobility of lead-free perovskite single crystal Sn-doped MA₃Sb₂I₉. Journal of Materials Chemistry A, 2018, 6, 20753-20759.	5.2	67
2316	Photo-induced dual passivation <i>via</i> Usanovich acidâ€"base on surface defects of methylammonium lead triiodide perovskite. Physical Chemistry Chemical Physics, 2018, 20, 28068-28074.	1.3	5
2317	Improved photovoltaic performance of perovskite solar cells based on three-dimensional rutile TiO₂ nanodendrite array film. Nanoscale, 2018, 10, 20836-20843.	2.8	7

#	Article	IF	Citations
2318	Photovoltaic effect in a few-layer ReS₂/WSe₂ heterostructure. Nanoscale, 2018, 10, 20306-20312.	2.8	38
2319	Synergic effects of upconversion nanoparticles NaYbF₄:Ho³⁺ and ZrO₂ enhanced the efficiency in hole-conductor-free perovskite solar cells. Nanoscale, 2018, 10, 22003-22011.	2.8	35
2320	An inverted planar solar cell with 13% efficiency and a sensitive visible light detector based on orientation regulated 2D perovskites. Journal of Materials Chemistry A, 2018, 6, 24633-24640.	5.2	38
2321	Highly efficient planar perovskite solar cells achieved by simultaneous defect engineering and formation kinetic control. Journal of Materials Chemistry A, 2018, 6, 23865-23874.	5.2	37
2322	A highly stable and efficient carbon electrode-based perovskite solar cell achieved <i>via</i> interfacial growth of 2D PEA₂PbI₄ perovskite. Journal of Materials Chemistry A, 2018, 6, 24560-24568.	5.2	76
2323	Automated Virtual Navigation and Monocular Localization of Indoor Spaces from Videos. , 2018, , .		0
2324	Low-temperature-processed inorganic perovskite solar cells <i>via</i> solvent engineering with enhanced mass transport. Journal of Materials Chemistry A, 2018, 6, 23602-23609.	5.2	67
2325	Tailoring a dynamic crystalline process during the conversion of lead-halide perovskite layer to achieve high performance solar cells. Journal of Materials Chemistry A, 2018, 6, 24793-24804.	5.2	24
2326	Nanoplatelet modulation in 2D/3D perovskite targeting efficient light-emitting diodes. Nanoscale, 2018, 10, 19322-19329.	2.8	20
2327	Two-dimensional Pd₃P₂S₈ semiconductors as photocatalysts for the solar-driven oxygen evolution reaction: a theoretical investigation. Journal of Materials Chemistry A, 2018, 6, 23495-23501.	5.2	51
2328	Perovskite-Structured Photovoltaic Materials. , 2018, , .		3
2329	High-Efficiency Spray-Coated Perovskite Solar Cells Utilizing Vacuum-Assisted Solution Processing. ACS Applied Materials & Interfaces, 2018, 10, 39428-39434.	4.0	74
2330	General Nondestructive Passivation by 4â€Fluoroaniline for Perovskite Solar Cells with Improved Performance and Stability. Small, 2018, 14, e1803350.	5.2	82
2331	Solution evaporation processed high quality perovskite films. Science Bulletin, 2018, 63, 1591-1596.	4.3	34
2332	Performance loss analysis and design space optimization of perovskite solar cells. Journal of Applied Physics, 2018, 124, .	1.1	21
2333	Tailored Phase Conversion under Conjugated Polymer Enables Thermally Stable Perovskite Solar Cells with Efficiency Exceeding 21%. Journal of the American Chemical Society, 2018, 140, 17255-17262.	6.6	235
2334	High efficiency flexible perovskite solar cells using SnO2/graphene electron selective layer and silver nanowires electrode. Applied Physics Letters, 2018, 113, .	1.5	16
2335	Direct synthesis of high-quality perovskite nanocrystals on a flexible substrate and deterministic transfer. Science Bulletin, 2018, 63, 1576-1582.	4.3	10

#	Article	IF	Citations
2336	Unveiling the Chemical Composition of Halide Perovskite Films Using Multivariate Statistical Analyses. ACS Applied Energy Materials, 2018, 1, 7174-7181.	2.5	31
2337	Electroluminescence and photo-response of inorganic halide perovskite bi-functional diodes. Nanophotonics, 2018, 7, 1981-1988.	2.9	11
2338	An Additive of Sulfonic Lithium Salt for Highâ€Performance Perovskite Solar Cells. ChemistrySelect, 2018, 3, 12320-12324.	0.7	8
2339	Ultrasensitive Heterojunctions of Graphene and 2D Perovskites Reveal Spontaneous Iodide Loss. Joule, 2018, 2, 2133-2144.	11.7	39
2340	Novel Cryo-controlled Nucleation Technique for High-efficiency Perovskite Solar Cells. , 2018, , .		0
2341	Metallophthalocyanine-Based Molecular Dipole Layer as a Universal and Versatile Approach to Realize Efficient and Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 42397-42405.	4.0	20
2342	Myths and reality of HPbI3 in halide perovskite solar cells. Nature Communications, 2018, 9, 4785.	5.8	238
2343	Unveiling the Role of tBPâ€"LiTFSI Complexes in Perovskite Solar Cells. Journal of the American Chemical Society, 2018, 140, 16720-16730.	6.6	193
2344	Nanoplasmonic sensing of CH3NH3PbI3 perovskite formation in mimic of solar cell photoelectrodes. AIP Advances, 2018, 8, .	0.6	2
2345	Propeller-Shaped, Triarylamine-Rich, and Dopant-Free Hole-Transporting Materials for Efficient nâ€"iâ€"p Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 41592-41598.	4.0	27
2346	Study of the effect of DIO additive on charge extraction and recombination in organicâ€"inorganic hybrid MAPbI3â^'xClx perovskite solar cell. RSC Advances, 2018, 8, 40298-40307.	1.7	8
2347	Orthogonal Lithography for Halide Perovskite Optoelectronic Nanodevices. ACS Nano, 2019, 13, 1168-1176.	7.3	90
2348	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
2349	Partially replacing Pb2+ by Mn2+ in hybrid metal halide perovskites: Structural and electronic properties. APL Materials, 2018, 6, .	2.2	15
2350	An Ultraâ€low Concentration of Gold Nanoparticles Embedded in the NiO Hole Transport Layer Boosts the Performance of pâ€iâ€n Perovskite Solar Cells. Solar Rrl, 2019, 3, 1800278.	3.1	38
2351	The Role of Charge Selective Contacts in Perovskite Solar Cell Stability. Advanced Energy Materials, 2019, 9, 1803140.	10.2	120
2352	One-Step High-Throughput Blade Coating of Perovskite Solar Cells. , 2018, , .		1
2355	Ultrafast THz photophysics of solvent engineered triple-cation halide perovskites. Journal of Applied Physics, 2018, 124, .	1.1	4

#	Article	IF	Citations
2356	Facile synthesis of two-dimensional Ruddlesdenâ€“Popper perovskite quantum dots with fine-tunable optical properties. Nanoscale Research Letters, 2018, 13, 247.	3.1	55
2357	Materials toward the Upscaling of Perovskite Solar Cells: Progress, Challenges, and Strategies. Advanced Functional Materials, 2018, 28, 1803753.	7.8	145
2358	Getting rid of anti-solvents: gas quenching for high performance perovskite solar cells. , 2018, , .		0
2359	Major Impediment to Highly Efficient, Stable and Low-Cost Perovskite Solar Cells. Metals, 2018, 8, 964.	1.0	26
2360	Ambient Air Condition for Roomâ€Temperature Deposition of MAPbI₃ Films in Highly Efficient Solar Cells. Small, 2018, 14, e1802240.	5.2	25
2361	Dopantâ€Free Hole Transporting Materials for Perovskite Solar Cells. Solar Rrl, 2018, 2, 1800200.	3.1	86
2362	Solution-Processed BiI3 Films with 1.1 eV Quasi-Fermi Level Splitting: The Role of Water, Temperature, and Solvent during Processing. ACS Omega, 2018, 3, 12713-12721.	1.6	18
2363	Diboronâ€Assisted Interfacial Defect Control Strategy for Highly Efficient Planar Perovskite Solar Cells. Advanced Materials, 2018, 30, e1805085.	11.1	128
2364	The Role of Surface Recombination on the Performance of Perovskite Solar Cells: Effect of Morphology and Crystalline Phase of TiO₂ Contact. Advanced Materials Interfaces, 2018, 5, 1801076.	1.9	30
2365	New Generation Hole Transporting Materials for Perovskite Solar Cells: Amideâ€Based Smallâ€Molecules with Nonconjugated Backbones. Advanced Energy Materials, 2018, 8, 1801605.	10.2	78
2366	Fabrication techniques and morphological analysis of perovskite absorber layer for high-efficiency perovskite solar cell: A review. Renewable and Sustainable Energy Reviews, 2018, 98, 469-488.	8.2	46
2367	Planar versus bulk heterojunction perovskite microstructures: Impact of morphology on photovoltaic properties and recombination dynamics. AIP Conference Proceedings, 2018, , .	0.3	0
2368	Interfacial Engineering of TiO₂ by Graphene Nanoplatelets for High-Efficiency Hysteresis-free Perovskite Solar Cells. ACS Sustainable Chemistry and Engineering, 2018, 6, 15391-15401.	3.2	18
2369	Fullerene derivative anchored SnO₂ for high-performance perovskite solar cells. Energy and Environmental Science, 2018, 11, 3463-3471.	15.6	205
2370	Recent Advances in Synthesis and Properties of Hybrid Halide Perovskites for Photovoltaics. Nano-Micro Letters, 2018, 10, 68.	14.4	50
2371	Band-Aligned Polymeric Hole Transport Materials for Extremely Low Energy Loss Î±-CsPbI3 Perovskite Nanocrystal Solar Cells. Joule, 2018, 2, 2450-2463.	11.7	275
2372	Evolution of the precursor solution and effect on morphology of perovskite film. Chemical Physics Letters, 2018, 711, 194-198.	1.2	2
2373	MoS₂ Quantum Dot/Graphene Hybrids for Advanced Interface Engineering of a CH₃NH₃PbI₃ Perovskite Solar Cell with an Efficiency of over 20%. ACS Nano, 2018, 12, 10736-10754.	7.3	201

#	Article	IF	Citations
2374	Graphene quantum dots decorated TiO2 mesoporous film as an efficient electron transport layer for high-performance perovskite solar cells. Journal of Power Sources, 2018, 402, 320-326.	4.0	86
2375	Novel 2D Germanene Dioxide Monolayers: Mechanical Properties, Holeâ€Mobility Values, and Carrier Mobility. Annalen Der Physik, 2018, 530, 1800214.	0.9	3
2376	Fully solution-processed indium tin oxide-free textile-based flexible solar cells made of an organicâ€"inorganic perovskite absorber: Toward a wearable power source. Journal of Power Sources, 2018, 402, 327-332.	4.0	34
2377	Spatial Inhomogeneity Analysis of Cesium-Rich Wrinkles in Triple-Cation Perovskite. Journal of Physical Chemistry C, 2018, 122, 23345-23351.	1.5	24
2378	The Importance of Pendant Groups on Triphenylamineâ€Based Hole Transport Materials for Obtaining Perovskite Solar Cells with over 20% Efficiency. Advanced Energy Materials, 2018, 8, 1701209.	10.2	134
2379	Recovering MAPbI₃-Based Perovskite Films From Water-Caused Permanent Degradations by Dipping in MAI Solution. IEEE Journal of Photovoltaics, 2018, 8, 1692-1700.	1.5	2
2380	CH₃NH₃I Post-treatment of Organometal Halide Perovskite Crystals for Photovoltaic Performance Enhancement. Chemistry Letters, 2018, 47, 1399-1401.	0.7	7
2381	3D Branched Nanowireâ€Coated Macroporous Titania Thin Films for Efficient Perovskite Solar Cells. Advanced Functional Materials, 2018, 28, 1804356.	7.8	18
2382	High performance perovskite solar cells fabricated from porous PbI2-xBrx prepared with mixture solvent pore generation treatment. Electrochimica Acta, 2018, 292, 399-406.	2.6	6
2383	Enhanced Performance of Perovskite Solar Cells by Using Ultrathin BaTiO₃ Interface Modification. ACS Applied Materials & Interfaces, 2018, 10, 36067-36074.	4.0	30
2384	Brightness Enhancement in Pulsed-Operated Perovskite Light-Emitting Transistors. ACS Applied Materials & Interfaces, 2018, 10, 37316-37325.	4.0	46
2385	A Method for the Preparation of Highly Oriented MAPbI₃ Crystallites for High-Efficiency Perovskite Solar Cells to Achieve an 86% Fill Factor. ACS Nano, 2018, 12, 10355-10364.	7.3	113
2386	Enhanced Electron Collection and Light Harvesting of CH₃NH₃PbI₃ Perovskite Solar Cells Using Nanopatterned Substrates. Advanced Materials Interfaces, 2018, 5, 1801118.	1.9	10
2387	Tunable Semiconductors: Control over Carrier States and Excitations in Layered Hybrid Organic-Inorganic Perovskites. Physical Review Letters, 2018, 121, 146401.	2.9	103
2388	The introduction of a perovskite seed layer for high performance perovskite solar cells. Journal of Materials Chemistry A, 2018, 6, 20138-20144.	5.2	12
2389	Flexible ITO films with atomically flat surfaces for high performance flexible perovskite solar cells. Nanoscale, 2018, 10, 20587-20598.	2.8	58
2390	Antisolvent processing of lead halide perovskite thin films studied by <i>in situ</i> X-ray diffraction. Journal of Materials Chemistry A, 2018, 6, 18865-18870.	5.2	39
2391	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

#	Article	IF	Citations
2392	C60-assisted crystal engineering for perovskite solar cells with enhanced efficiency and stability. Organic Electronics, 2018, 63, 276-282.	1.4	15
2393	Roll-to-Roll Printing of Perovskite Solar Cells. ACS Energy Letters, 2018, 3, 2558-2565.	8.8	199
2394	Solvent Engineering Improves Efficiency of Lead-Free Tin-Based Hybrid Perovskite Solar Cells beyond 9%. ACS Energy Letters, 2018, 3, 2701-2707.	8.8	176
2395	Antisolvent with an Ultrawide Processing Window for the Oneâ€Step Fabrication of Efficient and Largeâ€Area Perovskite Solar Cells. Advanced Materials, 2018, 30, e1802763.	11.1	130
2396	Solvent engineering approach via introducing poly (3, 4-ethylene dioxy-thiophene)â€"poly (styrene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5 efficient inverted planar perovskite solar cells. Solar Energy, 2018, 176, 1-9.	2.9	12
2397	Emissions at Perovskite Quantum Dot/Film Interface with Halide Anion Exchange. ACS Photonics, 2018, 5, 4504-4512.	3.2	17
2398	Enhancing the perovskite solar cell performance by the treatment with mixed anti-solvent. Journal of Power Sources, 2018, 404, 64-72.	4.0	33
2399	Sequential Slot-Die Deposition of Perovskite Solar Cells Using Dimethylsulfoxide Lead Iodide Ink. Materials, 2018, 11, 2106.	1.3	14
2400	Understanding Detrimental and Beneficial Grain Boundary Effects in Halide Perovskites. Advanced Materials, 2018, 30, e1804792.	11.1	128
2401	Laser Annealing of Perovskite Solar Cells Thin Film Structure. , 2018, , .		1
2402	Probing and Controlling Intragrain Crystallinity for Improved Low Temperatureâ€"Processed Perovskite Solar Cells. Advanced Functional Materials, 2018, 28, 1803943.	7.8	18
2403	General Synthesis Principles for Ruddlesdenâ€"Popper Hybrid Perovskite Halides from a Dynamic Equilibrium. Chemistry of Materials, 2018, 30, 8606-8614.	3.2	37
2404	The Diffusion of Low-Energy Methyl Group on ITO Film Surface and Its Impact on Optical-Electrical Properties. Materials, 2018, 11, 1991.	1.3	5
2405	Excitation Density Dependent Photoluminescence Quenching and Charge Transfer Efficiencies in Hybrid Perovskite/Organic Semiconductor Bilayers. Advanced Energy Materials, 2018, 8, 1802474.	10.2	59
2406	Fashioning Fluorous Organic Spacers for Tunable and Stable Layered Hybrid Perovskites. Chemistry of Materials, 2018, 30, 8211-8220.	3.2	35
2407	Rotationally Free and Rigid Sublattices of the Single Crystal Perovskite CH₃NH₃PbBr₃ (001): The Case of the Lattice Polar Liquid. Journal of Physical Chemistry C, 2018, 122, 25506-25514.	1.5	8
2408	The Phosphine Oxide Route toward Lead Halide Perovskite Nanocrystals. Journal of the American Chemical Society, 2018, 140, 14878-14886.	6.6	136
2409	Highly Inâ€Plane Anisotropic 2D GeAs₂ for Polarizationâ€Sensitive Photodetection. Advanced Materials, 2018, 30, e1804541.	11.1	140

#	Article	IF	Citations
2410	The synergistic effect of dimethyl sulfoxide vapor treatment and C60 electron transporting layer towards enhancing current collection in mixed-ion inverted perovskite solar cells. Journal of Power Sources, 2018, 405, 70-79.	4.0	14
2411	Hexagonal-Tiled Indium Tin Oxide Electrodes To Enhance Light Trapping in Perovskite Solar Cells. ACS Applied Nano Materials, 2018, 1, 6159-6167.	2.4	9
2412	High-Performance Fused Ring Electron Acceptorâ€“Perovskite Hybrid. Journal of the American Chemical Society, 2018, 140, 14938-14944.	6.6	71
2413	Superior Performance of Silver Bismuth Iodide Photovoltaics Fabricated via Dynamic Hotâ€Casting Method under Ambient Conditions. Advanced Energy Materials, 2018, 8, 1802051.	10.2	84
2414	Efficient composition tuning via cation exchange and improved reproducibility of photovoltaic performance in FA MA1-PbI3 planar heterojunction solar cells fabricated by a two-step dynamic spin-coating process. Nano Energy, 2018, 54, 251-263.	8.2	32
2415	Direct Observation of the Tunneling Phenomenon in Organometal Halide Perovskite Solar Cells and Its Influence on Hysteresis. ACS Energy Letters, 2018, 3, 2743-2749.	8.8	17
2416	Synthetic Control on Structure/Dimensionality and Photophysical Properties of Low Dimensional Organic Lead Bromide Perovskite. Inorganic Chemistry, 2018, 57, 13443-13452.	1.9	31
2417	Retardation of Trapâ€Assisted Recombination in Lead Halide Perovskite Solar Cells by a Dimethylbiguanide Anchor Layer. Chemistry - A European Journal, 2018, 25, 1076-1082.	1.7	9
2418	Analysis of Photocarrier Dynamics at Interfaces in Perovskite Solar Cells by Time-Resolved Photoluminescence. Journal of Physical Chemistry C, 2018, 122, 26805-26815.	1.5	79
2419	Strain and layer modulated electronic and optical properties of low dimensional perovskite methylammonium lead iodide: Implications to solar cells. Solar Energy, 2018, 173, 1315-1322.	2.9	31
2420	Luminescent Intermediates and Humidity-Dependent Room-Temperature Conversion of the MAPbI₃ Perovskite Precursor. ACS Omega, 2018, 3, 14494-14502.	1.6	21
2421	SnO₂â€inâ€Polymer Matrix for Highâ€Efficiency Perovskite Solar Cells with Improved Reproducibility and Stability. Advanced Materials, 2018, 30, e1805153.	11.1	185
2422	Ambient-Stable Cubic-Phase Hybrid Perovskite Reaching the Shockleyâ€“Queisser Fill Factor Limit via Inorganic Additive-Assisted Process. ACS Applied Energy Materials, 2018, 1, 5865-5871.	2.5	13
2423	HPbI₃ as a Bifunctional Additive for Morphology Control and Grain Boundary Passivation toward Efficient Planar Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 38985-38993.	4.0	16
2424	Novel Physical Vapor Deposition Approach to Hybrid Perovskites: Growth of MAPbI3 Thin Films by RF-Magnetron Sputtering. Scientific Reports, 2018, 8, 15388.	1.6	30
2425	A Review of Inorganic Hole Transport Materials for Perovskite Solar Cells. Advanced Materials Interfaces, 2018, 5, 1800882.	1.9	200
2426	Studies on bandgap tuning of visible light active heterojunction CuO/ZnO nanocomposites for DSSC application. Journal of Materials Science: Materials in Electronics, 2018, 29, 21002-21013.	1.1	14
2427	A Novel Strategy for Scalable Highâ€Efficiency Planar Perovskite Solar Cells with New Precursors and Cation Displacement Approach. Advanced Materials, 2018, 30, e1804454.	11.1	25

#	Article	IF	Citations
2428	Sequentially Fluorinated PTAA Polymers for Enhancing <i>V</i>_{OC} of Highâ€Performance Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1801668.	10.2	151
2429	Interfacial energy band bending and carrier trapping at the vacuum-deposited MAPbI3 perovskite/gate dielectric interface. Results in Physics, 2018, 11, 302-305.	2.0	16
2430	Hamiltonians and order parameters for crystals of orientable molecules. Physical Review B, 2018, 98, .	1.1	9
2431	A simple method for phase control in two-dimensional perovskite solar cells. Journal of Materials Chemistry A, 2018, 6, 18871-18876.	5.2	41
2432	Covering effect of conductive glass: a facile route to tailor the grain growth of hybrid perovskites for highly efficient solar cells. Journal of Materials Chemistry A, 2018, 6, 20289-20296.	5.2	10
2433	A Room-Temperature Hybrid Lead Iodide Perovskite Ferroelectric. Journal of the American Chemical Society, 2018, 140, 12296-12302.	6.6	168
2434	Versatile perovskite solar cell encapsulation by low-temperature ALD-Al₂O₃with long-term stability improvement. Sustainable Energy and Fuels, 2018, 2, 2468-2479.	2.5	66
2436	Carrier Dynamics Engineering for High-Performance Electron-Transport-Layer-free Perovskite Photovoltaics. CheM, 2018, 4, 2405-2417.	5.8	57
2437	Two Low-Cost and Efficient Hole-Transporting Materials for nâ€“iâ€“p Type Organicâ€“Inorganic Hybrid Perovskite Solar Cells. ACS Omega, 2018, 3, 10791-10797.	1.6	22
2438	Pressures Tuning the Band Gap of Organicâ€“Inorganic Trihalide Perovskites (MAPbBr3): A First-Principles Study. Journal of Electronic Materials, 2018, 47, 7204-7211.	1.0	12
2439	In-situ cross-linking strategy for efficient and operationally stable methylammoniun lead iodide solar cells. Nature Communications, 2018, 9, 3806.	5.8	227
2440	Graphdiyneâ€Based Bulk Heterojunction for Efficient and Moistureâ€Stable Planar Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1802012.	10.2	70
2441	Recent advances of low-dimensional materials in lasing applications. FlatChem, 2018, 10, 22-38.	2.8	14
2442	Decoupling Structure and Composition of CH₃NH₃PbI_{3â€“<i>x</i>}Br_{<i>x</i>} Films Prepared by Combined One-Step and Two-Step Deposition. ACS Applied Energy Materials, 2018, 1, 5567-5578.	2.5	9
2443	High efficiency MAPbI_{3âˆ’x}Cl_x perovskite solar cell <i>via</i> interfacial passivation. Nanoscale, 2018, 10, 18909-18914.	2.8	39
2444	Enhanced charge extraction with all-carbon electrodes for inorganic CsPbBr₃ perovskite solar cells. Dalton Transactions, 2018, 47, 15283-15287.	1.6	28
2445	Challenges for commercializing perovskite solar cells. Science, 2018, 361, .	6.0	1,327
2446	Influence of solvent additive on the chemical and electronic environment of wide bandgap perovskite thin films. Journal of Materials Chemistry C, 2018, 6, 12052-12061.	2.7	31

#	Article	IF	Citations
2447	A Cryogenic Process for Antisolventâ€Free Highâ€Performance Perovskite Solar Cells. Advanced Materials, 2018, 30, e1804402.	11.1	47
2448	Chemical interaction dictated energy level alignment at the N,Nâ€²-dipentyl-3,4,9,10-perylenedicarboximide/CH3NH3PbI3 interface. Applied Physics Letters, 2018, 113, .	1.5	11
2449	Comparison of processing windows and electronic properties between CH3NH3PbI3 perovskite fabricated by one-step and two-step solution processes. Organic Electronics, 2018, 63, 159-165.	1.4	28
2450	Bi₂OS₂: a direct-gap two-dimensional semiconductor with high carrier mobility and surface electron states. Materials Horizons, 2018, 5, 1058-1064.	6.4	45
2452	Improving photovoltaic performance of inverted planar structure perovskite solar cells via introducing photogenerated dipoles in the electron transport layer. Organic Electronics, 2018, 63, 137-142.	1.4	15
2453	Eliminating Light-Soaking Instability in Planar Heterojunction Perovskite Solar Cells by Interfacial Modifications. ACS Applied Materials & Interfaces, 2018, 10, 33144-33152.	4.0	30
2454	Spray-assisted deposition of CsPbBr3 films in ambient air for large-area inorganic perovskite solar cells. Materials Today Energy, 2018, 10, 146-152.	2.5	57
2455	Nanostructured Heterojunction Solar Cells Based on Pb₂SbS₂I₃: Linking Lead Halide Perovskites and Metal Chalcogenides. ACS Energy Letters, 2018, 3, 2376-2382.	8.8	20
2456	Compositional and orientational control in metal halide perovskites of reduced dimensionality. Nature Materials, 2018, 17, 900-907.	13.3	351
2457	Defect tolerant perovskite solar cells from blade coated non-toxic solvents. Journal of Materials Chemistry A, 2018, 6, 19085-19093.	5.2	57
2458	Investigation of Inverted Perovskite Solar Cells for Viscosity of PEDOT:PSS Solution. Crystals, 2018, 8, 358.	1.0	7
2459	Realâ€Time In Situ Observation of Microstructural Change in Organometal Halide Perovskite Induced by Thermal Degradation. Advanced Functional Materials, 2018, 28, 1804039.	7.8	45
2460	Micro Lasers by Scalable Lithography of Metalâ€Halide Perovskites. Advanced Materials Technologies, 2018, 3, 1800212.	3.0	38
2461	Application of copper phthalocyanin for surface modification of perovskite solar cells. Journal of Materials Science: Materials in Electronics, 2018, 29, 18187-18192.	1.1	3
2462	Highly efficient and stable semi-transparent perovskite solar modules with a trilayer anode electrode. Nanoscale, 2018, 10, 17699-17704.	2.8	34
2463	Metal halide perovskites: stability and sensing-ability. Journal of Materials Chemistry C, 2018, 6, 10121-10137.	2.7	131
2464	Progress toward Stable Lead Halide Perovskite Solar Cells. Joule, 2018, 2, 1961-1990.	11.7	181
2465	Perovskites for Light Emission. Advanced Materials, 2018, 30, e1801996.	11.1	417

#	Article	IF	Citations
2466	Largeâ€Area, Solutionâ€Processed, Hierarchical MAPbI₃ Nanoribbon Arrays for Selfâ€Powered Flexible Photodetectors. Advanced Optical Materials, 2018, 6, 1800615.	3.6	51
2467	Improving the Power Conversion Efficiency and Stability of Planar Perovskite Solar Cells via Small Molecule Doping. Journal of Electronic Materials, 2018, 47, 6894-6900.	1.0	8
2468	Room Temperature Processing of Inorganic Perovskite Films to Enable Flexible Solar Cells. IScience, 2018, 6, 272-279.	1.9	44
2469	A facile route to grain morphology controllable perovskite thin films towards highly efficient perovskite solar cells. Nano Energy, 2018, 53, 405-414.	8.2	60
2470	Boosting the performance and stability of quasi-two-dimensional tin-based perovskite solar cells using the formamidinium thiocyanate additive. Journal of Materials Chemistry A, 2018, 6, 18173-18182.	5.2	149
2471	From 2D to 3D: a facile and effective procedure for fabrication of planar CH₃NH₃PbI₃perovskite solar cells. Journal of Materials Chemistry A, 2018, 6, 17867-17873.	5.2	20
2472	Tuning spontaneous polarization and optical absorption by intercalating Srâ€"Cl-layers in organicâ€"inorganic halide perovskite CH₃NH₃PbI₃ thin films. Journal of Materials Chemistry A, 2018, 6, 17800-17806.	5.2	6
2473	Photoinduced Migration of Ions in Optically Resonant Perovskite Nanoparticles. JETP Letters, 2018, 107, 742-748.	0.4	7
2474	A Twoâ€Stage Annealing Strategy for Crystallization Control of CH₃NH₃PbI₃ Films toward Highly Reproducible Perovskite Solar Cells. Small, 2018, 14, e1800181.	5.2	23
2475	Reconditioning perovskite films in vapor environments through repeated cation doping. Applied Physics Express, 2018, 11, 065503.	1.1	6
2476	Toward Longâ€Term Stable and Highly Efficient Perovskite Solar Cells via Effective Charge Transporting Materials. Advanced Energy Materials, 2018, 8, 1800249.	10.2	85
2477	Fabrication of [CH(NH₂)₂]_{0.8}Cs_{0.2}PbI₃ Perovskite Thin Films for n-i-p Planar-structure Solar Cells by a One-step Method Using 1-Cyclohexyl-2-pyrrolidone as an Additive. Chemistry Letters, 2018, 47, 905-908.	0.7	7
2478	Photovoltaics and Nanotechnology as Alternative Energy. Environmental Chemistry for A Sustainable World, 2018, , 211-241.	0.3	1
2479	17.46% efficient and highly stable carbon-based planar perovskite solar cells employing Ni-doped rutile TiO2 as electron transport layer. Nano Energy, 2018, 50, 201-211.	8.2	148
2480	Electrical and Optical Tunability in All-Inorganic Halide Perovskite Alloy Nanowires. Nano Letters, 2018, 18, 3538-3542.	4.5	51
2481	Acetate Anion Assisted Crystal Orientation Reconstruction in Organicâ€"Inorganic Lead Halide Perovskite. ACS Applied Energy Materials, 2018, 1, 2730-2739.	2.5	23
2482	Novel two-dimensional semiconductor SnP₃: high stability, tunable bandgaps and high carrier mobility explored using first-principles calculations. Journal of Materials Chemistry A, 2018, 6, 11890-11897.	5.2	146
2483	Copolymers of poly(3-thiopheneacetic acid) with poly(3-hexylthiophene) as hole-transporting material for interfacially engineered perovskite solar cell by modulating band positions for higher efficiency. Physical Chemistry Chemical Physics, 2018, 20, 15890-15900.	1.3	14

#	Article	IF	Citations
2484	Caesium for Perovskite Solar Cells: An Overview. Chemistry - A European Journal, 2018, 24, 12183-12205.	1.7	138
2485	Lead-free, air-stable ultrathin Cs3Bi2I9 perovskite nanosheets for solar cells. Solar Energy Materials and Solar Cells, 2018, 184, 15-21.	3.0	179
2486	Nb-Doping TiO₂ Electron Transporting Layer for Efficient Perovskite Solar Cells. ACS Applied Energy Materials, 2018, 1, 2576-2581.	2.5	26
2487	Perovskite solar cells in N-I-P structure with four slot-die-coated layers. Royal Society Open Science, 2018, 5, 172158.	1.1	44
2488	Large-Scale Compositional and Electronic Inhomogeneities in CH₃NH₃PbI₃ Perovskites and Their Effect on Device Performance. ACS Applied Energy Materials, 2018, 1, 2410-2416.	2.5	26
2489	Formation and characterization of preferred oriented perovskite thin films on single-crystalline substrates. Materials Research Express, 2018, 5, 066403.	0.8	3
2490	Perovskite Solar Cells with Inorganic Electronâ€•and Holeâ€Transport Layers Exhibiting Longâ€Term (â‰ˆ500) Tj ETQq0 0 0 rgBT /Overl e1801010.	11.1	174
2491	Control of the Nucleation and Growth of the Lead Acetate Solution Derived CH₃NH₃PbI₃ Films Leads to Enhanced Power Conversion Efficiency. ACS Applied Energy Materials, 2018, 1, 2898-2906.	2.5	4
2492	Recent progressive efforts in perovskite solar cells toward commercialization. Journal of Materials Chemistry A, 2018, 6, 12215-12236.	5.2	56
2493	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
2494	Structural features and their functions in surfactant-armoured methylammonium lead iodide perovskites for highly efficient and stable solar cells. Energy and Environmental Science, 2018, 11, 2188-2197.	15.6	162
2495	Non-fullerene-based small molecules as efficient n-type electron transporting layers in inverted organicâ€“inorganic halide perovskite solar cells. Journal of Industrial and Engineering Chemistry, 2018, 65, 406-410.	2.9	14
2496	The Cu/Cu₂O nanocomposite as a p-type transparent-conductive-oxide for efficient bifacial-illuminated perovskite solar cells. Journal of Materials Chemistry C, 2018, 6, 6280-6286.	2.7	16
2497	Flexible Wireâ€Shaped Perovskite Photodetector via Joule Heating for Improved Crystallization and Performance. Advanced Materials Interfaces, 2018, 5, 1800082.	1.9	14
2498	Improving the Quality of CH₃NH₃PbI₃ Films via Chlorobenzene Vapor Annealing. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1700959.	0.8	14
2499	Computational Study of Ternary Devices: Stable, Low-Cost, and Efficient Planar Perovskite Solar Cells. Nano-Micro Letters, 2018, 10, 51.	14.4	53
2500	Grain-boundary effect and post treatment of active layer for efficient inverted planar perovskite solar cells. Electrochimica Acta, 2018, 281, 9-16.	2.6	15
2501	Selection of an anti-solvent for efficient and stable cesium-containing triple cation planar perovskite solar cells. Nanoscale, 2018, 10, 12141-12148.	2.8	75

#	Article	IF	Citations
2502	Dimethyl-sulfoxide-assisted improvement in the crystallization of lead-acetate-based perovskites for high-performance solar cells. Journal of Materials Chemistry C, 2018, 6, 6705-6713.	2.7	35
2503	Stable Formamidiniumâ€Based Perovskite Solar Cells via In Situ Grain Encapsulation. Advanced Energy Materials, 2018, 8, 1800232.	10.2	78
2504	Simultaneous performance and stability improvement of perovskite solar cells by a sequential twice anti-solvent deposition process. Organic Electronics, 2018, 59, 358-365.	1.4	2
2505	Improved performance and reproducibility of perovskite solar cells by jointly tuning the hole transport layer and the perovskite layer deposition. Journal of Materials Science: Materials in Electronics, 2018, 29, 12652-12661.	1.1	2
2506	Triiodide-Induced Band-Edge Reconstruction of a Lead-Free Perovskite-Derivative Hybrid for Strong Light Absorption. Chemistry of Materials, 2018, 30, 4081-4088.	3.2	52
2507	Excellent Stability of Perovskite Solar Cells by Passivation Engineering. Solar Rrl, 2018, 2, 1800088.	3.1	61
2508	One-Pot Electrodeposition of Compact Layer and Mesoporous Scaffold for Perovskite Solar Cells. ACS Applied Energy Materials, 2018, 1, 2429-2433.	2.5	3
2509	Organicâ€“Inorganic Hybrid Halide Perovskites for Memories, Transistors, and Artificial Synapses. Advanced Materials, 2018, 30, e1704002.	11.1	205
2510	Solar Energy Conversion. , 2018, , 881-918.		7
2511	Electronâ€“phonon interaction in efficient perovskite blue emitters. Nature Materials, 2018, 17, 550-556.	13.3	472
2512	Halogen-free guanidinium-based perovskite solar cell with enhanced stability. RSC Advances, 2018, 8, 17365-17372.	1.7	15
2513	Growth of CH₃NH₃PbI₃ Perovskite on Stainless Steel Substrate Layered by ZnO Nanoparticles Using One-Step Spin Coating Route. Journal of Physics: Conference Series, 2018, 1011, 012011.	0.3	3
2514	Novel single source precursor for synthesis of Sb2Se3 nanorods and deposition of thin films by AACVD: Photo-electrochemical study for water reduction catalysis. Solar Energy, 2018, 169, 526-534.	2.9	62
2515	Cu/Cu2O nanocomposite films as a p-type modified layer for efficient perovskite solar cells. Scientific Reports, 2018, 8, 7646.	1.6	33
2516	Precision excimer laser annealed Ga-doped ZnO electron transport layers for perovskite solar cells. RSC Advances, 2018, 8, 17694-17701.	1.7	12
2517	An Overview of Hybrid Organicâ€“Inorganic Metal Halide Perovskite Solar Cells. , 2018, , 233-254.		19
2518	Hot-Hole Cooling Controls the Initial Ultrafast Relaxation in Methylammonium Lead Iodide Perovskite. Scientific Reports, 2018, 8, 8115.	1.6	32
2519	Fullerene derivative as an additive for highly efficient printable mesoscopic perovskite solar cells. Organic Electronics, 2018, 62, 653-659.	1.4	10

#	Article	IF	Citations
2520	Temperature-Dependent Photoluminescence of CH₃NH₃PbBr₃ Perovskite Quantum Dots and Bulk Counterparts. Journal of Physical Chemistry Letters, 2018, 9, 4066-4074.	2.1	128
2521	MAPbCl₃-Mediated Decomposition Process to Tune Cl/PbI₂ Distribution in MAPbI₃ Films. ACS Energy Letters, 2018, 3, 1801-1807.	8.8	18
2522	Fast Charge Extraction in Perovskite-Based Coreâ€“Shell Nanowires. ACS Nano, 2018, 12, 7206-7212.	7.3	10
2523	Influence of transparent conductive oxide layer on the inverted perovskite solar cell using PEDOT: PSS for hole transport layer. Materials Research Bulletin, 2018, 106, 433-438.	2.7	20
2524	Controlled Deposition Number of Organic Molecules Using Quartz Crystal Microbalance Evaluated by Scanning Tunneling Microscopy Single-Molecule-Counting. Analytical Chemistry, 2018, 90, 8954-8959.	3.2	9
2525	Elucidating the Origins of Subgap Tail States and Openâ€Circuit Voltage in Methylammonium Lead Triiodide Perovskite Solar Cells. Advanced Functional Materials, 2018, 28, 1801808.	7.8	78
2526	Generation of Vanadium Oxide Quantum Dots with Distinct Fluorescence and Antibacterial Activity via a Roomâ€Temperature Agitation Strategy. ChemNanoMat, 2018, 4, 1048-1053.	1.5	20
2527	Understanding the effect of chlorobenzene and isopropanol anti-solvent treatments on the recombination and interfacial charge accumulation in efficient planar perovskite solar cells. Journal of Materials Chemistry A, 2018, 6, 14307-14314.	5.2	94
2528	Interface engineering using a perovskite derivative phase for efficient and stable CsPbBr₃ solar cells. Journal of Materials Chemistry A, 2018, 6, 14255-14261.	5.2	117
2529	Doped Chargeâ€Transporting Layers in Planar Perovskite Solar Cells. Advanced Optical Materials, 2018, 6, 1800276.	3.6	65
2530	In Situ Fabricated Perovskite Nanocrystals: A Revolution in Optical Materials. Advanced Optical Materials, 2018, 6, 1800380.	3.6	176
2531	Semiconducting Metal Oxides for High Performance Perovskite Solar Cells. , 2018, , 241-265.		4
2532	Stable high-performance perovskite solar cells based on inorganic electron transporting bi-layers. Nanotechnology, 2018, 29, 385401.	1.3	12
2533	Supersaturation controlled growth of MAFAPbI3 perovskite film for high efficiency solar cells. Science China Chemistry, 2018, 61, 1278-1284.	4.2	49
2534	Recent Progress in the Solution-Based Sequential Deposition of Planar Perovskite Solar Cells. Crystal Growth and Design, 2018, 18, 4790-4806.	1.4	12
2535	Nanochannel-Assisted Perovskite Nanowires: From Growth Mechanisms to Photodetector Applications. ACS Nano, 2018, 12, 8406-8414.	7.3	56
2536	Modulating the grain size, phase and optoelectronic quality of perovskite films with cesium iodide for high-performance solar cells. Journal of Materials Chemistry C, 2018, 6, 7880-7889.	2.7	21
2537	Perovskite-Based Solar Cells: Materials, Methods, and Future Perspectives. Journal of Nanomaterials, 2018, 2018, 1-15.	1.5	224

#	Article	IF	Citations
2538	Evolution of Perovskite Solar Cells. , 2018, , 43-88.		18
2539	Hybrid Inorganic Organic Perovskites. , 2018, , 123-162.		7
2540	Fabrication and Life Time of Perovskite Solar Cells. , 2018, , 231-287.		7
2541	Heterojunction Perovskite Solar Cells. , 2018, , 323-339.		0
2542	Fullerenes: the stars of photovoltaics. Sustainable Energy and Fuels, 2018, 2, 2480-2493.	2.5	99
2543	Halide Perovskites for Selective Ultraviolet-Harvesting Transparent Photovoltaics. Joule, 2018, 2, 1827-1837.	11.7	80
2544	Performance improvement of perovskite solar cells through enhanced hole extraction: The role of iodide concentration gradient. Solar Energy Materials and Solar Cells, 2018, 185, 117-123.	3.0	176
2545	Balancing transformation and dissolutionâ€“crystallization for pure phase CH3NH3PbI3 growth and its effect on photovoltaic performance in planar-structure perovskite solar cells. Solar Energy Materials and Solar Cells, 2018, 185, 464-470.	3.0	15
2546	Interface Engineering for Allâ€Inorganic CsPbI₂Br Perovskite Solar Cells with Efficiency over 14%. Advanced Materials, 2018, 30, e1802509.	11.1	336
2547	Morphologyâ€Tailored Halide Perovskite Platelets and Wires: From Synthesis, Properties to Optoelectronic Devices. Advanced Optical Materials, 2018, 6, 1800413.	3.6	34
2548	The Influence of the Work Function of Hybrid Carbon Electrodes on Printable Mesoscopic Perovskite Solar Cells. Journal of Physical Chemistry C, 2018, 122, 16481-16487.	1.5	52
2549	Formamidinium-based planar heterojunction perovskite solar cells with alkali carbonate-doped zinc oxide layer. RSC Advances, 2018, 8, 24110-24115.	1.7	10
2550	Hybrid PbS Quantumâ€Dotâ€inâ€Perovskite for Highâ€Efficiency Perovskite Solar Cell. Small, 2018, 14, e1801016	5.2	111
2551	Charge-Transporting Materials for Perovskite Solar Cells. Advances in Inorganic Chemistry, 2018, , 185-246.	0.4	8
2552	A general printing approach for scalable growth of perovskite single-crystal films. Science Advances, 2018, 4, eaat2390.	4.7	150
2553	Gas Quenching for Perovskite Thin Film Deposition. Joule, 2018, 2, 1205-1209.	11.7	67
2554	Enhanced performance of ZnO based perovskite solar cells by Nb2O5 surface passivation. Organic Electronics, 2018, 62, 615-620.	1.4	20
2555	Excited-state vibrational dynamics toward the polaron in methylammonium lead iodide perovskite. Nature Communications, 2018, 9, 2525.	5.8	129

#	Article	IF	Citations
2556	Ionic Additive Engineering Toward Highâ€Efficiency Perovskite Solar Cells with Reduced Grain Boundaries and Trap Density. Advanced Functional Materials, 2018, 28, 1801985.	7.8	130
2557	Precisely Controlling the Grain Sizes with an Ammonium Hypophosphite Additive for Highâ€Performance Perovskite Solar Cells. Advanced Functional Materials, 2018, 28, 1802320.	7.8	65
2558	Fully solution processed semi-transparent perovskite solar cells with spray-coated silver nanowires/ZnO composite top electrode. Solar Energy Materials and Solar Cells, 2018, 185, 399-405.	3.0	111
2559	High performance perovskite light-emitting diodes realized by isopropyl alcohol as green anti-solvent. Journal of Luminescence, 2018, 204, 110-115.	1.5	14
2560	Key Factors Affecting the Performance of Sb₂S₃-sensitized Solar Cells During an Sb₂S₃ Deposition via SbCl₃-thiourea Complex Solution-processing. Journal of Visualized Experiments, 2018, , .	0.2	2
2561	Highly efficient and reproducible planar perovskite solar cells with mitigated hysteresis enabled by sequential surface modification of electrodes. Journal of Materials Science, 2018, 53, 16062-16073.	1.7	5
2562	Cascade charge transfer enabled by incorporating edge-enriched graphene nanoribbons for mesostructured perovskite solar cells with enhanced performance. Nano Energy, 2018, 52, 123-133.	8.2	123
2563	Molecular design enabled reduction of interface trap density affords highly efficient and stable perovskite solar cells with over 83% fill factor. Nano Energy, 2018, 52, 300-306.	8.2	112
2564	Effect of diphenylphosphinic acid on cesium lead iodide perovskite stability. CrystEngComm, 2018, 20, 5275-5280.	1.3	20
2565	Antisolvent diethyl ether as additive to enhance the performance of perovskite solar cells. Thin Solid Films, 2018, 663, 9-13.	0.8	18
2566	Stability of Perovskites at the Surface Analytic Level. Journal of Physical Chemistry Letters, 2018, 9, 4657-4666.	2.1	17
2567	2D perovskite stabilized phase-pure formamidinium perovskite solar cells. Nature Communications, 2018, 9, 3021.	5.8	575
2568	Inkjet-printed perovskite distributed feedback lasers. Optics Express, 2018, 26, A144.	1.7	68
2569	A Facile Preparative Route of Nanoscale Perovskites over Mesoporous Metal Oxide Films and Their Applications to Photosensitizers and Light Emitters. Advanced Functional Materials, 2018, 28, 1803801.	7.8	17
2570	Allâ€Inorganic CsPb_{1âˆ'<i>x</i>}Ge_{<i>x</i>}I₂Br Perovskite with Enhanced Phase Stability and Photovoltaic Performance. Angewandte Chemie, 2018, 130, 12927-12931.	1.6	31
2571	Optimization of conjugated polymer blend concentration for high performance organic solar cells. Journal of Materials Science: Materials in Electronics, 2018, 29, 16437-16445.	1.1	5
2572	Tunable Hybrid Fano Resonances in Halide Perovskite Nanoparticles. Nano Letters, 2018, 18, 5522-5529.	4.5	94
2573	Improve the Stability of Hybrid Halide Perovskite via Atomic Layer Deposition on Activated Phenyl-C₆₁ Butyric Acid Methyl Ester. ACS Applied Materials & Interfaces, 2018, 10, 28948-28954.	4.0	13

#	Article	IF	Citations
2574	Dew point temperature as an invariant replacement for relative humidity for advanced perovskite solar cell fabrication systems. Journal of Materials Chemistry A, 2018, 6, 20695-20701.	5.2	10
2575	Unraveling Photostability of Mixed Cation Perovskite Films in Extreme Environment. Advanced Optical Materials, 2018, 6, 1800262.	3.6	58
2576	Large-grain CH3NH3PbI3 film by incorporation of urea in one-step solution process. Superlattices and Microstructures, 2018, 123, 218-225.	1.4	2
2577	p-Type CuCrO₂ particulate films as the hole transporting layer for CH₃NH₃PbI₃ perovskite solar cells. RSC Advances, 2018, 8, 27956-27962.	1.7	48
2578	Interfacial crosslinked quasi-2D perovskite with boosted carrier transport and enhanced stability. Journal Physics D: Applied Physics, 2018, 51, 404001.	1.3	28
2579	Lead-free halide double perovskite-polymer composites for flexible X-ray imaging. Journal of Materials Chemistry C, 2018, 6, 11961-11967.	2.7	96
2580	Effects of Chlorine Contents on Perovskite Solar Cell Structure Formed on CdS Electron Transport Layer Probed by Rutherford Backscattering. Electronic Materials Letters, 2018, 14, 700-711.	1.0	6
2581	Optimizing film morphology and crystal orientation of perovskite for efficient planar-heterojunction solar cells by slowing crystallization process. Organic Electronics, 2018, 62, 26-34.	1.4	10
2582	Electronic Structure of Two-Dimensional Lead(II) Iodide Perovskites: An Experimental and Theoretical Study. Chemistry of Materials, 2018, 30, 4959-4967.	3.2	29
2583	Improved air-stability of an organicâ€“inorganic perovskite with anhydrously transferred graphene. Journal of Materials Chemistry C, 2018, 6, 8663-8669.	2.7	9
2584	(1,4-Butyldiammonium)CdBr₄: a layered organicâ€“inorganic hybrid perovskite with a visible-blind ultraviolet photoelectric response. Inorganic Chemistry Frontiers, 2018, 5, 2450-2455.	3.0	17
2585	Effects of Adding PbI2 on the Performance of Hole-Transport Material-Free Mesoscopic Perovskite Solar Cells with Carbon Electrode. Journal of Electronic Materials, 2018, 47, 6266-6271.	1.0	17
2586	Pyridine solvent engineering for high quality anion-cation-mixed hybrid and high performance of perovskite solar cells. Journal of Power Sources, 2018, 399, 144-150.	4.0	57
2587	Electronâ€•Transport Materials in Perovskite Solar Cells. Small Methods, 2018, 2, 1800082.	4.6	136
2588	Efficient planar heterojunction perovskite solar cells employing a solution-processed Zn-doped NiOX hole transport layer. Electrochimica Acta, 2018, 284, 253-259.	2.6	37
2589	Low temperature-processed ZnO nanorods-TiO2 nanoparticles composite as electron transporting layer for perovskite solar cells. Thin Solid Films, 2018, 662, 70-75.	0.8	30
2590	Compact TiO₂/Anatase TiO₂ Single-Crystalline Nanoparticle Electron-Transport Bilayer for Efficient Planar Perovskite Solar Cells. ACS Sustainable Chemistry and Engineering, 2018, 6, 12070-12078.	3.2	39
2591	Energy Level Alignment at Interfaces in Metal Halide Perovskite Solar Cells. Advanced Materials Interfaces, 2018, 5, 1800260.	1.9	215

#	Article	IF	Citations
2592	Defect Engineering toward Highly Efficient and Stable Perovskite Solar Cells. Advanced Materials Interfaces, 2018, 5, 1800326.	1.9	40
2593	Facile fabrication of p-type Al2O3/carbon nanocomposite films using molecular layer deposition. Applied Surface Science, 2018, 458, 864-871.	3.1	21
2594	Rational Design of Halide Double Perovskites for Optoelectronic Applications. Joule, 2018, 2, 1662-1673.	11.7	297
2595	Surface Modification of Methylamine Lead Halide Perovskite with Aliphatic Amine Hydroiodide. Langmuir, 2018, 34, 9507-9515.	1.6	6
2596	Photo-induced thiol coupling and Câ€"H activation using nanocrystalline lead-halide perovskite catalysts. Catalysis Science and Technology, 2018, 8, 4257-4263.	2.1	106
2597	Modified solvent bathing method for forming high quality perovskite films. Thin Solid Films, 2018, 661, 60-64.	0.8	6
2598	Additive-assisted one-step formed perovskite/hole conducting materials graded heterojunction for efficient perovskite solar cells. Journal of Colloid and Interface Science, 2018, 532, 182-189.	5.0	17
2599	Allâ€Inorganic CsPb_{1â^'<i>x</i>}Ge_{<i>x</i>}I₂Br Perovskite with Enhanced Phase Stability and Photovoltaic Performance. Angewandte Chemie - International Edition, 2018, 57, 12745-12749.	7.2	157
2600	Progress in tailoring perovskite based solar cells through compositional engineering: Materials properties, photovoltaic performance and critical issues. Materials Today Energy, 2018, 9, 440-486.	2.5	58
2601	Microstructure Engineering of Metal-Halide Perovskite Films for Efficient Solar Cells. , 2018, , .		0
2602	Crystallization reaction from intermediate phase with [0â€¯0â€¯2] preferential crystalline orientation to MAPbI3 and its influence on the performance of perovskite solar cells. Materials Letters, 2018, 231, 28-30.	1.3	2
2603	Perovskites-Based Solar Cells: A Review of Recent Progress, Materials and Processing Methods. Materials, 2018, 11, 729.	1.3	205
2604	Excitation of Wet Perovskite Films by Ultrasonic Vibration Improves the Device Performance. Applied Sciences (Switzerland), 2018, 8, 308.	1.3	19
2605	Plasmonic Conglobation of Ultrathin Ag Nanofilms Far below Their Melting Points by Infrared Illumination. Applied Sciences (Switzerland), 2018, 8, 897.	1.3	3
2606	Analysing the Prospects of Perovskite Solar Cells within the Purview of Recent Scientific Advancements. Crystals, 2018, 8, 242.	1.0	13
2608	Core-expanded naphthalenediimide derivatives as non-fullerene electron transport materials for inverted perovskite solar cells. Organic Electronics, 2018, 61, 113-118.	1.4	10
2609	Ultrasonicâ€Assisted Wet Chemistry Synthesis of Ultrafine SnO₂ Nanoparticles for the Electronâ€Transport Layer in Perovskite Solar Cells. ChemSusChem, 2018, 11, 3000-3006.	3.6	12
2610	Two-dimensional organic-inorganic hybrid perovskite: from material properties to device applications. Science China Materials, 2018, 61, 1257-1277.	3.5	84

#	Article	IF	Citations
2611	Crystallization, Properties, and Challenges of Lowâ€Bandgap Snâ€"Pb Binary Perovskites. Solar Rrl, 2018, 2, 1800146.	3.1	43
2612	Long Carrier Lifetimes in PbI₂-Rich Perovskites Rationalized by Ab Initio Nonadiabatic Molecular Dynamics. ACS Energy Letters, 2018, 3, 1868-1874.	8.8	54
2613	A fluorene-terminated hole-transporting material for highly efficient and stable perovskite solar cells. Nature Energy, 2018, 3, 682-689.	19.8	1,856
2614	Highly Efficient and Stable MAPbI3 Perovskite Solar Cell Induced by Regulated Nucleation and Ostwald Recrystallization. Materials, 2018, 11, 778.	1.3	30
2615	Understanding the Influence of Interface Morphology on the Performance of Perovskite Solar Cells. Materials, 2018, 11, 1073.	1.3	19
2616	Preparation and Characteristics of MAPbBr3 Perovskite Quantum Dots on NiOx Film and Application for High Transparent Solar Cells. Micromachines, 2018, 9, 205.	1.4	16
2617	The Impact of Hybrid Compositional Film/Structure on Organicâ€"Inorganic Perovskite Solar Cells. Nanomaterials, 2018, 8, 356.	1.9	30
2618	Improved Performance of Perovskite Light-Emitting Diodes by Quantum Confinement Effect in Perovskite Nanocrystals. Nanomaterials, 2018, 8, 459.	1.9	9
2619	Influence of Hot Spot Heating on Stability of Large Size Perovskite Solar Module with a Power Conversion Efficiency of âˆ¼14%. ACS Applied Energy Materials, 2018, 1, 3565-3570.	2.5	13
2620	Probing the structureâ€"propertyâ€"composition relationship in organicâ€"inorganic tri-halide perovskites. Physical Chemistry Chemical Physics, 2018, 20, 20489-20496.	1.3	2
2621	Spatial-temporal spectroscopy characterizations and electronic structure of methylammonium perovskites. MRS Communications, 2018, 8, 961-969.	0.8	10
2622	Solution Processing of Methylammonium Lead Iodide Perovskite from Î³-Butyrolactone: Crystallization Mediated by Solvation Equilibrium. Chemistry of Materials, 2018, 30, 5237-5244.	3.2	100
2623	Surface modification of a hole transporting layer for an efficient perovskite solar cell with an enhanced fill factor and stability. Molecular Systems Design and Engineering, 2018, 3, 717-722.	1.7	31
2624	Towards large-area perovskite solar cells: the influence of compact and mesoporous TiO₂ electron transport layers. Materials Research Express, 2018, 5, 085506.	0.8	14
2625	Introducing lead acetate into stoichiometric perovskite lewis acid-base precursor for improved solar cell photovoltaic performance. Journal of Alloys and Compounds, 2018, 767, 829-837.	2.8	8
2626	Protic ionic liquid assisted solution processing of lead halide perovskites with water, alcohols and acetonitrile. Nano Energy, 2018, 51, 632-638.	8.2	50
2627	Manipulation of facet orientation in hybrid perovskite polycrystalline films by cation cascade. Nature Communications, 2018, 9, 2793.	5.8	189
2628	Enhancing the Performance of the Half Tin and Half Lead Perovskite Solar Cells by Suppression of the Bulk and Interfacial Charge Recombination. Advanced Materials, 2018, 30, e1803703.	11.1	65

#	Article	IF	Citations
2629	Interface Engineering of Graphene/CH₃NH₃PbI₃ Heterostructure for Novel pâ€"iâ€"n Structural Perovskites Solar Cells. Journal of Physical Chemistry C, 2018, 122, 17228-17237.	1.5	22
2630	Control of the Morphology and Crystallinity of a PbI₂ Layer for Large-Area Perovskite Films Prepared by Close Space Sublimation. ACS Applied Energy Materials, 2018, 1, 3843-3849.	2.5	13
2631	Record Efficiency Stable Flexible Perovskite Solar Cell Using Effective Additive Assistant Strategy. Advanced Materials, 2018, 30, e1801418.	11.1	377
2632	Halide Perovskite Nanopillar Photodetector. ACS Nano, 2018, 12, 8564-8571.	7.3	70
2633	Precursor Solution Annealing Forms Cubicâ€Phase Perovskite and Improves Humidity Resistance of Solar Cells. Advanced Functional Materials, 2018, 28, 1801508.	7.8	15
2634	A Green Antiâ€Solvent Process for High Performance Carbonâ€Based CsPbI₂Br Allâ€Inorganic Perovskite Solar Cell. Solar Rrl, 2018, 2, 1800139.	3.1	126
2635	Toward Eco-friendly and Stable Perovskite Materials for Photovoltaics. Joule, 2018, 2, 1231-1241.	11.7	224
2636	MAPbI3 and FAPbI3 perovskites as solar cells: Case study on structural, electrical and optical properties. Results in Physics, 2018, 10, 616-627.	2.0	124
2637	Review on the Application of SnO₂ in Perovskite Solar Cells. Advanced Functional Materials, 2018, 28, 1802757.	7.8	448
2638	Effect of PbI2 solution on air-preparation of perovskite solar cells for enhanced performance. Applied Surface Science, 2018, 458, 172-182.	3.1	24
2639	High-performance ZnO:Ga/Ag/ZnO:Ga multilayered transparent electrodes targeting large-scale perovskite solar cells. Solar Energy Materials and Solar Cells, 2018, 186, 378-384.	3.0	23
2640	Fast vaporizing anti-solvent for high crystalline perovskite to achieve high performance perovskite solar cells. Thin Solid Films, 2018, 661, 122-127.	0.8	11
2641	Self-assembled alloy nanoparticles in a layered double perovskite as a fuel oxidation catalyst for solid oxide fuel cells. Journal of Materials Chemistry A, 2018, 6, 15947-15953.	5.2	77
2642	All low-temperature processed carbon-based planar heterojunction perovskite solar cells employing Mg-doped rutile TiO2 as electron transport layer. Electrochimica Acta, 2018, 283, 1115-1124.	2.6	46
2643	Recent Advance in Solutionâ€Processed Organic Interlayers for Highâ€Performance Planar Perovskite Solar Cells. Advanced Science, 2018, 5, 1800159.	5.6	84
2644	An effective approach of vapour assisted morphological tailoring for reducing metal defect sites in lead-free, (CH3NH3)3Bi2I9 bismuth-based perovskite solar cells for improved performance and long-term stability. Nano Energy, 2018, 49, 614-624.	8.2	169
2645	Luminescence behaviour of room temperature chemical processed all-inorganic CsPbCl3 perovskite cubes. AIP Conference Proceedings, 2018, , .	0.3	4
2646	Application of Compact TiO₂ Layer Fabricated by Pulsed Laser Deposition in Organometal Trihalide Perovskite Solar Cells. Solar Rrl, 2018, 2, 1800097.	3.1	20

#	Article	IF	Citations
2647	Phase Transition Control for High-Performance Blade-Coated Perovskite Solar Cells. Joule, 2018, 2, 1313-1330.	11.7	180
2648	Sequential deposition of hybrid halide perovskite starting both from lead iodide and lead chloride on the most widely employed substrates. Thin Solid Films, 2018, 657, 110-117.	0.8	5
2649	Hybrid rinse solvent processing highly flat perovskite films on planar substrate. Electrochemistry Communications, 2018, 91, 71-74.	2.3	2
2650	EDHA for energy production, storage and conversion devices. Journal of Aerosol Science, 2018, 125, 119-147.	1.8	15
2651	Enhanced performance of planar perovskite solar cells based on low-temperature processed TiO2 electron transport layer modified by Li2SiO3. Journal of Power Sources, 2018, 392, 1-7.	4.0	9
2652	Impact of excess lead on the stability and photo-induced degradation of lead halide perovskite solar cells. Organic Electronics, 2018, 59, 107-112.	1.4	20
2653	Dependence of Acetate-Based Antisolvents for High Humidity Fabrication of CH₃NH₃PbI₃ Perovskite Devices in Ambient Atmosphere. ACS Applied Materials & Interfaces, 2018, 10, 16482-16489.	4.0	78
2654	2H-NbS2 film as a novel counter electrode for meso-structured perovskite solar cells. Scientific Reports, 2018, 8, 7033.	1.6	17
2655	Dependence of halide composition on the stability of highly efficient all-inorganic cesium lead halide perovskite quantum dot solar cells. Solar Energy Materials and Solar Cells, 2018, 185, 28-35.	3.0	82
2656	Room-temperature film formation of metal halide perovskites on n-type metal oxides: the catalysis of ZnO on perovskite crystallization. Chemical Communications, 2018, 54, 6887-6890.	2.2	11
2657	Highly Stable Allâ€Inorganic Perovskite Solar Cells Processed at Low Temperature. Solar Rrl, 2018, 2, 1800075.	3.1	73
2658	Hydrophobic Polystyrene Passivation Layer for Simultaneously Improved Efficiency and Stability in Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 18787-18795.	4.0	107
2659	Effect of Different CH3NH3PbI3 Morphologies on Photovoltaic Properties of Perovskite Solar Cells. Nanoscale Research Letters, 2018, 13, 140.	3.1	24
2660	CH₃NH₃PbI₃ and HC(NH₂)₂PbI₃ Powders Synthesized from Lowâ€Grade PbI₂: Single Precursor for Highâ€Efficiency Perovskite Solar Cells. ChemSusChem, 2018, 11, 1813-1823.	3.6	61
2661	Efficient and stable mixed perovskite solar cells using P3HT as a hole transporting layer. Journal of Materials Chemistry C, 2018, 6, 5733-5737.	2.7	61
2662	Understanding how excess lead iodide precursor improves halide perovskite solar cell performance. Nature Communications, 2018, 9, 3301.	5.8	271
2663	Effect of Ammonium Halide Additives on the Performance of Methyl Amine Based Perovskite Solar Cells. Materials, 2018, 11, 1417.	1.3	13
2664	The Performance of CH3NH3PbI3 - Nanoparticles based â€" Perovskite Solar Cells Fabricated by Facile Powder press Technique. Materials Research Bulletin, 2018, 108, 61-72.	2.7	17

#	Article	IF	Citations
2665	Allâ€Solutionâ€Processed Pure Formamidiniumâ€Based Perovskite Lightâ€Emitting Diodes. Advanced Materials, 2018, 30, e1804137.	11.1	77
2666	Influence of anti-solvents on CH3NH3PbI3 films surface morphology for fabricating efficient and stable inverted planar perovskite solar cells. Thin Solid Films, 2018, 663, 105-115.	0.8	11
2667	Efficient solar cells with enhanced humidity and heat stability based on benzylammoniumâ€“caesiumâ€“formamidinium mixed-dimensional perovskites. Journal of Materials Chemistry A, 2018, 6, 18067-18074.	5.2	24
2668	Atomically thin semiconducting penta-PdP₂ and PdAs₂ with ultrahigh carrier mobility. Journal of Materials Chemistry C, 2018, 6, 9055-9059.	2.7	39
2669	Impact of cesium on the phase and device stability of triple cation Pbâ€“Sn double halide perovskite films and solar cells. Journal of Materials Chemistry A, 2018, 6, 17426-17436.	5.2	33
2670	Interfacial engineering of ZnO surface modified with poly-vinylpyrrolidone and p-aminobenzoic acid for high-performance perovskite solar cells. Materials Chemistry and Physics, 2018, 219, 90-95.	2.0	11
2671	Efficient Perovskite Solar Cells Fabricated Through CsClâ€Enhanced PbI₂ Precursor via Sequential Deposition. Advanced Materials, 2018, 30, e1803095.	11.1	109
2672	Oxygen management in carbon electrode for high-performance printable perovskite solar cells. Nano Energy, 2018, 53, 160-167.	8.2	83
2673	Planar perovskite FAxMA1-xPbI3 solar cell by two-step deposition method in air ambient. Optical Materials, 2018, 85, 55-60.	1.7	16
2674	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
2675	Memristive devices with a large memory margin based on nanocrystalline organic-inorganic hybrid CH3NH3PbBr3 perovskite active layer. Organic Electronics, 2018, 62, 412-418.	1.4	18
2676	Optical Optimization of the TiO₂ Mesoporous Layer in Perovskite Solar Cells by the Addition of SiO₂ Nanoparticles. ACS Omega, 2018, 3, 9798-9804.	1.6	18
2677	Methylammonium, formamidinium and ethylenediamine mixed triple-cation perovskite solar cells with high efficiency and remarkable stability. Journal of Materials Chemistry A, 2018, 6, 17625-17632.	5.2	37
2678	High purity and crystalline thin films of methylammonium lead iodide perovskites by a vapor deposition approach. Thin Solid Films, 2018, 664, 12-18.	0.8	16
2679	Solvent-Dependent Intercalation and Molecular Configurations in Metallocene-Layered Crystal Superlattices. Nano Letters, 2018, 18, 6071-6075.	4.5	19
2680	Observation of the growth of MAPbBr3 single-crystalline thin film based on space-limited method. Journal of Crystal Growth, 2018, 501, 27-33.	0.7	20
2681	Transformation from crystalline precursor to perovskite in PbCl2-derived MAPbI3. Nature Communications, 2018, 9, 3458.	5.8	77
2682	Solvent-Antisolvent Ambient Processed Large Grain Size Perovskite Thin Films for High-Performance Solar Cells. Scientific Reports, 2018, 8, 12885.	1.6	109

#	Article	IF	Citations
2683	Ellipsometric study of the complex optical constants of a CsPbBr₃ perovskite thin film. Journal of Materials Chemistry C, 2018, 6, 10450-10455.	2.7	71
2684	Towards high performance perovskite solar cells: A review of morphological control and HTM development. Applied Materials Today, 2018, 13, 69-82.	2.3	43
2685	Modifying Perovskite Films with Polyvinylpyrrolidone for Ambient-Air-Stable Highly Bendable Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 35385-35394.	4.0	64
2686	Bulk Heterojunction-Assisted Grain Growth for Controllable and Highly Crystalline Perovskite Films. ACS Applied Materials & Interfaces, 2018, 10, 31366-31373.	4.0	17
2687	Pathways Towards High-Stable, Low-Cost and Efficient Perovskite Solar Cells. , 0, , .		3
2688	Benchmarking Chemical Stability of Arbitrarily Mixed 3D Hybrid Halide Perovskites for Solar Cell Applications. Small Methods, 2018, 2, 1800242.	4.6	26
2689	Dependence of power conversion properties of the hole-conductor-free mesoscopic perovskite solar cells on the thickness of carbon film. Organic Electronics, 2018, 62, 298-303.	1.4	23
2690	Chiral Lead Halide Perovskite Nanowires for Second-Order Nonlinear Optics. Nano Letters, 2018, 18, 5411-5417.	4.5	212
2691	Photophysics of metal halide perovskites: From materials to devices. Japanese Journal of Applied Physics, 2018, 57, 090101.	0.8	59
2692	Leadâ€Free Solar Cells based on Tin Halide Perovskite Films with High Coverage and Improved Aggregation. Angewandte Chemie - International Edition, 2018, 57, 13221-13225.	7.2	111
2693	Leadâ€Free Solar Cells based on Tin Halide Perovskite Films with High Coverage and Improved Aggregation. Angewandte Chemie, 2018, 130, 13405-13409.	1.6	36
2694	Unveiling Solvent-Related Effect on Phase Transformations in CsBrâ€"PbBr₂ System: Coordination and Ratio of Precursors. Chemistry of Materials, 2018, 30, 5846-5852.	3.2	125
2695	Highly Durable and Flexible Transparent Electrode for Flexible Optoelectronic Applications. ACS Applied Materials & Interfaces, 2018, 10, 30706-30715.	4.0	46
2696	Role of alkyl chain length in diaminoalkane linked 2D Ruddlesdenâ€"Popper halide perovskites. CrystEngComm, 2018, 20, 6704-6712.	1.3	25
2697	A Feasible and Effective Post-Treatment Method for High-Quality CH3NH3PbI3 Films and High-Efficiency Perovskite Solar Cells. Crystals, 2018, 8, 44.	1.0	13
2698	Low-temperature electrospray-processed SnO2 nanosheets as an electron transporting layer for stable and high-efficiency perovskite solar cells. Journal of Colloid and Interface Science, 2018, 532, 387-394.	5.0	31
2699	A Combined Theoretical and Experimental Study of CH₃NH₃PbI₃ Containing AVAI Films Prepared via an Intramolecular Exchange Process. Journal of Physical Chemistry C, 2018, 122, 19705-19711.	1.5	2
2700	Insights about the Absence of Rb Cation from the 3D Perovskite Lattice: Effect on the Structural, Morphological, and Photophysical Properties and Photovoltaic Performance. Small, 2018, 14, e1802033.	5.2	24

#	Article	IF	Citations
2701	Temperature-assisted crystallization for inorganic CsPbI2Br perovskite solar cells to attain high stabilized efficiency 14.81%. Nano Energy, 2018, 52, 408-415.	8.2	186
2702	Enhanced Photovoltaic Performance of Perovskite Solar Cells by Tuning Alkaline Earth Metal-Doped Perovskite-Structured Absorber and Metal-Doped TiO₂ Hole Blocking Layer. ACS Applied Energy Materials, 2018, 1, 4849-4859.	2.5	13
2703	Efficiently Improving the Stability of Inverted Perovskite Solar Cells by Employing Polyethylenimine-Modified Carbon Nanotubes as Electrodes. ACS Applied Materials & Interfaces, 2018, 10, 31384-31393.	4.0	68
2704	Solvent engineering for high conversion yields of layered raw materials into large-scale freestanding hybrid perovskite nanowires. Nanoscale, 2018, 10, 17722-17729.	2.8	27
2705	Roomâ€Temperature Atomicâ€Layerâ€Deposited Al₂O₃ Improves the Efficiency of Perovskite Solar Cells over Time. ChemSusChem, 2018, 11, 3640-3648.	3.6	33
2706	Aged Precursor Solution toward Low-Temperature Fabrication of Efficient Carbon-Based All-Inorganic Planar CsPbIBr₂ Perovskite Solar Cells. ACS Applied Energy Materials, 2018, 1, 4991-4997.	2.5	83
2707	Electrosprayed Polymer-Hybridized Multidoped ZnO Mesoscopic Nanocrystals Yield Highly Efficient and Stable Perovskite Solar Cells. ACS Omega, 2018, 3, 9648-9657.	1.6	17
2708	Thermally stable, planar hybrid perovskite solar cells with high efficiency. Energy and Environmental Science, 2018, 11, 3238-3247.	15.6	348
2709	Understanding the mechanism of PEDOT: PSS modification via solvent on the morphology of perovskite films for efficient solar cells. Synthetic Metals, 2018, 243, 17-24.	2.1	20
2710	Fast two-step deposition of perovskite <i>via</i> mediator extraction treatment for large-area, high-performance perovskite solar cells. Journal of Materials Chemistry A, 2018, 6, 12447-12454.	5.2	83
2711	Perovskites photovoltaic solar cells: An overview of current status. Renewable and Sustainable Energy Reviews, 2018, 91, 1025-1044.	8.2	153
2712	Improved Moisture Stability of 2D Hybrid Perovskite (HOOCâ€"CH2â€"NH3)2PbI4 by Dehydration Condensation between Organic Components. ACS Applied Energy Materials, 2018, 1, 2502-2511.	2.5	13
2713	Efficient and moisture-resistant hole transport layer for inverted perovskite solar cells using solution-processed polyaniline. Journal of Materials Chemistry C, 2018, 6, 6250-6256.	2.7	32
2714	Modulate Molecular Interaction between Hole Extraction Polymers and Lead Ions toward Hysteresisâ€Free and Efficient Perovskite Solar Cells. Advanced Materials Interfaces, 2018, 5, 1800090.	1.9	18
2715	How the formation of interfacial charge causes hysteresis in perovskite solar cells. Energy and Environmental Science, 2018, 11, 2404-2413.	15.6	289
2716	Pushing the Envelope: Achieving an Openâ€Circuit Voltage of 1.18 V for Unalloyed MAPbI₃ Perovskite Solar Cells of a Planar Architecture. Advanced Functional Materials, 2018, 28, 1801237.	7.8	26
2717	Enhancing Organolead Halide Perovskite Solar Cells Performance Through Interfacial Engineering Using Agâ€doped TiO₂ Hole Blocking Layer. Solar Rrl, 2018, 2, 1800072.	3.1	22
2718	8â€Hydroquinolatolithium as a Highly Effective Solutionâ€Processable Cathode Interfacial Material in Inverted Perovskite Solar Cells with an Efficiency Over 19%. Solar Rrl, 2018, 2, 1800084.	3.1	6

#	ARTICLE	IF	CITATIONS
2719	Enhanced Performance of Planar Perovskite Solar Cell by Graphene Quantum Dot Modification. ACS Sustainable Chemistry and Engineering, 2018, 6, 8631-8640.	3.2	76
2720	Stability of organometal halide perovskite solar cells and role of HTMs: recent developments and future directions. RSC Advances, 2018, 8, 20952-20967.	1.7	21
2721	Improved performance and stability of perovskite solar cells by incorporating gamma-aminobutyric acid in CH₃NH₃PbI₃. Journal of Materials Chemistry A, 2018, 6, 12370-12379.	5.2	14
2722	Electronic Properties of Free-Standing Surfactant-Capped Lead Halide Perovskite Nanocrystals Isolated in Vacuo. Journal of Physical Chemistry Letters, 2018, 9, 3604-3611.	2.1	18
2723	Growth-Dynamic-Controllable Rapid Crystallization Boosts the Perovskite Photovoltaicsâ€™ Robust Preparation: From Blade Coating to Painting. ACS Applied Materials & Interfaces, 2018, 10, 23103-23111.	4.0	17
2724	High-performance p-type inorganicâ€“organic hybrid thermoelectric thin films. Nanoscale, 2018, 10, 13511-13519.	2.8	16
2725	Insights in Perovskite Solar Cell Fabrication: Unraveling the Hidden Challenges of Each Layer. IEEE Journal of Photovoltaics, 2018, 8, 1029-1038.	1.5	5
2726	Influence of Bulky Organoâ€Ammonium Halide Additive Choice on the Flexibility and Efficiency of Perovskite Lightâ€Emitting Devices. Advanced Functional Materials, 2018, 28, 1802060.	7.8	76
2727	Outlook and Challenges of Perovskite Solar Cells toward Terawatt-Scale Photovoltaic Module Technology. Joule, 2018, 2, 1437-1451.	11.7	162
2728	Status review and the future prospects of CZTS based solar cell â€“ A novel approach on the device structure and material modeling for CZTS based photovoltaic device. Renewable and Sustainable Energy Reviews, 2018, 94, 317-329.	8.2	120
2729	Solvent-controlled growth of inorganic perovskite films in dry environment for efficient and stable solar cells. Nature Communications, 2018, 9, 2225.	5.8	526
2730	White perovskite based lighting devices. Chemical Communications, 2018, 54, 8150-8169.	2.2	70
2731	PbI₂/CH₃NH₃Cl Mixed Precursorâ€“Induced Micrometerâ€Scale Grain Perovskite Film and Roomâ€Temperature Film Encapsulation toward High Efficiency and Stability of Planar Perovskite Solar Cells. Advanced Materials Interfaces, 2018, 5, 1800499.	1.9	12
2732	How to Make over 20% Efficient Perovskite Solar Cells in Regular (<i>nâ€“iâ€“p</i>) and Inverted (<i>pâ€“iâ€“n</i>) Architectures. Chemistry of Materials, 2018, 30, 4193-4201.	3.2	473
2733	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
2734	CH₃NH₃PbBr₃ Quantum Dot-Induced Nucleation for High Performance Perovskite Light-Emitting Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 22320-22328.	4.0	32
2735	Low-bandgap mixed tinâ€“lead iodide perovskite with large grains for high performance solar cells. Journal of Materials Chemistry A, 2018, 6, 13090-13095.	5.2	47
2736	Pentacene as a hole transport material for high performance planar perovskite solar cells. Current Applied Physics, 2018, 18, 1095-1100.	1.1	13

#	Article	IF	Citations
2737	Improving the performance of low-temperature planar perovskite solar cells by adding functional fullerene end-capped polyethylene glycol derivatives. Journal of Power Sources, 2018, 396, 49-56.	4.0	23
2738	Porphyrin Dimers as Hole-Transporting Layers for High-Efficiency and Stable Perovskite Solar Cells. ACS Energy Letters, 2018, 3, 1620-1626.	8.8	62
2739	Flexible and Stretchable Perovskite Solar Cells: Device Design and Development Methods. Small Methods, 2018, 2, 1800031.	4.6	71
2740	Understanding effects of precursor solution aging in triple cation lead perovskite. RSC Advances, 2018, 8, 21551-21557.	1.7	53
2741	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
2742	Photophysical Properties and Improved Stability of Organicâ€“Inorganic Perovskite by Surface Passivation. Journal of Physical Chemistry C, 2018, 122, 15799-15818.	1.5	70
2743	Integration of a functionalized graphene nano-network into a planar perovskite absorber for high-efficiency large-area solar cells. Materials Horizons, 2018, 5, 868-873.	6.4	25
2744	Low-Temperature Processable Charge Transporting Materials for the Flexible Perovskite Solar Cells. Electronic Materials Letters, 2018, 14, 657-668.	1.0	17
2745	Highly efficient solar cells based on Cl incorporated tri-cation perovskite materials. Journal of Materials Chemistry A, 2018, 6, 13725-13734.	5.2	43
2746	A newly developed lithium cobalt oxide super hydrophilic film for large area, thermally stable and highly efficient inverted perovskite solar cells. Journal of Materials Chemistry A, 2018, 6, 13751-13760.	5.2	26
2747	Obtaining white perovskite film for efficient solar cells. Journal Physics D: Applied Physics, 2018, 51, 295105.	1.3	4
2748	Progress in Scalable Coating and Rollâ€toâ€Roll Compatible Printing Processes of Perovskite Solar Cells toward Realization of Commercialization. Advanced Optical Materials, 2018, 6, 1701182.	3.6	52
2749	Electrochemical Corrosion of Ag Electrode in the Silver Grid Electrodeâ€Based Flexible Perovskite Solar Cells and the Suppression Method. Solar Rrl, 2018, 2, 1800118.	3.1	37
2750	High-Voltage-Efficiency Inorganic Perovskite Solar Cells in a Wide Solution-Processing Window. Journal of Physical Chemistry Letters, 2018, 9, 3646-3653.	2.1	63
2751	Methodologies toward Efficient and Stable Cesium Lead Halide Perovskiteâ€Based Solar Cells. Advanced Science, 2018, 5, 1800509.	5.6	53
2752	Thermo-evaporated pentacene and perylene as hole transport materials for perovskite solar cells. Dyes and Pigments, 2019, 160, 285-291.	2.0	13
2753	Identifying and monitoring the development trends of emerging technologies using patent analysis and Twitter data mining: The case of perovskite solar cell technology. Technological Forecasting and Social Change, 2019, 146, 687-705.	6.2	85
2754	Interface modification via Al2O3 with retarded charge recombinations for mesoscopic perovskite solar cells fabricated with spray deposition process in the air. Applied Surface Science, 2019, 463, 939-946.	3.1	22

#	Article	IF	Citations
2755	Facile Surface Engineering of Nickel Oxide Thin Film for Enhanced Power Conversion Efficiency of Planar Heterojunction Perovskite Solar Cells. ACS Sustainable Chemistry and Engineering, 2019, 7, 15495-15503.	3.2	23
2756	Methylamine-induced defect-healing and cationic substitution: a new method for low-defect perovskite thin films and solar cells. Journal of Materials Chemistry C, 2019, 7, 10724-10742.	2.7	49
2757	Improved FTO/NiOx Interfaces for Inverted Planar Triple-Cation Perovskite Solar Cells. IEEE Journal of Photovoltaics, 2019, 9, 1302-1308.	1.5	10
2758	Cold Antisolvent Bathing Derived Highly Efficient Largeâ€Area Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1901719.	10.2	67
2759	Importance of Functional Groups in Cross-Linking Methoxysilane Additives for High-Efficiency and Stable Perovskite Solar Cells. ACS Energy Letters, 2019, 4, 2192-2200.	8.8	157
2760	Green fabrication of stable lead-free bismuth based perovskite solar cells using a non-toxic solvent. Communications Chemistry, 2019, 2, .	2.0	119
2761	Energy storage properties of graphene nanofillers. , 2019, , 155-179.		1
2762	Effects of the washing-enhanced nucleation process on the material properties and performance of perovskite solar cells. Journal of Alloys and Compounds, 2019, 808, 151723.	2.8	23
2763	Real time observation of photo-instability of ternary-halide mixed CH3NH3Pb(Br1-x-yClxIy)3 perovskite: Preferential diffusion of small halide ions. Journal of Alloys and Compounds, 2019, 808, 151716.	2.8	5
2764	In-situ Interfacial Passivation for Stable Perovskite Solar Cells. Frontiers in Materials, 2019, 6, .	1.2	8
2765	Perovskite-based lasers. , 2019, , 41-74.		5
2766	Structured crystallization for efficient all-inorganic perovskite solar cells with high phase stability. Journal of Materials Chemistry A, 2019, 7, 20390-20397.	5.2	25
2767	I₂ vapor-induced degradation of formamidinium lead iodide based perovskite solar cells under heatâ€“light soaking conditions. Energy and Environmental Science, 2019, 12, 3074-3088.	15.6	131
2768	Simultaneous Bottomâ€Up Interfacial and Bulk Defect Passivation in Highly Efficient Planar Perovskite Solar Cells using Nonconjugated Smallâ€Molecule Electrolytes. Advanced Materials, 2019, 31, e1903239.	11.1	89
2769	Polyethylenimine ethoxylated interlayer-mediated ZnO interfacial engineering for high-performance and low-temperature processed flexible perovskite solar cells: A simple and viable route for one-step processed CH3NH3PbI3. Journal of Power Sources, 2019, 438, 226956.	4.0	22
2770	Surface engineering towards highly efficient perovskite light-emitting diodes. Nano Energy, 2019, 65, 104029.	8.2	26
2771	Quantifying the Composition of Methylammonium Lead Iodide Perovskite Thin Films with Infrared Spectroscopy. Journal of Physical Chemistry C, 2019, 123, 22083-22088.	1.5	5
2772	Stable lead-free Te-based double perovskites with tunable band gaps: a first-principles study. New Journal of Chemistry, 2019, 43, 14892-14897.	1.4	32

#	Article	IF	Citations
2773	Spaceâ€Confined Growth of Individual Wide Bandgap Single Crystal CsPbCl₃ Microplatelet for Nearâ€Ultraviolet Photodetection. Small, 2019, 15, e1902618.	5.2	77
2774	Grain Boundary Healing of Organicâ€“Inorganic Halide Perovskites for Moisture Stability. Nano Letters, 2019, 19, 6498-6505.	4.5	24
2775	MOF-Confined Sub-2 nm Stable CsPbX3 Perovskite Quantum Dots. Nanomaterials, 2019, 9, 1147.	1.9	23
2776	Photophysics of lead-free tin halide perovskite films and solar cells. APL Materials, 2019, 7, .	2.2	32
2777	Electronic structure of CsPbBr_{3âˆ’x}Cl_x perovskites: synthesis, experimental characterization, and DFT simulations. Physical Chemistry Chemical Physics, 2019, 21, 18930-18938.	1.3	68
2778	Tailored electronic properties of Zr-doped SnO2 nanoparticles for efficient planar perovskite solar cells with marginal hysteresis. Nano Energy, 2019, 65, 104014.	8.2	74
2779	Butyldithiocarbamate acid solution processing: its fundamentals and applications in chalcogenide thin film solar cells. Journal of Materials Chemistry C, 2019, 7, 11068-11084.	2.7	31
2780	Twoâ€Step Antisolvent Precipitated MAPbI 3 â€Pelletâ€Based Robust Roomâ€Temperature Ammonia Sensor. Advanced Materials Technologies, 2019, 4, 1900251.	3.0	23
2781	Fundamental Thermoelectric Properties in Organic Heterojunctions from Molecular to Thinâ€Film and Hybrid Designs. Advanced Electronic Materials, 2019, 5, 1800877.	2.6	5
2782	Efficient and stable perovskite solar cells based on perfluorinated polymers. Polymer Chemistry, 2019, 10, 5726-5736.	1.9	20
2783	Fully-ambient-air and antisolvent-free-processed stable perovskite solar cells with perovskite-based composites and interface engineering. Nano Energy, 2019, 64, 103964.	8.2	35
2784	Photo-carrier extraction by triboelectricity for carrier transport layer-free photodetectors. Nano Energy, 2019, 65, 103958.	8.2	23
2785	Design and simulation of a MPPT DC-DC boost converter for a perovskite solar cell module for energy harvesting application. , 2019, , .		1
2786	Fluorinated Lowâ€Dimensional Ruddlesdenâ€“Popper Perovskite Solar Cells with over 17% Power Conversion Efficiency and Improved Stability. Advanced Materials, 2019, 31, e1901673.	11.1	197
2787	Laserâ€Generated Nanocrystals in Perovskite: Universal Embedding of Ligandâ€Free and Subâ€10 nm Nanocrystals in Solutionâ€Processed Metal Halide Perovskite Films for Effectively Modulated Optoelectronic Performance. Advanced Energy Materials, 2019, 9, 1901341.	10.2	42
2788	Understanding Hydrogen Bonding Interactions in Crosslinked Methylammonium Lead Iodide Crystals: Towards Reducing Moisture and Light Degradation Pathways. Angewandte Chemie, 2019, 131, 14050-14059.	1.6	5
2789	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
2790	Scalable Fabrication of Metal Halide Perovskite Solar Cells and Modules. ACS Energy Letters, 2019, 4, 2147-2167.	8.8	161

#	Article	IF	Citations
2791	Efficient Passivation with Lead Pyridineâ€2â€Carboxylic for Highâ€Performance and Stable Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1901852.	10.2	147
2792	Rational Design of Dopantâ€Free Coplanar Dâ€Ï€â€D Holeâ€Transporting Materials for Highâ€Performance Perovskite Solar Cells with Fill Factor Exceeding 80%. Advanced Energy Materials, 2019, 9, 1901268.	10.2	77
2793	Reduced Nonradiative Energy Loss Caused by Aggregation of Nonfullerene Acceptor in Organic Solar Cells. Advanced Energy Materials, 2019, 9, 1901823.	10.2	72
2794	High-Performance CsPbIBr₂ Perovskite Solar Cells: Effectively Promoted Crystal Growth by Antisolvent and Organic Ion Strategies. ACS Applied Materials & Interfaces, 2019, 11, 33868-33878.	4.0	52
2795	All-inorganic quantum dot assisted enhanced charge extraction across the interfaces of bulk organo-halide perovskites for efficient and stable pin-hole free perovskite solar cells. Chemical Science, 2019, 10, 9530-9541.	3.7	43
2796	Defect passivation by alcohol-soluble small molecules for efficient pâ€“iâ€“n planar perovskite solar cells with high open-circuit voltage. Journal of Materials Chemistry A, 2019, 7, 21140-21148.	5.2	58
2797	Two-step growth of CsPbI_{3â^’x}Br_x films employing dynamic CsBr treatment: toward all-inorganic perovskite photovoltaics with enhanced stability. Journal of Materials Chemistry A, 2019, 7, 18488-18498.	5.2	43
2798	Organometal Halide Perovskites Thin Film and Their Impact on the Efficiency of Perovskite Solar Cells. , 0, , .		0
2799	New Materials for Thin Film Solar Cells. , 0, , .		1
2800	Towards green antisolvent for efficient CH3NH3PbBr3 perovskite light emitting diodes: A comparison of toluene, chlorobenzene, and ethyl acetate. Applied Physics Letters, 2019, 115, .	1.5	22
2801	A mixed solvent for rapid fabrication of large-area methylammonium lead iodide layers by one-step coating at room temperature. Journal of Materials Chemistry A, 2019, 7, 18275-18284.	5.2	28
2802	A dopant-free polyelectrolyte hole-transport layer for high efficiency and stable planar perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 18898-18905.	5.2	36
2803	Tunable thiocyanate-doped perovskite microstructure via water-ethanol additives for stable solar cells at ambient conditions. Solar Energy Materials and Solar Cells, 2019, 200, 110029.	3.0	11
2804	Searching for stability at lower dimensions: current trends and future prospects of layered perovskite solar cells. Energy and Environmental Science, 2019, 12, 2860-2889.	15.6	132
2805	Cation substitution enables the complete conversion of 1D perovskites to 3D perovskites for photovoltaic application. Nanoscale, 2019, 11, 14465-14471.	2.8	2
2806	CH₃NH₃PbI₃thin films prepared by hot-casting technique in the air: growth mechanism, trap states and relating solar cells. Japanese Journal of Applied Physics, 2019, 58, SIID07.	0.8	5
2807	High-Efficiency Perovskite Solar Cell Based on Sequential Doping of PTAA. IEEE Journal of Photovoltaics, 2019, 9, 1025-1030.	1.5	13
2808	Effective electron extraction from active layer for enhanced photodetection of photoconductive type detector with structure of Au/CH3NH3PbI3/Au. Organic Electronics, 2019, 74, 197-203.	1.4	6

#	Article	IF	Citations
2809	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
2810	Planar perovskite solar cells with long-term stability using ionic liquid additives. Nature, 2019, 571, 245-250.	13.7	1,103
2811	Functional Oxides for Photoneuromorphic Engineering: Toward a Solar Brain. Advanced Materials Interfaces, 2019, 6, 1900471.	1.9	31
2812	Light capacitances in silicon and perovskite solar cells. Solar Energy, 2019, 189, 103-110.	2.9	19
2813	A Lead-Free Hybrid Iodide with Quantitative Response to X-ray Radiation. Chemistry of Materials, 2019, 31, 5927-5932.	3.2	75
2814	Controlling Solvate Intermediate Growth for Phase-Pure Organic Lead Iodide Ruddlesdenâ€“Popper (C₄H₉NH₃)₂(CH₃NH₃)_{<i>n</i>â^'1}Pb<i> Perovskite Thin Films. Chemistry of Materials, 2019, 31, 5832-5844.	3.2	39
2815	Elegant Molecular Iodine/Antisolvent Solution Engineering To Tune the Fermi Level of Perovskite CH₃NH₃PbI₃. ACS Applied Energy Materials, 2019, 2, 5753-5758.	2.5	7
2816	Gallium Cationic Incorporated Compact TiO2 as an Efficient Electron-Transporting Layer for Stable Perovskite Solar Cells. Matter, 2019, 1, 452-464.	5.0	30
2817	Additive Engineering to Grow Micronâ€Sized Grains for Stable High Efficiency Perovskite Solar Cells. Advanced Science, 2019, 6, 1901241.	5.6	93
2818	Thermal Control of PbI₂ Film Growth for Two-Step Planar Perovskite Solar Cells. Crystal Growth and Design, 2019, 19, 5320-5325.	1.4	18
2819	Two-dimensional inverted planar perovskite solar cells with efficiency over 15% <i>via</i> solvent and interface engineering. Journal of Materials Chemistry A, 2019, 7, 18980-18986.	5.2	41
2820	Short duration high temperature thermal processing to reduce interfacial trapping states in perovskite solar cells obtained by a green route. Solar Energy, 2019, 189, 285-290.	2.9	2
2821	Efficient semi-transparent perovskite solar cells with a novel indium zinc tin oxide top electrode grown by linear facing target sputtering. Journal of Power Sources, 2019, 437, 226894.	4.0	27
2822	Highly efficient and stable planar heterojunction solar cell based on sputtered and post-selenized Sb2Se3 thin film. Nano Energy, 2019, 64, 103929.	8.2	164
2823	Highly Efficient Perovskite Solar Cells with Neglectable Hysteresis and Increased Open Circuit Voltage via a Nickel Chloride Interface Modification. ACS Applied Energy Materials, 2019, 2, 5883-5888.	2.5	11
2824	<i>N</i>-Methyl-2-pyrrolidone as an excellent coordinative additive with a wide operating range for fabricating high-quality perovskite films. Inorganic Chemistry Frontiers, 2019, 6, 2458-2463.	3.0	26
2825	Highly Efficient Light Emitting Diodes Based on In Situ Fabricated FAPbI 3 Nanocrystals: Solvent Effects of Onâ€Chip Crystallization. Advanced Optical Materials, 2019, 7, 1900774.	3.6	34
2826	High performance perovskite solar cells using Cu9S5 supraparticles incorporated hole transport layers. Nanotechnology, 2019, 30, 445401.	1.3	9

#	Article	IF	Citations
2827	Single-Layer PtI2: A Multifunctional Material with Promising Photocatalysis toward the Oxygen Evolution Reaction and Negative Poissonâ€™s Ratio. ACS Applied Materials & Interfaces, 2019, 11, 31793-31798.	4.0	18
2828	Sulfonyl-based non-fullerene electron acceptor-assisted grain boundary passivation for efficient and stable perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 19881-19888.	5.2	28
2829	Understanding Hydrogen Bonding Interactions in Crosslinked Methylammonium Lead Iodide Crystals: Towards Reducing Moisture and Light Degradation Pathways. Angewandte Chemie - International Edition, 2019, 58, 13912-13921.	7.2	43
2830	Theoretical Analysis of Twoâ€Terminal and Fourâ€Terminal Perovskite/Copper Indium Gallium Selenide Tandem Solar Cells. Solar Rrl, 2019, 3, 1900303.	3.1	38
2831	MAPbI3 Incorporated with Carboxyl Group Chelated Titania for Planar Perovskite Solar Cells in Low-Temperature Process. Nanomaterials, 2019, 9, 908.	1.9	10
2832	Improved Open-Circuit Voltage and Repeatability of Perovskite Cells Based on Double-Layer Lead Halide Precursors Fabricated by a Vapor-Assisted Method. ACS Applied Materials & Interfaces, 2019, 11, 24132-24139.	4.0	4
2833	Recent Progress in Highâ€efficiency Planarâ€structure Perovskite Solar Cells. Energy and Environmental Materials, 2019, 2, 93-106.	7.3	45
2834	Modulation of Ni3+ and crystallization of dopant-free NiOx hole transporting layer for efficient p-i-n perovskite solar cells. Electrochimica Acta, 2019, 319, 41-48.	2.6	22
2835	Optimisation of annealing temperature for low temperature processed inverted structure Caesium Formamidinium Lead Triiodide perovskite solar cells. Materials Science in Semiconductor Processing, 2019, 102, 104580.	1.9	17
2836	Hollow sphere formation by the self aggregation of perovskite fluoride NaNiF₃ nanocrystals and the application of these spheres as an electrode in an ultrahigh performance asymmetric supercapacitor. New Journal of Chemistry, 2019, 43, 11959-11967.	1.4	21
2837	Solvent Engineering for Intermediates Phase, All-Ambient-Air-Processed in Organicâ€“Inorganic Hybrid Perovskite Solar Cells. Nanomaterials, 2019, 9, 915.	1.9	9
2838	Additional Organicâ€Solventâ€Rinsing Process to Enhance Perovskite Photovoltaic Performance. Advanced Electronic Materials, 2019, 5, 1900244.	2.6	10
2839	Vitrification Transformation of Poly(Ethylene Oxide) Activating Interface Passivation for Highâ€Efficiency Perovskite Solar Cells. Solar Rrl, 2019, 3, 1900134.	3.1	43
2840	Adduct phases induced controlled crystallization for mixed-cation perovskite solar cells with efficiency over 21%. Nano Energy, 2019, 63, 103867.	8.2	48
2841	Iodine-rich mixed composition perovskites optimised for tin(<scp>iv</scp>) oxide transport layers: the influence of halide ion ratio, annealing time, and ambient air aging on solar cell performance. Journal of Materials Chemistry A, 2019, 7, 16947-16953.	5.2	32
2842	Formation mechanism of concentric and colorful ring perovskite films. Synthetic Metals, 2019, 255, 116107.	2.1	1
2843	Unveiling the Nanoparticleâ€Seeded Catalytic Nucleation Kinetics of Perovskite Solar Cells by Timeâ€Resolved GIXS. Advanced Functional Materials, 2019, 29, 1902582.	7.8	27
2844	Efficiency Enhancement with the Ferroelectric Coupling Effect Using P(VDFâ€TrFE) in CH₃NH₃PbI₃ Solar Cells. Advanced Science, 2019, 6, 1900252.	5.6	40

#	ARTICLE	IF	CITATIONS
2845	Quantum Dots Supply Bulk- and Surface-Passivation Agents for Efficient and Stable Perovskite Solar Cells. Joule, 2019, 3, 1963-1976.	11.7	222
2846	Multi-cation Synergy Suppresses Phase Segregation in Mixed-Halide Perovskites. Joule, 2019, 3, 1746-1764.	11.7	159
2847	Methylammonium Chloride Induces Intermediate Phase Stabilization for Efficient Perovskite Solar Cells. Joule, 2019, 3, 2179-2192.	11.7	1,228
2848	Crystallization and grain growth regulation through Lewis acid-base adduct formation in hot cast perovskite-based solar cells. Organic Electronics, 2019, 74, 172-178.	1.4	32
2849	Enhancing photovoltaic performance of perovskite solar cells utilizing germanium nanoparticles. Solar Energy, 2019, 188, 839-848.	2.9	23
2850	Imaging and Mapping Characterization Tools for Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1900444.	10.2	44
2851	Ligand Dependent Growth and Optical Properties of Hybrid Organo-metal Halide Perovskite Magic Sized Clusters. Journal of Physical Chemistry C, 2019, 123, 18746-18752.	1.5	28
2852	Chemical Vapor Deposition of Organic-Inorganic Bismuth-Based Perovskite Films for Solar Cell Application. Scientific Reports, 2019, 9, 9774.	1.6	45
2853	Light-Enhanced Ion Migration in Two-Dimensional Perovskite Single Crystals Revealed in Carbon Nanotubes/Two-Dimensional Perovskite Heterostructure and Its Photomemory Application. ACS Central Science, 2019, 5, 1857-1865.	5.3	45
2854	Thermochemical Stability of Hybrid Halide Perovskites. ACS Energy Letters, 2019, 4, 2859-2870.	8.8	91
2855	Thermal oxidation of sputtered nickel nano-film as hole transport layer for high performance perovskite solar cells. Journal of Materials Science: Materials in Electronics, 2019, 30, 19792-19803.	1.1	7
2856	Efficient and Stable Mesoscopic Perovskite Solar Cells Using PDTITT as a New Hole Transporting Layer. Advanced Functional Materials, 2019, 29, 1905887.	7.8	29
2857	UVâ€Inert ZnTiO₃ Electron Selective Layer for Photostable Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1901620.	10.2	43
2858	Predictions and Strategies Learned from Machine Learning to Develop Highâ€Performing Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1901891.	10.2	83
2859	Facetâ€Dependent Onâ€Surface Reactions in the Growth of CdSe Nanoplatelets. Angewandte Chemie, 2019, 131, 17928-17934.	1.6	1
2860	The Effect of Lithium Doping in Solutionâ€Processed Nickel Oxide Films for Perovskite Solar Cells. ChemPhysChem, 2019, 20, 3322-3327.	1.0	31
2861	MAPbI₃ Selfâ€Recrystallization Induced Performance Improvement for Oxygenâ€Containing Functional Groups Decorated Carbon Nanotubeâ€Based Perovskite Solar Cells. Solar Rrl, 2019, 3, 1900302.	3.1	7
2862	Inverted Perovskite Solar Cells Based on Small Molecular Hole Transport Material C₈â€Dioctylbenzothienobenzothiophene. Chinese Journal of Chemistry, 2019, 37, 1239-1244.	2.6	12

#	Article	IF	Citations
2863	Nanostructured Perovskite Solar Cells. Nanomaterials, 2019, 9, 1481.	1.9	19
2864	Molecular engineering of a conjugated polymer as a hole transporting layer for versatile pâ€“iâ€“n perovskite solar cells. Materials Today Energy, 2019, 14, 100341.	2.5	12
2865	Atomic-Level Microstructure of Efficient Formamidinium-Based Perovskite Solar Cells Stabilized by 5-Ammonium Valeric Acid Iodide Revealed by Multinuclear and Two-Dimensional Solid-State NMR. Journal of the American Chemical Society, 2019, 141, 17659-17669.	6.6	104
2866	Role of the solvent in large crystal grain growth of inorganic-organic halide FA0.8Cs0.2PbI<i>x</i>Br3â€‰âˆ'â€‰<i>x</i> perovskite thin films monitored by ellipsometry. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2019, 37, .	0.6	2
2867	Ternary diagrams of the phase, optical bandgap energy and photoluminescence of mixed-halide perovskites. Acta Materialia, 2019, 181, 460-469.	3.8	14
2868	Revisiting Polytypism in Hexagonal Ternary Sulfide ZnIn₂S₄ for Photocatalytic Hydrogen Production Within the Z-Scheme. Chemistry of Materials, 2019, 31, 9148-9155.	3.2	47
2869	How to Make Dense and Flat Perovskite Layers for >20% Efficient Solar Cells: Oriented, Crystalline Perovskite Intermediates and Their Thermal Conversion. Bulletin of the Chemical Society of Japan, 2019, 92, 1972-1979.	2.0	17
2870	Lithography-free and dopant-free back-contact silicon heterojunction solar cells with solution-processed TiO2 as the efficient electron selective layer. Solar Energy Materials and Solar Cells, 2019, 203, 110196.	3.0	18
2871	Managing Energy Loss in Inorganic Lead Halide Perovskites Solar Cells. Advanced Materials Interfaces, 2019, 6, 1901136.	1.9	19
2872	Optimal Interfacial Engineering with Different Length of Alkylammonium Halide for Efficient and Stable Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1902740.	10.2	209
2873	Suboptimal biventricular pacing. What is the mechanism?. Journal of Arrhythmia, 2019, 35, 673-675.	0.5	0
2874	Engineering Halide Perovskite Crystals through Precursor Chemistry. Small, 2019, 15, e1903613.	5.2	82
2875	Controlling Homogenous Spherulitic Crystallization for Highâ€Efficiency Planar Perovskite Solar Cells Fabricated under Ambient Highâ€Humidity Conditions. Small, 2019, 15, e1904422.	5.2	30
2876	Growing high-quality CsPbBr₃ by using porous CsPb₂Br₅ as an intermediate: a promising light absorber in carbon-based perovskite solar cells. Sustainable Energy and Fuels, 2019, 3, 184-194.	2.5	60
2877	A 3D hybrid nanowire/microcuboid optoelectronic electrode for maximised light harvesting in perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 932-939.	5.2	17
2878	A Review on Improving the Quality of Perovskite Films in Perovskite Solar Cells via the Weak Forces Induced by Additives. Applied Sciences (Switzerland), 2019, 9, 4393.	1.3	24
2879	Calculation of Limit Support Pressure for EPB Shield Tunnel Face in Water-Rich Sand. Symmetry, 2019, 11, 1102.	1.1	12
2880	Morphology control of organic halide perovskites by adding BiFeO3 nanostructures for efficient solar cell. Scientific Reports, 2019, 9, 15441.	1.6	13

#	ARTICLE	IF	CITATIONS
2881	Enhanced Nearâ€Infrared Photoresponse of Inverted Perovskite Solar Cells Through Rational Design of Bulkâ€Heterojunction Electronâ€Transporting Layers. Advanced Science, 2019, 6, 1901714.	5.6	23
2882	The effect of phase purification on photovoltaic performance of perovskite solar cells. Applied Physics Letters, 2019, 115, 192105.	1.5	4
2883	Comparative Studies on the Efficiency, Reproducibility and Stability of Perovskite Solar Cells. Materials Today: Proceedings, 2019, 18, 1836-1841.	0.9	0
2884	Influence of Poly(Vinylidene fluoride) on photovoltaic performance of interfacially engineered band gap modulated P3TAA-co-P3HT perovskite solar cell at ambient condition. Polymer, 2019, 185, 121973.	1.8	6
2885	Synergistic Improvements in Efficiency and Stability of 2D Perovskite Solar Cells with Metal Ion Doping. Advanced Materials Interfaces, 2019, 6, 1901259.	1.9	14
2886	Halogen Engineering for Operationally Stable Perovskite Solar Cells via Sequential Deposition. Advanced Energy Materials, 2019, 9, 1902239.	10.2	41
2887	Transient carrier visualization of organic-inorganic hybrid perovskite thin films by using time-resolved microscopic second-harmonic generation (TRM-SHG). Organic Electronics, 2019, 75, 105416.	1.4	1
2888	CH3NH3PbBr3 Nanocrystals Formed in situ in Polystyrene Used for Increasing the Color Rendering Index of White Leds. Theoretical and Experimental Chemistry, 2019, 55, 223-231.	0.2	6
2889	Perovskite/Hole Transport Layer Interface Improvement by Solvent Engineering of Spiro-OMeTAD Precursor Solution. ACS Applied Materials & Interfaces, 2019, 11, 44802-44810.	4.0	28
2890	Induced charge transfer bridge by non-fullerene surface treatment for high-performance perovskite solar cells. Applied Physics Letters, 2019, 115, .	1.5	4
2891	SnO2 surface defects tuned by (NH4)2S for high-efficiency perovskite solar cells. Solar Energy, 2019, 194, 541-547.	2.9	43
2892	High-Energy Optical Transitions and Optical Constants of CH3NH3PbI3 Measured by Spectroscopic Ellipsometry and Spectrophotometry. Journal of Physical Chemistry C, 2019, 123, 28795-28801.	1.5	9
2893	Defect Passivation in Hybrid Perovskite Solar Cells by Tailoring the Electron Density Distribution in Passivation Molecules. ACS Applied Materials & Interfaces, 2019, 11, 44233-44240.	4.0	68
2894	Unusually Dispersed AgI Quantum Dots For Efficient HTL-Free CH₃NH₃PbI₃ Photovoltaics. ACS Applied Materials & Interfaces, 2019, 11, 45568-45577.	4.0	10
2895	Controlled oxidation of Ni for stress-free hole transport layer of large-scale perovskite solar cells. Nano Research, 2019, 12, 3089-3094.	5.8	8
2896	A Double-modulation Effect Detected in a Double-mode High-amplitude Î´ Scuti Star: KIC 10284901. Astrophysical Journal, 2019, 879, 59.	1.6	7
2898	Templateâ€Assisted Formation of Highâ€Quality Î±â€Phase HC(NH 2) 2 PbI 3 Perovskite Solar Cells. Advanced Science, 2019, 6, 1901591.	5.6	29
2899	Allâ€Solutionâ€Processed Organicâ€"Inorganic Hybrid Perovskite Lightâ€Emitting Diodes under Ambient Air. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1900642.	0.8	13

#	Article	IF	Citations
2900	Self-assembled NiO microspheres for efficient inverted mesoscopic perovskite solar cells. Solar Energy, 2019, 193, 111-117.	2.9	18
2901	Novel Plasmid-Mediated <i>tet</i> (X5) Gene Conferring Resistance to Tigecycline, Eravacycline, and Omadacycline in a Clinical Acinetobacter baumannii Isolate. Antimicrobial Agents and Chemotherapy, 2019, 64, .	1.4	124
2902	The Role of Thickness Control and Interface Modification in Assembling Efficient Planar Perovskite Solar Cells. Molecules, 2019, 24, 3466.	1.7	14
2903	Advanced partial nucleation for single-phase FA0.92MA0.08PbI3-based high-efficiency perovskite solar cells. Science China Materials, 2019, 62, 1846-1856.	3.5	10
2904	Sprayâ€Coated Colloidal Perovskite Quantum Dot Films for Highly Efficient Solar Cells. Advanced Functional Materials, 2019, 29, 1906615.	7.8	100
2905	3D Nanoprinting of Perovskites. Advanced Materials, 2019, 31, e1904073.	11.1	64
2906	Tunable Spin Characteristic Properties in Spin Valve Devices Based on Hybrid Organicâ€"Inorganic Perovskites. Advanced Materials, 2019, 31, e1904059.	11.1	40
2907	Al 2 O 3 â€Atomic Layer Deposited Films on CH 3 NH 3 PbI 3 : Intrinsic Defects and Passivation Mechanisms. Energy Technology, 2019, 7, 1900975.	1.8	8
2908	Large area, high efficiency and stable perovskite solar cells enabled by fine control of intermediate phase. Solar Energy Materials and Solar Cells, 2019, 201, 110113.	3.0	9
2909	An Equivalent Circuit for Perovskite Solar Cell Bridging Sensitized to Thin Film Architectures. Joule, 2019, 3, 2535-2549.	11.7	83
2910	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
2911	Enhanced moisture stability of MAPbI3 perovskite solar cells through Barium doping. Solar Energy, 2019, 190, 396-404.	2.9	35
2912	Cyclopentadithiophene and Fluorene Spiro-Core-Based Hole-Transporting Materials for Perovskite Solar Cells. Journal of Physical Chemistry C, 2019, 123, 22767-22774.	1.5	17
2913	Electric dipole moment-assisted charge extraction and effective defect passivation in perovskite solar cells by depositing a PCBM:TIPD blend film on a CH₃NH₃PbI₃ layer. Journal of Materials Chemistry C, 2019, 7, 11559-11568.	2.7	13
2914	Off-Shore PV and Wind Based Energy Generation. , 2019, , .		2
2915	The Effect of Decomposed PbI2 on Microscopic Mechanisms of Scattering in CH3NH3PbI3 Films. Nanoscale Research Letters, 2019, 14, 208.	3.1	33
2916	Enhanced photovoltaic properties of perovskite solar cells by the addition of cellulose derivatives to MAPbI3 based photoactive layer. Cellulose, 2019, 26, 9229-9239.	2.4	18
2917	Recent advances in green fabrication of luminescent solar concentrators using nontoxic quantum dots as fluorophores. Journal of Materials Chemistry C, 2019, 7, 12373-12387.	2.7	61

#	Article	IF	Citations
2918	Interfacial Bonding and Electronic Structure between Copper Thiocyanate and Hybrid Organohalide Lead Perovskites for Photovoltaic Application. Journal of Physical Chemistry Letters, 2019, 10, 5609-5616.	2.1	4
2919	High-Efficiency and Stable Perovskite Solar Cells Prepared Using Chlorobenzene/Acetonitrile Antisolvent. ACS Applied Materials & Interfaces, 2019, 11, 34989-34996.	4.0	38
2920	Inverted planar perovskite solar cells based on CsI-doped PEDOT:PSS with efficiency beyond 20% and small energy loss. Journal of Materials Chemistry A, 2019, 7, 21662-21667.	5.2	77
2921	Point Defect-Mediated Interface Formation and Appearance of a Cooper Minimum for AlO<i>_x</i> Atomic-Layer-Deposited Films on CH₃NH₃PbI₃. Journal of Physical Chemistry C, 2019, 123, 23352-23360.	1.5	7
2922	Differential Response of the Photoluminescence and Photocurrent of Polycrystalline CH₃NH₃PbI₃ and CH₃NH₃PbBr₃ to the Exposure to Oxygen and Nitrogen. ACS Applied Electronic Materials, 2019, 1, 2007-2017.	2.0	11
2923	Hydrogenated PtP₂ monolayer: theoretical predictions on the structure and charge carrier mobility. Journal of Materials Chemistry C, 2019, 7, 12231-12239.	2.7	21
2924	2D-3D heterostructure enables scalable coating of efficient low-bandgap Snâ€“Pb mixed perovskite solar cells. Nano Energy, 2019, 66, 104099.	8.2	63
2925	Significant power enhancement method of magneto-piezoelectric energy harvester through directional optimization of magnetization for autonomous IIoT platform. Applied Energy, 2019, 254, 113710.	5.1	16
2926	SnP₂S₆ monolayer: a promising 2D semiconductor for photocatalytic water splitting. Physical Chemistry Chemical Physics, 2019, 21, 21064-21069.	1.3	30
2927	Barium acetate as an additive for high performance perovskite solar cells. Journal of Materials Chemistry C, 2019, 7, 11411-11418.	2.7	7
2928	Spontaneous low-temperature crystallization of Î±-FAPbI3 for highly efficient perovskite solar cells. Science Bulletin, 2019, 64, 1608-1616.	4.3	58
2929	Pathways toward high-performance inorganic perovskite solar cells: challenges and strategies. Journal of Materials Chemistry A, 2019, 7, 20494-20518.	5.2	62
2930	The Way to Pursue Truly High-Performance Perovskite Solar Cells. Nanomaterials, 2019, 9, 1269.	1.9	10
2931	Enhanced Switching Ratio and Long-Term Stability of Flexible RRAM by Anchoring Polyvinylammonium on Perovskite Grains. ACS Applied Materials & Interfaces, 2019, 11, 35914-35923.	4.0	65
2932	Modulating Crystallization in Semitransparent Perovskite Films Using Submicrometer Spongelike Polymer Colloid Particles to Improve Solar Cell Performance. ACS Applied Energy Materials, 2019, 2, 6624-6633.	2.5	14
2933	Unconventional inner-TL electric polarization in TL-LaOBiS₂ with ultrahigh carrier mobility. Nanoscale, 2019, 11, 18436-18443.	2.8	9
2934	PbS quantum dots as additives in methylammonium halide perovskite solar cells: the effect of quantum dot capping. Nanoscale Advances, 2019, 1, 4109-4118.	2.2	32
2935	Enhancing the Photovoltaic Performance of Perovskite Solar Cells Using Plasmonic Au@Pt@Au Core-Shell Nanoparticles. Nanomaterials, 2019, 9, 1263.	1.9	17

#	Article	IF	Citations
2936	Improved Charge Separation and Photovoltaic Performance of BiI₃ Absorber Layers by Use of an In Situ Formed BiSI Interlayer. ACS Applied Energy Materials, 2019, 2, 7056-7061.	2.5	20
2937	Oriented Attachment as the Mechanism for Microstructure Evolution in Chloride-Derived Hybrid Perovskite Thin Films. ACS Applied Materials & Interfaces, 2019, 11, 39930-39939.	4.0	26
2938	Well-grown low-defect MAPbI3â€“xClx films for perovskite solar cells with over 20% efficiency fabricated under controlled ambient humidity conditions. Electrochimica Acta, 2019, 326, 134950.	2.6	10
2939	Performance improvement of inverted perovskite solar cells using TiO2 nanorod array and mesoporous structure. Organic Electronics, 2019, 75, 105433.	1.4	0
2940	Deconstruction-assisted perovskite formation for sequential solution processing of Cs0.15(MA0.7FA0.3)0.85PbI3 solar cells. Solar Energy Materials and Solar Cells, 2019, 203, 110200.	3.0	8
2941	Effect of tantalum doping on SnO2 electron transport layer via low temperature process for perovskite solar cells. Applied Physics Letters, 2019, 115, .	1.5	41
2942	Achieving High-Quality Snâ€“Pb Perovskite Films on Complementary Metal-Oxide-Semiconductor-Compatible Metal/Silicon Substrates for Efficient Imaging Array. ACS Nano, 2019, 13, 11800-11808.	7.3	40
2943	A comparative study of structural, electronic and optical properties of cubic $$hbox {CsPbI}_{3}$$: bulk and surface. Bulletin of Materials Science, 2019, 42, 1.	0.8	7
2944	Multifaceted Role of a Dibutylhydroxytoluene Processing Additive in Enhancing the Efficiency and Stability of Planar Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 38828-38837.	4.0	10
2945	Facile RbBr interface modification improves perovskite solar cell efficiency. Materials Today Chemistry, 2019, 14, 100179.	1.7	18
2946	Effects of annealing temperature on decaphenylcyclopentasilane-inserted CH3NH3PbI3 perovskite solar cells. Chemical Physics Letters, 2019, 737, 136822.	1.2	44
2947	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
2948	Off-Stoichiometric Methylammonium Iodide Passivated Large-Grain Perovskite Film in Ambient Air for Efficient Inverted Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 39882-39889.	4.0	50
2949	Extremely Robust Gas-Quenching Deposition of Halide Perovskites on Top of Hydrophobic Hole Transport Materials for Inverted (pâ€“iâ€“n) Solar Cells by Targeting the Precursor Wetting Issue. ACS Applied Materials & Interfaces, 2019, 11, 40172-40179.	4.0	39
2950	Morphology control of perovskite in green antisolvent system for MAPbI3-based solar cells with over 20% efficiency. Solar Energy Materials and Solar Cells, 2019, 203, 110197.	3.0	25
2951	Perovskite precursor solution chemistry: from fundamentals to photovoltaic applications. Chemical Society Reviews, 2019, 48, 2011-2038.	18.7	526
2952	Efficient polycrystalline silicon solar cells with double metal oxide layers. Dalton Transactions, 2019, 48, 3687-3694.	1.6	5
2953	A potassium thiocyanate additive for hysteresis elimination in highly efficient perovskite solar cells. Inorganic Chemistry Frontiers, 2019, 6, 434-442.	3.0	39

#	Article	IF	Citations
2954	Enabling room-temperature processed highly efficient and stable 2D Ruddlesdenâ€“Popper perovskite solar cells with eliminated hysteresis by synergistic exploitation of additives and solvents. Journal of Materials Chemistry A, 2019, 7, 2015-2021.	5.2	55
2955	Improving the conductivity of solâ€“gel derived NiO_x with a mixed oxide composite to realize over 80% fill factor in inverted planar perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 9578-9586.	5.2	47
2956	Perfection of Perovskite Grain Boundary Passivation by Euâ€Porphyrin Complex for Overallâ€Stable Perovskite Solar Cells. Advanced Science, 2019, 6, 1802040.	5.6	65
2957	Evaluation of the structure, optical and electronic properties of Zn1-xRuxO thin films via mercaptopurine modified sol-gel spin coating approach. Superlattices and Microstructures, 2019, 128, 105-115.	1.4	1
2958	Air-stable formamidinium/methylammonium mixed lead iodide perovskite integral microcrystals with low trap density and high photo-responsivity. Physical Chemistry Chemical Physics, 2019, 21, 3106-3113.	1.3	16
2959	Influence of mixed organic cations on the structural and optical properties of lead tri-iodide perovskites. Nanoscale, 2019, 11, 5215-5221.	2.8	11
2960	Potassium-intercalated rubrene as a dual-functional passivation agent for high efficiency perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 1824-1834.	5.2	59
2961	Room-temperature-processed fullerene single-crystalline nanoparticles for high-performance flexible perovskite photovoltaics. Journal of Materials Chemistry A, 2019, 7, 1509-1518.	5.2	25
2962	Improving the light harvesting and colour range of methyl ammonium lead tri-bromide (MAPbBr₃) perovskite solar cells through co-sensitisation with organic dyes. Chemical Communications, 2019, 55, 35-38.	2.2	16
2963	Enhancement in the photovoltaic performance of planar perovskite solar cells by perovskite cluster engineering using an interfacial energy modifier. Nanoscale, 2019, 11, 3216-3221.	2.8	15
2964	A Dualâ€Retarded Reaction Processed Mixedâ€Cation Perovskite Layer for Highâ€Efficiency Solar Cells. Advanced Functional Materials, 2019, 29, 1807420.	7.8	28
2965	An Air Knifeâ€“Assisted Recrystallization Method for Ambientâ€Process Planar Perovskite Solar Cells and Its Dimâ€Light Harvesting. Small, 2019, 15, e1804465.	5.2	38
2966	Study of inverted planar CH3NH3PbI3 perovskite solar cells fabricated under environmental conditions. Solar Energy, 2019, 180, 594-600.	2.9	11
2967	Atomic layer deposition of a SnO₂ electron-transporting layer for planar perovskite solar cells with a power conversion efficiency of 18.3%. Chemical Communications, 2019, 55, 2433-2436.	2.2	77
2968	Gravureâ€Printed Flexible Perovskite Solar Cells: Toward Rollâ€toâ€Roll Manufacturing. Advanced Science, 2019, 6, 1802094.	5.6	115
2969	Lead-Free All-Inorganic Cesium Tin Iodide Perovskite for Filamentary and Interface-Type Resistive Switching toward Environment-Friendly and Temperature-Tolerant Nonvolatile Memories. ACS Applied Materials & Interfaces, 2019, 11, 8155-8163.	4.0	133
2970	Compositional and Solvent Engineering in Dionâ€“Jacobson 2D Perovskites Boosts Solar Cell Efficiency and Stability. Advanced Energy Materials, 2019, 9, 1803384.	10.2	219
2971	2D perovskite hybrid with both semiconductive and yellow light emission properties. Inorganic Chemistry Communication, 2019, 102, 90-94.	1.8	8

#	Article	IF	Citations
2972	Origin of increased efficiency and decreased hysteresis of perovskite solar cells by using 4-tert-butyl pyridine as interfacial modifier for TiO2. Journal of Power Sources, 2019, 415, 197-206.	4.0	7
2973	Unraveling the Impacts Induced by Organic and Inorganic Hole Transport Layers in Inverted Halide Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 7055-7065.	4.0	49
2974	Perovskiteâ€”a Perfect Top Cell for Tandem Devices to Break the Sâ€“Q Limit. Advanced Science, 2019, 6, 1801704.	5.6	80
2975	Understanding the Formation of Vertical Orientation in Two-dimensional Metal Halide Perovskite Thin Films. Chemistry of Materials, 2019, 31, 1336-1343.	3.2	93
2976	Impact of the Solvation State of Lead Iodide on Its Twoâ€Step Conversion to MAPbI₃: An In Situ Investigation. Advanced Functional Materials, 2019, 29, 1807544.	7.8	45
2977	A Review of the Role of Solvents in Formation of High-Quality Solution-Processed Perovskite Films. ACS Applied Materials & Interfaces, 2019, 11, 7639-7654.	4.0	113
2978	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
2979	First-Principles Modeling of Lead-Free Perovskites for Photovoltaic Applications. Journal of Physical Chemistry C, 2019, 123, 3795-3800.	1.5	18
2980	Intergrain Connection of Organometal Halide Perovskites: Formation Mechanism and Its Effects on Optoelectrical Properties. ACS Applied Materials & Interfaces, 2019, 11, 7037-7045.	4.0	5
2981	Porous and Intercrossed PbI₂â€“CsI Nanorod Scaffold for Inverted Planar FAâ€“Cs Mixed-Cation Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 6126-6135.	4.0	32
2982	Light- and bias-induced structural variations in metal halide perovskites. Nature Communications, 2019, 10, 444.	5.8	81
2983	Synergistic Surface Passivation of CH₃NH₃PbBr₃ Perovskite Quantum Dots with Phosphonic Acid and (3â€Aminopropyl)triethoxysilane. Chemistry - A European Journal, 2019, 25, 5014-5021.	1.7	43
2984	Enhanced thermoelectric performance of P-type Sb2Te3 thin films through organic-inorganic hybridization on flexible substrate. Current Applied Physics, 2019, 19, 470-474.	1.1	11
2985	Sol-gel processed niobium oxide thin-film for a scaffold layer in perovskite solar cells. Thin Solid Films, 2019, 674, 7-11.	0.8	3
2986	Emergence of lead halide perovskite colloidal dispersions through aggregation and fragmentation: insights from the nanoscale to the mesoscale. Nanoscale, 2019, 11, 3495-3499.	2.8	15
2987	Effects of crystal size and surface coverage of perovskites on electron recombination in solar cells. Materials Letters, 2019, 242, 191-194.	1.3	9
2988	Review of lead-free halide perovskites as light-absorbers for photovoltaic applications: From materials to solar cells. Solar Energy Materials and Solar Cells, 2019, 193, 107-132.	3.0	135
2989	Morphological and compositional progress in halide perovskite solar cells. Chemical Communications, 2019, 55, 1192-1200.	2.2	136

#	Article	IF	Citations
2990	Semiconductor self-assembled monolayers as selective contacts for efficient PiN perovskite solar cells. Energy and Environmental Science, 2019, 12, 230-237.	15.6	110
2991	Bifacial stamping for high efficiency perovskite solar cells. Energy and Environmental Science, 2019, 12, 308-321.	15.6	91
2992	Enhancement in lifespan of halide perovskite solar cells. Energy and Environmental Science, 2019, 12, 865-886.	15.6	143
2993	Doping strategies for small molecule organic hole-transport materials: impacts on perovskite solar cell performance and stability. Chemical Science, 2019, 10, 1904-1935.	3.7	279
2994	Enhancing electron transport <i>via</i> graphene quantum dot/SnO₂ composites for efficient and durable flexible perovskite photovoltaics. Journal of Materials Chemistry A, 2019, 7, 1878-1888.	5.2	67
2995	All-inorganic cesium lead halide perovskite nanocrystals: synthesis, surface engineering and applications. Journal of Materials Chemistry C, 2019, 7, 757-789.	2.7	193
2996	Functionalization of titanium substrate with multifunctional peptide OGP-NAC for the regulation of osteoimmunology. Biomaterials Science, 2019, 7, 1463-1476.	2.6	29
2997	Perovskite film-wire transformation: Preparation, characterization and device application. Superlattices and Microstructures, 2019, 130, 569-577.	1.4	2
2998	Solution-processed bathocuproine cathode buffer layer towards efficient planar heterojunction perovskite solar cells. Semiconductor Science and Technology, 2019, 34, 075023.	1.0	4
2999	A study of electromagnetic light propagation in a perovskite-based solar cell via a computational modelling approach. Bulletin of Materials Science, 2019, 42, .	0.8	20
3000	Fabrication of efficient formamidinium perovskite solar cells under ambient air via intermediate-modulated crystallization. Solar Energy, 2019, 187, 147-155.	2.9	34
3001	Nitrogenâ€Dopantâ€Induced Organicâ€"Inorganic Hybrid Perovskite Crystal Growth on Carbon Nanotubes. Advanced Functional Materials, 2019, 29, 1902489.	7.8	18
3002	Layered Ruddlesdenâ€"Popper Efficient Perovskite Solar Cells with Controlled Quantum and Dielectric Confinement Introduced via Doping. Advanced Functional Materials, 2019, 29, 1903293.	7.8	66
3003	Probing Facet-Dependent Surface Defects in MAPbI₃ Perovskite Single Crystals. Journal of Physical Chemistry C, 2019, 123, 14144-14151.	1.5	70
3004	Improving the quality of perovskite based on lead acetate for efficient solar cell. Synthetic Metals, 2019, 254, 85-91.	2.1	5
3005	Optically Induced Charge Exchange in ZnO-Based Composite Structures with Embedded CsPbBr3 Nanocrystals. Semiconductors, 2019, 53, 814-818.	0.2	0
3006	Leadâ€Free Tinâ€Based Perovskite Solar Cells: Strategies Toward High Performance. Solar Rrl, 2019, 3, 1900213.	3.1	44
3007	Structure and optoelectronic properties of palmierite structured Ba2Y0.67Î´0.33V2O8: Eu3+ red phosphors for n-UV and blue diode based warm white light systems. Journal of Alloys and Compounds, 2019, 802, 723-732.	2.8	12

#	Article	IF	Citations
3008	Accelerated Development of Perovskite-Inspired Materials via High-Throughput Synthesis and Machine-Learning Diagnosis. Joule, 2019, 3, 1437-1451.	11.7	187
3009	Two-dimensional silicon chalcogenides with high carrier mobility for photocatalytic water splitting. Journal of Materials Science, 2019, 54, 11485-11496.	1.7	30
3010	Exploring low-temperature processed a-WOx/SnO2 hybrid electron transporting layer for perovskite solar cells with efficiency >20.5%. Nano Energy, 2019, 63, 103825.	8.2	49
3011	Efficient and Stable Perovskite Solar Cell Achieved with Bifunctional Interfacial Layers. ACS Applied Materials & Interfaces, 2019, 11, 25218-25226.	4.0	23
3012	Exploring the formation of formamidinium-based hybrid perovskites by antisolvent methods: <i>in situ</i> GIWAXS measurements during spin coating. Sustainable Energy and Fuels, 2019, 3, 2287-2297.	2.5	38
3013	Boosting the external quantum efficiency in perovskite light-emitting diodes by an exciton retrieving layer. Journal of Materials Chemistry C, 2019, 7, 8705-8711.	2.7	6
3014	3D-printed continuous flow reactor for high yield synthesis of CH₃NH₃PbX₃(X = Br, I) nanocrystals. Journal of Materials Chemistry C, 2019, 7, 9167-9174.	2.7	22
3015	First-principles insight on the electronic and optical properties of Ge-based inorganic perovskites. Applied Physics Express, 2019, 12, 071007.	1.1	9
3016	Perovskite solar cells. , 2019, , 417-446.		9
3017	Electrolyte for dye-sensitized, quantum dots, and perovskite solar cells. , 2019, , 513-555.		1
3018	Graphene and carbon nanotube-based solar cells. , 2019, , 603-660.		2
3019	Unusual Electronic Transitions in Two-dimensional Layered <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msub><mml:mrow><mml:mi>Sn</mml:mi><mml:mi>Sb</mml:mi></mml:mrow><mml:mn>2</mml:mn></m Driven by Electronic State Rehybridization. Physical Review Applied, 2019, 11, .	1.5	21
3020	Leadâ€Free Perovskites: Metals Substitution towards Environmentally Benign Solar Cell Fabrication. ChemSusChem, 2019, 12, 4116-4139.	3.6	36
3021	14.1% CsPbI₃ Perovskite Quantum Dot Solar Cells via Cesium Cation Passivation. Advanced Energy Materials, 2019, 9, 1900721.	10.2	254
3022	Recent progress concerning inorganic hole transport layers for efficient perovskite solar cells. Applied Physics A: Materials Science and Processing, 2019, 125, 1.	1.1	48
3023	SnO2/Mg combination electron selective transport layer for Si heterojunction solar cells. Solar Energy Materials and Solar Cells, 2019, 200, 109996.	3.0	27
3024	A Generalized Crystallization Protocol for Scalable Deposition of Highâ€Quality Perovskite Thin Films for Photovoltaic Applications. Advanced Science, 2019, 6, 1901067.	5.6	97
3025	(INVITED) Stability: A desiderated problem for the lead halide perovskites. Optical Materials: X, 2019, 1, 100023.	0.3	35

#	Article	IF	Citations
3026	Gaining Insight into the Underlayer Treatment for in Situ Fabrication of Efficient Perovskite Nanocrystal-Based Light-Emitting Diodes. Journal of Physical Chemistry C, 2019, 123, 17353-17359.	1.5	8
3027	Effects of precursor composition on morphology and microstructure of hybrid organicâ€“inorganic perovskite solar cells. Journal of Materials Science, 2019, 54, 12758-12766.	1.7	1
3028	Improved Environmental Stability and Solar Cell Efficiency of (MA,FA)PbI₃ Perovskite Using a Wide-Band-Gap 1D Thiazolium Lead Iodide Capping Layer Strategy. ACS Energy Letters, 2019, 4, 1763-1769.	8.8	118
3029	Solvent Engineering for Highâ€Performance nâ€Type Organic Electrochemical Transistors. Advanced Electronic Materials, 2019, 5, 1900249.	2.6	59
3030	Luminescent inorganic-organic hybrid semiconductor materials for energy-saving lighting applications. EnergyChem, 2019, 1, 100008.	10.1	76
3031	Two-Dimensional Material Interface Engineering for Efficient Perovskite Large-Area Modules. ACS Energy Letters, 2019, 4, 1862-1871.	8.8	125
3032	Unusual Stability and Temperature-Dependent Properties of Highly Emissive CsPbBr₃ Perovskite Nanocrystals Obtained from in Situ Crystallization in Poly(vinylidene difluoride). ACS Applied Materials & Interfaces, 2019, 11, 22786-22793.	4.0	55
3033	Recent progress of inorganic perovskite solar cells. Energy and Environmental Science, 2019, 12, 2375-2405.	15.6	405
3034	Analysis of the UVâ€“Ozoneâ€Treated SnO₂ Electron Transporting Layer in Planar Perovskite Solar Cells for High Performance and Reduced Hysteresis. Solar Rrl, 2019, 3, 1900191.	3.1	62
3035	Efficient planar perovskite solar cells with low-temperature atomic layer deposited TiO2 electron transport layer and interfacial modifier. Solar Energy, 2019, 188, 239-246.	2.9	24
3036	Role of Water in Suppressing Recombination Pathways in CH₃NH₃PbI₃ Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 25474-25482.	4.0	33
3037	Longâ€Range Ordered Crystals of 3D Inorganicâ€“Organic Heterojunctions via Colloidal Lithography. Small Methods, 2019, 3, 1900080.	4.6	8
3038	A systematic approach to ZnO nanoparticle-assisted electron transport bilayer for high efficiency and stable perovskite solar cells. Journal of Alloys and Compounds, 2019, 801, 277-284.	2.8	29
3039	Benefits of the Hydrophobic Surface for CH3NH3PbI3 Crystalline Growth towards Highly Efficient Inverted Perovskite Solar Cells. Molecules, 2019, 24, 2027.	1.7	16
3040	The preparation of Ag3BiBr6 films and their preliminary use for solution processed photovoltaics. SN Applied Sciences, 2019, 1, 1.	1.5	5
3041	Recent advances in controlling the crystallization of two-dimensional perovskites for optoelectronic device. Frontiers of Physics, 2019, 14, 1.	2.4	42
3042	Unraveling the Effect of Crystal Structure on Degradation of Methylammonium Lead Halide Perovskite. ACS Applied Materials & Interfaces, 2019, 11, 22228-22239.	4.0	23
3043	Organic/Inorganic Hybrid p-Type Semiconductor Doping Affords Hole Transporting Layer Free Thin-Film Perovskite Solar Cells with High Stability. ACS Applied Materials & Interfaces, 2019, 11, 22603-22611.	4.0	40

#	Article	IF	Citations
3044	Enhancement of luminescence properties and stability in perovskite hybrid structure with CdSe/ZnS quantum dots. APL Materials, 2019, 7, 051112.	2.2	3
3045	Plasmonic enhancement for high-efficiency planar heterojunction perovskite solar cells. Journal of Power Sources, 2019, 432, 112-118.	4.0	33
3046	Relaying delivery of excited state electrons for fully printable perovskite solar cells via ultra-thin gradient PCBM/perovskite heterojunction. Solar Energy, 2019, 187, 352-357.	2.9	8
3047	Enhanced performance and stability of pâ€“iâ€“n perovskite solar cells by utilizing an AIE-active cathode interlayer. Journal of Materials Chemistry A, 2019, 7, 15662-15672.	5.2	21
3048	Doping-Induced Rapid Decoherence Suppresses Charge Recombination in Mono/Divalent Cation Mixed Perovskites from Nonadiabatic Molecular Dynamics Simulation. Journal of Physical Chemistry Letters, 2019, 10, 3433-3439.	2.1	24
3049	Synthesis, optical characterization, and simulation of organo-metal halide perovskite materials. Optik, 2019, 191, 100-108.	1.4	14
3050	Temperature Dependent Diffusion of DMSO in CH₃NH₃PbI₃ Precursor Films During Layer Formation and Impact on Solar Cells. ACS Applied Energy Materials, 2019, 2, 5116-5123.	2.5	5
3051	Designing a new family of oxonium-cation based structurally diverse organicâ€“inorganic hybrid iodoantimonate crystals. Chemical Communications, 2019, 55, 7562-7565.	2.2	16
3052	Methods and strategies for achieving high-performance carbon-based perovskite solar cells without hole transport materials. Journal of Materials Chemistry A, 2019, 7, 15476-15490.	5.2	85
3053	Earth-abundant transition metal and metal oxide nanomaterials: Synthesis and electrochemical applications. Progress in Materials Science, 2019, 106, 100574.	16.0	184
3054	Post-treatment of Perovskite Films toward Efficient Solar Cells via Mixed Solvent Annealing. ACS Applied Energy Materials, 2019, 2, 4954-4963.	2.5	24
3055	From 2D to 1D Electronic Dimensionality in Halide Perovskites with Stepped and Flat Layers Using Propylammonium as a Spacer. Journal of the American Chemical Society, 2019, 141, 10661-10676.	6.6	66
3056	Facile and Controllable Fabrication of Highâ€Performance Methylammonium Lead Triiodide Films Using Lead Acetate Precursor for Lowâ€Threshold Amplified Spontaneous Emission and Distributedâ€Feedback Lasers. Physica Status Solidi - Rapid Research Letters, 2019, 13, 1900176.	1.2	3
3057	Engineering the mesoporous TiO2 layer by a facile method to improve the performance of perovskite solar cells. Electrochimica Acta, 2019, 318, 83-90.	2.6	9
3058	Metal Oxide Charge Transport Layers for Efficient and Stable Perovskite Solar Cells. Advanced Functional Materials, 2019, 29, 1900455.	7.8	186
3059	Preparation of Ethyl Cellulose Composite Film with Down Conversion Luminescence Properties by Doping Perovskite Quantum Dots. ChemistrySelect, 2019, 4, 6516-6523.	0.7	10
3060	Photostability of MAPbI₃ Perovskite Solar Cells by Incorporating Black Phosphorus. Solar Rrl, 2019, 3, 1900197.	3.1	53
3061	Anti-solvent spin-coating for improving morphology of lead-free (CH3NH3)3Bi2I9 perovskite films. SN Applied Sciences, 2019, 1, 1.	1.5	7

#	Article	IF	Citations
3062	Role of ionic liquids in organic-inorganic metal halide perovskite solar cells efficiency and stability. Nano Energy, 2019, 63, 103828.	8.2	124
3063	A new co-solvent assisted CuSCN deposition approach for better coverage and improvement of the energy conversion efficiency of corresponding mixed halides perovskite solar cells. Journal of Materials Science: Materials in Electronics, 2019, 30, 11576-11587.	1.1	8
3064	Flash infrared annealing as a cost-effective and low environmental impact processing method for planar perovskite solar cells. Materials Today, 2019, 31, 39-46.	8.3	65
3065	To Greatly Reduce Defects via Photoannealing for High-Quality Perovskite Films. ACS Applied Materials & Interfaces, 2019, 11, 20943-20948.	4.0	14
3066	ZnO/WSe₂ vdW heterostructure for photocatalytic water splitting. Journal of Materials Chemistry C, 2019, 7, 7104-7113.	2.7	93
3067	Î±-CsPbI₃ Colloidal Quantum Dots: Synthesis, Photodynamics, and Photovoltaic Applications. ACS Energy Letters, 2019, 4, 1308-1320.	8.8	65
3068	Room-Temperature Sputtered SnO2 as Robust Electron Transport Layer for Air-Stable and Efficient Perovskite Solar Cells on Rigid and Flexible Substrates. Scientific Reports, 2019, 9, 6963.	1.6	57
3069	Rheological Tunability of Perovskite Precursor Solutions: From Spin Coating to Inkjet Printing Process. Nanomaterials, 2019, 9, 582.	1.9	31
3070	Defect Passivation by Fullerene Derivative in Perovskite Solar Cells with Aluminum-Doped Zinc Oxide as Electron Transporting Layer. Chemistry of Materials, 2019, 31, 6833-6840.	3.2	50
3071	Accumulation of Deep Traps at Grain Boundaries in Halide Perovskites. ACS Energy Letters, 2019, 4, 1321-1327.	8.8	117
3072	Investigation of sol-gel and nanoparticle-based NiOx hole transporting layer for high-performance planar perovskite solar cells. Journal of Alloys and Compounds, 2019, 797, 1018-1024.	2.8	23
3073	Facile and scalable fabrication of low-hysteresis perovskite solar cells and modules using a three-step process for the perovskite layer. Journal of Power Sources, 2019, 430, 145-149.	4.0	13
3074	Band offset studies in MAPbI3 perovskite solar cells using X-ray photoelectron spectroscopy. Optical Materials, 2019, 92, 425-431.	1.7	11
3075	Defect and Contact Passivation for Perovskite Solar Cells. Advanced Materials, 2019, 31, e1900428.	11.1	445
3076	Facile and novel in situ low-temperature growth of Cu2S nanoarrays based on Cu substrates. Applied Physics A: Materials Science and Processing, 2019, 125, 1.	1.1	3
3077	Compositional, Processing, and Interfacial Engineering of Nanocrystal- and Quantum-Dot-Based Perovskite Solar Cells. Chemistry of Materials, 2019, 31, 6387-6411.	3.2	82
3078	Ethylenediammonium-Based â€œHollowâ€•Pb/Sn Perovskites with Ideal Band Gap Yield Solar Cells with Higher Efficiency and Stability. Journal of the American Chemical Society, 2019, 141, 8627-8637.	6.6	93
3079	Ultra-low electric field-driven dielectric tunability in hybrid ferroelectric (MV)[BiI3Cl2]. Applied Physics Letters, 2019, 114, .	1.5	7

#	Article	IF	Citations
3080	Nuclei position-control and crystal growth-guidance on frozen substrates for high-performance perovskite solar cells. Nanoscale, 2019, 11, 12108-12115.	2.8	10
3081	(CH 3 NH 3)AuX 4 â‹…H 2 O (X=Cl, Br) and (CH 3 NH 3)AuCl 4 : Lowâ€Band Gap Leadâ€Free Layered Gold Halide Perovskite Materials. Chemistry - A European Journal, 2019, 25, 9875-9884.	1.7	15
3082	Pbâ€Reduced CsPb_{0.9}Zn_{0.1}I₂Br Thin Films for Efficient Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1900896.	10.2	150
3083	Controlling Orientation Diversity of Mixed Ion Perovskites: Reduced Crystal Microstrain and Improved Structural Stability. Journal of Physical Chemistry Letters, 2019, 10, 2898-2903.	2.1	18
3084	<i>In situ</i> growth of perovskite stacking layers for high-efficiency carbon-based hole conductor free perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 13777-13786.	5.2	58
3086	Highâ€Quality Singleâ€Mode Lasers Based on Zeroâ€Dimensional Cesium Lead Halide Perovskites. Solar Rrl, 2019, 3, 1900127.	3.1	20
3087	Ruthenium doped mesoporous titanium dioxide for highly efficient, hysteresis-free and stable perovskite solar cells. Solar Energy, 2019, 186, 156-165.	2.9	30
3088	(C₆H₅NH₃)BiI₄: a lead-free perovskite with >330 days humidity stability for optoelectronic applications. Journal of Materials Chemistry A, 2019, 7, 15722-15730.	5.2	33
3089	Enhancing the optical properties using hemisphere TiO2 photonic crystal as the electron acceptor for perovskite solar cell. Applied Surface Science, 2019, 487, 409-415.	3.1	25
3090	Phase formation and local charge transport of lead-free CH3NH3Sn(I1âˆ’xBrx)3 (0â€¯â‰â€¯xâ€¯â‰â€¯1) perovskite solar cells fabricated by solvent optimization. Solar Energy, 2019, 186, 136-144.	2.9	23
3091	Selective Fabrication of Nanowires with High Aspect Ratios Using a Diffusion Mixing Reaction System for Applications in Temperature Sensing. Analytical Chemistry, 2019, 91, 7346-7352.	3.2	9
3092	Controlling the transformation of intermediate phase under near-room temperature for improving the performance of perovskite solar cells. Solar Energy, 2019, 186, 225-232.	2.9	10
3093	Novel 3D hierarchically structured cauliflower-shaped SnO₂ nanospheres as effective photoelectrodes in hybrid photovoltaics. Nanoscale Advances, 2019, 1, 2167-2173.	2.2	1
3094	Advances in nanostructures fabricated<i>via</i>spray pyrolysis and their applications in energy storage and conversion. Chemical Society Reviews, 2019, 48, 3015-3072.	18.7	260
3095	Improvement of perovskite crystallinity by omnidirectional heat transfer via radiative thermal annealing. RSC Advances, 2019, 9, 14868-14875.	1.7	6
3096	Engineering the underlying surface to manipulate the growth of 2D perovskites for highly efficient solar cells. Journal of Materials Chemistry A, 2019, 7, 14027-14032.	5.2	46
3097	Color Patterning of Luminescent Perovskites via Lightâ€Mediated Halide Exchange with Haloalkanes. Advanced Materials, 2019, 31, e1901247.	11.1	35
3098	Why are Hot Holes Easier to Extract than Hot Electrons from Methylammonium Lead Iodide Perovskite?. Advanced Energy Materials, 2019, 9, 1900084.	10.2	54

#	Article	IF	Citations
3099	Efficient mixed halide perovskite solar cells via solvent engineering process. Dyes and Pigments, 2019, 168, 311-316.	2.0	16
3100	Dual-functional light-emitting perovskite solar cells enabled by soft-covered annealing process. Nano Energy, 2019, 61, 251-258.	8.2	14
3101	Poly(3-hexylthiophene)/zinc phthalocyanine composites for advanced interface engineering of 10.03%-efficiency CsPbBr₃ perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 12635-12644.	5.2	94
3102	Efficient and stable carbon-based perovskite solar cells enabled by the inorganic interface of CuSCN and carbon nanotubes. Journal of Materials Chemistry A, 2019, 7, 12236-12243.	5.2	91
3103	Efficient perovskite solar cells with negligible hysteresis achieved by solâ€“gel-driven spinel nickel cobalt oxide thin films as the hole transport layer. Journal of Materials Chemistry C, 2019, 7, 7288-7298.	2.7	22
3104	Modifying morphology and defects of low-dimensional, semi-transparent perovskite thin films via solvent type. RSC Advances, 2019, 9, 12047-12054.	1.7	15
3105	Role of Water and Defects in Photoâ€Oxidative Degradation of Methylammonium Lead Iodide Perovskite. Small Methods, 2019, 3, 1900154.	4.6	49
3106	Solid-State Ionics of Hybrid Halide Perovskites. Journal of the American Chemical Society, 2019, 141, 8382-8396.	6.6	64
3107	Controlling the Morphology of Organicâ€“Inorganic Hybrid Perovskites through Dual Additive-Mediated Crystallization for Solar Cell Applications. ACS Applied Materials & Interfaces, 2019, 11, 17452-17458.	4.0	19
3108	Highly efficient and very robust blue-excitable yellow phosphors built on multiple-stranded one-dimensional inorganicâ€“organic hybrid chains. Chemical Science, 2019, 10, 5363-5372.	3.7	38
3109	Controllable Growth of Centimeter-Sized 2D Perovskite Heterostructures for Highly Narrow Dual-Band Photodetectors. ACS Nano, 2019, 13, 5473-5484.	7.3	110
3110	Impact of Delay Time before Annealing MAI-PbI2-DMSO Intermediate Phase on Perovskite Film Quality and Photo-Physical Properties. Crystals, 2019, 9, 151.	1.0	8
3111	Catalystâ€Free and Morphologyâ€Controlled Growth of 2D Perovskite Nanowires for Polarized Light Detection. Advanced Optical Materials, 2019, 7, 1900039.	3.6	35
3112	Effects of Solvent Coordination Strength on the Morphology of Solution-Processed BiI₃ Thin Films. Journal of Physical Chemistry C, 2019, 123, 13394-13400.	1.5	16
3113	High-performance inverted planar perovskite solar cells using a pristine fullerene mixture as an electron-transport layer. Journal of Materials Chemistry C, 2019, 7, 6956-6963.	2.7	29
3114	Semiconducting carbon nanotubes as crystal growth templates and grain bridges in perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 12987-12992.	5.2	57
3115	Inverted hysteresis in MAPbI3 perovskite solar cells induced by presetting bias voltage. Journal Physics D: Applied Physics, 2019, 52, 315103.	1.3	3
3116	SnS Quantum Dots as Hole Transporter of Perovskite Solar Cells. ACS Applied Energy Materials, 2019, 2, 3822-3829.	2.5	26

#	Article	IF	Citations
3117	Unveiling Property of Hydrolysis-Derived DMAPbI3 for Perovskite Devices: Composition Engineering, Defect Mitigation, and Stability Optimization. IScience, 2019, 15, 165-172.	1.9	107
3118	Solutionâ€Phase Epitaxial Growth of Perovskite Films on 2D Material Flakes for Highâ€Performance Solar Cells. Advanced Materials, 2019, 31, e1807689.	11.1	185
3119	A Purified, Solventâ€Intercalated Precursor Complex for Wideâ€Processâ€Window Fabrication of Efficient Perovskite Solar Cells and Modules. Angewandte Chemie, 2019, 131, 9489-9493.	1.6	5
3120	A Purified, Solventâ€Intercalated Precursor Complex for Wideâ€Processâ€Window Fabrication of Efficient Perovskite Solar Cells and Modules. Angewandte Chemie - International Edition, 2019, 58, 9389-9393.	7.2	46
3121	Enhancing High Humidity Stability of Quasiâ€2D Perovskite Thin Films through Mixed Cation Doping and Solvent Engineering. ChemNanoMat, 2019, 5, 1280-1288.	1.5	13
3122	Highly bright Li(Gd,Y)F4:Yb,Er upconverting nanocrystals incorporated hole transport layer for efficient perovskite solar cells. Applied Surface Science, 2019, 485, 332-341.	3.1	31
3123	Phthalocyanines and porphyrinoid analogues as hole- and electron-transporting materials for perovskite solar cells. Chemical Society Reviews, 2019, 48, 2738-2766.	18.7	165
3124	Manipulating the Mixedâ€Perovskite Crystallization Pathway Unveiled by In Situ GIWAXS. Advanced Materials, 2019, 31, e1901284.	11.1	127
3125	Understanding the Solution Chemistry of Lead Halide Perovskites Precursors. ACS Applied Energy Materials, 2019, 2, 3400-3409.	2.5	74
3126	Directly imaging the structureâ€"property correlation of perovskites in crystalline microwires. Journal of Materials Chemistry A, 2019, 7, 13305-13314.	5.2	9
3127	New insights into active-area-dependent performance of hybrid perovskite solar cells. Journal of Materials Science, 2019, 54, 10825-10835.	1.7	7
3128	Enhanced hole extraction by NiO nanoparticles in carbon-based perovskite solar cells. Electrochimica Acta, 2019, 312, 100-108.	2.6	29
3129	High-Quality Perovskite CH3NH3PbI3 Thin Films for Solar Cells Prepared by Single-Source Thermal Evaporation Combined with Solvent Treatment. Materials, 2019, 12, 1237.	1.3	24
3130	Bismuthâ€Based Perovskiteâ€Inspired Solar Cells: In Situ Diagnostics Reveal Similarities and Differences in the Film Formation of Bismuthâ€and Leadâ€Based Films. Solar Rrl, 2019, 3, 1800305.	3.1	41
3131	Perovskite Solar Cells Processed by Solution Nanotechnology. , 2019, , 119-174.		0
3132	Bulk- and Nanocrystalline-Halide Perovskite Light-Emitting Diodes. , 2019, , 305-341.		3
3133	Doping amino-functionalized ionic liquid in perovskite crystal for enhancing performances of hole-conductor free solar cells with carbon electrode. Chemical Engineering Journal, 2019, 372, 46-52.	6.6	41
3134	Boosting Efficiency in Polycrystalline Metal Halide Perovskite Light-Emitting Diodes. ACS Energy Letters, 2019, 4, 1134-1149.	8.8	68

#	Article	IF	Citations
3135	Steering the crystallization of perovskites for high-performance solar cells in ambient air. Journal of Materials Chemistry A, 2019, 7, 12166-12175.	5.2	65
3136	Improved film morphology of (CH3NH3)3Bi2I9 via cation displacement approach for lead-free perovskite solar cells. Journal of Materials Science, 2019, 54, 10371-10378.	1.7	10
3137	Role of graphene ordered modifiers in regulating the organic halide perovskite devices. Optical Materials, 2019, 92, 81-86.	1.7	10
3138	Two Heteromorphic Crystals of Antimony-Based Hybrids Showing Tunable Optical Band Gaps and Distinct Photoelectric Responses. Inorganic Chemistry, 2019, 58, 6544-6549.	1.9	17
3139	Open atmospheric processed perovskite solar cells using dopant-free, highly hydrophobic hole-transporting materials: Influence of thiophene and selenophene Ï€-spacers on charge transport and recombination properties. Solar Energy Materials and Solar Cells, 2019, 199, 66-74.	3.0	14
3140	A Semiconducting Organicâ€“Inorganic Hybrid Metal Halide with Switchable Dielectric and High Phase Transition Temperature. Journal of Physical Chemistry C, 2019, 123, 9364-9370.	1.5	32
3141	An Interplay Role between Ammonium and Halide Anions as Additives in Perovskite CH₃NH₃PbI₃. Materials Science Forum, 0, 948, 287-293.	0.3	0
3142	High Performance Inverted Planar MAPbI₃ Perovskite Solar Cells with a Simple Annealing Process. ChemNanoMat, 2019, 5, 715-722.	1.5	6
3143	In situ Investigation of Water Interaction with Lead-Free All Inorganic Perovskite (Cs₂SnI<i>_x</i>Cl_{6â€“<i>x</i>}). Journal of Physical Chemistry C, 2019, 123, 9575-9581.	1.5	23
3144	Highly Crystalline Perovskite-Based Photovoltaics via Two-Dimensional Liquid Cage Annealing Strategy. Journal of the American Chemical Society, 2019, 141, 5808-5814.	6.6	29
3145	Preparation of high quality perovskite thin film in ambient air using ethylacetate as anti-solvent. Journal of Solid State Chemistry, 2019, 274, 199-206.	1.4	11
3146	Tailoring perovskite conversion and grain growth by in situ solvent assisted crystallization and compositional variation for highly efficient perovskite solar cells. Organic Electronics, 2019, 69, 208-215.	1.4	10
3147	Soluble tetra-methoxyltriphenylamine substituted zinc phthalocyanine as dopant-free hole transporting materials for perovskite solar cells. Organic Electronics, 2019, 69, 248-254.	1.4	22
3148	Radiative and conductive thermal annealing of hybrid organic-inorganic perovskite layer. Solar Energy Materials and Solar Cells, 2019, 195, 353-357.	3.0	9
3149	Favorable growth of well-crystallized layered hybrid perovskite by combination of thermal and solvent assistance. Journal of Power Sources, 2019, 422, 156-162.	4.0	14
3150	A facile green solvent engineering for up-scaling perovskite solar cell modules. Solar Energy, 2019, 183, 386-391.	2.9	41
3151	Highly bright perovskite light-emitting diodes based on quasi-2D perovskite film through synergetic solvent engineering. RSC Advances, 2019, 9, 8373-8378.	1.7	15
3152	Highâ€Performance Perovskite Solar Cells with Excellent Humidity and Thermoâ€Stability via Fluorinated Perylenediimide. Advanced Energy Materials, 2019, 9, 1900198.	10.2	205

#	Article	IF	Citations
3153	Uncovering the Mechanism Behind the Improved Stability of 2D Organicâ€"Inorganic Hybrid Perovskites. Small, 2019, 15, e1900462.	5.2	27
3154	A Bifunctional Saddleâ€Shaped Small Molecule as a Dopantâ€Free Hole Transporting Material and Interfacial Layer for Efficient and Stable Perovskite Solar Cells. Solar Rrl, 2019, 3, 1900011.	3.1	34
3155	Advances in solution-processable near-infrared phototransistors. Journal of Materials Chemistry C, 2019, 7, 3711-3729.	2.7	74
3156	Direct observation of charge transfer at the interface between PEDOT:PSS and perovskite layers. Applied Physics Express, 2019, 12, 041002.	1.1	12
3157	Nickel Oxide as Efficient Hole Transport Materials for Perovskite Solar Cells. Solar Rrl, 2019, 3, 1900001.	3.1	151
3158	Defects Passivation With Dithienobenzodithiopheneâ€based Ï€â€conjugated Polymer for Enhanced Performance of Perovskite Solar Cells. Solar Rrl, 2019, 3, 1900029.	3.1	74
3159	Single-Solution Bar-Coated Halide Perovskite Films via Mediating Crystallization for Scalable Solar Cell Fabrication. ACS Applied Materials & Interfaces, 2019, 11, 11537-11544.	4.0	21
3160	Depth-dependent electronic band structure at the Au/CH₃NH₃PbI_{3âˆ'x}Cl_x junction. Physical Chemistry Chemical Physics, 2019, 21, 14541-14545.	1.3	6
3161	Interfacial defect passivation in CH3NH3PbI3 perovskite solar cells using modifying of hole transport layer. Journal of Materials Science: Materials in Electronics, 2019, 30, 6936-6946.	1.1	12
3162	Stabilization of Precursor Solution and Perovskite Layer by Addition of Sulfur. Advanced Energy Materials, 2019, 9, 1803476.	10.2	81
3163	Controllable Perovskite Crystallization via Antisolvent Technique Using Chloride Additives for Highly Efficient Planar Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1803587.	10.2	221
3164	Electrical bistability and memory switching phenomenon in Cu2FeSnS4 thin films: role of p-n junction. Journal of Solid State Electrochemistry, 2019, 23, 1307-1314.	1.2	18
3166	Efficient Solar Cells Employing Lightâ€Harvesting Sb_{0.67}Bi_{0.33}SI. Advanced Materials, 2019, 31, e1808344.	11.1	40
3167	Synthesis of Colloidal Halide Perovskite Quantum Dots/Nanocrystals: Progresses and Advances. Israel Journal of Chemistry, 2019, 59, 649-660.	1.0	25
3168	Room temperature solution-processed Fe doped NiOx as a novel hole transport layer for high efficient perovskite solar cells. Applied Surface Science, 2019, 481, 588-596.	3.1	48
3169	Improvement in performance of inverted polymer solar cells by interface engineering of ALD ZnS on ZnO electron buffer layer. Applied Surface Science, 2019, 481, 1442-1448.	3.1	23
3170	High-efficiency perovskite solar cell based on TiO2 nanorod arrays under natural ambient conditions: Solvent effect. Ceramics International, 2019, 45, 12353-12359.	2.3	7
3171	Effective improvement of the photovoltaic performance of carbon-based perovskites solar cells by grinding process and its capacitor model. Journal of Power Sources, 2019, 422, 131-137.	4.0	14

#	Article	IF	Citations
3172	Highly crystalline large-grained perovskite films using two additives without an antisolvent for high-efficiency solar cells. Thin Solid Films, 2019, 679, 27-34.	0.8	7
3173	Effects of Illumination Direction on the Surface Potential of CH₃NH₃PbI₃ Perovskite Films Probed by Kelvin Probe Force Microscopy. ACS Applied Materials & Interfaces, 2019, 11, 14044-14050.	4.0	34
3174	Efficient, stable and scalable perovskite solar cells using poly(3-hexylthiophene). Nature, 2019, 567, 511-515.	13.7	1,867
3175	20.7% highly reproducible inverted planar perovskite solar cells with enhanced fill factor and eliminated hysteresis. Energy and Environmental Science, 2019, 12, 1622-1633.	15.6	193
3176	Light diffusing, down-converting perovskite-on-polymer microspheres. Journal of Materials Chemistry C, 2019, 7, 6527-6533.	2.7	15
3177	Direct observation of carrier transport in organicâ€“inorganic hybrid perovskite thin film by transient photoluminescence imaging measurement. Japanese Journal of Applied Physics, 2019, 58, SBBG18.	0.8	1
3178	Sequential Deposition of Highâ€Quality Photovoltaic Perovskite Layers via Scalable Printing Methods. Advanced Functional Materials, 2019, 29, 1900964.	7.8	69
3179	Origin and Suppression of the Graded Phase Distribution in Ruddlesdenâ€Popper Perovskite Films for Photovoltaic Application. Solar Rrl, 2019, 3, 1800357.	3.1	27
3180	Efficient methylammonium lead trihalide perovskite solar cells with chloroformamidinium chloride (Cl-FACl) as an additive. Journal of Materials Chemistry A, 2019, 7, 8078-8084.	5.2	62
3181	High Efficient Hole Extraction and Stable Allâ€Bromide Inorganic Perovskite Solar Cells via Derivativeâ€Phase Gradient Bandgap Architecture. Solar Rrl, 2019, 3, 1900030.	3.1	67
3182	Bidentate chelating ligands as effective passivating materials for perovskite light-emitting diodes. Physical Chemistry Chemical Physics, 2019, 21, 7867-7873.	1.3	17
3183	Understanding structures and properties of phosphorene/perovskite heterojunction toward perovskite solar cell applications. Journal of Molecular Graphics and Modelling, 2019, 89, 96-101.	1.3	5
3184	Structurally Constrained Boron-, Nitrogen-, Silicon-, and Phosphorus-Centered Polycyclic Ï€-Conjugated Systems. Chemical Reviews, 2019, 119, 8291-8331.	23.0	446
3185	The electric field modulation of electronic properties in a type-II phosphorene/PbI₂ van der Waals heterojunction. Physical Chemistry Chemical Physics, 2019, 21, 7765-7772.	1.3	25
3186	Two-dimensional additive diethylammonium iodide promoting crystal growth for efficient and stable perovskite solar cells. RSC Advances, 2019, 9, 7984-7991.	1.7	25
3187	Low-dimensional formamidinium lead perovskite architectures <i>via</i> controllable solvent intercalation. Journal of Materials Chemistry C, 2019, 7, 3945-3951.	2.7	23
3188	Compositionâ€Controlled Synthesis of Hybrid Perovskite Nanoparticles by Ionic Metathesis: Bandgap Engineering Studies from Experiments and Theoretical Calculations. Chemistry - A European Journal, 2019, 25, 9892-9901.	1.7	18
3189	Inorganicâ€“organic hybridization induced uniaxial zero thermal expansion in MC₄O₄ (M = Ba, Pb). Chemical Communications, 2019, 55, 4107-4110.	2.2	12

#	Article	IF	Citations
3190	Fully-printed, flexible cesium-doped triple cation perovskite photodetector. Applied Materials Today, 2019, 15, 389-397.	2.3	41
3191	Phenothiazine Functionalized Multifunctional Aâˆ'Ï€â€"Dâˆ'Ï€â€"Dâˆ'Ï€â€"A-Type Hole-Transporting Materials via Sequential Câ€"H Arylation Approach for Efficient and Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 14011-14022.	4.0	51
3192	Piezo-phototronic Effect Enhanced Efficient Flexible Perovskite Solar Cells. ACS Nano, 2019, 13, 4507-4513.	7.3	82
3193	Solutionâ€Processable Perovskite Solar Cells toward Commercialization: Progress and Challenges. Advanced Functional Materials, 2019, 29, 1807661.	7.8	149
3194	Efficient Mixedâ€Cation Mixedâ€Halide Perovskite Solar Cells by Allâ€Vacuum Sequential Deposition Using Metal Oxide Electron Transport Layer. Solar Rrl, 2019, 3, 1900050.	3.1	31
3195	Overcoming intrinsic defects of the hole transport layer with optimized carbon nanorods for perovskite solar cells. Nanoscale, 2019, 11, 8776-8784.	2.8	9
3196	Multi-dimensional anatase TiO2 materials: Synthesis and their application as efficient charge transporter in perovskite solar cells. Solar Energy, 2019, 184, 323-330.	2.9	35
3197	Tuning Photovoltaic Performance of Perovskite Nickelates Heterostructures by Changing the A-Site Rare-Earth Element. ACS Applied Materials & Interfaces, 2019, 11, 16191-16197.	4.0	16
3198	High-order harmonic generation from hybrid organicâ€"inorganic perovskite thin films. APL Materials, 2019, 7, .	2.2	49
3199	Research progress in lead-less or lead-free three-dimensional perovskite absorber materials for solar cells. International Journal of Minerals, Metallurgy and Materials, 2019, 26, 387-403.	2.4	17
3200	Performance enhancement of perovskite solar cells using trimesic acid additive in the two-step solution method. Journal of Power Sources, 2019, 426, 11-15.	4.0	38
3201	Efficient inverted all inorganic CsPbI3 planar solar cells via twice-coating in air condition. Journal of Power Sources, 2019, 426, 61-66.	4.0	8
3202	Atomic layer deposition of vanadium oxide to reduce parasitic absorption and improve stability in nâ€"iâ€"p perovskite solar cells for tandems. Sustainable Energy and Fuels, 2019, 3, 1517-1525.	2.5	76
3203	Hierarchy of Hybrid Materialsâ€"The Place of Inorganics-in-Organics in it, Their Composition and Applications. Frontiers in Chemistry, 2019, 7, 179.	1.8	172
3204	Enhancing the crystallinity and perfecting the orientation of formamidinium tin iodide for highly efficient Sn-based perovskite solar cells. Nano Energy, 2019, 60, 810-816.	8.2	140
3205	Enhancement of perovskite solar cells characteristics by incorporating mixed sodium/cesium cations. Optik, 2019, 185, 1019-1023.	1.4	3
3206	Recent progress in perovskite-based photodetectors: the design of materials and structures. Advances in Physics: X, 2019, 4, 1592709.	1.5	42
3207	Research activities on perovskite solar cells in China. Science China Chemistry, 2019, 62, 822-828.	4.2	22

#	Article	IF	Citations
3208	Stable perovskite solar cells using tin acetylacetonate based electron transporting layers. Energy and Environmental Science, 2019, 12, 1910-1917.	15.6	57
3209	Indepth Studies on Working Mechanism of Plasmon-Enhanced Inverted Perovskite Solar Cells Incorporated with Ag@SiO₂ Coreâ€“Shell Nanocubes. ACS Applied Energy Materials, 2019, 2, 3605-3613.	2.5	18
3210	Coated and Printed Perovskites for Photovoltaic Applications. Advanced Materials, 2019, 31, e1806702.	11.1	146
3211	La-doped SnO2 as ETL for efficient planar-structure hybrid perovskite solar cells. Organic Electronics, 2019, 73, 62-68.	1.4	53
3212	Controlled pH of PEDOT:PSS for Reproducible Efficiency in Inverted Perovskite Solar Cells: Independent of Active Area and Humidity. ACS Sustainable Chemistry and Engineering, 2019, 7, 8245-8254.	3.2	23
3213	Adverse oxidation of CsPbI₂Br perovskite during the crystallization process in an N₂ glove-box. Journal of Materials Chemistry C, 2019, 7, 5067-5073.	2.7	14
3214	Photodetectors based on inorganic halide perovskites: Materials and devices. Chinese Physics B, 2019, 28, 017803.	0.7	41
3215	The fabrication of homogeneous perovskite films on non-wetting interfaces enabled by physical modification. Journal of Energy Chemistry, 2019, 38, 192-198.	7.1	48
3216	Interfacial charge transport in MAPbI3 perovskite on ZnO. Results in Physics, 2019, 13, 102207.	2.0	8
3217	ZnO:Ga-graded ITO electrodes to control interface between PCBM and ITO in planar perovskite solar cells. Science and Technology of Advanced Materials, 2019, 20, 389-400.	2.8	24
3218	Metal halide perovskite photodetectors: Material features and device engineering. Chinese Physics B, 2019, 28, 018502.	0.7	18
3219	Stability improvement under high efficiencyâ€”next stage development of perovskite solar cells. Science China Chemistry, 2019, 62, 684-707.	4.2	50
3221	Ethanol stabilized precursors for highly reproducible printable mesoscopic perovskite solar cells. Journal of Power Sources, 2019, 424, 261-267.	4.0	21
3222	Low-temperature synthesis of all-inorganic perovskite nanocrystals for UV-photodetectors. Journal of Materials Chemistry C, 2019, 7, 5488-5496.	2.7	19
3223	4-Tert butylpyridine induced MAPbI3 film quality enhancement for improving the photovoltaic performance of perovskite solar cells with two-step deposition route. Applied Surface Science, 2019, 484, 637-645.	3.1	22
3224	Electrically Sorted Single-Walled Carbon Nanotubes-Based Electron Transporting Layers for Perovskite Solar Cells. IScience, 2019, 14, 100-112.	1.9	36
3225	Transparent Sn-doped In2O3 electrodes with a nanoporous surface for enhancing the performance of perovskite solar cells. Journal of Power Sources, 2019, 418, 152-161.	4.0	17
3226	High-Performance Inverted Perovskite Solar Cells Using Doped Poly(triarylamine) as the Hole Transport Layer. ACS Applied Energy Materials, 2019, 2, 1932-1942.	2.5	52

#	Article	IF	Citations
3227	High-Performance Perovskite Solar Cells with a Non-doped Small Molecule Hole Transporting Layer. ACS Applied Energy Materials, 2019, 2, 1634-1641.	2.5	25
3228	Enhanced Stability in Zr-Doped ZnO TFTs With Minor Influence on Mobility by Atomic Layer Deposition. IEEE Transactions on Electron Devices, 2019, 66, 1760-1765.	1.6	32
3229	Poly(methyl methacrylate) embedded perovskite films for improving solar cell performance. Synthetic Metals, 2019, 249, 47-51.	2.1	11
3230	From Lead Halide Perovskites to Leadâ€Free Metal Halide Perovskites and Perovskite Derivatives. Advanced Materials, 2019, 31, e1803792.	11.1	621
3231	Intrinsic Instability of Inorganicâ€“Organic Hybrid Halide Perovskite Materials. Advanced Materials, 2019, 31, e1805337.	11.1	278
3232	Perovskite Photovoltaics: The Significant Role of Ligands in Film Formation, Passivation, and Stability. Advanced Materials, 2019, 31, e1805702.	11.1	192
3233	The Impact of a Dynamic Twoâ€Step Solution Process on Film Formation of Cs_{0.15}(MA_{0.7}FA_{0.3})_{0.85}PbI₃ Perovskite and Solar Cell Performance. Small, 2019, 15, e1804858.	5.2	46
3234	Manipulating the Phase Distributions and Carrier Transfers in Hybrid Quasiâ€Twoâ€Dimensional Perovskite Films. Solar Rrl, 2019, 3, 1800359.	3.1	46
3235	Bismuth Dopingâ€“Induced Stable Seebeck Effect Based on MAPbI₃ Polycrystalline Thin Films. Advanced Functional Materials, 2019, 29, 1900615.	7.8	42
3236	Causes and Solutions of Recombination in Perovskite Solar Cells. Advanced Materials, 2019, 31, e1803019.	11.1	422
3237	Insight into the Interfacial Elastic Contact in Stacking Perovskite Solar Cells. Advanced Materials Interfaces, 2019, 6, 1900157.	1.9	9
3238	Review of Novel Passivation Techniques for Efficient and Stable Perovskite Solar Cells. Solar Rrl, 2019, 3, 1800302.	3.1	139
3239	Perovskite Solar Cells with >19% Efficiency Achieved by an Advanced Three-Step Method Using Additional HC(NH₂)₂Iâ€“NaI Spin-Coating. ACS Applied Energy Materials, 2019, 2, 1823-1831.	2.5	7
3240	Effect of small molecule additives on efficient operation of all inorganic polycrystalline perovskite light-emitting diodes. Journal of Materials Chemistry C, 2019, 7, 5293-5298.	2.7	19
3241	Hydrophobic Cu₂O Quantum Dots Enabled by Surfactant Modification as Top Holeâ€Transport Materials for Efficient Perovskite Solar Cells. Advanced Science, 2019, 6, 1801169.	5.6	101
3242	Fluorescent Microarrays of <i>in Situ</i> Crystallized Perovskite Nanocomposites Fabricated for Patterned Applications by Using Inkjet Printing. ACS Nano, 2019, 13, 2042-2049.	7.3	120
3243	Enhanced photovoltaic performance of perovskite solar cells by Co-doped spinel nickel cobaltite hole transporting layer. APL Materials, 2019, 7, .	2.2	20
3244	Waterâ€Soluble Triazolium Ionicâ€Liquidâ€Induced Surface Selfâ€Assembly to Enhance the Stability and Efficiency of Perovskite Solar Cells. Advanced Functional Materials, 2019, 29, 1900417.	7.8	145

#	Article	IF	Citations
3245	Manipulation of Bi³⁺/In³⁺ Transmutation and Mn²⁺â€Doping Effect on the Structure and Optical Properties of Double Perovskite Cs₂NaBi_{1â€}<i>_x</i>In<i>_x</i>Cl₆. Advanced Optical Materials, 2019, 7, 1801435.	3.6	157
3246	Engineering of Perovskite Materials Based on Formamidinium and Cesium Hybridization for High-Efficiency Solar Cells. Chemistry of Materials, 2019, 31, 1620-1627.	3.2	99
3247	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
3248	Dual Functional Doping of KMnO4 in Spiro-OMeTAD for Highly Effective Planar Perovskite Solar Cells. ACS Applied Energy Materials, 2019, 2, 2188-2196.	2.5	22
3249	Efficient and Stable Perovskite Solar Cell with TiO<inf>2</inf> Thin Insulator Layer as Electron Transport. , 2019, , .		4
3250	The Positive Function of Incorporation of Small Molecules into Perovskite Materials for Highâ€Efficient Stable Solar Cells. Solar Rrl, 2019, 3, 1800327.	3.1	16
3251	Impact of chemical doping on resistive switching behavior in zirconium-doped CH3NH3PbI3 based RRAM. Organic Electronics, 2019, 68, 230-235.	1.4	38
3252	Ultrafast Low-Temperature Crystallization of Solar Cell Graded Formamidinium-Cesium Mixed-Cation Lead Mixed-Halide Perovskites Using a Reproducible Microwave-Based Process. ACS Applied Energy Materials, 2019, 2, 1844-1853.	2.5	20
3253	Fluorescence microscopy of single lead bromide nanocrystals reveals sharp transitions during their transformation to methylammonium lead bromide. Journal of Materials Chemistry C, 2019, 7, 3486-3495.	2.7	8
3254	Direct p-doping of Li-TFSI for efficient hole injection: Role of polaronic level in molecular doping. Applied Surface Science, 2019, 480, 565-571.	3.1	9
3255	Halide Perovskite Photovoltaics: Background, Status, and Future Prospects. Chemical Reviews, 2019, 119, 3036-3103.	23.0	2,009
3256	Halide Perovskites: Is It All about the Interfaces?. Chemical Reviews, 2019, 119, 3349-3417.	23.0	404
3257	Solvent engineering based on triethylenetetramine (TETA) for perovskite solar cells processed in ambient-air. Photochemical and Photobiological Sciences, 2019, 18, 1228-1234.	1.6	4
3258	Temporal and spatial pinhole constraints in small-molecule hole transport layers for stable and efficient perovskite photovoltaics. Journal of Materials Chemistry A, 2019, 7, 7338-7346.	5.2	41
3259	Strain engineering in perovskite solar cells and its impacts on carrier dynamics. Nature Communications, 2019, 10, 815.	5.8	528
3260	Halogen bonding reduces intrinsic traps and enhances charge mobilities in halide perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 6840-6848.	5.2	41
3261	Room-Temperature Cubic Perovskite Thin Films by Three-Step All-Vapor Conversion from PbSe to MAPbI₃. Crystal Growth and Design, 2019, 19, 2001-2009.	1.4	12
3262	Deciphering the degradation mechanism of the lead-free all inorganic perovskite Cs2SnI6. Npj Materials Degradation, 2019, 3, .	2.6	25

#	Article	IF	Citations
3263	Co-axial electrospray: a versatile tool to fabricate hybrid electron transporting materials for high efficiency and stable perovskite photovoltaics. Nanoscale Advances, 2019, 1, 1297-1304.	2.2	4
3264	Understanding the Impact of Cu-In-Ga-S Nanoparticles Compactness on Holes Transfer of Perovskite Solar Cells. Nanomaterials, 2019, 9, 286.	1.9	9
3265	Anionic order and band gap engineering in vacancy ordered triple perovskites. Chemical Communications, 2019, 55, 3164-3167.	2.2	36
3266	A Review of Perovskites Solar Cell Stability. Advanced Functional Materials, 2019, 29, 1808843.	7.8	835
3267	Hybrid perovskites for device applications. , 2019, , 211-256.		13
3268	Integrated dielectric-electrode layer for triboelectric nanogenerator based on Cu nanowire-Mesh hybrid electrode. Nano Energy, 2019, 59, 120-128.	8.2	37
3269	Perovskite films grown with green mixed anti-solvent for highly efficient solar cells with enhanced stability. Solar Energy, 2019, 181, 285-292.	2.9	41
3270	Effect of bidentate and tridentate additives on the photovoltaic performance and stability of perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 4977-4987.	5.2	143
3271	Enhancement of open circuit voltage for CuSCN-based perovskite solar cells by controlling the perovskite/CuSCN interface with functional molecules. Journal of Materials Chemistry A, 2019, 7, 6028-6037.	5.2	49
3272	Bi-functional additive engineering for high-performance perovskite solar cells with reduced trap density. Journal of Materials Chemistry A, 2019, 7, 6450-6458.	5.2	143
3273	Strategies for Modifying TiO₂ Based Electron Transport Layers to Boost Perovskite Solar Cells. ACS Sustainable Chemistry and Engineering, 2019, 7, 4586-4618.	3.2	83
3274	Flexible, transparent nanocellulose paper-based perovskite solar cells. Npj Flexible Electronics, 2019, 3, .	5.1	117
3275	Recent developments in stimuli-responsive luminescent films. Journal of Materials Chemistry C, 2019, 7, 3399-3412.	2.7	96
3276	BIOKINETIC MODEL OF Tc-99m MIBI FOR EIGHT PATIENTS UNDERGONE MYOCARDIAL PERFUSION EXAMINATION via GAMMA CAMERA AND MATLAB PROGRAM: AN IN-VIVO STUDY. Journal of Mechanics in Medicine and Biology, 2019, 19, 1940042.	0.3	0
3277	Perovskite Solar Cells. , 2019, , .		1
3278	Low temperature process of homogeneous and pinhole free Perovskite layers for fully coated photovoltaic devices up to 256 cm2 area at ambient condition. , 2019, , .		2
3279	Solvents driven structural, morphological, optical and dielectric properties of lead free perovskite CH₃NH₃SnCl₃ for optoelectronic applications: experimental and DFT study. Materials Research Express, 2019, 6, 125921.	0.8	5
3280	Effects of anti-solvent in the two-step fabrication of absorber layer in perovskite solar cells. Journal of Physics: Conference Series, 2019, 1380, 012046.	0.3	0

#	Article	IF	Citations
3281	Influence of Film Quality on Power Conversion Efficiency in Perovskite Solar Cells. Coatings, 2019, 9, 622.	1.2	8
3283	Effect of Cu2O Content in Electrodeposited CuOx Film on Perovskite Solar Cells. Nano, 2019, 14, 1950126.	0.5	3
3284	A pre-solution mixing precursor method for improving the crystallization quality of perovskite films and electroluminescence performance of perovskite light-emitting diodes. Nanoscale, 2019, 11, 20847-20856.	2.8	9
3285	Highly efficient walking perovskite solar cells based on thermomechanical polymer films. Journal of Materials Chemistry A, 2019, 7, 26154-26161.	5.2	12
3286	Spacer layer design for efficient fully printable mesoscopic perovskite solar cells. RSC Advances, 2019, 9, 29840-29846.	1.7	14
3287	Low-Cost and Flexible Anti-Reflection Films Constructed From Nano Multi-Layers of TiO₂ and SiO₂ for Perovskite Solar Cells. IEEE Access, 2019, 7, 176394-176403.	2.6	9
3288	Hot electron injection into semiconducting polymers in polymer based-perovskite solar cells and their fate. Nanoscale, 2019, 11, 23357-23365.	2.8	3
3289	Enhanced perovskite crystallization by the polyvinylpyrrolidone additive for high efficiency solar cells. Sustainable Energy and Fuels, 2019, 3, 3448-3454.	2.5	12
3290	Two-dimensional black phosphorous induced exciton dissociation efficiency enhancement for high-performance all-inorganic CsPbI₃ perovskite photovoltaics. Journal of Materials Chemistry A, 2019, 7, 22539-22549.	5.2	35
3291	The synergistic effect of cooperating solvent vapor annealing for high-efficiency planar inverted perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 27267-27277.	5.2	24
3292	Coffee ring elimination and crystalline control of electrohydrodynamically printed high-viscosity perovskites. Journal of Materials Chemistry C, 2019, 7, 14867-14873.	2.7	38
3293	High-Detectivity/-Speed Flexible and Self-Powered Graphene Quantum Dots/Perovskite Photodiodes. ACS Sustainable Chemistry and Engineering, 2019, 7, 19961-19968.	3.2	16
3294	A Facile Way to Improve the Performance of Perovskite Solar Cells by Toluene and Diethyl Ether Mixed Anti-Solvent Engineering. Coatings, 2019, 9, 766.	1.2	11
3295	Crystal and Band-Gap Engineering of One-Dimensional Antimony/Bismuth-Based Organicâ€“Inorganic Hybrids. Inorganic Chemistry, 2019, 58, 16346-16353.	1.9	20
3296	Mobility-Dependent Charge-Transfer Efficiency at the ZnO/MAPbI₃ Perovskite Contact: Developing a Novel Test Platform for Probing Electrical Contact Properties. Journal of Physical Chemistry C, 2019, 123, 30689-30695.	1.5	3
3297	Synthesis and characterization of a hybrid perovskite to be applied as an absorbent layer in solar cell. Journal of Physics: Conference Series, 2019, 1386, 012068.	0.3	2
3298	Efficient and Stable Low-Bandgap Perovskite Solar Cells Enabled by a CsPbBr₃-Cluster Assisted Bottom-up Crystallization Approach. Journal of the American Chemical Society, 2019, 141, 20537-20546.	6.6	79
3299	Investigation of Chemical Origin of White-Light Emission in Two-Dimensional (C4H9NH3)2PbBr4 via Infrared Nanoscopy. Journal of Physical Chemistry Letters, 2019, 10, 7942-7948.	2.1	22

#	Article	IF	Citations
3300	Manipulating the Structural Transformation of Fullerene Microtubes to Fullerene Microhorns Having Microscopic Recognition Properties. ACS Nano, 2019, 13, 14005-14012.	7.3	47
3302	Stretchable and colorless freestanding microwire arrays for transparent solar cells with flexibility. Light: Science and Applications, 2019, 8, 121.	7.7	51
3303	Tunable optical absorption in lead-free perovskite-like hybrids by iodide management. Chemical Communications, 2019, 55, 14174-14177.	2.2	23
3304	Carbon-based materials for stable, cheaper and large-scale processable perovskite solar cells. Energy and Environmental Science, 2019, 12, 3437-3472.	15.6	223
3305	Microplasma-synthesized ultra-small NiO nanocrystals, a ubiquitous hole transport material. Nanoscale Advances, 2019, 1, 4915-4925.	2.2	15
3306	Segregation-free bromine-doped perovskite solar cells for IoT applications. RSC Advances, 2019, 9, 32833-32838.	1.7	13
3307	Real time nanoplasmonic sensing for monitoring CH3NH3PbI3 perovskite formation in mesoporous TiO2 films. AIP Advances, 2019, 9, 125017.	0.6	1
3308	Characteristics of Large Area Perovskite Solar Cells from Electrodes of Used Car Batteries. Materials Science Forum, 2019, 966, 373-377.	0.3	1
3309	Applications of Carbon Nanotubes in Solar Cells. Nanostructure Science and Technology, 2019, , 497-536.	0.1	11
3310	Acylhydrazone-based porphyrin derivative as hole transport material for efficient and thermally stable perovskite solar cells. Dyes and Pigments, 2019, 160, 957-961.	2.0	27
3311	Superior efficiency achievement for FAPbI3-perovskite thin film solar cell by optimization with response surface methodology technique and partial replacement of Pb by Sn. Optik, 2019, 176, 262-277.	1.4	18
3312	Core-shell structure of ZnO@TiO2 nanorod arrays as electron transport layer for perovskite solar cell with enhanced efficiency and stability. Applied Surface Science, 2019, 464, 301-310.	3.1	47
3313	Effect of anti-solvent mixture on the performance of perovskite solar cells and suppression hysteresis behavior. Organic Electronics, 2019, 65, 266-274.	1.4	18
3314	Fluorescence spectroscopy-based study of balanced transport of charge carriers in hot-air-annealed perovskites. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2019, 207, 68-72.	2.0	2
3315	Efficient planar perovskite solar cells with a conjugated random terpolymer as a novel hole-transporting material. Dyes and Pigments, 2019, 160, 930-935.	2.0	10
3316	Constructing efficient mixed-ion perovskite solar cells based on TiO2 nanorod array. Journal of Colloid and Interface Science, 2019, 534, 459-468.	5.0	83
3317	Highly efficient inverted perovskite solar cells mediated by electrodeposition-processed NiO NPs hole-selective contact with different energy structure and surface property. Applied Surface Science, 2019, 463, 1107-1116.	3.1	18
3318	Improving Photovoltaic Stability and Performance of Perovskite Solar Cells by Molecular Interface Engineering. Journal of Physical Chemistry C, 2019, 123, 1219-1225.	1.5	16

#	Article	IF	Citations
3319	An approach to optimize pre-annealing aging and anneal conditions to improve photovoltaic performance of perovskite solar cells. Materials for Renewable and Sustainable Energy, 2019, 8, 1.	1.5	11
3320	Activating Old Materials with New Architecture: Boosting Performance of Perovskite Solar Cells with H₂Oâ€Assisted Hierarchical Electron Transporting Layers. Advanced Science, 2019, 6, 1801170.	5.6	35
3321	Reduced Defects of MAPbI₃ Thin Films Treated by FAI for Highâ€Performance Planar Perovskite Solar Cells. Advanced Functional Materials, 2019, 29, 1805810.	7.8	73
3322	Exploring wide bandgap metal oxides for perovskite solar cells. APL Materials, 2019, 7, .	2.2	54
3323	Interfacial Modification in Organic and Perovskite Solar Cells. Advanced Materials, 2019, 31, e1805708.	11.1	106
3324	Control of Crystal Growth toward Scalable Fabrication of Perovskite Solar Cells. Advanced Functional Materials, 2019, 29, 1807047.	7.8	111
3325	Strategies to Improve Luminescence Efficiency of Metalâ€Halide Perovskites and Lightâ€Emitting Diodes. Advanced Materials, 2019, 31, e1804595.	11.1	102
3326	Enhanced temperature-tunable narrow-band photoluminescence from resonant perovskite nanograting. Applied Surface Science, 2019, 473, 419-424.	3.1	25
3327	A comprehensive review of flexible piezoelectric generators based on organic-inorganic metal halide perovskites. Nano Energy, 2019, 57, 74-93.	8.2	122
3328	Enhancing the photovoltaic performance of perovskite solar cells by potassium ions doping. Journal of Materials Science: Materials in Electronics, 2019, 30, 2057-2066.	1.1	10
3329	Tailoring solubility of methylammonium lead halide with non-stoichiometry molar ratio in perovskite solar cells: Morphological and electrical relationships for high current generation. Solar Energy Materials and Solar Cells, 2019, 192, 24-35.	3.0	13
3330	Tuning Bandgap of Mixedâ€Halide Perovskite for Improved Photovoltaic Performance Under Monochromaticâ€Light Illumination. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800727.	0.8	8
3331	Surface Passivation of Perovskite Films via Iodide Salt Coatings for Enhanced Stability of Organic Lead Halide Perovskite Solar Cells. Solar Rrl, 2019, 3, 1800282.	3.1	34
3332	Two layers corrugated semiconductor solar cell. Optik, 2019, 181, 933-940.	1.4	7
3333	In Situ Monitoring of Thermal Degradation of CH₃NH₃PbI₃ Films by Spectroscopic Ellipsometry. Journal of Physical Chemistry C, 2019, 123, 1362-1369.	1.5	13
3334	Perovskite/Graphene Solar Cells without a Hole-Transport Layer. ACS Applied Energy Materials, 2019, 2, 171-175.	2.5	50
3335	Facet-Dependent Control of PbI₂ Colloids for over 20% Efficient Perovskite Solar Cells. ACS Energy Letters, 2019, 4, 358-367.	8.8	46
3336	Highly stable and efficient all-inorganic lead-free perovskite solar cells with native-oxide passivation. Nature Communications, 2019, 10, 16.	5.8	430

#	Article	IF	Citations
3337	Effect of excessive Pb on the stability and performance of Pb-halide perovskite solar cells against photo-induced degradation. MRS Communications, 2019, 9, 189-193.	0.8	2
3338	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
3339	Light-induced effects on crystal size and photo-stability of colloidal CsPbBr₃ perovskite nanocrystals. Materials Research Express, 2019, 6, 045041.	0.8	19
3340	Efficient Inorganic Cesium Lead Mixedâ€Halide Perovskite Solar Cells Prepared by Flashâ€Evaporation Printing. Energy Technology, 2019, 7, 1800986.	1.8	7
3341	Investigation on Crystallization of CH₃NH₃PbI₃ Perovskite and Its Intermediate Phase from Polar Aprotic Solvents. Crystal Growth and Design, 2019, 19, 959-965.	1.4	22
3342	Optical properties of the perovskite films deposited on meso-porous TiO2 by one step and hot casting techniques. Thin Solid Films, 2019, 671, 139-146.	0.8	14
3343	Developing 1D Sbâ€Embedded Carbon Nanorods to Improve Efficiency and Stability of Inverted Planar Perovskite Solar Cells. Small, 2019, 15, e1804692.	5.2	21
3344	Performance analysis of perovskite solar cells in 2013â€“2018 using machine-learning tools. Nano Energy, 2019, 56, 770-791.	8.2	85
3345	Low-temperature processed efficient and colourful semitransparent perovskite solar cells for building integration and tandem applications. Organic Electronics, 2019, 65, 401-411.	1.4	39
3346	Application of combinative TiO2nanorods and nanoparticles layer as the electron transport film in highly efficient mixed halides perovskite solar cells. Electrochimica Acta, 2019, 297, 1071-1078.	2.6	12
3347	Chemical sintering reduced grain boundary defects for stable planar perovskite solar cells. Nano Energy, 2019, 56, 741-750.	8.2	65
3348	Dimethyl Sulfoxide Solvent Engineering for High Quality Cationâ€Anionâ€Mixed Hybrid and High Efficiency Perovskite Solar Cells. Energy Technology, 2019, 7, 346-351.	1.8	3
3349	SiP2S monolayer: A two dimensional semiconductor with a moderate band gap. Chemical Physics Letters, 2019, 715, 100-104.	1.2	5
3350	Antireflective, self-cleaning and protective film by continuous sputtering of a plasma polymer on inorganic multilayer for perovskite solar cells application. Solar Energy Materials and Solar Cells, 2019, 191, 55-61.	3.0	56
3351	The external and internal influences on the tuning of the properties of perovskites: An overview. Ceramics International, 2019, 45, 4152-4166.	2.3	42
3352	Effects of methylammonium acetate on the perovskite film quality for the perovskite solar cell. Organic Electronics, 2019, 65, 201-206.	1.4	30
3353	Oxide materials for energy applications. , 2019, , 199-234.		1
3354	PbTiO₃ as Electronâ€Selective Layer for Highâ€Efficiency Perovskite Solar Cells: Enhanced Electron Extraction via Tunable Ferroelectric Polarization. Advanced Functional Materials, 2019, 29, 1806427.	7.8	23

#	Article	IF	Citations
3355	Carrier Transfer Behaviors at Perovskite/Contact Layer Heterojunctions in Perovskite Solar Cells. Advanced Materials Interfaces, 2019, 6, 1801253.	1.9	27
3356	Conducting Bridge Resistive Switching Behaviors in Cubic MAPbI₃, Orthorhombic RbPbI₃, and Their Mixtures. Advanced Electronic Materials, 2019, 5, 1800586.	2.6	33
3357	Melamine Hydroiodide Functionalized MAPbI₃ Perovskite with Enhanced Photovoltaic Performance and Stability in Ambient Atmosphere. Solar Rrl, 2019, 3, 1800275.	3.1	18
3358	Doubleâ€Sideâ€Passivated Perovskite Solar Cells with Ultraâ€Low Potential Loss. Solar Rrl, 2019, 3, 1800296.	3.1	89
3359	A Perovskite Solar Cell with Enhanced Light Stability and High Photovoltaic Conversion Efficiencies. ACS Sustainable Chemistry and Engineering, 2019, 7, 709-715.	3.2	9
3360	Surface modification of SnO2 blocking layers for hysteresis elimination of MAPbI3 photovoltaics. Applied Surface Science, 2019, 470, 613-621.	3.1	19
3361	Fully Air-Bladed High-Efficiency Perovskite Photovoltaics. Joule, 2019, 3, 402-416.	11.7	119
3362	A low-cost flexible broadband photodetector based on SnO2/CH3NH3PbI3 hybrid structure. Optical Materials, 2019, 88, 689-694.	1.7	24
3363	Uniform Cs2SnI6 Thin Films for Lead-Free and Stable Perovskite Optoelectronics via Hybrid Deposition Approaches. Electronic Materials Letters, 2019, 15, 192-200.	1.0	38
3364	Origins of High Performance and Degradation in the Mixed Perovskite Solar Cells. Advanced Materials, 2019, 31, e1805438.	11.1	41
3365	From Lead Iodide to a Radical Form Leadâ€Iodide Superlattice: High Conductance Gain and Broader Band for Photoconductive Response. Angewandte Chemie, 2019, 131, 2718-2721.	1.6	5
3366	From Lead Iodide to a Radical Form Leadâ€Iodide Superlattice: High Conductance Gain and Broader Band for Photoconductive Response. Angewandte Chemie - International Edition, 2019, 58, 2692-2695.	7.2	34
3367	SnO₂â€Based Perovskite Solar Cells: Configuration Design and Performance Improvement. Solar Rrl, 2019, 3, 1800292.	3.1	80
3368	Rapid crystallization and controllable growth of perovskite thin films via a seeded approach. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2019, 37, .	0.9	6
3369	Unraveling the light-induced degradation mechanism of CH3NH3PbI3 perovskite films. Organic Electronics, 2019, 67, 19-25.	1.4	44
3370	Enhanced Stability and Optical Absorption in the Perovskiteâ€Based Compounds MA 1âˆ' x Cs x PbI 3âˆ' y Br y. ChemPhysChem, 2019, 20, 489-498.	1.0	6
3371	Optimizing reaction kinetics of sequential deposition technique for ambient air and solution processed hybrid perovskite thin films. Journal of Materials Science: Materials in Electronics, 2019, 30, 4250-4258.	1.1	5
3372	Progress and challenges in perovskite photovoltaics from single- to multi-junction cells. Materials Today Energy, 2019, 12, 70-94.	2.5	67

#	Article	IF	Citations
3373	Enhanced Open-Circuit Voltage of Cs-Containing FAPbI₃ Perovskite Solar Cells by the Formation of a Seed Layer through a Vapor-Assisted Solution Process. ACS Sustainable Chemistry and Engineering, 2019, 7, 3404-3413.	3.2	14
3374	Spin-optoelectronic devices based on hybrid organic-inorganic trihalide perovskites. Nature Communications, 2019, 10, 129.	5.8	214
3375	Highly stable hole-conductor-free perovskite solar cells based upon ammonium chloride and a carbon electrode. Journal of Colloid and Interface Science, 2019, 540, 315-321.	5.0	22
3376	Unraveling the Impact of Halide Mixing on Perovskite Stability. Journal of the American Chemical Society, 2019, 141, 3515-3523.	6.6	116
3377	Effect of perovskite film morphology on device performance of perovskite light-emitting diodes. Nanoscale, 2019, 11, 1505-1514.	2.8	32
3378	High-performance perovskite solar cells with large grain-size obtained by the synergy of urea and dimethyl sulfoxide. Applied Surface Science, 2019, 467-468, 708-714.	3.1	47
3379	Direct Observation of Charge Injection From CH₃NH₃PbI_{3âˆ’<i>x</i>}Cl<i>_x</i> to Organic Semiconductors Monitored With subâ€ps Transient Absorption Spectroscopy. Physica Status Solidi (B): Basic Research, 2019, 256, 1800265.	0.7	8
3380	3D printed electronic materials and devices. , 2019, , 309-334.		11
3381	Growth of monolithically grained CH3NH3PbI3 film by a uniform intermediate phase for high performance planar perovskite solar cells. Journal of Alloys and Compounds, 2019, 776, 250-258.	2.8	18
3382	Highâ€Mobility Hydrophobic Conjugated Polymer as Effective Interlayer for Airâ€Stable Efficient Perovskite Solar Cells. Solar Rrl, 2019, 3, 1800232.	3.1	36
3383	Electrodeposition of nanostructured TiO2 thin film as an efficient bifunctional layer for perovskite solar cells. Electrochimica Acta, 2019, 295, 662-667.	2.6	16
3384	NiO@carbon spheres: A promising composite electrode for scalable fabrication of planar perovskite solar cells at low cost. Nano Energy, 2019, 55, 470-476.	8.2	64
3385	Synthetic Approaches for Halide Perovskite Thin Films. Chemical Reviews, 2019, 119, 3193-3295.	23.0	454
3386	Enhance the performance and stability of methylammonium lead iodide perovskite solar cells with guanidinium thiocyanate additive. Current Applied Physics, 2019, 19, 25-30.	1.1	32
3387	Inverted bulk-heterojunction polymer solar cells using a sputter-deposited Al-doped ZnO electron transport layer. Journal of Alloys and Compounds, 2019, 777, 717-722.	2.8	22
3388	Introduction of nitrogen gas flow and precursor aging process to improve the efficiency of the lead acetate derived CH3NH3PbI3 perovskite solar cells. Solar Energy Materials and Solar Cells, 2019, 190, 49-56.	3.0	4
3389	Topological construction of phosphorus and carbon composite and its application in energy storage. Energy Storage Materials, 2019, 20, 343-372.	9.5	43
3390	Perovskite Methylammonium Lead Trihalide Heterostructures: Progress and Challenges. IEEE Nanotechnology Magazine, 2019, 18, 1-12.	1.1	64

#	Article	IF	Citations
3391	Flexible Perowskitâ€Solarzellen: Herstellung und Anwendungen. Angewandte Chemie, 2019, 131, 4512-4530.	1.6	27
3392	Recent Advances in Flexible Perovskite Solar Cells: Fabrication and Applications. Angewandte Chemie - International Edition, 2019, 58, 4466-4483.	7.2	290
3393	From scalable solution fabrication of perovskite films towards commercialization of solar cells. Energy and Environmental Science, 2019, 12, 518-549.	15.6	269
3394	High-Efficiency, Hysteresis-Less, UV-Stable Perovskite Solar Cells with Cascade ZnOâ€"ZnS Electron Transport Layer. Journal of the American Chemical Society, 2019, 141, 541-547.	6.6	189
3395	Passivation of the grain boundaries of CH₃NH₃PbI₃ using carbon quantum dots for highly efficient perovskite solar cells with excellent environmental stability. Nanoscale, 2019, 11, 115-124.	2.8	164
3396	Tellurium-Based Double Perovskites A₂TeX₆ with Tunable Band Gap and Long Carrier Diffusion Length for Optoelectronic Applications. ACS Energy Letters, 2019, 4, 228-234.	8.8	58
3397	Methylammonium acetate as an additive to improve performance and eliminate J-V hysteresis in 2D homologous organic-inorganic perovskite solar cells. Solar Energy Materials and Solar Cells, 2019, 191, 283-289.	3.0	18
3398	Rapid Crystallization for Efficient 2D Ruddlesdenâ€"Popper (2DRP) Perovskite Solar Cells. Advanced Functional Materials, 2019, 29, 1806831.	7.8	102
3399	Anion-dependent Hot Carrier Dynamics in Chalcogenide Perovskites SrSnX₃ (X = S, Se). Journal of Physical Chemistry C, 2019, 123, 29-35.	1.5	8
3400	Organic-inorganic hybrid Sn-based perovskite photodetectors with high external quantum efficiencies and wide spectral responses from 300 to 1000 nm. Science China Materials, 2019, 62, 790-796.	3.5	23
3401	Effect of compact TiO2 layer on structural, optical, and performance characteristics of mesoporous perovskite solar cells. Materials Today Communications, 2019, 18, 176-183.	0.9	33
3402	ITIC-based bulk heterojunction perovskite film boosting the power conversion efficiency and stability of the perovskite solar cell. Solar Energy, 2019, 178, 90-97.	2.9	28
3403	Investigation of Dimethylammonium Solubility in MAPbBr₃ Hybrid Perovskite: Synthesis, Crystal Structure, and Optical Properties. Inorganic Chemistry, 2019, 58, 944-949.	1.9	22
3404	Open-Circuit Voltages Exceeding 1.26 V in Planar Methylammonium Lead Iodide Perovskite Solar Cells. ACS Energy Letters, 2019, 4, 110-117.	8.8	296
3405	Performance enhancements in poly(vinylidene fluoride)-based piezoelectric nanogenerators for efficient energy harvesting. Nano Energy, 2019, 56, 662-692.	8.2	161
3406	Nanoscale Lead(II) Iodide-sensitized Solar Cell. Chemistry Letters, 2019, 48, 144-147.	0.7	1
3407	Two-dimensional materials in perovskite solar cells. Materials Today Energy, 2019, 11, 128-158.	2.5	93
3408	Recent Advances in Energetics and Stability of Metal Halide Perovskites for Optoelectronic Applications. Advanced Materials Interfaces, 2019, 6, 1801351.	1.9	29

#	Article	IF	Citations
3409	Selfâ€Assembled 2D Perovskite Layers for Efficient Printable Solar Cells. Advanced Energy Materials, 2019, 9, 1803258.	10.2	149
3410	Stability Challenges for Perovskite Solar Cells. ChemNanoMat, 2019, 5, 253-265.	1.5	39
3411	Humidity-insensitive fabrication of efficient perovskite solar cells in ambient air. Journal of Power Sources, 2019, 412, 359-365.	4.0	19
3412	A solution-processed cobalt-doped nickel oxide for high efficiency inverted type perovskite solar cells. Journal of Power Sources, 2019, 412, 425-432.	4.0	55
3413	Interface engineering with NiO nanocrystals for highly efficient and stable planar perovskite solar cells. Electrochimica Acta, 2019, 293, 211-219.	2.6	56
3414	Tuning the A-site cation and X-site anion composition of CH3NH3PbI3 perovskite material for efficient planar perovskite solar cells. Electrochimica Acta, 2019, 293, 371-379.	2.6	13
3415	Employing tetraethyl orthosilicate additive to enhance trap passivation of planar perovskite solar cells. Electrochimica Acta, 2019, 293, 174-183.	2.6	18
3416	Recent Advances in Flexible Inorganic Light Emitting Diodes: From Materials Design to Integrated Optoelectronic Platforms. Advanced Optical Materials, 2019, 7, 1800936.	3.6	75
3417	Evaluation of the photovoltaic performance and the stability of the FTO/b-TiO2/mp-TiO2/CH3NH3[LaxPb1-x]I3/NiO/Au at various La ions content. Optik, 2019, 178, 29-35.	1.4	2
3418	â€œUnleadedâ€• Perovskites: Status Quo and Future Prospects of Tinâ€Based Perovskite Solar Cells. Advanced Materials, 2019, 31, e1803230.	11.1	345
3419	Solution-processed barium hydroxide modified boron-doped ZnO bilayer electron transporting materials: Toward stable perovskite solar cells with high efficiency of over 20.5%. Journal of Colloid and Interface Science, 2019, 535, 353-362.	5.0	15
3420	Emerging Organic and Organic/Inorganic Hybrid Photovoltaic Devices for Specialty Applications: Lowâ€Levelâ€Lighting Energy Conversion and Biomedical Treatment. Advanced Optical Materials, 2019, 7, 1800662.	3.6	69
3421	Elucidating the dynamics of solvent engineering for perovskite solar cells. Science China Materials, 2019, 62, 161-172.	3.5	57
3422	Effects of Zn2+ ion doping on hybrid perovskite crystallization and photovoltaic performance of solar cells. Chemical Physics, 2019, 517, 80-84.	0.9	18
3423	Self-passivated perovskite solar cells with wider bandgap perovskites as electron blocking layer. Applied Surface Science, 2019, 465, 420-426.	3.1	8
3424	Effect of TiO2 particle size and layer thickness on mesoscopic perovskite solar cells. Applied Surface Science, 2019, 477, 131-136.	3.1	57
3425	Mixed Halide Perovskite Solar Cells: Progress and Challenges. Critical Reviews in Solid State and Materials Sciences, 2020, 45, 85-112.	6.8	51
3426	Improved perovskite solar cell efficiency by tuning the colloidal size and free ion concentration in precursor solution using formic acid additive. Journal of Energy Chemistry, 2020, 41, 43-51.	7.1	37

#	Article	IF	Citations
3427	Optical Design in Perovskite Solar Cells. Small Methods, 2020, 4, 1900150.	4.6	32
3428	Gram-scale and solvent-free synthesis of Mn-doped lead halide perovskite nanocrystals. Journal of Alloys and Compounds, 2020, 815, 152393.	2.8	11
3429	Recent progress on cesium lead/tin halide-based inorganic perovskites for stable and efficient solar cells: A review. Solar Energy Materials and Solar Cells, 2020, 204, 110212.	3.0	56
3430	Photovoltaic broadband photodetectors based on CH3NH3PbI3 thin films grown on silicon nanoporous pillar array. Solar Energy Materials and Solar Cells, 2020, 204, 110230.	3.0	21
3431	Thermal stability of mobility in methylammonium lead iodide. JPhys Materials, 2020, 3, 014003.	1.8	14
3432	Enhanced efficiency and stability of perovskite solar cells by 2D perovskite vapor-assisted interface optimization. Journal of Energy Chemistry, 2020, 45, 103-109.	7.1	32
3433	Tin Halide Perovskite (ASnX₃) Solar Cells: A Comprehensive Guide toward the Highest Power Conversion Efficiency. Advanced Energy Materials, 2020, 10, 1902467.	10.2	114
3434	A Review on Additives for Halide Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1902492.	10.2	240
3435	Progress of Surface Science Studies on ABX₃â€Based Metal Halide Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1902726.	10.2	87
3436	Progress of Triple Cation Organometal Halide Perovskite Solar Cells. Energy Technology, 2020, 8, 1900804.	1.8	24
3437	Highly Efficient (110) Orientated FAâ€MA Mixed Cation Perovskite Solar Cells via Functionalized Carbon Nanotube and Methylammonium Chloride Additive. Small Methods, 2020, 4, 1900511.	4.6	25
3438	A Review on Reducing Grain Boundaries and Morphological Improvement of Perovskite Solar Cells from Methodology and Materialâ€Based Perspectives. Small Methods, 2020, 4, 1900569.	4.6	56
3439	SnO₂â€“Carbon Nanotubes Hybrid Electron Transport Layer for Efficient and Hysteresisâ€Free Planar Perovskite Solar Cells. Solar Rrl, 2020, 4, 1900415.	3.1	61
3440	Controlling Apparent Coordinated Solvent Number in the Perovskite Intermediate Phase Film for Developing Largeâ€Area Perovskite Solar Modules. Energy Technology, 2020, 8, 1900972.	1.8	9
3441	Light induced degradation of the transport length of CH3NH3PbI3 studied by modulated surface photovoltage spectroscopy after Goodman. Organic Electronics, 2020, 77, 105503.	1.4	3
3442	Iodine-assisted antisolvent engineering for stable perovskite solar cells with efficiency >21.3 %. Nano Energy, 2020, 67, 104224.	8.2	46
3443	To Be Higher and Strongerâ€"Metal Oxide Electron Transport Materials for Perovskite Solar Cells. Small, 2020, 16, e1902579.	5.2	80
3444	Pbâ€Site Doping of Lead Halide Perovskites for Efficient Solar Cells. Solar Rrl, 2020, 4, 1900227.	3.1	8

#	Article	IF	Citations
3445	Lightâ€Induced Defect Generation in CH 3 NH 3 PbI 3 Thin Films and Single Crystals. Solar Rrl, 2020, 4, 1900216.	3.1	11
3446	Influence of Lewis base HMPA on the properties of efficient planar MAPbI3 solar cells fabricated by one-step process assisted by Lewis acid-base adduct approach. Chemical Engineering Journal, 2020, 380, 122436.	6.6	24
3447	High-efficiency colorful perovskite solar cells using TiO2 nanobowl arrays as a structured electron transport layer. Science China Materials, 2020, 63, 35-46.	3.5	26
3448	Interfacial Postâ€Treatment for Enhancing the Performance of Printable Carbonâ€Based Perovskite Solar Cells. Solar Rrl, 2020, 4, 1900278.	3.1	23
3449	Flexible Planar Heterojunction Perovskite Solar Cells Fabricated via Sequential Rollâ€toâ€Roll Microgravure Printing and Slotâ€Die Coating Deposition. Solar Rrl, 2020, 4, 1900204.	3.1	47
3450	Sequential Processing: Crystallization of Ultrasmooth FA 1â€" x MA x PbI 3 Perovskite Layers for Highly Efficient and Stable Planar Solar Cells. Solar Rrl, 2020, 4, 1900183.	3.1	7
3451	A Short Review on Interface Engineering of Perovskite Solar Cells: A Selfâ€Assembled Monolayer and Its Roles. Solar Rrl, 2020, 4, 1900251.	3.1	75
3452	Organicâ€Inorganic Halide Perovskites: From Crystallization of Polycrystalline Films to Solar Cell Applications. Solar Rrl, 2020, 4, 1900200.	3.1	43
3453	Strategies Toward Extending the Nearâ€Infrared Photovoltaic Response of Perovskite Solar Cells. Solar Rrl, 2020, 4, 1900280.	3.1	13
3454	Material and Interface Engineering for Highâ€Performance Perovskite Solar Cells: A Personal Journey and Perspective. Chemical Record, 2020, 20, 209-229.	2.9	9
3455	A photo-crosslinkable bis-triarylamine side-chain polymer as a hole-transport material for stable perovskite solar cells. Sustainable Energy and Fuels, 2020, 4, 190-198.	2.5	22
3456	Desirable TiO2 compact films for nanostructured hybrid solar cells. Materials Technology, 2020, 35, 31-38.	1.5	6
3457	Efficient and stable planar perovskite solar cells with a PEDOT:PSS/SrGO hole interfacial layer. Journal of Alloys and Compounds, 2020, 812, 152091.	2.8	49
3458	The Effect of SnO2 and ZnO on the Performance of Perovskite Solar Cells. Journal of Electronic Materials, 2020, 49, 364-376.	1.0	26
3459	Printable materials for printed perovskite solar cells. Flexible and Printed Electronics, 2020, 5, 014002.	1.5	2
3460	Large Polaron Self-Trapped States in Three-Dimensional Metal-Halide Perovskites. , 2020, 2, 20-27.		33
3461	Perovskite solar cells. , 2020, , 163-228.		8
3462	Additive Engineering for Efficient and Stable Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1902579.	10.2	477

#	Article	IF	Citations
3463	The low temperature solution-processable SnO2 modified by Bi2O2S as an efficient electron transport layer for perovskite solar cells. Electrochimica Acta, 2020, 330, 135197.	2.6	25
3464	Aâ€Site Management for Highly Crystalline Perovskites. Advanced Materials, 2020, 32, e1904702.	11.1	62
3465	How to Report Record Openâ€Circuit Voltages in Leadâ€Halide Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1902573.	10.2	153
3466	Prediction of staggered stacking 2D BeP semiconductor with unique anisotropic electronic properties. Journal of Physics Condensed Matter, 2020, 32, 085301.	0.7	2
3467	Grain Quality Engineering for Organic Metal Halide Perovskites Using Mixed Antisolvent Spraying Treatment. Solar Rrl, 2020, 4, 1900397.	3.1	9
3468	MAPbI3/agarose photoactive composite for highly stable unencapsulated perovskite solar cells in humid environment. Nano Energy, 2020, 67, 104246.	8.2	36
3469	Enhanced Stability of Perovskite Solar Cells Incorporating Dopantâ€Free Crystalline Spiroâ€OMeTAD Layers by Vacuum Sublimation. Advanced Energy Materials, 2020, 10, 1901524.	10.2	30
3470	Advances in Inkjetâ€Printed Metal Halide Perovskite Photovoltaic and Optoelectronic Devices. Energy Technology, 2020, 8, 1900991.	1.8	71
3471	Carbon film electrode based square-centimeter scale planar perovskite solar cells exceeding 17% efficiency. Materials Science in Semiconductor Processing, 2020, 107, 104809.	1.9	39
3472	Spiroâ€Linked Molecular Holeâ€Transport Materials for Highly Efficient Inverted Perovskite Solar Cells. Solar Rrl, 2020, 4, 1900389.	3.1	28
3473	A Review on Halide Perovskite Film Formation by Sequential Solution Processing for Solar Cell Applications. Energy Technology, 2020, 8, 1901114.	1.8	31
3474	Highly Stable FA x MA 1â€‰â ˆ’â€‰ x PbI 3â€‰â ˆ’â€‰ x Br x â€"2P Precursor for Crystalizing Highâ€Quality, Largeâ€Area Perovskite Film in an Ambient Atmosphere. Solar Rrl, 2020, 4, 1900402.	3.1	8
3475	Auto-thermal operation and optimization of coal-fueled separated gasification chemical looping combustion in a pilot-scale unit. Chemical Engineering Journal, 2020, 383, 123159.	6.6	37
3476	Constructing â€œhillocksâ€•like random-textured absorber for efficient planar perovskite solar cells. Chemical Engineering Journal, 2020, 387, 124091.	6.6	12
3477	All-Inorganic Perovskite Solar Cells With Both High Open-Circuit Voltage and Stability. Frontiers in Materials, 2020, 6, .	1.2	15
3478	Fabrication and Degradation Analysis of Perovskite Solar Cells with Graphene Reduced Oxide as Hole Transporting Layer. Journal of Electronic Materials, 2020, 49, 2289-2295.	1.0	30
3479	Systematic optimization of perovskite solar cells via green solvent systems. Chemical Engineering Journal, 2020, 387, 123966.	6.6	21
3480	It's a trap! On the nature of localised states and charge trapping in lead halide perovskites. Materials Horizons, 2020, 7, 397-410.	6.4	345

#	Article	IF	Citations
3481	Effects of methylamine doping on the stability of triple cation (FA_{0.95âˆ’x}MA_xCs_{0.05})PbI₃ single crystal perovskites. Nanoscale Advances, 2020, 2, 332-339.	2.2	8
3482	Polarization-enhanced photoelectric performance in a molecular ferroelectric hexane-1,6-diammonium pentaiodobismuth (HDA-BiI5)-based solar device. RSC Advances, 2020, 10, 1198-1203.	1.7	10
3483	<i>In situ</i> transfer of CH₃NH₃PbI₃ single crystals in mesoporous scaffolds for efficient perovskite solar cells. Chemical Science, 2020, 11, 474-481.	3.7	19
3484	Recent progress towards roll-to-roll manufacturing of perovskite solar cells using slot-die processing. Flexible and Printed Electronics, 2020, 5, 014006.	1.5	37
3485	Cesium-Containing Methylammonium Lead Iodide Light Absorber for Planar Perovskite Solar Cells. Journal of Nanoscience and Nanotechnology, 2020, 20, 1008-1012.	0.9	3
3486	Edge stabilization in reduced-dimensional perovskites. Nature Communications, 2020, 11, 170.	5.8	147
3487	Edge functionalized graphene nanoribbons with tunable band edges for carrier transport interlayers in organicâ€“inorganic perovskite solar cells. Physical Chemistry Chemical Physics, 2020, 22, 2955-2962.	1.3	4
3488	High efficiency perovskite solar cells using nitrogen-doped graphene/ZnO nanorod composite as an electron transport layer. Solar Energy, 2020, 197, 78-83.	2.9	73
3489	Revolution of Perovskite. Materials Horizons, 2020, , .	0.3	10
3490	Liquid-phase growth and optoelectronic properties of two-dimensional hybrid perovskites CH₃NH₃PbX₃ (X = Cl, Br, I). Nanoscale, 2020, 12, 1100-1108.	2.8	20
3491	Elucidating the mechanisms underlying PCBM enhancement of CH3NH3PbI3 perovskite solar cells using GIXRD and XAFS. Journal of Materials Chemistry A, 2020, 8, 3145-3153.	5.2	17
3492	Nucleation and crystal growth control for scalable solution-processed organicâ€“inorganic hybrid perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 1578-1603.	5.2	112
3493	Molecular aggregation method for perovskiteâ€“fullerene bulk heterostructure solar cells. Journal of Materials Chemistry A, 2020, 8, 1326-1334.	5.2	15
3494	Hole transporting materials for perovskite solar cells and a simple approach for determining the performance limiting factors. Journal of Materials Chemistry A, 2020, 8, 1386-1393.	5.2	22
3495	Vertical Orientated Dionâ€“Jacobson Quasiâ€2D Perovskite Film with Improved Photovoltaic Performance and Stability. Small Methods, 2020, 4, 1900831.	4.6	96
3496	Recent Advances of Device Components toward Efficient Flexible Perovskite Solar Cells. Solar Rrl, 2020, 4, 1900485.	3.1	29
3497	Conjugated Polymers as Hole Transporting Materials for Solar Cells. Chinese Journal of Polymer Science (English Edition), 2020, 38, 449-458.	2.0	9
3498	High Efficiency Perovskite Solar Cells: Materials and Devices Engineering. Transactions on Electrical and Electronic Materials, 2020, 21, 1-15.	1.0	21

#	Article	IF	Citations
3499	Air-processed carbon-based perovskite solar cells with enhanced efficiency and stability: Effect of temperature control and using CuSCN. Journal of Alloys and Compounds, 2020, 821, 153272.	2.8	29
3500	Efficient CH3NH3PbI3-x(SeCN)x perovskite solar cells with improved crystallization and defect passivation. Journal of Alloys and Compounds, 2020, 822, 153539.	2.8	18
3501	Photophysical properties of halide perovskite CsPb(Br1-xIx)3 thin films and nanowires. Journal of Luminescence, 2020, 220, 116985.	1.5	9
3502	Intermediate Phase Enhances Inorganic Perovskite and Metal Oxide Interface for Efficient Photovoltaics. Joule, 2020, 4, 222-234.	11.7	88
3503	Improving perovskite solar cells photovoltaic performance using tetrabutylammonium salt as additive. Journal of Power Sources, 2020, 450, 227623.	4.0	28
3504	Highly efficient and rapid manufactured perovskite solar cells via Flash InfraRed Annealing. Materials Today, 2020, 35, 9-15.	8.3	35
3505	Low temperature, solution processed spinel NiCo2O4 nanoparticles as efficient hole transporting material for mesoscopic n-i-p perovskite solar cells. Solar Energy, 2020, 196, 367-378.	2.9	26
3506	Bypassing Solid-State Intermediates by Solvent Engineering the Crystallization Pathway in Hybrid Organicâ€"Inorganic Perovskites. Crystal Growth and Design, 2020, 20, 1162-1171.	1.4	13
3507	Light-Enhanced Spin Diffusion in Hybrid Perovskite Thin Films and Single Crystals. ACS Applied Materials & Interfaces, 2020, 12, 3205-3213.	4.0	17
3508	Single Crystals: The Next Big Wave of Perovskite Optoelectronics. , 2020, 2, 184-214.		89
3509	Controlling Spatial Crystallization Uniformity and Phase Orientation of Quasiâ€2D Perovskiteâ€Based Lightâ€Emitting Diodes Using Lewis Bases. Advanced Materials Interfaces, 2020, 7, 1901860.	1.9	11
3510	Atomistic Mechanism of the Nucleation of Methylammonium Lead Iodide Perovskite from Solution. Chemistry of Materials, 2020, 32, 529-536.	3.2	45
3511	Improved Efficiency of Perovskite Solar Cells Using a Nitrogen-Doped Graphene-Oxide-Treated Tin Oxide Layer. ACS Applied Materials & Interfaces, 2020, 12, 2417-2423.	4.0	40
3513	Rapid Layerâ€Specific Annealing Enabled by Ultraviolet LED with Estimation of Crystallization Energy for Highâ€Performance Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1902898.	10.2	8
3514	New Strategies for Defect Passivation in Highâ€Efficiency Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1903090.	10.2	237
3515	Molecular Aggregation of Naphthalene Diimide(NDI) Derivatives in Electron Transport Layers of Inverted Perovskite Solar Cells and Their Influence on the Device Performance. Chemistry - an Asian Journal, 2020, 15, 112-121.	1.7	20
3516	MOF-derived ZnO as electron transport layer for improving light harvesting and electron extraction efficiency in perovskite solar cells. Electrochimica Acta, 2020, 330, 135280.	2.6	38
3517	A Review of Diverse Halide Perovskite Morphologies for Efficient Optoelectronic Applications. Small Methods, 2020, 4, 1900662.	4.6	69

#	Article	IF	Citations
3518	The Role of the Interfaces in Perovskite Solar Cells. Advanced Materials Interfaces, 2020, 7, 1901469.	1.9	239
3519	Hot Polarons with Trapped Excitons and Octahedraâ€Twist Phonons in CH 3 NH 3 PbBr 3 Hybrid Perovskite Nanowires. Laser and Photonics Reviews, 2020, 14, 1900267.	4.4	9
3520	A novel ferroelectric based on quinuclidine derivatives. Chinese Chemical Letters, 2020, 31, 1686-1689.	4.8	12
3521	Enhancement of Openâ€Circuit Voltage of Perovskite Solar Cells by Interfacial Modification with <i>p</i>â€Aminobenzoic Acid. Advanced Materials Interfaces, 2020, 7, 1901584.	1.9	21
3522	Spin-coated copper(I) thiocyanate as a hole transport layer for perovskite solar cells. Journal of Solid State Electrochemistry, 2020, 24, 293-304.	1.2	22
3523	Solution-based heteroepitaxial growth of stable mixed cation/anion hybrid perovskite thin film under ambient condition via a scalable crystal engineering approach. Nano Energy, 2020, 69, 104441.	8.2	37
3524	Interface Engineering of Imidazolium Ionic Liquids toward Efficient and Stable CsPbBr₃ Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 4540-4548.	4.0	132
3525	Fabrication of pyramidal (111) MAPbBr₃ film with low surface defect density using homogeneous quantum-dot seeds. Nanoscale, 2020, 12, 1366-1373.	2.8	4
3526	Flexible perovskite solar cells fabricated by a gradient heat treatment process. Sustainable Energy and Fuels, 2020, 4, 824-831.	2.5	8
3527	Double layer mesoscopic electron contact for efficient perovskite solar cells. Sustainable Energy and Fuels, 2020, 4, 843-851.	2.5	22
3528	Kagome-like group-VA monolayers with indirectâ€“direct band gap transition and anisotropic mobility. Journal of Materials Chemistry C, 2020, 8, 2732-2740.	2.7	14
3529	Bulk heterojunction gifts bismuth-based lead-free perovskite solar cells with record efficiency. Nano Energy, 2020, 68, 104362.	8.2	102
3530	Probing Phase Distribution in 2D Perovskites for Efficient Device Design. ACS Applied Materials & Interfaces, 2020, 12, 3127-3133.	4.0	39
3531	Exploration of polymer-assisted crystallization kinetics in CsPbBr3 all-inorganic solar cell. Chemical Engineering Journal, 2020, 392, 123805.	6.6	41
3532	Structural Origins of Light-Induced Phase Segregation in Organic-Inorganic Halide Perovskite Photovoltaic Materials. Matter, 2020, 2, 207-219.	5.0	128
3533	Hermetic seal for perovskite solar cells: An improved plasma enhanced atomic layer deposition encapsulation. Nano Energy, 2020, 69, 104375.	8.2	78
3534	Lead Oxalate-Induced Nucleation Retardation for High-Performance Indoor and Outdoor Perovskite Photovoltaics. ACS Applied Materials & Interfaces, 2020, 12, 836-843.	4.0	15
3535	Modulation of Growth Kinetics of Vacuum-Deposited CsPbBr₃ Films for Efficient Light-Emitting Diodes. ACS Applied Materials & Interfaces, 2020, 12, 1944-1952.	4.0	33

#	Article	IF	Citations
3536	Improving the efficiency of perovskite light emitting diode using polyvinylpyrrolidone as an interlayer. Applied Surface Science, 2020, 507, 145071.	3.1	13
3537	Effect of tin (II and IV) iodide doping on organicâ€“inorganic bismuth (III) iodide perovskite. Materials Letters, 2020, 262, 127166.	1.3	4
3538	Crystallization Control of Ternaryâ€Cation Perovskite Absorber in Tripleâ€Mesoscopic Layer for Efficient Solar Cells. Advanced Energy Materials, 2020, 10, 1903092.	10.2	63
3539	Surface modification of TiO2 layer with phosphonic acid monolayer in perovskite solar cells: Effect of chain length and terminal functional group. Organic Electronics, 2020, 78, 105583.	1.4	26
3540	Carbon Counter Electrodes in Dyeâ€Sensitized and Perovskite Solar Cells. Advanced Functional Materials, 2020, 30, 1906451.	7.8	74
3541	Inkjetâ€Printed Micrometerâ€Thick Perovskite Solar Cells with Large Columnar Grains. Advanced Energy Materials, 2020, 10, 1903184.	10.2	142
3542	Perovskite solar cells: The new epoch in photovoltaics. Solar Energy, 2020, 196, 295-309.	2.9	53
3543	A review of aspects of additive engineering in perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 27-54.	5.2	232
3544	Limit of incorporating cesium cations into formamidinium-methylammonium based mixed halide perovskite solar cells. Nanotechnology, 2020, 31, 135406.	1.3	4
3545	CuSCN as Hole Transport Material with 3D/2D Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 114-121.	2.5	83
3546	Facile Formation of 2Dâ€“3D Heterojunctions on Perovskite Thin Film Surfaces for Efficient Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 1159-1168.	4.0	55
3547	Slot-die coating of perovskite solar cells: An overview. Materials Today Communications, 2020, 22, 100808.	0.9	100
3548	Luminescent europium-doped titania for efficiency and UV-stability enhancement of planar perovskite solar cells. Nano Energy, 2020, 69, 104392.	8.2	47
3549	The balance between efficiency, stability and environmental impacts in perovskite solar cells: a review. JPhys Energy, 2020, 2, 022001.	2.3	76
3550	Revealing the Dynamics of Hybrid Metal Halide Perovskite Formation via Multimodal In Situ Probes. Advanced Functional Materials, 2020, 30, 1908337.	7.8	40
3551	Improved open-circuit voltage and ambient stability of CsPbI2Br perovskite solar cells by incorporating CH3NH3Cl. Rare Metals, 2020, 39, 131-138.	3.6	23
3552	Stable Efficient Methylammonium Lead Iodide Thin Film Photodetectors with Highly Oriented Millimeter-Sized Crystal Grains. ACS Photonics, 2020, 7, 57-67.	3.2	9
3553	Enhancing the Open-Circuit Voltage of Perovskite Solar Cells by Embedding Molecular Dipoles within Their Hole-Blocking Layer. ACS Applied Materials & Interfaces, 2020, 12, 3572-3579.	4.0	30

#	Article	IF	Citations
3554	Minimizing non-radiative recombination losses in perovskite solar cells. Nature Reviews Materials, 2020, 5, 44-60.	23.3	754
3555	Narrow Emission from Rb₃Sb₂I₉ Nanoparticles. Advanced Optical Materials, 2020, 8, 1901606.	3.6	18
3556	Tetrahydrofuran as an Oxygen Donor Additive to Enhance Stability and Reproducibility of Perovskite Solar Cells Fabricated in High Relative Humidity (50%) Atmosphere. Energy Technology, 2020, 8, 1900990.	1.8	6
3557	X-ray diffraction and Raman spectroscopy for lead halide perovskites. , 2020, , 23-47.		2
3558	Efficient Anti-solvent-free Spin-Coated and Printed Sn-Perovskite Solar Cells with Crystal-Based Precursor Solutions. Matter, 2020, 2, 167-180.	5.0	38
3560	Origins of the s-shape characteristic in <i>J</i>â€"<i>V</i> curve of inverted-type perovskite solar cells. Nanotechnology, 2020, 31, 115403.	1.3	33
3561	Hybrid Evaporation/Spray-Coating Process for a Simplified and Controllable Production of Perovskite Solar Cells. IEEE Journal of Photovoltaics, 2020, 10, 276-286.	1.5	6
3562	Enhanced charge-transportation properties of low-temperature processed Al-doped ZnO and its impact on PV cell parameters of organic-inorganic perovskite solar cells. Solid-State Electronics, 2020, 164, 107714.	0.8	21
3563	Synthesis and optical applications of low dimensional metal-halide perovskites. Nanotechnology, 2020, 31, 152002.	1.3	31
3564	Processingâ€Performance Evolution of Perovskite Solar Cells: From Large Grain Polycrystalline Films to Single Crystals. Advanced Energy Materials, 2020, 10, 1902762.	10.2	50
3565	Recent developments in flexible photodetectors based on metal halide perovskite. InformaÄnÃ-MateriÃ¡ly, 2020, 2, 139-169.	8.5	83
3566	Improving performance of perovskites solar cells using solvent engineering, via Lewis adduct of MAI-DMSO-PbI2 and incorporation of imidazolium cation. Journal of Alloys and Compounds, 2020, 817, 153076.	2.8	9
3567	Device design rules and operation principles of high-power perovskite solar cells for indoor applications. Nano Energy, 2020, 68, 104321.	8.2	70
3568	Recent progress in development of diverse kinds of hole transport materials for the perovskite solar cells: A review. Renewable and Sustainable Energy Reviews, 2020, 119, 109608.	8.2	83
3569	Ion Migration: A â€œDoubleâ€Edged Swordâ€• for Halideâ€Perovskiteâ€Based Electronic Devices. Small Methods, 2020, 4, 1900552.	4.6	127
3570	Laserâ€Processed Perovskite Solar Cells and Modules. Solar Rrl, 2020, 4, 1900432.	3.1	34
3571	2017 P.V. Danckwerts Memorial Lecture special issue editorial: Advances in emerging technologies of chemical engineering towards sustainable energy and environment: Solar and biomass. Chemical Engineering Science, 2020, 215, 115384.	1.9	8
3572	Crystallographic orientation and layer impurities in two-dimensional metal halide perovskite thin films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, 010801.	0.9	19

#	Article	IF	Citations
3573	Effects of Thermal Annealing Duration on the Film Morphology of Methylamine Lead Triiodide (MAPbI3) Perovskite Thin Films in Ambient Air. Journal of Nanoscience and Nanotechnology, 2020, 20, 3795-3801.	0.9	4
3574	Interface Engineering of Cubic Zinc Metatitanate as an Excellent Electron Transport Material for Stable Perovskite Solar Cells. Solar Rrl, 2020, 4, 1900533.	3.1	12
3575	Effect of tertiary butylpyridine in stability of methylammonium lead iodide perovskite thin films. Bulletin of Materials Science, 2020, 43, 1.	0.8	11
3576	Perovskite solar cells based on a perovskite film with improved film coverage. Synthetic Metals, 2020, 260, 116283.	2.1	6
3577	Towards the commercialization of colloidal quantum dot solar cells: perspectives on device structures and manufacturing. Energy and Environmental Science, 2020, 13, 404-431.	15.6	68
3578	Structural Features and Optical Properties of CH3NH3Pb(1â^'x)SnxCl3 Thin-Film Perovskites for Photovoltaic Applications. Journal of Electronic Materials, 2020, 49, 7133-7143.	1.0	9
3579	Suppressing the Phase Segregation with Potassium for Highly Efficient and Photostable Inverted Wide-Band Gap Halide Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 48458-48466.	4.0	41
3580	Metal Halide Perovskite Nanorods: Shape Matters. Advanced Materials, 2020, 32, e2002736.	11.1	48
3581	Machine learning for halide perovskite materials. Nano Energy, 2020, 78, 105380.	8.2	65
3582	A data review on certified perovskite solar cells efficiency and I-V metrics: Insights into materials selection and process scaling up. Solar Energy, 2020, 209, 21-29.	2.9	5
3583	Room Temperature Formation of Semiconductor Grade Î±-FAPbI3 Films for Efficient Perovskite Solar Cells. Cell Reports Physical Science, 2020, 1, 100205.	2.8	18
3584	Lanthanide-Induced Photoluminescence in Lead-Free Cs₂AgBiBr₆ Bulk Perovskite: Insights from Optical and Theoretical Investigations. Journal of Physical Chemistry Letters, 2020, 11, 8893-8900.	2.1	38
3585	Pâ€121: Solution Processed Organicâ€Inorganic Hybrid Perovskite TFTs with Excellent Ambient Air Stability. Digest of Technical Papers SID International Symposium, 2020, 51, 1825-1828.	0.1	0
3586	Effect of acetic acid concentration on optical properties of lead acetate based methylammonium lead iodide perovskite thin film. Optical Materials, 2020, 109, 110456.	1.7	17
3587	Induced Growth of CsPbBr₃ Perovskite Films by Incorporating Metal Chalcogenide Quantum Dots in PbBr₂ Films for Performance Enhancement of Inorganic Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 10376-10383.	2.5	21
3588	Revealing Electricalâ€Polingâ€Induced Polarization Potential in Hybrid Perovskite Photodetectors. Advanced Materials, 2020, 32, e2005481.	11.1	23
3589	Halide Perovskite Solar Cells with Biocompatibility. Advanced Energy and Sustainability Research, 2020, 1, 2000028.	2.8	10
3590	Record-efficiency flexible perovskite solar cell and module enabled by a porous-planar structure as an electron transport layer. Energy and Environmental Science, 2020, 13, 4854-4861.	15.6	137

#	Article	IF	Citations
3591	Long periodic ripple in a 2D hybrid halide perovskite structure using branched organic spacers. Chemical Science, 2020, 11, 12139-12148.	3.7	22
3592	Historical Analysis of Highâ€Efficiency, Largeâ€Area Solar Cells: Toward Upscaling of Perovskite Solar Cells. Advanced Materials, 2020, 32, e2002202.	11.1	103
3593	Selfâ€Assembled Monolayers as Interface Engineering Nanomaterials in Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 2002606.	10.2	156
3594	Polymeric room-temperature molten salt as a multifunctional additive toward highly efficient and stable inverted planar perovskite solar cells. Energy and Environmental Science, 2020, 13, 5068-5079.	15.6	121
3595	Roll-to-roll gravure-printed flexible perovskite solar cells using eco-friendly antisolvent bathing with wide processing window. Nature Communications, 2020, 11, 5146.	5.8	165
3596	Controlling the crystallization dynamics of photovoltaic perovskite layers on larger-area coatings. Energy and Environmental Science, 2020, 13, 4666-4690.	15.6	79
3597	Progress towards High-Efficiency and Stable Tin-Based Perovskite Solar Cells. Energies, 2020, 13, 5092.	1.6	35
3598	Formation of Stable Metal Halide Perovskite/Perovskite Heterojunctions. ACS Energy Letters, 2020, 5, 3443-3451.	8.8	35
3599	A Quantitative Analysis of the Research Trends in Perovskite Solar Cells in 2009â€"2019. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 2000441.	0.8	5
3600	Zwitterionic-Surfactant-Assisted Room-Temperature Coating of Efficient Perovskite Solar Cells. Joule, 2020, 4, 2404-2425.	11.7	137
3601	Origin of temperature-dependent performance of hole-transport-layer-free perovskite solar cells doped with CuSCN. Organic Electronics, 2020, 87, 105958.	1.4	7
3602	Crystallization management for high-performance perovskite solar cells by introducing an antisolvent into the perovskite precursor. Journal of Materials Chemistry C, 2020, 8, 15860-15867.	2.7	17
3603	Morphology Evolution of a Highâ€Efficiency PSC by Modulating the Vapor Process. Small, 2020, 16, e2003582.	5.2	15
3604	Insight into the Origins of Figures of Merit and Design Strategies for Organic/Inorganic Leadâ€Halide Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000452.	3.1	14
3605	Effect of doped polyaniline/graphene oxide ratio as a hole transport layer on the performance of perovskite solar cell. Journal of Materials Science: Materials in Electronics, 2020, 31, 18870-18882.	1.1	7
3606	Optoelectronic properties of the novel perovskite materials LiPb(Cl:Br:I)3 for enhanced hydrogen production by visible photo-catalytic activity: Theoretical prediction based on empirical formulae and DFT. International Journal of Hydrogen Energy, 2020, 45, 33466-33477.	3.8	16
3607	Improving the stability of MAPbI3 films by using a new synthesis route. Journal of Materials Research and Technology, 2020, 9, 13759-13769.	2.6	8
3608	Boron nitride-incorporated NiOx as a hole transport material for high-performance p-i-n planar perovskite solar cells. Journal of Power Sources, 2020, 477, 228738.	4.0	27

#	Article	IF	Citations
3609	Two-Step Processed Efficient Potassium and Cesium-Alloyed Quaternary Cations Perovskite Solar Cells. Synthetic Metals, 2020, 269, 116564.	2.1	6
3610	High Efficiency over 20% of Perovskite Solar Cells by Spray Coating via a Simple Process. ACS Applied Energy Materials, 2020, 3, 9696-9702.	2.5	32
3611	Simplified interconnection structure based on C60/SnO2-x for all-perovskite tandem solar cells. Nature Energy, 2020, 5, 657-665.	19.8	186
3612	Stable white photoluminescence from Mn-contained organic lead bromide perovskite ring arrays formed from 2D colloidal crystal templates. New Journal of Chemistry, 2020, 44, 13619-13625.	1.4	3
3613	Effects of X-rays on Perovskite Solar Cells. Journal of Physical Chemistry C, 2020, 124, 17949-17956.	1.5	21
3614	Boosting optoelectronic performance of MAPbI3 perovskite solar cells via ethylammonium chloride additive engineering. Science China Materials, 2020, 63, 2477-2486.	3.5	25
3615	Curing the fundamental issue of impurity phases in two-step solution-processed CsPbBr3 perovskite films. Science Bulletin, 2020, 65, 726-737.	4.3	34
3616	Widegap CH3NH3PbBr3 solar cells for optical wireless power transmission application. Applied Physics Letters, 2020, 117, .	1.5	13
3617	Roomâ€Temperatureâ€Processed Fullerene/TiO₂ Nanocomposite Electron Transporting Layer for Highâ€Efficiency Rigid and Flexible Planar Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000247.	3.1	18
3618	Morphology and Defect Control of Metal Halide Perovskite Films for High-Performance Optoelectronics. Chemistry of Materials, 2020, 32, 5958-5972.	3.2	8
3619	Crystalline Nature of Colloids in Methylammonium Lead Halide Perovskite Precursor Inks Revealed by Cryo-Electron Microscopy. Journal of Physical Chemistry Letters, 2020, 11, 5980-5986.	2.1	30
3620	Interdiffusion Stomatal Movement in Efficient Multiple-Cation-Based Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 35105-35112.	4.0	8
3621	Thermal-assisted photo-annealed TiO2 thin films for perovskite solar cells fabricated under ambient air. Applied Surface Science, 2020, 530, 147221.	3.1	5
3622	Effect of functional groups of self assembled monolayer molecules on the performance of inverted perovskite solar cell. Materials Chemistry and Physics, 2020, 254, 123435.	2.0	16
3623	Enhanced Efficiency of Air-Stable CsPbBr₃ Perovskite Solar Cells by Defect Dual Passivation and Grain Size Enlargement with a Multifunctional Additive. ACS Applied Materials & Interfaces, 2020, 12, 36092-36101.	4.0	62
3624	Atomic Layer Deposition of an Effective Interface Layer of TiN for Efficient and Hysteresis-Free Mesoscopic Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 8098-8106.	4.0	30
3625	All-inorganic copper(<scp>i</scp>)-based ternary metal halides: promising materials toward optoelectronics. Nanoscale, 2020, 12, 15560-15576.	2.8	60
3626	3D Printing in Biomedical Engineering. Materials Horizons, 2020, , .	0.3	15

#	Article	IF	Citations
3627	Methodologies for structural investigations of organic lead halide perovskites. Materials Today, 2020, 38, 67-83.	8.3	7
3628	The preparation of all-inorganic CsPbI2âˆ’xBr1+x perovskite solar cells based on electrodeposited PbO2 film. Solar Energy, 2020, 207, 618-625.	2.9	15
3629	Robot-Based High-Throughput Screening of Antisolvents for Lead Halide Perovskites. Joule, 2020, 4, 1806-1822.	11.7	65
3630	Atomic Layer-Deposited Aluminum Oxide Hinders Iodide Migration and Stabilizes Perovskite Solar Cells. Cell Reports Physical Science, 2020, 1, 100112.	2.8	20
3631	Diethylammonium Iodide Assisted Grain Growth with Subâ€Grain Cluster to Passivate Grain Boundary for CH₃NH₃PbI₃ Perovskite Solar Cells. Energy Technology, 2020, 8, 2000412.	1.8	11
3632	Hybrid perovskite crystallization from binary solvent mixtures: interplay of evaporation rate and binding strength of solvents. Materials Advances, 2020, 1, 3314-3321.	2.6	44
3633	Recent Progress on the Stability of Perovskite Solar Cells in a Humid Environment. Journal of Physical Chemistry C, 2020, 124, 27251-27266.	1.5	43
3634	Pressing challenges of halide perovskite thin film growth. APL Materials, 2020, 8, .	2.2	42
3635	Room-temperature random lasing of metal-halide perovskites <i>via</i> morphology-controlled synthesis. Nanoscale Advances, 2020, 2, 5833-5840.	2.2	13
3636	Recent developments in fabrication and performance of metal halide perovskite field-effect transistors. Journal of Materials Chemistry C, 2020, 8, 16691-16715.	2.7	34
3637	Enhancing the Efficiency and Stability of Triple-Cation Perovskite Solar Cells by Eliminating Excess PbI₂ from the Perovskite/Hole Transport Layer Interface. ACS Applied Materials & Interfaces, 2020, 12, 54824-54832.	4.0	56
3638	Hierarchical Structures from Nanocrystalline Colloidal Precursors within Hybrid Perovskite Thin Films: Implications for Photovoltaics. ACS Applied Nano Materials, 2020, 3, 11701-11708.	2.4	7
3639	Synthesis and Characterisations of Mixed Tellurium and Iodine Anions Based Chacolgenâ€Halogen Lead Perovskite. Electroanalysis, 2020, 32, 2870-2881.	1.5	1
3640	Role of A-Site Cation and X-Site Halide Interactions in Mixed-Cation Mixed-Halide Perovskites for Determining Anomalously High Ideality Factor and the Super-linear Power Law in AC Ionic Conductivity at Operating Temperature. ACS Applied Electronic Materials, 2020, 2, 4087-4098.	2.0	27
3641	Designing Ultraflexible Perovskite Xâ€Ray Detectors through Interface Engineering. Advanced Science, 2020, 7, 2002586.	5.6	44
3642	Functionalized CNTs as Effective Additives to Improve the Efficiency of Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 11674-11680.	2.5	19
3643	Controlled Growth of Large Grains in CH₃NH₃PbI₃ Perovskite Films Mediated by an Intermediate Liquid Phase without an Antisolvent for Efficient Solar Cells. ACS Applied Energy Materials, 2020, 3, 12484-12493.	2.5	13
3644	Selective Valorization of 5-Hydroxymethylfurfural to 2,5-Diformylfuran Using Atmospheric O₂ and MAPbBr₃ Perovskite under Visible Light. ACS Catalysis, 2020, 10, 14793-14800.	5.5	83

#	Article	IF	Citations
3645	Focussed Review of Utilization of Graphene-Based Materials in Electron Transport Layer in Halide Perovskite Solar Cells: Materials-Based Issues. Energies, 2020, 13, 6335.	1.6	7
3646	Influence of Dimethyl Sulfoxide on the Structural Topology during Crystallization of PbI₂. Inorganic Chemistry, 2020, 59, 16799-16803.	1.9	3
3647	The Future of Perovskite Photovoltaicsâ€"Thermal Evaporation or Solution Processing?. Advanced Energy Materials, 2020, 10, 2003073.	10.2	135
3648	Chlorobenzene-Mediated Control of Crystallization in Perovskite Films for High-Performance Solar Cells. ACS Applied Energy Materials, 2020, 3, 12291-12297.	2.5	12
3649	Controllable deposition of organic metal halide perovskite films with wafer-scale uniformity by single source flash evaporation. Scientific Reports, 2020, 10, 18781.	1.6	6
3650	Sodium Dodecylbenzene Sulfonate Interface Modification of Methylammonium Lead Iodide for Surface Passivation of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 52643-52651.	4.0	25
3651	MXene-Modulated Electrode/SnO₂ Interface Boosting Charge Transport in Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 53973-53983.	4.0	71
3652	Suppressing Defectsâ€Induced Nonradiative Recombination for Efficient Perovskite Solar Cells through Green Antisolvent Engineering. Advanced Materials, 2020, 32, e2003965.	11.1	123
3653	Perovskite Tandem Solar Cells: From Fundamentals to Commercial Deployment. Chemical Reviews, 2020, 120, 9835-9950.	23.0	248
3654	Polymer-induced lattice expansion leads to all-inorganic CsPbBr3 perovskite solar cells with reduced trap density. Journal of Power Sources, 2020, 475, 228676.	4.0	29
3655	Waterâ€Assisted Crystal Growth in Quasiâ€2D Perovskites with Enhanced Charge Transport and Photovoltaic Performance. Advanced Energy Materials, 2020, 10, 2001832.	10.2	52
3656	Halide (Cl/Br)-Incorporated Organicâ€"Inorganic Metal Trihalide Perovskite Films: Study and Investigation of Dielectric Properties and Mechanical Energy Harvesting Performance. ACS Applied Electronic Materials, 2020, 2, 2579-2590.	2.0	30
3657	Formamidinium Haloplumbate Intermediates: The Missing Link in a Chain of Hybrid Perovskites Crystallization. Chemistry of Materials, 2020, 32, 7739-7745.	3.2	35
3658	Solution-Processed Monolithic All-Perovskite Triple-Junction Solar Cells with Efficiency Exceeding 20%. ACS Energy Letters, 2020, 5, 2819-2826.	8.8	69
3659	Deposition Kinetics and Compositional Control of Vacuum-Processed CH₃NH₃PbI₃ Perovskite. Journal of Physical Chemistry Letters, 2020, 11, 6852-6859.	2.1	43
3660	Water assisted formation of highly oriented CsPbI₂Br perovskite films with the solar cell efficiency exceeding 16%. Journal of Materials Chemistry A, 2020, 8, 17670-17674.	5.2	40
3661	Quasiâ€Heteroface Perovskite Solar Cells. Small, 2020, 16, e2002887.	5.2	4
3662	Two-dimensional penta-SiAs₂: a potential metal-free photocatalyst for overall water splitting. Journal of Materials Chemistry C, 2020, 8, 11980-11987.	2.7	24

#	Article	IF	Citations
3663	Toward Efficient and Stable Perovskite Solar Cells: Choosing Appropriate Passivator to Specific Defects. Solar Rrl, 2020, 4, 2000308.	3.1	31
3664	High-Efficiency Perovskite Solar Cells. Chemical Reviews, 2020, 120, 7867-7918.	23.0	1,480
3665	Effect of embedded chalcogenide quantum dots in PbBr2 film on CsPbBr3 inorganic perovskite solar cells. Journal of Industrial and Engineering Chemistry, 2020, 90, 281-286.	2.9	10
3666	Denatured M13 Bacteriophageâ€Templated Perovskite Solar Cells Exhibiting High Efficiency. Advanced Science, 2020, 7, 2000782.	5.6	31
3667	21.4% efficiency of perovskite solar cells using BMImI additive in the lead iodide precursor based on carbon nanotubes/TiO2 electron transfer layer. Ceramics International, 2020, 46, 27647-27654.	2.3	34
3668	Realization of Moisture-Resistive Perovskite Films for Highly Efficient Solar Cells Using Molecule Incorporation. ACS Applied Materials & Interfaces, 2020, 12, 39063-39073.	4.0	11
3669	Revealing Stability of Inverted Planar MA-Free Perovskite Solar Cells and Electric Field-Induced Phase Instability. Journal of Physical Chemistry C, 2020, 124, 18805-18815.	1.5	11
3670	Ink Engineering of Inkjet Printing Perovskite. ACS Applied Materials & Interfaces, 2020, 12, 39082-39091.	4.0	85
3671	A simple fabrication of high efficiency planar perovskite solar cells: controlled film growth with methylammonium iodide and green antisolvent sec-butyl alcohol. Journal of Materials Chemistry C, 2020, 8, 12560-12567.	2.7	15
3672	Graded heterojunction of perovskite/dopant-free polymeric hole-transport layer for efficient and stable metal halide perovskite devices. Nano Energy, 2020, 78, 105159.	8.2	36
3673	New Thiophene Imines Acting as Hole Transporting Materials in Photovoltaic Devices. Energy & Fuels, 2020, 34, 10160-10169.	2.5	5
3674	Growth of centimeter-scale perovskite single-crystalline thin film via surface engineering. Nano Convergence, 2020, 7, 25.	6.3	33
3675	Water-assisted formation of highly conductive silver nanowire electrode for all solution-processed semi-transparent perovskite and organic solar cells. Journal of Materials Science, 2020, 55, 14893-14906.	1.7	18
3676	A temperature gradient-induced directional growth of a perovskite film. Journal of Materials Chemistry A, 2020, 8, 17019-17024.	5.2	7
3677	Effect of solvent vapour annealing on bismuth triiodide film for photovoltaic applications and its optoelectronic properties. Journal of Materials Chemistry C, 2020, 8, 12173-12180.	2.7	19
3678	Advancement in Inorganic Hole Transport Materials for Inverted Perovskite Solar Cells. Journal of Electronic Materials, 2020, 49, 5840-5881.	1.0	31
3679	Toward high efficiency tin perovskite solar cells: A perspective. Applied Physics Letters, 2020, 117, .	1.5	25
3680	Building Blocks of Hybrid Perovskites: A Photoluminescence Study of Leadâ€Iodide Solution Species. ChemPhysChem, 2020, 21, 2327-2333.	1.0	20

#	Article	IF	Citations
3681	Optical and water-repellent characteristics of an anti-reflection protection layer for perovskite solar cells fabricated in ambient air. Energy, 2020, 210, 118582.	4.5	13
3682	Perovskite solar cells fabricated under ambient air at room temperature without any post-treatment. Organic Electronics, 2020, 86, 105918.	1.4	13
3683	Recent progress in the development of hole-transport materials to boost the power conversion efficiency of perovskite solar cells. Sustainable Materials and Technologies, 2020, 26, e00210.	1.7	18
3684	Large-grain and smooth cesium doped CH3NH3PbI3 perovskite films by cesium iodide post-treatment for improved solar cells. Thin Solid Films, 2020, 712, 138279.	0.8	12
3685	Toward Greener Solution Processing of Perovskite Solar Cells. ACS Sustainable Chemistry and Engineering, 2020, 8, 13126-13138.	3.2	41
3686	Multiple negative differential resistance in perovskite (CH3NH3PbI3) decorated electrospun TiO2 nanofibers. Applied Physics A: Materials Science and Processing, 2020, 126, 1.	1.1	4
3687	Investigating the effect of solvent vapours on crystallinity, phase, and optical, morphological and structural properties of organolead halide perovskite films. RSC Advances, 2020, 10, 39995-40004.	1.7	12
3688	Preferred Growth Direction by PbS Nanoplatelets Preserves Perovskite Infrared Light Harvesting for Stable, Reproducible, and Efficient Solar Cells. Advanced Energy Materials, 2020, 10, 2002422.	10.2	20
3689	Green Synthesis of Eco-Friendly Graphene Quantum Dots for Highly Efficient Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 10863-10871.	2.5	66
3690	Soft Lithography for Manufacturing Scalable Perovskite Metasurfaces with Enhanced Emission and Absorption. Advanced Optical Materials, 2020, 8, 2001627.	3.6	18
3691	Ordered array structures for efficient perovskite solar cells. Engineering Reports, 2020, 2, e12319.	0.9	6
3692	Highâ€Performance Inverted Perovskite Solar Cells with Operational Stability via nâ€Type Small Molecule Additiveâ€Assisted Defect Passivation. Advanced Energy Materials, 2020, 10, 2001920.	10.2	45
3693	Methylammonium chloride as an interface modificator for planar-structure perovskite solar cells with a high open circuit voltage of 1.19V. Journal of Power Sources, 2020, 480, 229073.	4.0	41
3694	Atomic-scale microstructure of metal halide perovskite. Science, 2020, 370, .	6.0	183
3695	Light-Driven Piezo- and Triboelectricity in Organicâ€“Inorganic Metal Trihalide Perovskite toward Mechanical Energy Harvesting and Self-powered Sensor Application. ACS Applied Materials & Interfaces, 2020, 12, 50472-50483.	4.0	46
3696	Electronic and geometrical parametrization of the role of organic/inorganic cations on the photovoltaic perovskite band gap. Physical Chemistry Chemical Physics, 2020, 22, 27757-27769.	1.3	7
3697	Nearâ€Infraredâ€Transparent Perovskite Solar Cells and Perovskiteâ€Based Tandem Photovoltaics. Small Methods, 2020, 4, 2000395.	4.6	63
3698	The Application of Graphene Derivatives in Perovskite Solar Cells. Small Methods, 2020, 4, 2000507.	4.6	35

#	Article	IF	Citations
3699	Solvent engineering for perovskite solar cells: a review. Micro and Nano Letters, 2020, 15, 349-353.	0.6	33
3700	Epitaxial Metal Halide Perovskites by Inkjetâ€Printing on Various Substrates. Advanced Functional Materials, 2020, 30, 2004612.	7.8	21
3701	Multifunctional Charge Transporting Materials for Perovskite Lightâ€Emitting Diodes. Advanced Materials, 2020, 32, e2002176.	11.1	55
3702	Gap States in Methylammonium Lead Halides: The Link to Dimethylsulfoxide?. Advanced Materials, 2020, 32, e2003482.	11.1	21
3703	TiO₂ Colloidâ€Spray Coated Electronâ€Transporting Layers for Efficient Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 2001799.	10.2	45
3704	Interface engineering for gain perovskite photodetectors with extremely high external quantum efficiency. RSC Advances, 2020, 10, 32976-32983.	1.7	9
3705	High-Performance Core/Shell of ZnO/TiO2 Nanowire with AgCl-Doped CdSe Quantum Dots Arrays as Electron Transport Layer for Perovskite Solar Cells. Molecules, 2020, 25, 3969.	1.7	6
3706	Multifunctional Polymerâ€Regulated SnO₂ Nanocrystals Enhance Interface Contact for Efficient and Stable Planar Perovskite Solar Cells. Advanced Materials, 2020, 32, e2003990.	11.1	208
3707	Improved charge extraction through interface engineering for 10.12% efficiency and stable CsPbBr₃ perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 20987-20997.	5.2	42
3708	Embedding PbS Quantum Dots (QDs) in Pb-Halide Perovskite Matrices: QD Surface Chemistry and Antisolvent Effects on QD Dispersion and Confinement Properties. , 2020, 2, 1464-1472.		18
3709	Effect of halide-mixing on tolerance factor and charge-carrier dynamics in (CH3NH3PbBr3â^'xClx) perovskites powders. Journal of Materials Science: Materials in Electronics, 2020, 31, 19415-19428.	1.1	4
3710	Structural, optical, transport, and solar cell properties of 2D halide perovskite MAZX3 (Zâ€‰=â€‰Pb, Sn, and) Tj ETQq1 1 0.784314 rg	1.1	18
3711	Stable perovskite solar cells with efficiency exceeding 24.8% and 0.3-V voltage loss. Science, 2020, 369, 1615-1620.	6.0	1,122
3712	Passivation of defects in perovskite solar cell: From a chemistry point of view. Nano Energy, 2020, 77, 105237.	8.2	92
3713	Doping in inorganic perovskite for photovoltaic application. Nano Energy, 2020, 78, 105354.	8.2	53
3714	Effect of high energy proton irradiation on MAPbI₃ films for space applications observed by micro-Raman spectroscopy. Materials Advances, 2020, 1, 2068-2073.	2.6	8
3715	Deciphering the role of quantum dot size in the ultrafast charge carrier dynamics at the perovskiteâ€"quantum dot interface. Journal of Materials Chemistry C, 2020, 8, 14834-14844.	2.7	9
3716	Growth mechanism of CH₃NH₃I in a vacuum processed perovskite. Nanoscale Advances, 2020, 2, 3906-3911.	2.2	4

#	Article	IF	Citations
3717	Facile all-dip-coating deposition of highly efficient (CH₃)₃NPbI_{3âˆ’x}Cl_x perovskite materials from aqueous non-halide lead precursor. RSC Advances, 2020, 10, 29010-29017.	1.7	63
3718	NdCl₃ Dose as a Universal Approach for High-Efficiency Perovskite Solar Cells Based on Low-Temperature-Processed SnO_{<i>x</i>}. ACS Applied Materials & Interfaces, 2020, 12, 46306-46316.	4.0	28
3719	Growth and optimization of hybrid perovskite single crystals for optoelectronics/electronics and sensing. Journal of Materials Chemistry C, 2020, 8, 13918-13952.	2.7	17
3720	In Situ Ligand Bonding Management of CsPbI₃ Perovskite Quantum Dots Enables Highâ€Performance Photovoltaics and Red Lightâ€Emitting Diodes. Angewandte Chemie - International Edition, 2020, 59, 22230-22237.	7.2	117
3721	Rashba Splitting in Two Dimensional Hybrid Perovskite Materials for High Efficient Solar and Heat Energy Harvesting. Journal of Physical Chemistry Letters, 2020, 11, 7679-7686.	2.1	14
3722	Current Density Mismatch in Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 2886-2888.	8.8	146
3723	Gradient Engineered Light Absorption Layer for Enhanced Carrier Separation Efficiency in Perovskite Solar Cells. Nanoscale Research Letters, 2020, 15, 127.	3.1	2
3724	Antisolvents in Perovskite Solar Cells: Importance, Issues, and Alternatives. Advanced Materials Interfaces, 2020, 7, 2000950.	1.9	94
3725	Exciton and Carrier Dynamics in Two-Dimensional Perovskites. Journal of Physical Chemistry Letters, 2020, 11, 7692-7701.	2.1	33
3726	Ambient Manipulation of Perovskites by Alternating Electric Field toward Tunable Photovoltaic Performance. Advanced Functional Materials, 2020, 30, 2004652.	7.8	9
3727	In Situ Ligand Bonding Management of CsPbI₃ Perovskite Quantum Dots Enables Highâ€Performance Photovoltaics and Red Lightâ€Emitting Diodes. Angewandte Chemie, 2020, 132, 22414-22421.	1.6	28
3728	A Facile Synthesis of Poly(3â€octyl thiophene):Ni_{0.4}Sr_{0.6}TiO₃ Hybrid Nanocomposites for Solar Cell Applications. Macromolecular Symposia, 2020, 392, 2000001.	0.4	34
3729	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
3730	Realizing Reduced Imperfections via Quantum Dots Interdiffusion in High Efficiency Perovskite Solar Cells. Advanced Materials, 2020, 32, e2003296.	11.1	50
3732	Synergetic Effect of Plasmonic Gold Nanorods and MgO for Perovskite Solar Cells. Nanomaterials, 2020, 10, 1830.	1.9	13
3733	Gold Nanoparticles Functionalized with Fullerene Derivative as an Effective Interface Layer for Improving the Efficiency and Stability of Planar Perovskite Solar Cells. Advanced Materials Interfaces, 2020, 7, 2001144.	1.9	14
3734	Efficiency progress of inverted perovskite solar cells. Energy and Environmental Science, 2020, 13, 3823-3847.	15.6	210
3735	Synergistic Effect of Additive and Solvent Vapor Annealing on the Enhancement of MAPbI₃ Perovskite Solar Cells Fabricated in Ambient Air. ACS Applied Materials & Interfaces, 2020, 12, 46837-46845.	4.0	23

#	Article	IF	Citations
3736	An inherent instability study using ab initio computational methods and experimental validation of Pb(SCN)2 based perovskites for solar cell applications. Scientific Reports, 2020, 10, 15241.	1.6	5
3737	Precise Control of Perovskite Crystallization Kinetics via Sequential Aâ€Site Doping. Advanced Materials, 2020, 32, e2004630.	11.1	122
3738	Efficient Planar Heterojunction Inverted Perovskite Solar Cells with Perovskite Materials Deposited Using an Aqueous <scp>Nonâ€Halide</scp> Lead Precursor. Bulletin of the Korean Chemical Society, 2020, 41, 937-942.	1.0	30
3739	3D/2D Bilayerd Perovskite Solar Cells with an Enhanced Stability and Performance. Materials, 2020, 13, 3868.	1.3	25
3740	Recent Progress in Metal Halide Perovskiteâ€Based Tandem Solar Cells. Advanced Materials, 2020, 32, e2002228.	11.1	39
3741	Atomic-Scale Model and Electronic Structure of Cu2O/CH3NH3PbI3 Interfaces in Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 44648-44657.	4.0	16
3742	Improving the Fill Factor of Perovskite Solar Cells by Employing an Amine-tethered Diketopyrrolopyrrole-Based Polymer as the Dopant-free Hole Transport Layer. ACS Applied Energy Materials, 2020, 3, 9600-9609.	2.5	26
3743	Thermal properties of metal-halide perovskites. Journal of Materials Chemistry C, 2020, 8, 14289-14311.	2.7	74
3744	All-inorganic and lead-free BiI₃ thin film solar cells by iodization of BiSI thin films. Journal of Materials Chemistry C, 2020, 8, 14066-14074.	2.7	16
3745	Halide Perovskite Single Crystals: Optoelectronic Applications and Strategical Approaches. Energies, 2020, 13, 4250.	1.6	17
3746	Molecular Design and Operational Stability: Toward Stable 3D/2D Perovskite Interlayers. Advanced Science, 2020, 7, 2001014.	5.6	43
3747	Multifunctional Self-Combustion Additives Strategy to Fabricate Highly Responsive Hybrid Perovskite Photodetectors. ACS Applied Materials & Interfaces, 2020, 12, 41674-41686.	4.0	12
3748	Heterogeneous semiconductor nanowire array for sensitive broadband photodetector by crack photolithography-based micro-/nanofluidic platforms. RSC Advances, 2020, 10, 23712-23719.	1.7	3
3749	Light-intensity and thickness dependent efficiency of planar perovskite solar cells: charge recombination<i>versus</i>extraction. Journal of Materials Chemistry C, 2020, 8, 12648-12655.	2.7	70
3750	Bioinspired Molecular Bridging in a Hybrid Perovskite Leads to Enhanced Stability and Tunable Properties. Advanced Functional Materials, 2020, 30, 2005136.	7.8	10
3751	Synthesis of Interface-Driven Tunable Bandgap Metal Oxides. , 2020, 2, 1211-1217.		14
3752	Moisture-Induced Structural Degradation in Methylammonium Lead Iodide Perovskite Thin Films. ACS Applied Energy Materials, 2020, 3, 8240-8248.	2.5	34
3753	Ultrathin polymeric films for interfacial passivation in wide band-gap perovskite solar cells. Scientific Reports, 2020, 10, 22260.	1.6	31

#	Article	IF	Citations
3754	Characterization of sequential physical vapor deposited methylammonium lead tri-iodide perovskite thin films. Vacuum, 2020, 182, 109727.	1.6	11
3755	Materials Chemistry Approach for Efficient Lead-Free Tin Halide Perovskite Solar Cells. ACS Applied Electronic Materials, 2020, 2, 3794-3804.	2.0	36
3756	Growth and Interlayer Engineering of 2D Layered Semiconductors for Future Electronics. ACS Nano, 2020, 14, 16266-16300.	7.3	30
3757	Temperature-Assisted Crystal Growth of Photovoltaic Î±-Phase FAPbI₃ Thin Films by Sequential Blade Coating. ACS Applied Materials & Interfaces, 2020, 12, 55830-55837.	4.0	11
3758	Unraveling the antisolvent dripping delay effect on the Stranskiâ€"Krastanov growth of CH3NH3PbBr3 thin films: a facile route for preparing a textured morphology with improved optoelectronic properties. Physical Chemistry Chemical Physics, 2020, 22, 26592-26604.	1.3	16
3759	Heat dissipation effects on the stability of planar perovskite solar cells. Energy and Environmental Science, 2020, 13, 5059-5067.	15.6	44
3760	A Critical Review on Crystal Growth Techniques for Scalable Deposition of Photovoltaic Perovskite Thin Films. Materials, 2020, 13, 4851.	1.3	38
3761	Methylamine-assisted growth of uniaxial-oriented perovskite thin films with millimeter-sized grains. Nature Communications, 2020, 11, 5402.	5.8	71
3762	Photoemission Spectroscopy Characterization of Halide Perovskites. Advanced Energy Materials, 2020, 10, 1904007.	10.2	66
3763	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
3764	A Dopantâ€Free Hole Transporting Layer for Efficient and Stable Planar Perovskite Solar Cells. Physica Status Solidi - Rapid Research Letters, 2020, 14, 2000147.	1.2	3
3765	Green Solution-Bathing Process for Efficient Large-Area Planar Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 24905-24912.	4.0	20
3766	In Situ Study of Sputtering Nanometer-Thick Gold Films onto 100-nm-Thick Spiro-OMeTAD Films: Implications for Perovskite Solar Cells. ACS Applied Nano Materials, 2020, 3, 5987-5994.	2.4	10
3767	High-humidity processed perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 10481-10518.	5.2	56
3768	Direct observation of surface polarization at hybrid perovskite/Au interfaces by dark transient experiments. Applied Physics Letters, 2020, 116, 183503.	1.5	11
3769	Co-Solvent Controllable Engineering of MA0.5FA0.5Pb0.8Sn0.2I3 Leadâ€"Tin Mixed Perovskites for Inverted Perovskite Solar Cells with Improved Stability. Energies, 2020, 13, 2438.	1.6	8
3770	Mechanisms of exceptional grain growth and stability in formamidinium lead triiodide thin films for perovskite solar cells. Acta Materialia, 2020, 193, 10-18.	3.8	27
3771	ITO and electron transport layer-free planar perovskite solar cells on transparent Nb-doped anatase TiO2-x electrodes. Journal of Alloys and Compounds, 2020, 845, 155531.	2.8	18

#	Article	IF	Citations
3772	Analysis of the Efficiency Losses in Hybrid Perovskite/PTAA Solar Cells with Different Molecular Weights: Morphology <i>versus</i> Kinetics. ACS Applied Energy Materials, 2020, 3, 6853-6859.	2.5	28
3773	Effect of oxygen vacancies in the electron transfer layer SiZnSnO on the performance of perovskite solar cells. Journal of Alloys and Compounds, 2020, 835, 155284.	2.8	11
3774	Tapered Crossâ€Section Photoelectron Spectroscopy of Stateâ€ofâ€theâ€Art Mixed Ion Perovskite Solar Cells: Band Bending Profile in the Dark, Photopotential Profile Under Open Circuit Illumination, and Band Diagram. Advanced Functional Materials, 2020, 30, 1910679.	7.8	19
3775	Optical <i>in situ</i> monitoring during the synthesis of halide perovskite solar cells reveals formation kinetics and evolution of optoelectronic properties. Journal of Materials Chemistry A, 2020, 8, 10439-10449.	5.2	43
3776	Efficient Trap Passivation of MAPbI₃ via Multifunctional Anchoring for Highâ€Performance and Stable Perovskite Solar Cells. Advanced Sustainable Systems, 2020, 4, 2000078.	2.7	42
3777	Improved Crystallization and Stability of Mixed-Cation Tin Iodide for Lead-Free Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 5415-5426.	2.5	18
3778	Tin Halide Perovskite Films Made of Highly Oriented 2D Crystals Enable More Efficient and Stable Lead-free Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 1923-1929.	8.8	116
3779	How the Mixed Cations (Guanidium, Formamidinium, and Phenylethylamine) in Tin Iodide Perovskites Affect Their Charge Carrier Dynamics and Solar Cell Characteristics. Journal of Physical Chemistry Letters, 2020, 11, 4043-4051.	2.1	19
3780	Effect of Interfacial Layers on the Device Lifetime of Perovskite Solar Cells. Small Methods, 2020, 4, 2000065.	4.6	22
3781	Challenges and approaches towards upscaling the assembly of hybrid perovskite solar cells. Materials Advances, 2020, 1, 292-309.	2.6	35
3782	Reversible Decomposition of Single-Crystal Methylammonium Lead Iodide Perovskite Nanorods. ACS Central Science, 2020, 6, 959-968.	5.3	4
3783	Dual-site mixed layer-structured FA_xCs_{3âˆ’x}Sb₂I₆Cl₃ Pb-free metal halide perovskite solar cells. RSC Advances, 2020, 10, 17724-17730.	1.7	8
3784	Influence of doping the inorganic cation with Eu or Sb on the properties of perovskite films. Physica Scripta, 2020, 95, 075707.	1.2	6
3785	Metal Oxide Compact Electron Transport Layer Modification for Efficient and Stable Perovskite Solar Cells. Materials, 2020, 13, 2207.	1.3	42
3786	Structure optimization of CH3NH3PbI3 by higher-valence Pb in perovskite solar cells with enhanced efficiency and stability. Solar Energy, 2020, 205, 202-210.	2.9	10
3787	Facile deposition of high-quality Cs2AgBiBr6 films for efficient double perovskite solar cells. Science China Materials, 2020, 63, 1518-1525.	3.5	41
3788	Highly stable and Efficient Perovskite Solar Cells Based on FAMAâ€Perovskiteâ€Cu:NiO Composites with 20.7% Efficiency and 80.5% Fill Factor. Advanced Energy Materials, 2020, 10, 2000967.	10.2	47
3789	Role of additives SnX2 (XÂ=ÂF, Cl) and anti-solvents on the microstructure of PV absorber FASnI3 films. Materials Letters, 2020, 275, 128071.	1.3	2

#	Article	IF	Citations
3790	Perovskite Flash Memory with a Single-Layer Nanofloating Gate. Nano Letters, 2020, 20, 5081-5089.	4.5	15
3791	Perovskite nanomaterials as optical and electrochemical sensors. Inorganic Chemistry Frontiers, 2020, 7, 2702-2725.	3.0	91
3792	Progress toward Applications of Perovskite Solar Cells. Energy & Fuels, 2020, 34, 6624-6633.	2.5	31
3793	Formamidinium-Based Perovskite Solar Cells with Enhanced Moisture Stability and Performance via Confined Pressure Annealing. Journal of Physical Chemistry C, 2020, 124, 12249-12258.	1.5	23
3794	Engineering of Electron Extraction and Defect Passivation via Anion-Doped Conductive Fullerene Derivatives as Interlayers for Efficient Invert Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 24747-24755.	4.0	31
3795	Passivation of defects in inverted perovskite solar cells using an imidazolium-based ionic liquid. Sustainable Energy and Fuels, 2020, 4, 3971-3978.	2.5	37
3796	The Performance Improvement of Using Hole Transport Layer with Lithium and Cobalt for Inverted Planar Perovskite Solar Cell. Coatings, 2020, 10, 354.	1.2	5
3797	Electron Transport Materials: Evolution and Case Study for Highâ€Efficiency Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000136.	3.1	32
3798	Performance analysis of the perovskite solar cells by a realistic, DFT-accurate optical absorption spectrum. Superlattices and Microstructures, 2020, 143, 106551.	1.4	8
3799	Solution-processed perovskite solar cells. Journal of Central South University, 2020, 27, 1104-1133.	1.2	34
3800	Ionically Generated Builtâ€In Equilibrium Space Charge Zonesâ€"a Paradigm Change for Lead Halide Perovskite Interfaces. Advanced Functional Materials, 2020, 30, 2002426.	7.8	10
3801	Progress in Materials Development for the Rapid Efficiency Advancement of Perovskite Solar Cells. Small, 2020, 16, e1907531.	5.2	23
3802	Defect suppression and passivation for perovskite solar cells: from the birth to the lifetime operation. EnergyChem, 2020, 2, 100032.	10.1	22
3803	Unprecedentedly high indoor performance (efficiency > 34 %) of perovskite photovoltaics with controlled bromine doping. Nano Energy, 2020, 75, 104984.	8.2	55
3804	Î±-CsPbBr₃ Perovskite Quantum Dots for Application in Semitransparent Photovoltaics. ACS Applied Materials & Interfaces, 2020, 12, 27307-27315.	4.0	62
3805	Understanding the thermal degradation mechanism of perovskite solar cells via dielectric and noise measurements. Nanotechnology, 2020, 31, 365403.	1.3	17
3806	Interface Modification for Enhanced Efficiency and Stability Perovskite Solar Cells. Journal of Physical Chemistry C, 2020, 124, 12948-12955.	1.5	25
3807	Lewis acid/base approach for efficacious defect passivation in perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 12201-12225.	5.2	149

#	Article	IF	Citations
3808	Research progress on hybrid organicâ€“inorganic perovskites for photo-applications. Chinese Chemical Letters, 2020, 31, 3055-3064.	4.8	52
3809	Critical review of recent progress of flexible perovskite solar cells. Materials Today, 2020, 39, 66-88.	8.3	169
3810	Numerical simulation studies of a fully inorganic Cs2AgBiBr6 perovskite solar device. Optical Materials, 2020, 105, 109957.	1.7	59
3811	Finally, inkjet-printed metal halide perovskite LEDs â€“ utilizing seed crystal templating of salty PEDOT:PSS. Materials Horizons, 2020, 7, 1773-1781.	6.4	33
3812	Fabrication of high efficiency, low-temperature planar perovskite solar cells via scalable double-step crystal engineering deposition method fully out of glove box. Solar Energy, 2020, 206, 181-187.	2.9	9
3813	Functionalization of fullerene materials toward applications in perovskite solar cells. Materials Chemistry Frontiers, 2020, 4, 2256-2282.	3.2	91
3814	Making air-stable all-inorganic perovskite solar cells through dynamic hot-air. Nano Today, 2020, 33, 100880.	6.2	13
3815	Challenges and strategies relating to device function layers and their integration toward high-performance inorganic perovskite solar cells. Nanoscale, 2020, 12, 14369-14404.	2.8	99
3816	Synergistic effect of the anti-solvent bath method and improved annealing conditions for high-quality triple cation perovskite thin films. RSC Advances, 2020, 10, 18139-18146.	1.7	14
3817	Electron-beam-induced cracking in organic-inorganic halide perovskite thin films. Scripta Materialia, 2020, 187, 88-92.	2.6	16
3818	Influence of precursor concentration on printable mesoscopic perovskite solar cells. Frontiers of Optoelectronics, 2020, 13, 256-264.	1.9	11
3819	Micron Thick Colloidal Quantum Dot Solids. Nano Letters, 2020, 20, 5284-5291.	4.5	47
3820	High-Power and Flexible Indoor Solar Cells via Controlled Growth of Perovskite Using a Greener Antisolvent. ACS Applied Energy Materials, 2020, 3, 6995-7003.	2.5	44
3821	Perovskite Crystallization Dynamics during Spin-Casting: An <i>In Situ</i> Wide-Angle X-ray Scattering Study. ACS Applied Energy Materials, 2020, 3, 6155-6164.	2.5	16
3822	Interface Engineering Driven Stabilization of Halide Perovskites against Moisture, Heat, and Light for Optoelectronic Applications. Advanced Energy Materials, 2020, 10, 2000768.	10.2	62
3823	Effect of the incorporation of poly(ethylene oxide) copolymer on the stability of perovskite solar cells. Journal of Materials Chemistry C, 2020, 8, 9697-9706.	2.7	8
3824	Enhanced photovoltaic performance and reduced hysteresis in hole-conductor-free, printable mesoscopic perovskite solar cells based on melamine hydroiodide modified MAPbI3. Solar Energy, 2020, 206, 548-554.	2.9	8
3825	Study on optical absorption and conductivity of hybrid ZnO nanorod/graphene. AIP Conference Proceedings, 2020, , .	0.3	4

#	Article	IF	Citations
3826	Organicâ€“inorganic hybrid perovskite electronics. Physical Chemistry Chemical Physics, 2020, 22, 13347-13357.	1.3	23
3827	Environmentally stable lead-free cesium bismuth iodide (Cs3Bi2I9) perovskite: Synthesis to solar cell application. Journal of Physics and Chemistry of Solids, 2020, 146, 109608.	1.9	47
3828	Internally-externally defects-tailored MAPbI3 perovskites with highly enhanced air stability and quantum yield. Chemical Engineering Journal, 2020, 399, 125715.	6.6	28
3829	Interaction engineering in organicâ€“inorganic hybrid perovskite solar cells. Materials Horizons, 2020, 7, 2208-2236.	6.4	35
3830	Good or evil: what is the role of water in crystallization of organometal halide perovskites?. Nanoscale Horizons, 2020, 5, 1147-1154.	4.1	11
3831	Growth of metal halide perovskite materials. Science China Materials, 2020, 63, 1438-1463.	3.5	31
3832	Photon recycling in halide perovskite solar cells for higher efficiencies. MRS Bulletin, 2020, 45, 439-448.	1.7	20
3833	Perovskite Materials for Resistive Random Access Memories. , 0, , .		2
3834	Post-treatment techniques for high-performance perovskite solar cells. MRS Bulletin, 2020, 45, 431-438.	1.7	11
3835	Secondary Ion Mass Spectrometry (SIMS) for Chemical Characterization of Metal Halide Perovskites. Advanced Functional Materials, 2020, 30, 2002201.	7.8	29
3836	A Cuâ€Doping Strategy to Enhance Photoelectric Performance of Selfâ€Powered Holeâ€Conductorâ€Free Perovskite Photodetector for Optical Communication Applications. Advanced Materials Technologies, 2020, 5, 2000260.	3.0	23
3837	A Review on Solutionâ€Processable Dopantâ€Free Small Molecules as Holeâ€Transporting Materials for Efficient Perovskite Solar Cells. Small Methods, 2020, 4, 2000254.	4.6	64
3838	Tuning the crystallization process of perovskite active layer using a functionalized graphene oxide for enhanced photovoltaic performance. Journal of Materials Science: Materials in Electronics, 2020, 31, 12257-12268.	1.1	8
3839	Enhancing the interfacial carrier dynamic in perovskite solar cells with an ultra-thin single-crystalline nanograss-like TiO₂ electron transport layer. Journal of Materials Chemistry A, 2020, 8, 13820-13831.	5.2	12
3840	Influence of Hole Transport Layers/Perovskite Interfaces on the Hysteresis Behavior of Inverted Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 6391-6399.	2.5	9
3841	Air-Stable Perovskite Nanostructures with Dimensional Tunability by Polymerizable Structure-Directing Ligands. ACS Applied Materials & Interfaces, 2020, 12, 31770-31775.	4.0	4
3842	External quantum efficiency measurements used to study the stability of differently deposited perovskite solar cells. Journal of Applied Physics, 2020, 127, .	1.1	15
3843	Recovering Quadruple-cation Perovskite Films from Water Caused Permanent Degradations. Journal Wuhan University of Technology, Materials Science Edition, 2020, 35, 57-64.	0.4	3

#	Article	IF	Citations
3844	Stable Perovskite Solar Cells Enabled by Simultaneous Surface and Bulk Defects Passivation. Solar Rrl, 2020, 4, 2000224.	3.1	9
3845	Nanocarbon. , 2020, , 131-155.		0
3846	Effects of Annealing Time on Triple Cation Perovskite Films and Their Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 29344-29356.	4.0	16
3847	Improved stability and efficiency of polymer-based selenium solar cells through the usage of tin(<scp>iv</scp>) oxide in the electron transport layers and the analysis of aging dynamics. Physical Chemistry Chemical Physics, 2020, 22, 14838-14845.	1.3	7
3848	Coordination modulated crystallization and defect passivation in high quality perovskite film for efficient solar cells. Coordination Chemistry Reviews, 2020, 420, 213408.	9.5	51
3849	Revealing photoinduced bulk polarization and spin-orbit coupling effects in high-efficiency 2D/3D Pbâ€“Sn alloyed perovskite solar cells. Nano Energy, 2020, 76, 104999.	8.2	20
3850	Tailored 2D/3D Halide Perovskite Heterointerface for Substantially Enhanced Endurance in Conducting Bridge Resistive Switching Memory. ACS Applied Materials & Interfaces, 2020, 12, 17039-17045.	4.0	55
3851	Unveiling Predominant Air-Stable Organotin Bromide Perovskite toward Mechanical Energy Harvesting. ACS Applied Materials & Interfaces, 2020, 12, 16469-16480.	4.0	45
3852	Diammonium Porphyrin-Induced CsPbBr3 Nanocrystals to Stabilize Perovskite Films for Efficient and Stable Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 16236-16242.	4.0	31
3853	High quality silicon: Colloidal quantum dot heterojunction based infrared photodetector. Applied Physics Letters, 2020, 116, .	1.5	38
3854	Boosting Efficiency and Stability of Planar Inverted (FAPbI 3) x (MAPbBr 3) 1âˆ’ x Solar Cells via FAPbI 3 and MAPbBr 3 Crystal Powders. Solar Rrl, 2020, 4, 2000091.	3.1	19
3855	A General Wet Transferring Approach for Diffusion-Facilitated Space-Confined Grown Perovskite Single-Crystalline Optoelectronic Thin Films. Nano Letters, 2020, 20, 2747-2755.	4.5	34
3856	Grain Growth of MAPbI₃ via Diethylammonium Bromide Induced Grain Mergence. ACS Applied Materials & Interfaces, 2020, 12, 16707-16714.	4.0	10
3857	Water-induced MAPbBr3@PbBr(OH) with enhanced luminescence and stability. Light: Science and Applications, 2020, 9, 44.	7.7	122
3858	Solvent Engineering Using a Volatile Solid for Highly Efficient and Stable Perovskite Solar Cells. Advanced Science, 2020, 7, 1903250.	5.6	47
3859	Methylamine-Dimer-Induced Phase Transition toward MAPbI₃ Films and High-Efficiency Perovskite Solar Modules. Journal of the American Chemical Society, 2020, 142, 6149-6157.	6.6	59
3860	Sandwich-like electron transporting layer to achieve highly efficient perovskite solar cells. Journal of Power Sources, 2020, 453, 227876.	4.0	15
3861	Impact of Urbach energy on open-circuit voltage deficit of thin-film solar cells. Solar Energy Materials and Solar Cells, 2020, 210, 110502.	3.0	107

#	Article	IF	Citations
3862	Highly-improved performance of inverted planar perovskite solar cells by glucose modification. Journal of Materials Chemistry C, 2020, 8, 5894-5903.	2.7	19
3863	Superionic conduction in low-dimensional-networked anti-perovskites. Energy Storage Materials, 2020, 28, 146-152.	9.5	27
3864	A phase-field model for the evaporation of thin film mixtures. Physical Chemistry Chemical Physics, 2020, 22, 6638-6652.	1.3	17
3865	Corrosion of Late- and Post-Transition Metals into Metalâ€“Organic Chalcogenolates and Implications for Nanodevice Architectures. ACS Applied Nano Materials, 2020, 3, 3568-3577.	2.4	9
3866	Conventional Solvent Oxidizes Sn(II) in Perovskite Inks. ACS Energy Letters, 2020, 5, 1153-1155.	8.8	127
3867	Scalable Synthesis of Micron Size Crystals of CH 3 NH 3 PbI 3 at Room Temperature in Acetonitrile via Rapid Reactive Crystallization. ChemistrySelect, 2020, 5, 3266-3271.	0.7	1
3868	A perovskite solar cell owing very high stabilities and power conversion efficiencies. Solar Energy, 2020, 201, 541-546.	2.9	11
3869	Effect of Sr substitution on the property and stability of CH₃NH₃SnI₃perovskite: A firstâ€principles investigation. International Journal of Energy Research, 2020, 44, 5765-5778.	2.2	19
3870	Halogenâ€“NH₂⁺ Interaction, Temperature-Induced Phase Transition, and Ordering in (NH₂CHNH₂)PbX₃ (X = Cl, Br, I) Hybrid Perovskites. Journal of Physical Chemistry C, 2020, 124, 8479-8487.	1.5	32
3871	Facile Deposition of Mesoporous PbI2 through DMF:DMSO Solvent Engineering for Sequentially Deposited Metal Halide Perovskites. ACS Applied Energy Materials, 2020, 3, 3358-3368.	2.5	11
3872	<i>In situ</i> study of the film formation mechanism of organicâ€“inorganic hybrid perovskite solar cells: controlling the solvate phase using an additive system. Journal of Materials Chemistry A, 2020, 8, 7695-7703.	5.2	29
3873	Carbon electrode engineering for high efficiency all-inorganic perovskite solar cells. RSC Advances, 2020, 10, 12298-12303.	1.7	44
3874	Efficient perovskite solar cells <i>via</i> surface passivation by a multifunctional small organic ionic compound. Journal of Materials Chemistry A, 2020, 8, 8313-8322.	5.2	68
3875	Choline Chloride-Modified SnO₂ Achieving High Output Voltage in MAPbI₃ Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 3504-3511.	2.5	57
3876	Mechanism of Crystal Formation in Ruddlesdenâ€“Popper Snâ€Based Perovskites. Advanced Functional Materials, 2020, 30, 2001294.	7.8	91
3877	Strongly Enhanced Photoluminescence and Photoconductivity in Erbium-Doped MAPbBr₃ Single Crystals. Journal of Physical Chemistry C, 2020, 124, 8992-8998.	1.5	26
3878	Machine Learning for Predicting the Band Gaps of ABX₃ Perovskites from Elemental Properties. Journal of Physical Chemistry C, 2020, 124, 8905-8918.	1.5	99
3879	Stable Yellow Light-Emitting Devices Based on Ternary Copper Halides with Broadband Emissive Self-Trapped Excitons. ACS Nano, 2020, 14, 4475-4486.	7.3	199

#	Article	IF	Citations
3880	Low-Temperature (<40 Â°C) Atmospheric-Pressure Dielectric-Barrier-Discharge-Jet Treatment on Nickel Oxide for pâ€“iâ€“n Structure Perovskite Solar Cells. ACS Omega, 2020, 5, 6082-6089.	1.6	17
3881	Unveiling the Effects of Hydrolysisâ€Derived DMAI/DMAPbI<i>_x</i> Intermediate Compound on the Performance of CsPbI₃ Solar Cells. Advanced Science, 2020, 7, 1902868.	5.6	97
3882	Synergistic Reinforcement of Builtâ€In Electric Fields for Highly Efficient and Stable Perovskite Photovoltaics. Advanced Functional Materials, 2020, 30, 1909755.	7.8	47
3883	Recent advances in hybrid organic-inorganic materials with spatial architecture for state-of-the-art applications. Progress in Materials Science, 2020, 112, 100663.	16.0	196
3884	Unveiling the Relationship between the Perovskite Precursor Solution and the Resulting Device Performance. Journal of the American Chemical Society, 2020, 142, 6251-6260.	6.6	103
3885	Enhanced efficiency and stability of planar perovskite solar cells by introducing amino acid to SnO2/perovskite interface. Journal of Power Sources, 2020, 455, 227974.	4.0	90
3886	Fabrication and optimization of nanocube mixed halide perovskite films for solar cell application. Solar Energy, 2020, 201, 209-218.	2.9	6
3887	Solar-Driven Metal Halide Perovskite Photocatalysis: Design, Stability, and Performance. ACS Energy Letters, 2020, 5, 1107-1123.	8.8	400
3888	Understanding of perovskite crystal growth and film formation in scalable deposition processes. Chemical Society Reviews, 2020, 49, 1653-1687.	18.7	364
3889	Understanding the Effect of Crystalline Structural Transformation for Leadâ€Free Inorganic Halide Perovskites. Advanced Materials, 2020, 32, e2002137.	11.1	101
3890	Self-Assembled Hydrophobic Molecule-Based Surface Modification: A Strategy to Improve Efficiency and Stability of Perovskite Solar Cells. ACS Sustainable Chemistry and Engineering, 0, , .	3.2	2
3891	Electric-field-manipulated crystal stacking for high-quality organicâ€“inorganic halide perovskites. Applied Physics Express, 2020, 13, 085503.	1.1	5
3892	The Characteristics of Perovskite Solar Cells Fabricated Using DMF and DMSO/GBL Solvents. Journal of Electronic Materials, 2020, 49, 6823-6828.	1.0	13
3893	Elucidating the Coordination of Diethyl Sulfide Molecules in Copper(I) Thiocyanate (CuSCN) Thin Films and Improving Hole Transport by Antisolvent Treatment. Advanced Functional Materials, 2020, 30, 2002355.	7.8	22
3894	A piperidinium salt stabilizes efficient metal-halide perovskite solar cells. Science, 2020, 369, 96-102.	6.0	461
3895	Cationic polyelectrolytes as convenient electron extraction layers in perovskite solar cells. Dyes and Pigments, 2020, 182, 108634.	2.0	9
3896	Passivating Charged Defects with 1,6-Hexamethylenediamine To Realize Efficient and Stable Tin-Based Perovskite Solar Cells. Journal of Physical Chemistry C, 2020, 124, 16289-16299.	1.5	29
3897	Resolving in-plane and out-of-plane mobility using time resolved microwave conductivity. Journal of Materials Chemistry C, 2020, 8, 10761-10766.	2.7	7

#	Article	IF	Citations
3898	Intermediate-Controlled Interfacial Engineering for Stable and Highly Efficient Carbon-Based PSCs. ACS Applied Materials & Interfaces, 2020, 12, 34479-34486.	4.0	9
3899	Realizing a Cosolvent System for Stable Tin-Based Perovskite Solar Cells Using a Two-Step Deposition Approach. ACS Energy Letters, 2020, 5, 2508-2511.	8.8	54
3900	Interface Matters: Enhanced Photoluminescence and Long-Term Stability of Zero-Dimensional Cesium Lead Bromide Nanocrystals <i>via</i> Gas-Phase Aluminum Oxide Encapsulation. ACS Applied Materials & Interfaces, 2020, 12, 35598-35605.	4.0	14
3901	Antisolvent Additive Engineering Containing Dual-Function Additive for Triple-Cation pâ€“iâ€“n Perovskite Solar Cells with over 20% PCE. ACS Energy Letters, 2020, 5, 2535-2545.	8.8	96
3902	A pressure process for efficient and stable perovskite solar cells. Nano Energy, 2020, 77, 105063.	8.2	35
3903	2-Terminal CIGS-perovskite tandem cells: A layer by layer exploration. Solar Energy, 2020, 207, 270-288.	2.9	44
3904	Structural and Optical Properties of Solvated PbI₂ in Î³-Butyrolactone: Insight into the Solution Chemistry of Lead Halide Perovskite Precursors. Journal of Physical Chemistry Letters, 2020, 11, 6139-6145.	2.1	15
3905	Understanding the interplay of stability and efficiency in A-site engineered lead halide perovskites. APL Materials, 2020, 8, .	2.2	57
3906	Tunable electronic properties of TiO2 nanocrystals by in situ dopamine functionalization for planar perovskite solar cells. Electrochimica Acta, 2020, 354, 136720.	2.6	12
3907	Rational Interface Design and Morphology Control for Bladeâ€Coating Efficient Flexible Perovskite Solar Cells with a Record Fill Factor of 81%. Advanced Functional Materials, 2020, 30, 2001240.	7.8	77
3908	Interfacial Molecular Doping of Metal Halide Perovskites for Highly Efficient Solar Cells. Advanced Materials, 2020, 32, e2001581.	11.1	139
3909	Biodegradable Materials and Green Processing for Green Electronics. Advanced Materials, 2020, 32, e2001591.	11.1	168
3910	Highâ€Performance and Reliable Leadâ€Free Layeredâ€Perovskite Transistors. Advanced Materials, 2020, 32, e2002717.	11.1	86
3911	The Synergism of DMSO and Diethyl Ether for Highly Reproducible and Efficient MA_{0.5}FA_{0.5}PbI₃ Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 2001300.	10.2	33
3912	Front-Contact Passivation of PIN MAPbI₃ Solar Cells with Superior Device Performances. ACS Applied Energy Materials, 2020, 3, 6344-6351.	2.5	15
3913	Additive-free, Cost-Effective Hole-Transporting Materials for Perovskite Solar Cells Based on Vinyl Triarylamines. ACS Applied Materials & Interfaces, 2020, 12, 32994-33003.	4.0	17
3914	Perovskite Granular Wire Photodetectors with Ultrahigh Photodetectivity. Advanced Materials, 2020, 32, e2002357.	11.1	36
3915	Theoretical Progress on the Relationship between the Structures and Properties of Perovskite Solar Cells. Advanced Theory and Simulations, 2020, 3, 2000022.	1.3	10

#	Article	IF	Citations
3916	Interfacial defects passivation using fullerene-polymer mixing layer for planar-structure perovskite solar cells with negligible hysteresis. Solar Energy, 2020, 206, 816-825.	2.9	86
3917	Perovskite nanogels: synthesis, properties, and applications. Journal of Materials Chemistry C, 2020, 8, 12355-12379.	2.7	7
3918	Strategies to Achieve High Circularly Polarized Luminescence from Colloidal Organicâ€“Inorganic Hybrid Perovskite Nanocrystals. ACS Nano, 2020, 14, 8816-8825.	7.3	94
3919	Recent progress of twoâ€dimensional lead halide perovskite single crystals: Crystal growth, physical properties, and device applications. EcoMat, 2020, 2, e12036.	6.8	80
3920	Compositional and Interface Engineering of Organic-Inorganic Lead Halide Perovskite Solar Cells. IScience, 2020, 23, 101359.	1.9	105
3921	Maximizing Solar Energy Utilization through Multicriteria Pareto Optimization of Energy Harvesting and Regulating Smart Windows. Cell Reports Physical Science, 2020, 1, 100108.	2.8	9
3922	Preparation and characterization of a sol-gel derived silica/PVA-Py hybrid anion exchange membranes for alkaline fuel cell application. Journal of Electroanalytical Chemistry, 2020, 873, 114342.	1.9	22
3923	Graded energy band engineering for efficient perovskite solar cells. Nano Select, 2020, 1, 152-168.	1.9	19
3924	Recent trends in efficiency-stability improvement in perovskite solar cells. Materials Today Energy, 2020, 17, 100449.	2.5	43
3925	Hydrogen halide-free synthesis of organohalides for organometal trihalide perovskite solar cells. Journal of Industrial and Engineering Chemistry, 2020, 89, 375-382.	2.9	5
3926	A simple multiple centrifugation method for large-area homogeneous perovskite CsPbBr₃ films with optical lasing. RSC Advances, 2020, 10, 25480-25486.	1.7	4
3927	Organic Nâ€Type Molecule: Managing the Electronic States of Bulk Perovskite for Highâ€Performance Photovoltaics. Advanced Functional Materials, 2020, 30, 2001788.	7.8	49
3928	Lowâ€Dimensional Dionâ€“Jacobsonâ€Phase Leadâ€Free Perovskites for Highâ€Performance Photovoltaics with Improved Stability. Angewandte Chemie - International Edition, 2020, 59, 6909-6914.	7.2	123
3929	Investigating the Superoxide Formation and Stability in Mesoporous Carbon Perovskite Solar Cells with an Aminovaleric Acid Additive. Advanced Functional Materials, 2020, 30, 1909839.	7.8	30
3930	A Chiral Reducedâ€Dimension Perovskite for an Efficient Flexible Circularly Polarized Light Photodetector. Angewandte Chemie, 2020, 132, 6504-6512.	1.6	54
3931	Lowâ€Dimensional Dionâ€“Jacobsonâ€Phase Leadâ€Free Perovskites for Highâ€Performance Photovoltaics with Improved Stability. Angewandte Chemie, 2020, 132, 6976-6981.	1.6	26
3932	A Nonionic and Low-Entropic MA(MMA)nPbI3-Ink for Fast Crystallization of Perovskite Thin Films. Joule, 2020, 4, 615-630.	11.7	46
3933	Effect of annealing treatment on the properties of inverted solar cells based on mixed halide perovskite. Physica E: Low-Dimensional Systems and Nanostructures, 2020, 119, 114000.	1.3	10

#	Article	IF	Citations
3934	Molecular aspects of organic cations affecting the humidity stability of perovskites. Energy and Environmental Science, 2020, 13, 805-820.	15.6	104
3935	A single-phase brookite TiO₂ nanoparticle bridge enhances the stability of perovskite solar cells. Sustainable Energy and Fuels, 2020, 4, 2009-2017.	2.5	25
3936	Multi-cation perovskites prevent carrier reflection from grain surfaces. Nature Materials, 2020, 19, 412-418.	13.3	100
3937	Suppression of Iodide Ion Migration via Sb₂S₃ Interfacial Modification for Stable Inorganic Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 12867-12873.	4.0	32
3938	Revealing the Role of Interfaces in Photocarrier Dynamics of Perovskite Films by Alternating Front/Back Side Excitation Time-Resolved Photoluminescence. Journal of Physical Chemistry C, 2020, 124, 6290-6296.	1.5	25
3939	A hysteresis-free perovskite transistor with exceptional stability through molecular cross-linking and amine-based surface passivation. Nanoscale, 2020, 12, 7641-7650.	2.8	40
3940	Low-Temperature Solution-Processed Amorphous Titania Nanowire Thin Films for 1 cm² Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 11450-11458.	4.0	9
3941	Investigation on Low-temperature Annealing Process of Solution-processed TiO2 Electron Transport Layer for Flexible Perovskite Solar Cell. Materials, 2020, 13, 1031.	1.3	7
3942	High performance perovskite solar cells using multiple hole transport layer and modulated FAxMA1âˆ'xPbI3 active layer. Journal of Materials Science: Materials in Electronics, 2020, 31, 4135-4141.	1.1	3
3943	Efficient and Stable Ideal Bandgap Perovskite Solar Cell Achieved by a Small Amount of Tin Substituted Methylammonium Lead Iodide. Electronic Materials Letters, 2020, 16, 224-230.	1.0	20
3944	Additive-assisted synthesis and optoelectronic properties of (CH3NH3)4Bi6I22. Inorganic Chemistry Frontiers, 2020, 7, 1564-1572.	3.0	11
3945	Dipolar hole-blocking layers for inverted perovskite solar cells: effects of aggregation and electron transport levels. JPhys Materials, 2020, 3, 025002.	1.8	8
3946	Dynamics of Antisolvent Processed Hybrid Metal Halide Perovskites Studied by <i>In Situ</i> Photoluminescence and Its Influence on Optoelectronic Properties. ACS Applied Energy Materials, 2020, 3, 2386-2393.	2.5	26
3947	Blending Ionic and Coordinate Bonds in Hybrid Semiconductor Materials: A General Approach toward Robust and Solution-Processable Covalent/Coordinate Network Structures. Journal of the American Chemical Society, 2020, 142, 4242-4253.	6.6	72
3948	Binary synergetic ions reduce defect density in ambient air processed perovskite solar cells. Solar Energy, 2020, 198, 335-342.	2.9	9
3949	Inkjet-Printed Organohalide 2D Layered Perovskites for High-Speed Photodetectors on Flexible Polyimide Substrates. ACS Applied Materials & Interfaces, 2020, 12, 10809-10819.	4.0	51
3950	Single-particle perovskite lasers: from material properties to cavity design. Nanophotonics, 2020, 9, 599-610.	2.9	34
3951	A Nontoxic Bifunctional (Anti)Solvent as Digestiveâ€Ripening Agent for Highâ€Performance Perovskite Solar Cells. Advanced Materials, 2020, 32, e1907123.	11.1	82

#	Article	IF	Citations
3952	Functional additives for high-performance inverted planar perovskite solar cells with exceeding 20% efficiency: Selective complexation of organic cations in precursors. Nano Energy, 2020, 71, 104639.	8.2	109
3953	Effect of Sr substitution on the air-stability of perovskite solar cells. Ceramics International, 2020, 46, 14038-14047.	2.3	8
3954	In-depth analysis of defects in TiO2 compact electron transport layers and impact on performance and hysteresis of planar perovskite devices at low light. Solar Energy Materials and Solar Cells, 2020, 209, 110448.	3.0	15
3955	Enhanced self-powered photoresponse in perovskite films with in situ induced pâ€"n homojunction by Ar+ bombardment. Optical Materials, 2020, 100, 109687.	1.7	5
3956	Two-step processed efficient perovskite solar cells via improving perovskite/PTAA interface using solvent engineering in PbI₂ precursor*. Chinese Physics B, 2020, 29, 048801.	0.7	12
3957	Dopantâ€Free Organic Holeâ€Transporting Material for Efficient and Stable Inverted Allâ€Inorganic and Hybrid Perovskite Solar Cells. Advanced Materials, 2020, 32, e1908011.	11.1	195
3958	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
3959	Advanced Computing and Intelligent Engineering. Advances in Intelligent Systems and Computing, 2020, , .	0.5	1
3960	Electronic structure and optical performance of PbI2/SnSe2 heterostructure. Chemical Physics, 2020, 533, 110736.	0.9	7
3961	Solvent selection for highly reproducible carbon-based mixed-cation hybrid lead halide perovskite solar cells via adduct approach. Solar Energy, 2020, 199, 761-771.	2.9	10
3962	Improvement on performance of hybrid CH3NH3PbI3â^'xClx perovskite solar cells induced sequential deposition by low pressure assisted solution processing. Solar Energy, 2020, 199, 826-831.	2.9	12
3963	Structural, optical and excitonic properties of MAxCs1-xPb(IxBr1-x)3 alloy thin films and their application in solar cells. Solar Energy Materials and Solar Cells, 2020, 210, 110478.	3.0	27
3964	Is Formamidinium Always More Stable than Methylammonium?. Chemistry of Materials, 2020, 32, 2501-2507.	3.2	34
3965	Excellent Moisture Stability and Efficiency of Inverted All-Inorganic CsPbIBr₂ Perovskite Solar Cells through Molecule Interface Engineering. ACS Applied Materials & Interfaces, 2020, 12, 13931-13940.	4.0	52
3966	Solution-Processed Mixed-Dimensional Hybrid Perovskite/Carbon Nanotube Electronics. ACS Nano, 2020, 14, 3969-3979.	7.3	30
3968	EnhancingÂelectronÂtransportÂinÂperovskiteÂsolarÂcellsÂby incorporatingÂGOÂtoÂtheÂmeso-structuredÂTiO2Âlayer. Journal of Materials Science: Materials in Electronics, 2020, 31, 3603-3612.	1.1	7
3969	Heterogeneous Supersaturation in Mixed Perovskites. Advanced Science, 2020, 7, 1903166.	5.6	13
3970	Highly efficient planar heterojunction perovskite solar cells with sequentially dip-coated deposited perovskite layers from a non-halide aqueous lead precursor. RSC Advances, 2020, 10, 5454-5461.	1.7	72

#	Article	IF	Citations
3971	Optimized analysis of back-contact perovskite solar cells architectures. Optik, 2020, 207, 164362.	1.4	10
3972	A review on perovskite solar cells: Evolution of architecture, fabrication techniques, commercialization issues and status. Solar Energy, 2020, 198, 665-688.	2.9	321
3973	Highly Efficient CsPbBr₃ Planar Perovskite Solar Cells via Additive Engineering with NH₄SCN. ACS Applied Materials & Interfaces, 2020, 12, 10579-10587.	4.0	80
3974	Tailoring Perovskite Adjacent Interfaces by Conjugated Polyelectrolyte for Stable and Efficient Solar Cells. Solar Rrl, 2020, 4, 2000060.	3.1	23
3975	Recent advances in fiber-shaped and planar-shaped textile solar cells. Nano Energy, 2020, 71, 104609.	8.2	73
3976	Effect of perovskite precursor ratios and solvents volume on the efficiency of MAPbI3-xClx mixed halide perovskite solar cells. Materials Science in Semiconductor Processing, 2020, 109, 104915.	1.9	24
3977	Piezo-phototronic effect enhanced photodetectors based on MAPbI₃ perovskite. Journal of Materials Chemistry C, 2020, 8, 2709-2718.	2.7	23
3978	Progress on the controllable synthesis of all-inorganic halide perovskite nanocrystals and their optoelectronic applications. Journal of Semiconductors, 2020, 41, 011201.	2.0	16
3979	Blade-Coated Perovskites on Textured Silicon for 26%-Efficient Monolithic Perovskite/Silicon Tandem Solar Cells. Joule, 2020, 4, 850-864.	11.7	281
3980	Solution-Processed Transparent Electrodes for Emerging Thin-Film Solar Cells. Chemical Reviews, 2020, 120, 2049-2122.	23.0	152
3981	Nanochemical Investigation of Degradation in Organicâ€“Inorganic Hybrid Perovskite Films Using Infrared Nanoscopy. Journal of Physical Chemistry C, 2020, 124, 3915-3922.	1.5	12
3982	High-Efficiency Flexible Perovskite Solar Cells Enabled by an Ultrafast Room-Temperature Reactive Ion Etching Process. ACS Applied Materials & Interfaces, 2020, 12, 7125-7134.	4.0	8
3983	Materials chemistry and engineering in metal halide perovskite lasers. Chemical Society Reviews, 2020, 49, 951-982.	18.7	263
3984	Facile healing of cracks in organicâ€“inorganic halide perovskite thin films. Acta Materialia, 2020, 187, 112-121.	3.8	51
3985	Acetic Acid Assisted Crystallization Strategy for High Efficiency and Longâ€Term Stable Perovskite Solar Cell. Advanced Science, 2020, 7, 1903368.	5.6	85
3986	Grain Enlargement and Defect Passivation with Melamine Additives for High Efficiency and Stable CsPbBr₃ Perovskite Solar Cells. ChemSusChem, 2020, 13, 1834-1843.	3.6	62
3987	Highly (100)-oriented CH3NH3PbI3 thin film fabricated by bar-coating method and its additive effect of ammonium chloride. Solar Energy Materials and Solar Cells, 2020, 208, 110409.	3.0	12
3988	Effective Management of Nucleation and Crystallization Processes in Perovskite Formation via Facile Control of Antisolvent Temperature. ACS Applied Energy Materials, 2020, 3, 1506-1514.	2.5	34

#	Article	IF	Citations
3989	Stable and Highâ€Efficiency Methylammoniumâ€Free Perovskite Solar Cells. Advanced Materials, 2020, 32, e1905502.	11.1	131
3990	Whispering Gallery Mode Lasing from CH₃NH₃PbBr₃/PEO Composites Grown in a Microcapillary. Journal of Physical Chemistry C, 2020, 124, 3242-3249.	1.5	3
3991	Recent progress in flexibleâ€“wearable solar cells for self-powered electronic devices. Energy and Environmental Science, 2020, 13, 685-743.	15.6	340
3992	Large-Scale Synthesis of Uniform PbI₂(DMSO) Complex Powder by Solvent Extraction Method for Efficient Metal Halide Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 8233-8239.	4.0	22
3993	A Chiral Reducedâ€Dimension Perovskite for an Efficient Flexible Circularly Polarized Light Photodetector. Angewandte Chemie - International Edition, 2020, 59, 6442-6450.	7.2	178
3994	Hole Transport Materials in Conventional Structural (nâ€“iâ€“p) Perovskite Solar Cells: From Past to the Future. Advanced Energy Materials, 2020, 10, 1903403.	10.2	192
3995	Highâ€Efficiency Lowâ€Temperatureâ€Processed Mesoscopic Perovskite Solar Cells from SnO₂ Nanorod Selfâ€Assembled Microspheres. Solar Rrl, 2020, 4, 1900558.	3.1	21
3996	CsIâ€Antisolvent Adduct Formation in Allâ€Inorganic Metal Halide Perovskites. Advanced Energy Materials, 2020, 10, 1903365.	10.2	55
3997	Layeredâ€Perovskite Nanowires with Longâ€Range Orientational Order for Ultrasensitive Photodetectors. Advanced Materials, 2020, 32, e1905298.	11.1	49
3998	Anti-solvent free fabrication of FA-Based perovskite at low temperature towards to high performance flexible perovskite solar cells. Nano Energy, 2020, 70, 104505.	8.2	35
3999	Managing grains and interfaces via ligand anchoring enables 22.3%-efficiency inverted perovskite solar cells. Nature Energy, 2020, 5, 131-140.	19.8	894
4000	Ambient Air Stability of Hybrid Perovskite Thinâ€Film Transistors by Ambient Air Processing. Advanced Materials Interfaces, 2020, 7, 1901777.	1.9	20
4001	Superior Textured Film and Process Tolerance Enabled by Intermediateâ€State Engineering for Highâ€Efficiency Perovskite Solar Cells. Advanced Science, 2020, 7, 1903009.	5.6	22
4002	Recent progress in perovskite solar cells: the perovskite layer. Beilstein Journal of Nanotechnology, 2020, 11, 51-60.	1.5	35
4003	A novel ZnS/SiO2 double passivation layers for the CdS/CdSe quantum dots co-sensitized solar cells based on zinc titanium mixed metal oxides. Solar Energy Materials and Solar Cells, 2020, 208, 110380.	3.0	22
4004	Allâ€Rounder Lowâ€Cost Dopantâ€Free Dâ€Aâ€D Holeâ€Transporting Materials for Efficient Indoor and Outdoor Performance of Perovskite Solar Cells. Advanced Electronic Materials, 2020, 6, 1900884.	2.6	72
4005	Synergistic effect of additives on 2D perovskite film towards efficient and stable solar cell. Chemical Engineering Journal, 2020, 389, 124266.	6.6	50
4006	Niobium doped TiO2 nanorod arrays as efficient electron transport materials in photovoltaic. Journal of Power Sources, 2020, 450, 227715.	4.0	17

#	Article	IF	Citations
4007	Boosting Photovoltaic Performance and Stability of Super-Halogen-Substituted Perovskite Solar Cells by Simultaneous Methylammonium Immobilization and Vacancy Compensation. ACS Applied Materials & Interfaces, 2020, 12, 8249-8259.	4.0	19
4008	Introduction of Multifunctional Triphenylamino Derivatives at the Perovskite/HTL Interface To Promote Efficiency and Stability of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 9300-9306.	4.0	53
4009	Magneto-electroluminescence response in 2D and 3D hybrid organicâ€“inorganic perovskite light emitting diodes. Journal of Chemical Physics, 2020, 152, 044714.	1.2	11
4010	Impact of Diethyl Ether Dripping Delay Time on the Electronic Structure of Methylammonium Lead Triiodide Perovskite Film. Journal of the Korean Physical Society, 2020, 76, 162-166.	0.3	2
4011	All Green Solvents for Fabrication of CsPbBr₃ Films for Efficient Solar Cells Guided by the Hansen Solubility Theory. Solar Rrl, 2020, 4, 2000008.	3.1	33
4012	Enhancing the stability of perovskites by constructing heterojunctions of graphene/MASnI₃. Physical Chemistry Chemical Physics, 2020, 22, 3724-3733.	1.3	6
4013	Grain Boundary and Interface Passivation with Coreâ€“Shell Au@CdS Nanospheres for Highâ€Efficiency Perovskite Solar Cells. Advanced Functional Materials, 2020, 30, 1908408.	7.8	78
4014	High Performance Planar Structure Perovskite Solar Cells Using a Solvent Dripping Treatment on Hole Transporting Layer. Coatings, 2020, 10, 127.	1.2	9
4015	Frequency- and Power-Dependent Photoresponse of a Perovskite Photodetector Down to the Single-Photon Level. Nano Letters, 2020, 20, 2144-2151.	4.5	20
4016	BiBr3 as an additive in CsPbBr3 for carbon-based all-inorganic perovskite solar cell. Journal of Alloys and Compounds, 2020, 835, 155283.	2.8	23
4017	Effect of PbI2 surface treatment with DMSO vapor on the properties and photodetector characteristics of CH3NH3PbI3â€“Cl perovskite films synthesized by a PbS-to-PbI2-to-perovskite sequence. Organic Electronics, 2020, 84, 105773.	1.4	8
4018	Fabrication of halide-perovskite resonant microcylinders by nanoimprint lithography. Journal of Physics: Conference Series, 2020, 1461, 012178.	0.3	0
4019	Organic-inorganic hybrid halide perovskites impregnated with Group 1 and 15 elements for solar cell application. Journal of Physics and Chemistry of Solids, 2020, 144, 109518.	1.9	10
4020	Efficient triple-mesoscopic perovskite solar mini-modules fabricated with slot-die coating. Nano Energy, 2020, 74, 104842.	8.2	63
4021	Polyaromatic Nanotweezers on Semiconducting Carbon Nanotubes for the Growth and Interfacing of Lead Halide Perovskite Crystal Grains in Solar Cells. Chemistry of Materials, 2020, 32, 5125-5133.	3.2	45
4022	Validated Analysis of Component Distribution Inside Perovskite Solar Cells and Its Utility in Unveiling Factors of Device Performance and Degradation. ACS Applied Materials & Interfaces, 2020, 12, 22730-22740.	4.0	20
4023	Light soaking in metal halide perovskites studied via steady-state microwave conductivity. Communications Physics, 2020, 3, .	2.0	20
4024	Simultaneous Optimization of Phase and Morphology of CsPbBr 3 Films via Controllable Ostwald Ripening by Ethylene Glycol Monomethylether/Isopropanol Biâ€Solvent Engineering. Advanced Engineering Materials, 2020, 22, 2000162.	1.6	19

#	Article	IF	Citations
4025	Effect of Grain Size on the Fracture Behavior of Organic-Inorganic Halide Perovskite Thin Films for Solar Cells. Scripta Materialia, 2020, 185, 47-50.	2.6	32
4026	Phenylhydrazinium Iodide for Surface Passivation and Defects Suppression in Perovskite Solar Cells. Advanced Functional Materials, 2020, 30, 2000778.	7.8	103
4027	From 1D to 3D: Fabrication of CH 3 NH 3 PbI 3 Perovskite Solar Cell Thin Films from (Pyrrolidinium)PbI 3 via Organic Cation Exchange Approach. Energy Technology, 2020, 8, 2000148.	1.8	4
4028	Inkjetâ€Printed TiO₂/Fullerene Composite Films for Planar Perovskite Solar Cells. Helvetica Chimica Acta, 2020, 103, e2000044.	1.0	6
4029	Improving the efficiency of perovskite solar cells using modification of CH3NH3PbI3 active layer: the effect of methylammonium iodide loading time. Optical and Quantum Electronics, 2020, 52, 1.	1.5	7
4030	4-Tert-butylpyridine-assisted low-cost and soluble copper phthalocyanine as dopant-free hole transport layer for efficient Pb- and Sn-based perovskite solar cells. Science China Chemistry, 2020, 63, 1053-1058.	4.2	13
4031	Low-Temperature Aging Provides 22% Efficient Bromine-Free and Passivation Layer-Free Planar Perovskite Solar Cells. Nano-Micro Letters, 2020, 12, 84.	14.4	33
4032	å¡«è¡¥ç¢˜ç©ºä½æŠ‘åˆ¶Î´-HC(NH2)2PbI3ç›¸ä»¥åˆ¶å‡é«˜æ•ˆåªé˜³ç”µæ±. Science China Materials, 2020, 63, 1015-1023	3.5	20
4033	Controlled crystallinity and morphologies of 2D Ruddlesden-Popper perovskite films grown without anti-solvent for solar cells. Chemical Engineering Journal, 2020, 394, 124959.	6.6	33
4034	An inverted BiI3/PCBM binary quasi-bulk heterojunction solar cell with a power conversion efficiency of 1.50%. Nano Energy, 2020, 73, 104799.	8.2	17
4035	Insights into mechanism of size-controlled synthesis of CH3NH3PbBr3 perovskite quantum dots and large nanoparticles with tunable optical properties. Organic Electronics, 2020, 82, 105712.	1.4	7
4036	Efficient defect-passivation and charge-transfer with interfacial organophosphorus ligand modification for enhanced performance of perovskite solar cells. Solar Energy Materials and Solar Cells, 2020, 211, 110527.	3.0	54
4037	Secondary Grain Growth in Organicâ€"Inorganic Perovskite Films with Ethylamine Hydrochloride Additives for Highly Efficient Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 20026-20034.	4.0	25
4038	Solution-processed one-dimensional CsCu₂I₃ nanowires for polarization-sensitive and flexible ultraviolet photodetectors. Materials Horizons, 2020, 7, 1613-1622.	6.4	120
4039	Recent advances in synthesis and application of perovskite quantum dot based composites for photonics, electronics and sensors. Science and Technology of Advanced Materials, 2020, 21, 278-302.	2.8	34
4040	Black phosphorus quantum dots in inorganic perovskite thin films for efficient photovoltaic application. Science Advances, 2020, 6, eaay5661.	4.7	95
4041	The Investigation for Coating Method of Titanium Dioxide Layer in Perovskite Solar Cells. Crystals, 2020, 10, 236.	1.0	6
4042	Chinaâ€™s progress of perovskite solar cells in 2019. Science Bulletin, 2020, 65, 1306-1315.	4.3	12

#	Article	IF	Citations
4043	Aâ€Site Rubidium Cationâ€Incorporated CsPbI₂Br Allâ€Inorganic Perovskite Solar Cells Exceeding 17% Efficiency. Solar Rrl, 2020, 4, 2000164.	3.1	107
4044	Effect of anomalous behavior of Be-doping on structural stability, bandgap and optical properties in comparison with Mg-doped BaZrO3 perovskite: insights from DFT calculations. Optical and Quantum Electronics, 2020, 52, 1.	1.5	15
4045	Degradation mechanisms in mixed-cation and mixed-halide Cs_xFA_{1âˆ’x}Pb(Br_yI_{1âˆ’y})₃ perovskite films under ambient conditions. Journal of Materials Chemistry A, 2020, 8, 9302-9312.	5.2	26
4046	The Role of Grain Boundaries on Ionic Defect Migration in Metal Halide Perovskites. Advanced Energy Materials, 2020, 10, 1903735.	10.2	117
4047	A New Strategy for Increasing the Efficiency of Inverted Perovskite Solar Cells to More than 21%: Highâ€Humidity Induced Selfâ€Passivation of Perovskite Films. Solar Rrl, 2020, 4, 2000149.	3.1	17
4048	Design, engineering, and performance of nanorod-Fe2O3@rGO@LaSrFe2-Co O6 (nâ€‰=â€‰0, 1) composite architectures: The role of double oxide perovskites in reaching high solar to hydrogen efficiency. Applied Catalysis B: Environmental, 2020, 272, 118952.	10.8	19
4049	The diverse passivation effects of fullerene derivative on hysteresis behavior for normal and inverted perovskite solar cells. Journal of Power Sources, 2020, 461, 228156.	4.0	4
4050	Amphoteric imidazole doping induced large-grained perovskite with reduced defect density for high performance inverted solar cells. Solar Energy Materials and Solar Cells, 2020, 212, 110553.	3.0	25
4051	Tailoring the Dimension of Halide Perovskites Enables Quantum Wires with Enhanced Visible Light Absorption. Journal of Physical Chemistry C, 2020, 124, 11124-11131.	1.5	1
4052	Simple Method for Efficient Slot-Die Coating of MAPbI₃ Perovskite Thin Films in Ambient Air Conditions. ACS Applied Energy Materials, 2020, 3, 4331-4337.	2.5	28
4053	Effects of alkali and transition metal-doped TiO₂ hole blocking layers on the perovskite solar cells obtained by a two-step sequential deposition method in air and under vacuum. RSC Advances, 2020, 10, 13139-13148.	1.7	15
4054	Ligandâ€Modulated Excess PbI₂ Nanosheets for Highly Efficient and Stable Perovskite Solar Cells. Advanced Materials, 2020, 32, e2000865.	11.1	136
4055	Glass rod-sliding and low pressure assisted solution processing composition engineering for high-efficiency perovskite solar cells. Solar Energy Materials and Solar Cells, 2020, 211, 110532.	3.0	11
4056	The prediction of carrier generation rate based on OTMM for perovskite solar cells based on different back electrodes. Superlattices and Microstructures, 2020, 141, 106495.	1.4	1
4057	High charge carrier mobility in solution processed one-dimensional lead halide perovskite single crystals and their application as photodetectors. Nanoscale, 2020, 12, 9688-9695.	2.8	37
4058	Nickel oxide for inverted structure perovskite solar cells. Journal of Energy Chemistry, 2021, 52, 393-411.	7.1	132
4059	Intermediates transformation for efficient perovskite solar cells. Journal of Energy Chemistry, 2021, 52, 102-114.	7.1	26
4060	Biopolymer passivation for high-performance perovskite solar cells by blade coating. Journal of Energy Chemistry, 2021, 54, 45-52.	7.1	29

#	Article	IF	Citations
4061	Electrodeposition, solvent engineering, and two-step solution deposition of the perovskite films: morphological and structural study. Journal of Materials Science: Materials in Electronics, 2021, 32, 12991-12999.	1.1	13
4062	Interphases, Interfaces, and Surfaces of Active Materials in Rechargeable Batteries and Perovskite Solar Cells. Advanced Materials, 2021, 33, e1905245.	11.1	30
4063	Recent advances in metal halide perovskite photocatalysts: Properties, synthesis and applications. Journal of Energy Chemistry, 2021, 54, 770-785.	7.1	75
4064	Fabrication of room ambient perovskite solar cell using nickel oxide HTM. Materials Today: Proceedings, 2021, 34, 748-751.	0.9	2
4065	Synergistic effect of MACl and DMF towards efficient perovskite solar cells. Organic Electronics, 2021, 88, 106005.	1.4	7
4066	A naphthalene diimide side-chain polymer as an electron-extraction layer for stable perovskite solar cells. Materials Chemistry Frontiers, 2021, 5, 450-457.	3.2	11
4067	Sodium Benzenesulfonate Modified Poly (3,4â€Ethylenedioxythiophene):Polystyrene Sulfonate with Improved Wettability and Work Function for Efficient and Stable Perovskite Solar Cells. Solar Rrl, 2021, 5, .	3.1	51
4068	Improving Moisture/Thermal Stability and Efficiency of CH 3 NH 3 PbI 3 â€Based Perovskite Solar Cells via Gentle Butyl Acrylate Additive Strategy. Solar Rrl, 2021, 5, 2000621.	3.1	20
4069	Sequential Formation of Tunableâ€Bandgap Mixedâ€Halide Leadâ€Based Perovskites: In Situ Investigation and Photovoltaic Devices. Solar Rrl, 2021, 5, .	3.1	15
4070	Crystallization Kinetics Modulation of FASnI₃ Films with Preâ€nucleation Clusters for Efficient Leadâ€Free Perovskite Solar Cells. Angewandte Chemie - International Edition, 2021, 60, 3693-3698.	7.2	80
4071	Thin films for planar solar cells of organic-inorganic perovskite composites. , 2021, , 95-115.		1
4072	Influence of end groups variation of self assembled monolayers on performance of planar perovskite solar cells by interface regulation. Materials Science in Semiconductor Processing, 2021, 123, 105514.	1.9	14
4073	An efficacious multifunction codoping strategy on a room-temperature solution-processed hole transport layer for realizing high-performance perovskite solar cells. Journal of Materials Chemistry A, 2021, 9, 371-379.	5.2	30
4074	Two-dimensional materials for light emitting applications: Achievement, challenge and future perspectives. Nano Research, 2021, 14, 1912-1936.	5.8	34
4075	A universal method for hysteresis-free and stable perovskite solar cells using water pre-treatment. Chemical Engineering Journal, 2021, 403, 126435.	6.6	12
4076	Advanced Characterization Techniques for Overcoming Challenges of Perovskite Solar Cell Materials. Advanced Energy Materials, 2021, 11, 2001753.	10.2	29
4077	Suppressing Ion Migration across Perovskite Grain Boundaries by Polymer Additives. Advanced Functional Materials, 2021, 31, 2006802.	7.8	66
4078	Effect of CH3NH3I/CH3NH3Br precursors on the structural and surface morphology properties of the electrodeposited methylammonium leadâ€“mixed halide perovskite films. Journal of Solid State Electrochemistry, 2021, 25, 583-590.	1.2	1

#	Article	IF	Citations
4079	Understanding the precursor chemistry for one-step deposition of mixed cation perovskite solar cells by methylamine route. Journal of Energy Chemistry, 2021, 57, 386-391.	7.1	9
4080	Perovskite/perovskite planar tandem solar cells: A comprehensive guideline for reaching energy conversion efficiency beyond 30%. Nano Energy, 2021, 79, 105400.	8.2	69
4081	Minimizing Voltage Losses in Perovskite Solar Cells. Small Structures, 2021, 2, 2000050.	6.9	43
4082	High-performance fully-ambient air processed perovskite solar cells using solvent additive. Journal of Physics and Chemistry of Solids, 2021, 149, 109792.	1.9	33
4083	Spontaneously supersaturated nucleation strategy for high reproducible and efficient perovskite solar cells. Chemical Engineering Journal, 2021, 405, 126998.	6.6	20
4084	Improved perovskite crystallization via antisolvent-assisted processed using additive engineering for efficient perovskite solar cells. Journal of Alloys and Compounds, 2021, 855, 157396.	2.8	10
4085	Strategies from small-area to scalable fabrication for perovskite solar cells. Journal of Energy Chemistry, 2021, 57, 567-586.	7.1	17
4086	Structural, optical and excitonic properties of urea grading doped CH3NH3PbI3 thin films and their application in inverted-type perovskite solar cells. Journal of Alloys and Compounds, 2021, 858, 157660.	2.8	12
4087	Superior photovoltaics/optoelectronics of two-dimensional halide perovskites. Journal of Energy Chemistry, 2021, 57, 69-82.	7.1	20
4088	A simple engineering strategy with side chain liquid crystal polymers in perovskite absorbers for high efficiency and stability. Organic Electronics, 2021, 88, 105987.	1.4	5
4089	Boosting the efficiency of quasi-2D perovskites light-emitting diodes by using encapsulation growth method. Nano Energy, 2021, 80, 105511.	8.2	54
4090	Space-confined growth of metal halide perovskite crystal films. Nano Research, 2021, 14, 1609-1624.	5.8	23
4091	All-inorganic perovskite CsPbX3 electrospun nanofibers with color-tunable photoluminescence and high performance optoelectronic applications. Journal of Alloys and Compounds, 2021, 856, 157426.	2.8	22
4092	Synthesis of well dispersed NiO ink for efficient perovskite solar cells. Journal of Alloys and Compounds, 2021, 860, 157889.	2.8	16
4093	Novel thieno-imidazole salt-based hole transport material for dopant-free, efficient inverted perovskite solar cell applications. Journal of Power Sources, 2021, 483, 229177.	4.0	9
4094	Scaling-up perovskite solar cells on hydrophobic surfaces. Nano Energy, 2021, 81, 105633.	8.2	46
4095	Chemical Control of Spinâ€Orbit Coupling and Charge Transfer in Vacancyâ€Ordered Ruthenium(IV) Halide Perovskites. Angewandte Chemie, 2021, 133, 5244-5248.	1.6	2
4096	Crystallization Kinetics Modulation of FASnI₃ Films with Preâ€nucleation Clusters for Efficient Leadâ€Free Perovskite Solar Cells. Angewandte Chemie, 2021, 133, 3737-3742.	1.6	20

#	Article	IF	Citations
4097	Emerging Perovskite Materials with Different Nanostructures for Photodetectors. Advanced Optical Materials, 2021, 9, 2001637.	3.6	40
4098	Device Performance of Emerging Photovoltaic Materials (Version 1). Advanced Energy Materials, 2021, 11, 2002774.	10.2	93
4099	ASnX₃â€"Better than Pbâ€based Perovskite. Nano Select, 2021, 2, 159-186.	1.9	5
4100	Hollow 3D TiO2 sub-microspheres as an electron transporting layer for highly efficient perovskite solar cells. Materials Today Energy, 2021, 19, 100614.	2.5	12
4101	A spiro-OMeTAD based semiconductor composite with over 100ÂÂ°C glass transition temperature for durable perovskite solar cells. Nano Energy, 2021, 81, 105655.	8.2	41
4102	Inorganic Electron Transport Materials in Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2008300.	7.8	105
4103	High Efficiency Perovskite Solar Cells Exceeding 22% via a Photoâ€Assisted Twoâ€Step Sequential Deposition. Advanced Functional Materials, 2021, 31, 2006718.	7.8	33
4104	A Review on Scaling Up Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2008621.	7.8	143
4105	Roles of MACl in Sequentially Deposited Bromineâ€Free Perovskite Absorbers for Efficient Solar Cells. Advanced Materials, 2021, 33, e2007126.	11.1	112
4106	2D Hybrid Halide Perovskites: Synthesis, Properties, and Applications. Solar Rrl, 2021, 5, .	3.1	20
4107	Ultrahigh carrier mobility and light-harvesting performance of 2D penta-PdX2 monolayer. Journal of Materials Science, 2021, 56, 3846-3860.	1.7	24
4108	Polymer-modified CsPbI2Br films for all-inorganic planar perovskite solar cells with improved performance. Surfaces and Interfaces, 2021, 22, 100809.	1.5	13
4109	Modeling Grain Boundaries in Polycrystalline Halide Perovskite Solar Cells. Annual Review of Condensed Matter Physics, 2021, 12, 95-109.	5.2	25
4110	Effects of A site doping on the crystallization of perovskite films. Journal of Materials Chemistry A, 2021, 9, 1372-1394.	5.2	43
4111	Chemical Control of Spinâ€Orbit Coupling and Charge Transfer in Vacancyâ€Ordered Ruthenium(IV) Halide Perovskites. Angewandte Chemie - International Edition, 2021, 60, 5184-5188.	7.2	18
4112	Highâ€Efficiency Tin Halide Perovskite Solar Cells: The Chemistry of Tin (II) Compounds and Their Interaction with Lewis Base Additives during Perovskite Film Formation. Solar Rrl, 2021, 5, .	3.1	50
4113	Numerical simulation and proof of concept for performance assessment of cesium based lead-free wide-bandgap halide solar cells. Optical Materials, 2021, 111, 110644.	1.7	20
4114	TiI4-doping induced bulk defects passivation in halide perovskites for high efficient photovoltaic devices. Organic Electronics, 2021, 88, 105973.	1.4	1

#	Article	IF	Citations
4115	Roles of Organic Molecules in Inorganic CsPbX₃ Perovskite Solar Cells. Advanced Energy Materials, 2021, 11, .	10.2	63
4116	Epitaxial halide perovskite-based materials for photoelectric energy conversion. Energy and Environmental Science, 2021, 14, 127-157.	15.6	37
4117	Co/Eu coâ€doped electron transport layer enhances charge extraction and light absorption for efficient carbonâ€based <scp>HTM</scp> â€free perovskite solar cells. International Journal of Energy Research, 2021, 45, 5224-5234.	2.2	4
4118	A Novel Annealingâ€Free Amorphous Inorganic Metal Oxyhydroxide Cathode Interlayer for Efficient and Stable Inverted Perovskite Solar Cells. Solar Rrl, 2021, 5, .	3.1	8
4119	Facile synthesis of ordered Nb2O5 coated TiO2 nanorod arrays for efficient perovskite solar cells. Applied Surface Science, 2021, 542, 148728.	3.1	9
4120	Surface Engineering of Ambient-Air-Processed Cesium Lead Triiodide Layers for Efficient Solar Cells. Joule, 2021, 5, 183-196.	11.7	308
4121	Screening of perovskite materials for solar cell applications by first-principles calculations. Materials and Design, 2021, 198, 109387.	3.3	24
4122	Anti-solvent mixture-mediated reduction of photocurrent hysteresis in high-impurity perovskite precursor based MAPbI3 solar cells. Solar Energy, 2021, 214, 86-92.	2.9	19
4123	Photovoltaic Performance Enhancement of Allâ€Inorganic CsPbBr 3 Perovskite Solar Cells Using In 2 S 3 as Electron Transport Layer via Facile Refluxâ€Condensation Process. Physica Status Solidi (A) Applications and Materials Science, 2021, 218, 2000665.	0.8	4
4124	Beyond 17% stable perovskite solar module via polaron arrangement of tuned polymeric hole transport layer. Nano Energy, 2021, 82, 105685.	8.2	28
4125	A sustainable solvent system for processing CsPbBr₃ films for solar cells <i>via</i> an anomalous sequential deposition route. Green Chemistry, 2021, 23, 470-478.	4.6	18
4126	Bifunctional Perovskiteâ€BiVO₄ Tandem Devices for Uninterrupted Solar and Electrocatalytic Water Splitting Cycles. Advanced Functional Materials, 2021, 31, 2008182.	7.8	36
4127	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
4128	Two-dimensional Ga₂O₂ monolayer with tunable band gap and high hole mobility. Physical Chemistry Chemical Physics, 2021, 23, 666-673.	1.3	9
4129	Fabrication of lead iodide perovskite solar cells by incorporating zirconium, indium and zinc metal-organic frameworks. Solar Energy, 2021, 214, 138-148.	2.9	14
4130	Stability and efficiency improved perovskite solar cells through tuning the hydrophobicity of the hole transport layer with an organic semiconductor. Journal of Materials Chemistry C, 2021, 9, 679-686.	2.7	18
4131	Enhanced efficiency and stability of planar perovskite solar cells using SnO2:InCl3 electron transport layer through synergetic doping and passivation approaches. Chemical Engineering Journal, 2021, 407, 127997.	6.6	65
4132	Prediction of semiconducting SiP2 monolayer with negative Possionâ€™s ratio, ultrahigh carrier mobility and CO2 capture ability. Chinese Chemical Letters, 2021, 32, 1089-1094.	4.8	42

#	Article	IF	Citations
4133	Perovskite/Metalâ€Based Hyperbolic Metamaterials: Tailoring the Permittivity Properties of Coexisting Anisotropies in the Visible Region. Advanced Optical Materials, 2021, 9, .	3.6	6
4134	Photo-degradation organic dyes by Sb-based organic-inorganic hybrid ferroelectrics. Journal of Environmental Sciences, 2021, 101, 145-155.	3.2	8
4135	Electric field-induced band modulation of predicted ternary 2D MXC3 [M:XÂ= As:Ge, Sb:Sn and Bi:Pb] with strong stability and optical properties. Carbon, 2021, 172, 791-803.	5.4	21
4136	Layer dependency of graphene layers in perovskite/graphene solar cells. Carbon, 2021, 172, 597-601.	5.4	26
4137	Ambient Fabrication of Organicâ€"Inorganic Hybrid Perovskite Solar Cells. Small Methods, 2021, 5, e2000744.	4.6	63
4138	Reducing Openâ€Circuit Voltage Deficit in Perovskite Solar Cells via Surface Passivation with Phenylhydroxylammonium Halide Salts. Small Methods, 2021, 5, e2000441.	4.6	15
4139	An overview of the mathematical modelling of perovskite solar cells towards achieving highly efficient perovskite devices. International Journal of Energy Research, 2021, 45, 1496-1516.	2.2	14
4140	Effect of concomitant anti-solvent engineering on perovskite grain growth and its high efficiency solar cells. Science China Materials, 2021, 64, 267-276.	3.5	14
4141	Low-Dimensional Hybrid Lead Iodide Perovskites Single Crystals via Bifunctional Amino Acid Cross-Linkage: Structural Diversity and Properties Controllability. ACS Applied Materials & Interfaces, 2021, 13, 3325-3335.	4.0	6
4142	SMART Perovskite Growth: Enabling a Larger Range of Process Conditions. ACS Energy Letters, 2021, 6, 650-658.	8.8	14
4143	Nanometer-thick [(FPEA)₂PbX₄; X = I and Br] 2D halide perovskite based thin films for pollutant detection and nonconventional photocatalytic degradation. Materials Advances, 2021, 2, 5712-5722.	2.6	5
4144	Influence of grain size on the photo-stability of perovskite solar cells. Journal of Materials Science: Materials in Electronics, 2021, 32, 4067-4075.	1.1	7
4145	Research progress of metal halide perovskite nanometer optoelectronic materials. Wuli Xuebao/Acta Physica Sinica, 2021, 70, 087303.	0.2	2
4146	Hybrid Lead Halide Perovskite Films with Large Grain Size Via Spinâ€Coating Free Fabrication. Physica Status Solidi (A) Applications and Materials Science, 2021, 218, 2000650.	0.8	1
4147	The effect of bromide precursor on the properties of organolead halide perovskite for solar cell fabricated under ambient condition. Journal of Materials Science: Materials in Electronics, 2021, 32, 3797-3808.	1.1	0
4148	Study on the Interfacial Improvement of Hole-Transport Layer in Perovskite Solar Cells via Acetonitrile Additive. Hans Journal of Nanotechnology, 2021, 11, 27-35.	0.1	0
4149	Toward highly efficient and stable Sn²⁺ and mixed Pb²⁺/Sn²⁺ based halide perovskite solar cells through device engineering. Energy and Environmental Science, 2021, 14, 3256-3300.	15.6	49
4150	Controlling PbI₂ Stoichiometry during Synthesis to Improve the Performance of Perovskite Photovoltaics. Chemistry of Materials, 2021, 33, 554-566.	3.2	13

#	Article	IF	Citations
4151	Solution-processed perovskite thin-films: the journey from lab- to large-scale solar cells. Energy and Environmental Science, 2021, 14, 5690-5722.	15.6	92
4152	Perovskite solar cells: A review of architecture, processing methods, and future prospects. , 2021, , 375-412.		6
4153	Electronic effects of nano-confinement in functional organic and inorganic materials for optoelectronics. Chemical Society Reviews, 2021, 50, 3585-3628.	18.7	32
4154	Formamidine disulfide oxidant as a localised electron scavenger for >20% perovskite solar cell modules. Energy and Environmental Science, 2021, 14, 4903-4914.	15.6	63
4155	The 2D Halide Perovskite Rulebook: How the Spacer Influences Everything from the Structure to Optoelectronic Device Efficiency. Chemical Reviews, 2021, 121, 2230-2291.	23.0	506
4156	Perovskite photodetectors and their application in artificial photonic synapses. Chemical Communications, 2021, 57, 11429-11442.	2.2	27
4157	Revealing defective nanostructured surfaces and their impact on the intrinsic stability of hybrid perovskites. Energy and Environmental Science, 2021, 14, 1563-1572.	15.6	55
4158	Crystallization in one-step solution deposition of perovskite films: Upward or downward?. Science Advances, 2021, 7, .	4.7	165
4159	The Path to Enlightenment: Progress and Opportunities in High Efficiency Halide Perovskite Light-Emitting Devices. ACS Photonics, 2021, 8, 386-404.	3.2	25
4160	Relaxation Dynamics of Enhanced Hot-Electron Flow on Perovskite-Coupled Plasmonic Silver Schottky Nanodiodes. Journal of Physical Chemistry C, 2021, 125, 2575-2582.	1.5	7
4161	Perovskite solar cells: New precursors and challenges for scaling-up. , 2021, , 477-508.		1
4162	Room-temperature synthesis, growth mechanisms and opto-electronic properties of organicâ€"inorganic halide perovskite CH₃NH₃PbX₃ (X = I, Br, and) Tj ETQq1 1 0.784314 rgBT	1.3	[illegible]
4163	Theoretical study of the influence of doped niobium on the electronic properties of CsPbBr3. Nanoscale Advances, 2021, 3, 1910-1916.	2.2	1
4164	Perovskite Based Hyperbolic Metamaterials: a New Avenue in Perovskite Photonics. , 2021, , .		0
4165	Highly efficient and stable planar perovskite solar cells with K₃[Fe(CN)₆]-doped spiro-OMeTAD. Journal of Materials Chemistry C, 2021, 9, 7726-7733.	2.7	20
4166	Organicâ€"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
4167	Applications of Polymer Functionalized Graphene in Energy Harvesting: Photovoltaics. RSC Polymer Chemistry Series, 2021, , 260-291.	0.1	0
4168	Improved efficiency and carrier dynamic transportation behavior in perovskite solar cells with CuInS₂ quantum dots as hole-transport materials. Dalton Transactions, 2021, 50, 8837-8844.	1.6	6

#	Article	IF	Citations
4169	Ambient processed (110) preferred MAPbI₃ thin films for highly efficient perovskite solar cells. Nanoscale Advances, 2021, 3, 2056-2064.	2.2	15
4170	Laser-Induced Thermal Annealing of CH3NH3PbI3 Perovskite Microwires. Photonics, 2021, 8, 30.	0.9	4
4171	Dye-Sensitized and Perovskite Solar Cells: Theory and Applications. , 2021, , 558-594.		0
4172	Perovskite-type stabilizers for efficient and stable formamidinium-based lead iodide perovskite solar cells. Journal of Materials Chemistry A, 2021, 9, 20807-20815.	5.2	23
4173	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
4174	Recent progress in tin-based perovskite solar cells. Energy and Environmental Science, 2021, 14, 1286-1325.	15.6	257
4175	Microstructure and lattice strain control towards high-performance ambient green-printed perovskite solar cells. Journal of Materials Chemistry A, 2021, 9, 13297-13305.	5.2	29
4176	Hot carrier photovoltaics in van der Waals heterostructures. Nature Reviews Physics, 2021, 3, 178-192.	11.9	77
4177	Ultrafast transformation of PbI₂ in two-step fabrication of halide perovskite films for long-term performance and stability <i>via</i> nanosecond laser shock annealing. Journal of Materials Chemistry C, 2021, 9, 12819-12827.	2.7	8
4178	Tin halide perovskites for efficient lead-free solar cells. , 2021, , 259-285.		0
4179	A Perspective on Perovskite Solar Cells. Energy, Environment, and Sustainability, 2021, , 55-151.	0.6	1
4180	Rapid hybrid perovskite film crystallization from solution. Chemical Society Reviews, 2021, 50, 7108-7131.	18.7	77
4181	Halide perovskites for light emission and artificial photosynthesis: Opportunities, challenges, and perspectives. EcoMat, 2021, 3, e12074.	6.8	29
4182	Synthesis, structure, mobility and memristor properties of tetragonal CH₃NH₃PbBr₃ perovskite single crystals. Dalton Transactions, 2021, 50, 10365-10368.	1.6	3
4183	Self-passivated hybrid perovskite films for improved photovoltaic performance of solar cells. Journal of Materials Science, 2021, 56, 6374-6384.	1.7	3
4184	Ambient Prepared Mesoporous Perovskite Solar Cells with Longer Stability. Journal of Electronic Materials, 2021, 50, 1535-1543.	1.0	2
4185	Effect of interface modification on performances of organic-inorganic hybrid perovskite solar cells. Wuli Xuebao/Acta Physica Sinica, 2021, 70, 028402.	0.2	1
4186	High-Performance Perovskite Solar Cells Fabricated by a Hybrid Physicalâ€“Chemical Vapor Deposition. Journal of Solar Energy Engineering, Transactions of the ASME, 2021, 143, .	1.1	3

#	Article	IF	Citations
4187	Visualization of halide perovskite crystal growth processes by <i>in situ</i> heating WAXS measurements. Chemical Communications, 2021, 57, 2685-2688.	2.2	1
4188	Recent advances in radiation detection technologies enabled by metal-halide perovskites. Materials Advances, 2021, 2, 6744-6767.	2.6	20
4189	Morphology and surface analyses for CH₃NH₃PbI₃perovskite thin films treated with versatile solventâ€“antisolvent vapors. RSC Advances, 2021, 11, 17789-17799.	1.7	10
4190	Eco-friendly antisolvent enabled inverted MAPbI₃ perovskite solar cells with fill factors over 84%. Green Chemistry, 2021, 23, 3633-3641.	4.6	22
4191	All-in-one: a new approach toward robust and solution-processable copper halide hybrid semiconductors by integrating covalent, coordinate and ionic bonds in their structures. Chemical Science, 2021, 12, 3805-3817.	3.7	40
4192	Methylamine-assisted secondary grain growth for CH₃NH₃PbI₃ perovskite films with large grains and a highly preferred orientation. Journal of Materials Chemistry A, 2021, 9, 7625-7630.	5.2	12
4193	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
4194	Drastic Change of Surface Morphology of Cesiumâ€“Formamidinium Perovskite Solar Cells by Antisolvent Processing. ACS Applied Energy Materials, 2021, 4, 1069-1077.	2.5	4
4195	Lowâ€Dimensionalâ€Networked Perovskites with Aâ€Siteâ€Cation Engineering for Optoelectronic Devices. Small Methods, 2021, 5, e2001147.	4.6	27
4196	Perovskite solar cells as modern nano tools and devices in solar power energy. , 2021, , 377-427.		5
4197	Nucleation management for the ambient fabrication of high-performance perovskite photodetectors with the eco-friendly <i>tert</i>-butanol anti-solvent. Journal of Materials Chemistry C, 2021, 9, 8650-8658.	2.7	4
4198	Enhanced hole extraction by electron-rich alloys in all-inorganic CsPbBr₃ perovskite solar cells. Chemical Communications, 2021, 57, 7577-7580.	2.2	14
4199	Morphological improvement of CH3NH3PbI3 films using blended solvents for perovskite solar cells. Korean Journal of Chemical Engineering, 2021, 38, 187-194.	1.2	8
4200	Bulk halide perovskites as triplet sensitizers: progress and prospects in photon upconversion. Journal of Materials Chemistry C, 2021, 9, 2685-2694.	2.7	24
4201	Facile Synthesis of Spherical TiO2 Hollow Nanospheres with a Diameter of 150 nm for High-Performance Mesoporous Perovskite Solar Cells. Materials, 2021, 14, 629.	1.3	8
4202	Influence of Deposition and Annealing Parameters on the Degradation of Spray-Deposited Perovskite Films. Materials Research, 2021, 24, .	0.6	1
4203	Gas flow-assisted vacuum drying: identification of a novel process for attaining high-quality perovskite films. Materials Advances, 2021, 2, 5365-5370.	2.6	13
4204	Perovskite-inspired materials for photovoltaics and beyondâ€"from design to devices. Nanotechnology, 2021, 32, 132004.	1.3	106

#	Article	IF	Citations
4205	Inorganic hole transport layers in inverted perovskite solar cells: A review. Nano Select, 2021, 2, 1081-1116.	1.9	65
4206	Highâ€Quality Ruddlesdenâ€“Popper Perovskite Film Formation for Highâ€Performance Perovskite Solar Cells. Advanced Materials, 2021, 33, e2002582.	11.1	182
4207	Cost-efficient, Effect of Low-Quality PbI2 Purification to Enhance Performances of Perovskite Quantum Dots and Perovskite Solar Cells. Energies, 2021, 14, 201.	1.6	10
4208	A Lab-to-Fab Study toward Roll-to-Roll Fabrication of Reproducible Perovskite Solar Cells under Ambient Room Conditions. Cell Reports Physical Science, 2021, 2, 100293.	2.8	39
4209	Compositional engineering solutions for decreasing trap state density and improving thermal stability in perovskite solar cells. Journal of Materials Chemistry C, 2021, 9, 14047-14064.	2.7	11
4210	Underestimated effect of the polymer encapsulation process on the photoluminescence of perovskite revealed by in situ single-particle detection. Optics Express, 2021, 29, 1851.	1.7	7
4211	Mechanochemical synthesis of pure phase mixed-cation/anion (FAPbI₃)_x(MAPbBr₃)_{1âˆ’x}hybrid perovskite materials: compositional engineering and photovoltaic performance. RSC Advances, 2021, 11, 5874-5884.	1.7	8
4212	Solution-processed photodetectors. , 2021, , 649-664.		2
4213	Research progress of light irradiation stability of functional layers in perovskite solar cells. Wuli Xuebao/Acta Physica Sinica, 2021, 70, 098402.	0.2	2
4214	Photon-induced deactivations of multiple traps in CH₃NH₃PbI₃ perovskite films by different photon energies. Physical Chemistry Chemical Physics, 2021, 23, 10919-10925.	1.3	3
4215	Manipulation of Perovskite Crystallization Kinetics via Lewis Base Additives. Advanced Functional Materials, 2021, 31, 2009425.	7.8	61
4216	Improved efficiency and air stability of two-dimensional p-i-n inverted perovskite solar cells by Cs doping. RSC Advances, 2021, 11, 20200-20206.	1.7	4
4217	3D graphene nanosheets from plastic waste for highly efficient HTM free perovskite solar cells. Nanoscale Advances, 2021, 3, 4726-4738.	2.2	28
4218	Crystallization of 2D Hybrid Organicâ€“Inorganic Perovskites Templated by Conductive Substrates. Advanced Functional Materials, 2021, 31, 2009007.	7.8	14
4219	Understanding the origin of broad-band emission in CH₃NH₃PbBr₃. Journal of Materials Chemistry C, 2021, 9, 2793-2800.	2.7	14
4220	Recent Progress in Growth of Single-Crystal Perovskites for Photovoltaic Applications. ACS Omega, 2021, 6, 1030-1042.	1.6	35
4221	Dielectric polarization effect and transient relaxation in FAPbBr₃ films before and after PMMA passivation. Physical Chemistry Chemical Physics, 2021, 23, 10153-10163.	1.3	14
4222	Lead-free halide double perovskites: Toward stable and sustainable optoelectronic devices. Materials Today, 2021, 49, 123-144.	8.3	57

#	Article	IF	Citations
4223	Halide-driven formation of lead halide perovskites: insight from <i>ab initio</i> molecular dynamics simulations. Materials Advances, 2021, 2, 3915-3926.	2.6	18
4224	Insights into iodoplumbate complex evolution of precursor solutions for perovskite solar cells: from aging to degradation. Journal of Materials Chemistry A, 2021, 9, 6732-6748.	5.2	26
4225	Towards the environmentally friendly solution processing of metal halide perovskite technology. Green Chemistry, 2021, 23, 5302-5336.	4.6	38
4226	Modulation of perovskite crystallization processes towards highly efficient and stable perovskite solar cells with MXene quantum dot-modified SnO₂. Energy and Environmental Science, 2021, 14, 3447-3454.	15.6	115
4227	First-principles analysis of the optical properties of lead halide perovskite solution precursors. Physical Chemistry Chemical Physics, 2021, 23, 21087-21096.	1.3	3
4228	Strategies for optimizing the luminescence and stability of copper iodide organicâ€"inorganic hybrid structures. New Journal of Chemistry, 2021, 45, 10989-10996.	1.4	13
4229	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
4230	Magnetic hybrid organicâ€"inorganic perovskite (CH₃NH₃)₂XCl₄ (X = Mn, Cu, Co) crystals. CrystEngComm, 2021, 23, 5208-5213.	1.3	13
4231	Emergent materials and concepts for solar cell applications. , 2021, , 37-70.		1
4232	Effect of composition control of DMF/DMSO as lead iodide solvent towards perovskite solar cell performance. Materials Today: Proceedings, 2021, 44, 3365-3369.	0.9	0
4233	Domainâ€Sizeâ€Dependent Residual Stress Governs the Phaseâ€Transition and Photoluminescence Behavior of Methylammonium Lead Iodide. Advanced Functional Materials, 2021, 31, 2008088.	7.8	8
4234	Correlations between Electrochemical Ion Migration and Anomalous Device Behaviors in Perovskite Solar Cells. ACS Energy Letters, 2021, 6, 1003-1014.	8.8	39
4235	Triâ€Brominated Perovskite Film Management and Multipleâ€Ionic Defect Passivation for Highly Efficient and Stable Solar Cells. Solar Rrl, 2021, 5, 2000819.	3.1	13
4236	Unique Omnidirectional Negative Poissonâ€™s Ratio in Î´-Phase Carbon Monochalcogenides. Journal of Physical Chemistry C, 2021, 125, 4133-4138.	1.5	39
4237	Large-Area Heterojunction Photodetectors Based on Nanometer-Thick CH₃NH₃PbI₃ Films Modified with Poly(methyl methacrylate) Nanofilms. ACS Applied Nano Materials, 2021, 4, 1682-1691.	2.4	17
4238	Low-temperature-processed metal oxide electron transport layers for efficient planar perovskite solar cells. Rare Metals, 2021, 40, 2730-2746.	3.6	34
4239	Antisolvent engineering on low-temperature processed CsPbI₃ inorganic perovskites for improved performances of solar cells. Nanotechnology, 2021, 32, 185402.	1.3	11
4240	Perovskite Solar Cells toward Eco-Friendly Printing. Research, 2021, 2021, 9671892.	2.8	18

#	Article	IF	Citations
4241	Recent Progress on Patterning Strategies for Perovskite Lightâ€Emitting Diodes toward a Fullâ€Color Display Prototype. Small Science, 2021, 1, 2000050.	5.8	39
4242	Effects of Allâ€Organic Interlayer Surface Modifiers on the Efficiency and Stability of Perovskite Solar Cells. ChemSusChem, 2021, 14, 1524-1533.	3.6	5
4243	Spray-coated high-efficiency small molecule solar cell based on DTS[PTTH2]2: PC71BM configurations through integrated molecular and solvent engineering. Journal of Materials Science: Materials in Electronics, 2021, 32, 5965.	1.1	1
4244	Excellent Intrinsic Longâ€Term Thermal Stability of Coâ€Evaporated MAPbI₃ Solar Cells at 85 Â°C. Advanced Functional Materials, 2021, 31, 2100557.	7.8	36
4245	Formation and Stabilization of Inorganic Halide Perovskites for Photovoltaics. Matter, 2021, 4, 528-551.	5.0	28
4246	From Fiber to Fabric: Progress Towards Photovoltaic Energy Textile. Advanced Fiber Materials, 2021, 3, 76-106.	7.9	36
4247	Mechanically robust and self-healable perovskite solar cells. Cell Reports Physical Science, 2021, 2, 100320.	2.8	29
4248	Dimensionality Control of SnO₂ Films for Hysteresis-Free, All-Inorganic CsPbBr₃ Perovskite Solar Cells with Efficiency Exceeding 10%. ACS Applied Materials & Interfaces, 2021, 13, 11058-11066.	4.0	24
4249	Introducing an Organic Hole Transporting Material as a Bilayer to Improve the Efficiency and Stability of Perovskite Solar Cells. Macromolecular Research, 2021, 29, 149-156.	1.0	8
4250	Crystallization Features of MAPbI3 Hybrid Perovskite during the Reaction of PbI2 with Reactive Polyiodide Melts. Russian Journal of Inorganic Chemistry, 2021, 66, 153-162.	0.3	8
4251	High-Valent Iodoplumbate-Rich Perovskite Precursor Solution <i>via</i> Solar Illumination for Reproducible Power Conversion Efficiency. Journal of Physical Chemistry Letters, 2021, 12, 1676-1682.	2.1	12
4252	Two-dimensional halide perovskite single crystals: principles and promises. Emergent Materials, 2021, 4, 865-880.	3.2	14
4253	Recent Progress in the Semiconducting Oxide Overlayer for Halide Perovskite Solar Cells. Advanced Energy Materials, 2021, 11, 2003119.	10.2	9
4254	Multidimensional perovskites enhance solar cell performance. Journal of Semiconductors, 2021, 42, 020201.	2.0	4
4255	Photostable and Uniform CH3NH3PbI3 Perovskite Film Prepared via Stoichiometric Modification and Solvent Engineering. Nanomaterials, 2021, 11, 405.	1.9	5
4256	First-Principles Study of Electronic Properties of SnO2/CsPbI2Br Interface. Journal of Electronic Materials, 2021, 50, 2129-2136.	1.0	4
4257	Advances in Metal Halide Perovskite Film Preparation: The Role of Antiâ€Solvent Treatment. Small Methods, 2021, 5, e2100046.	4.6	39
4258	Passivation Properties and Formation Mechanism of Amorphous Halide Perovskite Thin Films. Advanced Functional Materials, 2021, 31, 2010330.	7.8	17

#	Article	IF	Citations
4259	Influence of Additives on the <i>In Situ</i> Crystallization Dynamics of Methyl Ammonium Lead Halide Perovskites. ACS Applied Energy Materials, 2021, 4, 1398-1409.	2.5	11
4260	Effect of the solution chemistry on the film growth of hybrid MAPbI3 perovskites. Journal of Materials Science: Materials in Electronics, 2021, 32, 6912-6918.	1.1	2
4261	Efficient Inverted Perovskite Solar Cells with Low Voltage Loss Achieved by a Pyridineâ€Based Dopantâ€Free Polymer Semiconductor. Angewandte Chemie - International Edition, 2021, 60, 7227-7233.	7.2	107
4262	Intermediateâ€Adductâ€Assisted Growth of Stable CsPbI₂Br Inorganic Perovskite Films for Highâ€Efficiency Semitransparent Solar Cells. Advanced Materials, 2021, 33, e2006745.	11.1	47
4263	Efficient perovskite solar cells via improved carrier management. Nature, 2021, 590, 587-593.	13.7	1,972
4264	Metal Halide Perovskites for Laser Applications. Advanced Functional Materials, 2021, 31, 2010144.	7.8	180
4265	Efficient Inverted Perovskite Solar Cells with Low Voltage Loss Achieved by a Pyridineâ€Based Dopantâ€Free Polymer Semiconductor. Angewandte Chemie, 2021, 133, 7303-7309.	1.6	18
4266	Elucidating Mechanisms behind Ambient Storage-Induced Efficiency Improvements in Perovskite Solar Cells. ACS Energy Letters, 2021, 6, 925-933.	8.8	52
4267	Factors influencing the nucleation and crystal growth of solution-processed organic lead halide perovskites: a review. Journal Physics D: Applied Physics, 2021, 54, 163001.	1.3	35
4268	Discovery of a New Intermediate Enables Oneâ€Step Deposition of Highâ€Quality Perovskite Films via Solvent Engineering. Solar Rrl, 2021, 5, 2000712.	3.1	24
4269	Halogen Functionalization in the 2D Material Flatland: Strategies, Properties, and Applications. Small, 2021, 17, e2005640.	5.2	20
4270	Coordination Strategy Driving the Formation of Compact CuSCN Holeâ€Transporting Layers for Efficient Perovskite Solar Cells. Solar Rrl, 2021, 5, 2000777.	3.1	11
4271	Doubleâ€Layered SnO₂/NH₄Clâ€SnO₂ for efficient planar perovskite solar cells with improved operational stability. Nano Select, 2021, 2, 1779-1787.	1.9	17
4272	Performance analysis of surface plasmon resonance sensors using bimetallic alloy-perovskite-bimetallic alloy and perovskite-bimetallic alloy-perovskite nanostructures. Physica Scripta, 2021, 96, 065505.	1.2	6
4273	2D materials for conducting holes from grain boundaries in perovskite solar cells. Light: Science and Applications, 2021, 10, 68.	7.7	59
4274	High-performance quasi-2D perovskite light-emitting diodes: from materials to devices. Light: Science and Applications, 2021, 10, 61.	7.7	235
4275	Remanent solvent management engineering of perovskite films for PEDOT: PSS-based inverted solar cells. Solar Energy, 2021, 216, 530-536.	2.9	6
4276	A general approach to high-efficiency perovskite solar cells by any antisolvent. Nature Communications, 2021, 12, 1878.	5.8	209

#	Article	IF	Citations
4277	Efficient and Stable Mesoscopic Perovskite Solar Cells Using a Dopantâ€Free Dâ€"A Copolymer Holeâ€Transporting Layer. Solar Rrl, 2021, 5, 2000801.	3.1	7
4278	Recycling and recovery of perovskite solar cells. Materials Today, 2021, 43, 185-197.	8.3	58
4279	Precise Nucleation Regulation and Defect Passivation for Highly Efficient and Stable Carbon-Based CsPbI₂Br Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 3508-3517.	2.5	12
4280	Solvent Engineering of the Precursor Solution toward Largeâ€Area Production of Perovskite Solar Cells. Advanced Materials, 2021, 33, e2005410.	11.1	182
4281	Long-term stability in Î³-CsPbI3 perovskite via an ultraviolet-curable polymer network. Communications Materials, 2021, 2, .	2.9	14
4282	Upgrading of methylammonium lead halide perovskite layers by thermal imprint. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	1.1	9
4283	Role and Contribution of Polymeric Additives in Perovskite Solar Cells: Crystal Growth Templates and Grain Boundary Passivators. Solar Rrl, 2021, 5, 2000783.	3.1	35
4284	How antisolvent miscibility affects perovskite film wrinkling and photovoltaic properties. Nature Communications, 2021, 12, 1554.	5.8	63
4285	Multifunctional potassium hexafluorophosphate passivate interface defects for high efficiency perovskite solar cells. Journal of Power Sources, 2021, 488, 229451.	4.0	39
4286	Light-Induced Photoluminescence Quenching and Degradation in Quasi 2D Perovskites Film of (C6H5C2H4NH3)2 (CH3NH3)2[Pb3I10]. Applied Sciences (Switzerland), 2021, 11, 2683.	1.3	7
4287	Conjugated Polyelectrolyte Combined with Ionic Liquid as the Hole Transport Layer for Efficient Inverted Perovskite Solar Cells. Journal of the Electrochemical Society, 2021, 168, 036503.	1.3	2
4288	2D Phase Purity Determines Charge-Transfer Yield at 3D/2D Lead Halide Perovskite Heterojunctions. Journal of Physical Chemistry Letters, 2021, 12, 3312-3320.	2.1	13
4289	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
4290	Bulk Passivation and Interfacial Passivation for Perovskite Solar Cells: Which One is More Effective?. Advanced Materials Interfaces, 2021, 8, 2002078.	1.9	34
4291	Interâ€Sample and Intraâ€Sample Variability in Electronic Properties of Methylammonium Lead Iodide. Advanced Functional Materials, 2021, 31, 2101843.	7.8	4
4292	Piezoelectric Nanogenerator Based on In Situ Growth Allâ€Inorganic CsPbBr₃ Perovskite Nanocrystals in PVDF Fibers with Longâ€Term Stability. Advanced Functional Materials, 2021, 31, 2011073.	7.8	95
4293	A review of stability and progress in tin halide perovskite solar cell. Solar Energy, 2021, 216, 26-47.	2.9	67
4294	The Value of Watching How Materials Grow: A Multimodal Case Study on Halide Perovskites. Advanced Energy Materials, 2021, 11, 2003534.	10.2	12

#	Article	IF	Citations
4295	Colorful Efficient MoirÃ©â€Perovskite Solar Cells. Advanced Materials, 2021, 33, e2008091.	11.1	37
4296	Volatile solution: the way toward scalable fabrication of perovskite solar cells?. Matter, 2021, 4, 775-793.	5.0	53
4297	Tuning the Interactions of Methylammonium Acetate with Acetonitrile to Create Efficient Perovskite Solar Cells. Journal of Physical Chemistry C, 2021, 125, 6555-6563.	1.5	16
4298	19% Efficient P3CT-Na Based MAPbI3 Solar Cells with a Simple Double-Filtering Process. Polymers, 2021, 13, 886.	2.0	13
4299	A Synergistic Precursor Regulation Strategy for Scalable Fabrication of Perovskite Solar Cells. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2000613.	1.2	3
4300	Facile Synthesis of Bismuth-Based Perovskite and Solvent Engineering for Improving the Crystallinity of Lead-Free Perovskite Material: A Microstructural Exploration. , 2021, , .		1
4301	Understanding the â€œMolten Saltâ€•Synthesis of MAPbI₃ â€“ Characterization of New Lead(II)â€Ammine Complexes as Intermediates. European Journal of Inorganic Chemistry, 2021, 2021, 1490-1497.	1.0	7
4302	Solvent coordination engineering for high-quality hybrid organic-inorganic perovskite films. Journal of Materials Science, 2021, 56, 9903-9913.	1.7	6
4303	Efficient Perovskite Solar Cells Achieved using the 2-Methoxyethanol Additive: Morphology and Composition Control of Intermediate Film. ACS Applied Energy Materials, 2021, 4, 2681-2689.	2.5	10
4304	Formation of Highâ€Performance Multiâ€Cation Halide Perovskites Photovoltaics by Î´â€CsPbI₃/Î´â€RbPbI₃ Seedâ€Assisted Heterogeneous Nucleation. Advanced Energy Materials, 2021, 11, 2003785.	10.2	32
4305	Crystal Engineering Approach for Fabrication of Inverted Perovskite Solar Cell in Ambient Conditions. Energies, 2021, 14, 1751.	1.6	8
4306	Integrating n-type semiconductor for passivating the defects of electron transport layer in two-dimensional perovskite solar cells. Chemical Physics Letters, 2021, 767, 138364.	1.2	2
4307	Green Solvent-Based Perovskite Precursor Development for Ink-Jet Printed Flexible Solar Cells. ACS Sustainable Chemistry and Engineering, 2021, 9, 3920-3930.	3.2	23
4308	Ionic Liquids-Enabled Efficient and Stable Perovskite Photovoltaics: Progress and Challenges. ACS Energy Letters, 0, , 1453-1479.	8.8	98
4309	Diluted-CdS Quantum Dot-Assisted SnO₂ Electron Transport Layer with Excellent Conductivity and Suitable Band Alignment for High-Performance Planar Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 16326-16335.	4.0	27
4310	Gentle Materials Need Gentle Fabrication: Encapsulation of Perovskites by Gas-Phase Alumina Deposition. Journal of Physical Chemistry Letters, 2021, 12, 2348-2357.	2.1	8
4311	Perspective on Predominant Metal Oxide Charge Transporting Materials for High-Performance Perovskite Solar Cells. Frontiers in Materials, 2021, 8, .	1.2	9
4312	Efficient and Stable Perovskite Solar Cells with a Superhydrophobic Two-Dimensional Capping Layer. Journal of Physical Chemistry Letters, 2021, 12, 4052-4058.	2.1	16

#	Article	IF	Citations
4313	High-performance large-area quasi-2D perovskite light-emitting diodes. Nature Communications, 2021, 12, 2207.	5.8	173
4314	Largeâ€Area Bladeâ€Coated Solar Cells: Advances and Perspectives. Advanced Energy Materials, 2021, 11, 2100378.	10.2	77
4315	Ambient Air-Stable CH₃NH₃PbI₃ Perovskite Solar Cells Using Dibutylethanolamine as a Morphology Controller. ACS Applied Energy Materials, 2021, 4, 4395-4407.	2.5	6
4316	Manipulating Perovskite Precursor Solidification toward 21% Pristine MAPbI₃ Solar Cells. Solar Rrl, 2021, 5, 2100114.	3.1	8
4317	Phase Tailoring of Ruddlesdenâ€"Popper Perovskite at Fixed Large Spacer Cation Ratio. Small, 2021, 17, e2100560.	5.2	10
4318	General Synthesis of Ultrafine Monodispersed Hybrid Nanoparticles from Highly Stable Monomicelles. Advanced Materials, 2021, 33, e2100820.	11.1	30
4319	Vacuumâ€Processed Metal Halide Perovskite Lightâ€Emitting Diodes: Prospects and Challenges. ChemPlusChem, 2021, 86, 558-573.	1.3	12
4320	Perovskite films prepared by solvent volatilization via DMSO-based intermediate phase for photovoltaics. Solar Energy, 2021, 218, 383-391.	2.9	7
4321	Facile Fabrication of Hybrid Perovskite Singleâ€Crystalline Photocathode for Photoelectrochemical Water Splitting. Energy Technology, 2021, 9, 2000965.	1.8	6
4322	Characterization on Highly Efficient Perovskite Solar Cells Made from Oneâ€Step and Twoâ€Step Solution Processes. Solar Rrl, 2021, 5, 2100109.	3.1	3
4323	Review on persistent challenges of perovskite solar cellsâ€™ stability. Solar Energy, 2021, 218, 469-491.	2.9	80
4324	Dopant-free dithieno[3â€²,2':3,4;2â€³,3'':5,6]benzo[1,2-d]imidazole-based hole-transporting materials for efficient perovskite solar cells. Dyes and Pigments, 2021, 188, 109241.	2.0	8
4325	Highly flexible and stable perovskite/microbead hybrid photodetectors with improved interfacial light trapping. Applied Surface Science, 2021, 544, 148850.	3.1	11
4326	Molecular Engineering of Polymeric Hole-Transporting Materials for Efficient and Stable Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 3526-3534.	2.5	5
4327	Tailoring the Interface in FAPbI₃ Planar Perovskite Solar Cells by Imidazoleâ€Grapheneâ€Quantumâ€Dots. Advanced Functional Materials, 2021, 31, 2101438.	7.8	51
4328	Green Perovskite Lightâ€Emitting Diodes with 200Â Hours Stability and 16% Efficiency: Crossâ€Linking Strategy and Mechanism. Advanced Functional Materials, 2021, 31, 2011003.	7.8	67
4329	Self-Driven Salt-Thermal Reduction Approach for the Synthesis of Cu₂O and AgClâ€"Cu₂O Hybrids with Superior Photocatalytic Activity. ACS Sustainable Chemistry and Engineering, 2021, 9, 5651-5660.	3.2	7
4330	Dual-Functional Additive to Simultaneously Modify the Interface and Grain Boundary for Highly Efficient and Hysteresis-Free Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 20043-20050.	4.0	21

#	Article	IF	Citations
4331	Elpasolite structures based on A2AgBiX6 (A: MA, Cs, X: I, Br): Application in double perovskite solar cells. Materials Science in Semiconductor Processing, 2021, 125, 105639.	1.9	22
4332	cPCN-Regulated SnO2 Composites Enables Perovskite Solar Cell with Efficiency Beyond 23%. Nano-Micro Letters, 2021, 13, 101.	14.4	31
4333	On the role of solution-processed bathocuproine in high-efficiency inverted perovskite solar cells. Solar Energy, 2021, 218, 142-149.	2.9	23
4334	Perovskite random lasers: a tunable coherent light source for emerging applications. Nanotechnology, 2021, 32, 282001.	1.3	26
4335	Limits to Electrical Mobility in Lead-Halide Perovskite Semiconductors. Journal of Physical Chemistry Letters, 2021, 12, 3607-3617.	2.1	45
4336	Lead-free tin perovskite solar cells. Joule, 2021, 5, 863-886.	11.7	134
4337	High-Performance-Based Perovskite-Supported Nanocomposite for the Development of Green Energy Device Applications: An Overview. Nanomaterials, 2021, 11, 1006.	1.9	11
4338	Functionalized Ionic Liquid-Crystal Additive for Perovskite Solar Cells with High Efficiency and Excellent Moisture Stability. ACS Applied Materials & Interfaces, 2021, 13, 17677-17689.	4.0	26
4339	A simple one-step method with wide processing window for high-quality perovskite mini-module fabrication. Joule, 2021, 5, 958-974.	11.7	55
4340	Study of perovskite CH3NH3PbI3 thin films under thermal exposure. Bulletin of Materials Science, 2021, 44, 1.	0.8	3
4341	Dropâ€Casting to Make Efficient Perovskite Solar Cells under High Humidity. Angewandte Chemie, 2021, 133, 11342-11346.	1.6	20
4342	Dropâ€Casting to Make Efficient Perovskite Solar Cells under High Humidity. Angewandte Chemie - International Edition, 2021, 60, 11242-11246.	7.2	64
4343	Perovskite Solar Cells for Space Applications: Progress and Challenges. Advanced Materials, 2021, 33, e2006545.	11.1	184
4344	Toward Real Setting Applications of Organic and Perovskite Solar Cells: A Comparative Review. Energy Technology, 2021, 9, 2000901.	1.8	33
4345	Quantification of electron accumulation at grain boundaries in perovskite polycrystalline films by correlative infrared-spectroscopic nanoimaging and Kelvin probe force microscopy. Light: Science and Applications, 2021, 10, 84.	7.7	34
4346	Phase transition pathway of hybrid halide perovskites under compression: Insights from first-principles calculations. Physical Review Materials, 2021, 5, .	0.9	6
4347	Polymer Additive Assisted Fabrication of Compact and Ultra-Smooth Perovskite Thin Films with Fast Lamp Annealing. Energies, 2021, 14, 2656.	1.6	3
4348	Characterization of Thin MAPb(I1â€"xBrx)3 Alloy Halide Perovskite Films Prepared by Sequential Physical Vapor Deposition. Frontiers in Energy Research, 2021, 9, .	1.2	5

#	Article	IF	Citations
4349	Reduction of Hysteresis in Hybrid Perovskite Transistors by Solvent-Controlled Growth. Materials, 2021, 14, 2573.	1.3	6
4350	Development of perovskite solar cells with >25% conversion efficiency. Joule, 2021, 5, 1033-1035.	11.7	137
4351	Wide-Band-Gap Mixed-Halide 3D Perovskites: Electronic Structure and Halide Segregation Investigation. ACS Applied Electronic Materials, 2021, 3, 2277-2285.	2.0	10
4352	Metalâ€Halide Perovskite Crystallization Kinetics: A Review of Experimental and Theoretical Studies. Advanced Energy Materials, 2021, 11, 2100784.	10.2	35
4353	A FIRST-PRINCIPLES INVESTIGATION OF HETEROSTRUCTURES CONSISTING OF HALIDE PEROVSKITE CsPbI3 AND LEAD CHALCOGENIDE FOR OPTOELECTRONIC APPLICATIONS. Journal of Structural Chemistry, 2021, 62, 671-677.	0.3	2
4354	Amino-Deliquescence and Amino-Efflorescence of Methylammonium Lead Iodide. Chemistry of Materials, 2021, 33, 3814-3822.	3.2	3
4355	Fusible Low Work Function Top Electrode for Vacuum-Free Perovskite Light-Emitting Diode Application: Role of OH-Terminated Sn Atoms at the Alloy Surface. ACS Applied Electronic Materials, 2021, 3, 2757-2765.	2.0	9
4356	2D Honeycombâ€Kagome Polymer Tandem as Effective Metalâ€Free Photocatalysts for Water Splitting. Advanced Materials, 2021, 33, e2008645.	11.1	57
4357	Solventâ€Additive Engineeringâ€Assisted Improvement of Interface Contact for Producing Highly Efficient Inverted Perovskite Solar Cells. Solar Rrl, 2021, 5, 2100190.	3.1	13
4358	Strain-relaxed tetragonal MAPbI3 results in efficient mesoporous solar cells. Nano Energy, 2021, 83, 105788.	8.2	29
4359	Photonic crystals for perovskiteâ€based optoelectronic applications. Nano Select, 2022, 3, 39-50.	1.9	4
4360	Formamidinium containing tetra cation organicâ€“inorganic hybrid perovskite solar cell. Solar Energy, 2021, 220, 258-268.	2.9	8
4361	A Stable CsPbI₂Br Perovskite Film Prepared in Air Atmosphere by Mesophase Transformation Strategy. Chemistry Letters, 2021, 50, 1500-1503.	0.7	1
4362	An ultraviolet-ozone post-treatment to remove the inherent impurities in all-ambient solution-processed CsPbBr3 perovskite films. Applied Physics Letters, 2021, 118, 221604.	1.5	5
4363	Real-Time Investigation of Sn(II) Oxidation in Pb-Free Halide Perovskites by X-ray Absorption and MÃ¶ssbauer Spectroscopy. ACS Applied Energy Materials, 2021, 4, 4327-4332.	2.5	9
4364	Multifunctional brominated graphene oxide boosted charge extraction for high-efficiency and stable all-inorganic CsPbBr3 perovskite solar cells. Chemical Engineering Journal, 2021, 412, 128727.	6.6	28
4365	Ag modified bathocuproine:ZnO nanoparticles electron buffer layer based bifacial inverted-type perovskite solar cells. Organic Electronics, 2021, 92, 106110.	1.4	14
4366	Dimethylformamide-free synthesis and fabrication of lead halide perovskite solar cells from electrodeposited PbS precursor films. Chemical Engineering Journal, 2021, 411, 128460.	6.6	15

#	Article	IF	Citations
4367	Molybdenum Disulfide Quantum Dots: Properties, Synthesis, and Applications. Journal of Carbon Research, 2021, 7, 45.	1.4	15
4368	Effects of Polysilane Addition to Chlorobenzene and High Temperature Annealing on CH3NH3PbI3 Perovskite Photovoltaic Devices. Coatings, 2021, 11, 665.	1.2	27
4369	Solvent Engineering as a Vehicle for High Quality Thin Films of Perovskites and Their Device Fabrication. Small, 2021, 17, e2008145.	5.2	53
4370	Polymeric Dopant-Free Hole Transporting Materials for Perovskite Solar Cells: Structures and Concepts towards Better Performances. Polymers, 2021, 13, 1652.	2.0	24
4371	Leadâ€"halide perovskites for next-generation self-powered photodetectors: a comprehensive review. Photonics Research, 2021, 9, 968.	3.4	52
4372	Effect of precursor solution ageing time on the photovoltaic performance of perovskite solar cells. Functional Materials Letters, 2021, 14, 2151025.	0.7	6
4373	Effect of crystallization on the photovoltaic parameters and stability of perovskite solar cells. Polyhedron, 2021, 199, 115089.	1.0	4
4374	Enhanced efficiency and stability of perovskite solar cell by adding polymer mixture in perovskite photoactive layer. Journal of Alloys and Compounds, 2021, 864, 158793.	2.8	33
4375	Incorporating MOF-235 in lead iodide perovskite solar cell and investigating its efficiency and stability. Journal of Materials Science: Materials in Electronics, 2021, 32, 15143-15150.	1.1	3
4376	Current Status of Emerging PV Technologies: A Comparative Study of Dye-Sensitized, Organic, and Perovskite Solar Cells. International Journal of Photoenergy, 2021, 2021, 1-19.	1.4	29
4377	Spiro-OMeTAD doped with cumene hydroperoxide for perovskite solar cells. Electrochemistry Communications, 2021, 126, 107020.	2.3	7
4378	The benefits of ionic liquids for the fabrication of efficient and stable perovskite photovoltaics. Chemical Engineering Journal, 2021, 411, 128461.	6.6	70
4379	Refractive index of different perovskite materials. Journal of Materials Research, 2021, 36, 1773-1793.	1.2	12
4380	Lattice Strain Relaxation and Grain Homogenization for Efficient Inverted MAPbI₃ Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2021, 12, 4569-4575.	2.1	19
4381	Prospects for metal halide perovskite-based tandem solar cells. Nature Photonics, 2021, 15, 411-425.	15.6	195
4382	Interfacial toughening with self-assembled monolayers enhances perovskite solar cell reliability. Science, 2021, 372, 618-622.	6.0	313
4383	Structural and Trapâ€State Density Enhancement in Flash Infrared Annealed Perovskite Layers. Advanced Materials Interfaces, 2021, 8, 2100355.	1.9	8
4384	Analysis of tin and tin oxide by x-ray photoelectron spectroscopy. Surface Science Spectra, 2021, 28, .	0.3	3

#	Article	IF	Citations
4385	The selection strategy of ammonium-group organic salts in vapor deposited perovskites: From dimension regulation to passivation. Nano Energy, 2021, 84, 105893.	8.2	19
4386	Dimethyl Sulfoxide Vapor-Assisted Cs₂AgBiBr₆ Homogenous Film Deposition for Solar Cell Application. ACS Applied Energy Materials, 2021, 4, 6797-6805.	2.5	20
4387	Chemical Vapor Deposited Mixed Metal Halide Perovskite Thin Films. Materials, 2021, 14, 3526.	1.3	3
4388	Perovskite single crystals: Synthesis, properties, and applications. Journal of Electronic Science and Technology, 2021, 19, 100081.	2.0	41
4389	Electronic and optical aspects of GeP2S 2D monolayer under biaxial stress and strain conditions. Bulletin of Materials Science, 2021, 44, 1.	0.8	4
4390	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
4391	Halide Engineering for Mitigating Ion Migration and Defect States in Hot-Cast Perovskite Solar Cells. ACS Sustainable Chemistry and Engineering, 2021, 9, 7993-8001.	3.2	21
4392	Self-Powered Broadband Photodetector and Sensor Based on Novel Few-Layered Pd₃(PS₄)₂ Nanosheets. ACS Applied Materials & Interfaces, 2021, 13, 30806-30817.	4.0	13
4393	Low-dimensional phases engineering for improving the emission efficiency and stability of quasi-2D perovskite films*. Chinese Physics B, 2021, 30, 067802.	0.7	5
4394	Crystallization Control and Defect Passivation via a Cross-Linking Additive for High-Performance FAPbBr₃ Perovskite Solar Cells. Journal of Physical Chemistry C, 2021, 125, 12551-12559.	1.5	10
4395	Inorganic copper-based hole transport materials for perovskite photovoltaics: Challenges in normally structured cells, advances in photovoltaic performance and device stability. Solar Energy Materials and Solar Cells, 2021, 224, 111011.	3.0	25
4396	Variational hysteresis and photoresponse behavior of MAPbX ₃ (X = I, Br, Cl) perovskite single crystals. Journal of Physics Condensed Matter, 2021, 33, 285703.	0.7	7
4397	Hybrid Plasmonic Surface Lattice Resonance Perovskite Lasers on Silver Nanoparticle Arrays. Advanced Optical Materials, 2021, 9, 2100299.	3.6	13
4398	Carbon-based all-inorganic perovskite solar cells: Progress, challenges and strategies toward 20% efficiency. Materials Today, 2021, 50, 239-258.	8.3	33
4399	Lowâ€dimensional perovskite materials and theirâ€‰optoelectronics. InformaÄnÃ-MateriÃ¡ly, 2021, 3, 1039-1069.	8.5	39
4400	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
4401	Assessing the Impact of Ambient Fabrication Temperature on the Performance of Planar CH 3 NH 3 PbI 3 Perovskite Solar Cells. European Journal of Inorganic Chemistry, 2021, 2021, 2533-2538.	1.0	3
4402	Two-dimensional perovskites for photovoltaics. Materials Today Nano, 2021, 14, 100117.	2.3	27

#	Article	IF	Citations
4403	Directional Crystallization by Floating Self-Assembly for Efficient and Stable Tin-based Perovskite Solar Cells. Chemistry of Materials, 2021, 33, 4362-4372.	3.2	20
4404	Theoretical study on defect properties of two-dimensional multilayer Ruddlesden-Popper lead iodine perovskite. Computational Materials Science, 2021, 194, 110457.	1.4	7
4405	Molecular designing of triphenylamine-based hole-transporting materials for perovskite solar cells. Solar Energy, 2021, 221, 536-544.	2.9	19
4406	Upside-Down Molding Approach for Geometrical Parameter-Tunable Photonic Perovskite Nanostructures. ACS Applied Materials & Interfaces, 2021, 13, 27313-27322.	4.0	2
4407	Pseudoâ€Halide Perovskite Solar Cells. Advanced Energy Materials, 2021, 11, 2100818.	10.2	56
4408	Annealing effects on interdiffusion in layered FA-rich perovskite solar cells. AIP Advances, 2021, 11, .	0.6	12
4409	Exploring Transport Behavior in Hybrid Perovskites Solar Cells via Machine Learning Analysis of Environmentalâ€Dependent Impedance Spectroscopy. Advanced Science, 2021, 8, e2002510.	5.6	23
4410	Synthetic approaches for thin-film halide double perovskites. Matter, 2021, 4, 1801-1831.	5.0	11
4411	Advances in Conversion Efficiency and Thermal Stability of the Perovskite-Based Solar Cell: Review. TH Wildau Engineering and Natural Sciences Proceedings, 0, 1, .	0.0	0
4412	Ambient fabrication of perovskite solar cells through delay-deposition technique. Materials for Renewable and Sustainable Energy, 2021, 10, 1.	1.5	1
4413	Viscosity Blending Approach for 22.42% Efficient Perovskite Solar Cells. Bulletin of the Korean Chemical Society, 2021, 42, 1112-1120.	1.0	11
4414	An Insight into the Effects of SnF2 Assisting the Performance of Lead-Free Perovskite of FASnI3: A First-Principles Calculations. ACS Omega, 2021, 6, 14938-14951.	1.6	1
4415	Efficient Thermally Evaporated Î³â€CsPbI₃ Perovskite Solar Cells. Advanced Energy Materials, 2021, 11, 2100299.	10.2	35
4416	Mixed bismuthâ€antimonyâ€based double perovskite nanocrystals for solar cell application. International Journal of Energy Research, 2021, 45, 16769-16780.	2.2	18
4417	Flexible perovskite solar cells with simultaneously improved efficiency, operational stability, and mechanical reliability. Joule, 2021, 5, 1587-1601.	11.7	120
4418	Understanding the synergistic effect of mixed solvent annealing on perovskite film formation*. Chinese Physics B, 2021, 30, 068103.	0.7	0
4419	Current Development toward Commercialization of Metalâ€Halide Perovskite Photovoltaics. Advanced Optical Materials, 2021, 9, 2100390.	3.6	15
4420	Roomâ€Temperatureâ€Processed, Carbonâ€Based Fully Printed Mesoscopic Perovskite Solar Cells with 15% Efficiency. Solar Rrl, 2021, 5, 2100274.	3.1	11

#	Article	IF	Citations
4421	Highly Efficient and Thickness Insensitive Inverted Triple-Cation Perovskite Solar Cells Fabricated by Gas Pumping Method. Journal of Physical Chemistry Letters, 2021, 12, 5580-5586.	2.1	6
4422	Synthesis, Thermal Analysis, Optical, Electric Properties and Conduction Mechanism of Hybrid Halogenometallates: [N(C₂H₅)₄]₂CoCl₄. Journal of the Physical Society of Japan, 2021, 90, 074709.	0.7	2
4423	Hydrophilic Surface-Driven Crystalline Grain Growth of Perovskites on Metal Oxides. ACS Applied Energy Materials, 2021, 4, 6923-6932.	2.5	17
4424	Ultrafast cation doping of perovskite quantum dots in flow. Matter, 2021, 4, 2429-2447.	5.0	20
4425	Stable High-Performance Perovskite Solar Cells via Passivation of the Grain Boundary and Interface. ACS Applied Energy Materials, 2021, 4, 6883-6891.	2.5	18
4426	Aerosol Assisted Solvent Treatment: A Universal Method for Performance and Stability Enhancements in Perovskite Solar Cells. Advanced Energy Materials, 2021, 11, 2101420.	10.2	21
4427	Suppressed light-induced phase transition of CsPbBr2I: Strategies, progress and applications in the photovoltaic field. Journal of Semiconductors, 2021, 42, 071901.	2.0	3
4428	Perovskite crystals redissolution strategy for affordable, reproducible, efficient and stable perovskite photovoltaics. Materials Today, 2021, 50, 199-223.	8.3	43
4429	Preparation and Properties of Polystyrene Nanospheres Incorporated Cs 3 Bi 2 Br 9 Halide Perovskite Disks. European Journal of Inorganic Chemistry, 2021, 2021, 2712-2717.	1.0	2
4430	Solvent Engineering for Controlled Crystallization and Growth of All-Inorganic Pb-Free Rudorffite Absorbers of Perovskite Solar Cells. Inorganic Chemistry, 2021, 60, 11110-11119.	1.9	6
4431	Study of hybrid organicâ€“inorganic halide perovskite solar cells based on MAI[(PbI2)1â^’x(CuI)x] absorber layers and their long-term stability. Journal of Materials Science: Materials in Electronics, 2021, 32, 20684-20697.	1.1	2
4432	Carrier management makes perovskite solar cells approaching Shockley-Queisser limit. Science Bulletin, 2021, 66, 1372-1374.	4.3	12
4433	Liquid medium annealing for fabricating durable perovskite solar cells with improved reproducibility. Science, 2021, 373, 561-567.	6.0	227
4434	Vacuum deposited PbI2 film grown at elevated temperatures for improved efficiency of CH3NH3PbI3 based planar perovskite solar cells. Materials Research Bulletin, 2021, 139, 111255.	2.7	16
4435	A novel topological crystalline insulator in planar pentacoordinate OsS2 monolayer. Chemical Physics, 2021, 547, 111199.	0.9	1
4436	Influence of a Solvent Trap in ITO/PEN Substrates on the Performance of Flexible Perovskite Solar Cells and Light-Emitting Diodes. ACS Applied Electronic Materials, 2021, 3, 3207-3217.	2.0	8
4437	Lithographically Patterning Hybrid Perovskite Single Crystals by Surface-Engineered Amino-Deliquescence/Efflorescence. ACS Photonics, 2021, 8, 2329-2336.	3.2	4
4438	Large-Area Periodic Organicâ€“Inorganic Hybrid Perovskite Nanopyramid Arrays for High-Performance Photodetector and Image Sensor Applications. , 2021, 3, 1189-1196.		23

#	Article	IF	Citations
4439	Releasing Nanocapsules for Highâ€Throughput Printing of Stable Perovskite Solar Cells. Advanced Energy Materials, 2021, 11, 2101291.	10.2	18
4440	Cut from the Same Cloth: Enamine-Derived Spirobifluorenes as Hole Transporters for Perovskite Solar Cells. Chemistry of Materials, 2021, 33, 6059-6067.	3.2	7
4441	Defect Passivation of Perovskite Films for Highly Efficient and Stable Solar Cells. Solar Rrl, 2021, 5, 2100295.	3.1	58
4442	Low-pressure treatment of CuSCN hole transport layers for enhanced carbon-based perovskite solar cells. Journal of Power Sources, 2021, 499, 229970.	4.0	22
4443	Tetrafluoroborateâ€Induced Reduction in Defect Density in Hybrid Perovskites through Halide Management. Advanced Materials, 2021, 33, e2102462.	11.1	24
4444	Revealing the Mechanism of Ï€ Aromatic Molecule as an Effective Passivator and Stabilizer in Highly Efficient Wideâ€Bandgap Perovskite Solar Cells. Solar Rrl, 2021, 5, 2100249.	3.1	11
4445	Influence of Drying Conditions on Device Performances of Antisolvent-Assisted Roll-to-Roll Slot Die-Coated Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 7611-7621.	2.5	22
4446	Effect of Antisolvent Application Rate on Film Formation and Photovoltaic Performance of Methylammoniumâ€Free Perovskite Solar Cells. Advanced Energy and Sustainability Research, 2021, 2, 2100061.	2.8	13
4447	Quantifying Capacitive and Diffusion-Controlled Charge Storage from 3D Bulk to 2D Layered Halide Perovskite-Based Porous Electrodes for Efficient Supercapacitor Applications. Journal of Physical Chemistry C, 2021, 125, 16946-16954.	1.5	91
4448	Fundamentals of Hysteresis in Perovskite Solar Cells: From Structureâ€Property Relationship to Neoteric Breakthroughs. Chemical Record, 2022, 22, .	2.9	11
4449	Stability of Perovskite Solar Cells: Degradation Mechanisms and Remedies. Frontiers in Electronics, 2021, 2, .	2.0	75
4450	Polymerâ€Based Antiâ€Solvent Engineering to Fabricate Stable and Efficient Tripleâ€Cation Perovskite Solar Cells. ChemistrySelect, 2021, 6, 7254-7261.	0.7	14
4451	Synthetic and Post-Synthetic Strategies to Improve Photoluminescence Quantum Yields in Perovskite Quantum Dots. Catalysts, 2021, 11, 957.	1.6	1
4453	A Study on Solution-Processed Y2O3 Films Modified by Atomic Layer Deposition Al2O3 as Dielectrics in ZnO Thin Film Transistor. Coatings, 2021, 11, 969.	1.2	6
4454	Uniaxially Oriented Monolithically Grained Perovskite Films for Enhanced Performance of Solar Cells. Journal of Physical Chemistry C, 2021, 125, 19131-19141.	1.5	4
4455	Lewis Base Passivation Mediates Charge Transfer at Perovskite Heterojunctions. Journal of the American Chemical Society, 2021, 143, 12230-12243.	6.6	36
4457	Efficient Hole Transfer via CsPbBr₃ Quantum Dots Doping toward Highâ€Performance Organic Solar Cells. Solar Rrl, 2021, 5, 2100499.	3.1	3
4458	Multiexciton dynamics in CsPbBr₃ nanocrystals: the dependence on pump fluence and temperature. Nanotechnology, 2021, 32, 455702.	1.3	3

#	Article	IF	Citations
4459	Polymer Network Modified Mesoporous SnO₂ for Enhanced Fill Factor in Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 7481-7486.	2.5	10
4460	Highly Luminescent and Stable 2D/3D Octadecylammonium/Formamidinium Lead Bromide Perovskite Films. Journal of Physical Chemistry C, 2021, 125, 17501-17508.	1.5	1
4461	Single source chemical vapor deposition (ssCVD) for highly luminescent inorganic halide perovskite films. Applied Physics Letters, 2021, 119, .	1.5	6
4462	Indoor Perovskite Photovoltaics for the Internet of Thingsâ€"Challenges and Opportunities toward Market Uptake. Advanced Energy Materials, 2021, 11, 2101854.	10.2	52
4463	Constructing Allâ€Inorganic Perovskite/Fluoride Nanocomposites for Efficient and Ultraâ€Stable Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2106386.	7.8	32
4464	Unveiling the importance of dripping temperature control of hybrid organic-inorganic perovskite precursor solution for the fabrication of fully ambient air-processed perovskite solar cells. Solar Energy, 2021, 224, 1017-1027.	2.9	13
4465	A scientometric review of trends in solar photovoltaic waste management research. Solar Energy, 2021, 224, 545-562.	2.9	28
4466	Two-Dimensional Materials for Perovskite Solar Cells with Enhanced Efficiency and Stability. , 2021, 3, 1402-1416.		21
4467	Understanding Differences in the Crystallization Kinetics between Oneâ€Step Slotâ€Die Coating and Spin Coating of MAPbI₃ Using Multimodal In Situ Optical Spectroscopy. Advanced Optical Materials, 2021, 9, 2101161.	3.6	8
4468	High-efficiency CNT-Si solar cells based on a collaborative system enabled by oxide penetration. Nano Research, 2022, 15, 2497-2504.	5.8	4
4469	Surface Passivation Using N-Type Organic Semiconductor by One-Step Method in Two-Dimensional Perovskite Solar Cells. Crystals, 2021, 11, 933.	1.0	5
4470	Unusual defect properties in multivalent perovskite <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Cs</mml:mi><mml:mn>2</mml:mn></mml mathvariant="normal">I</mml:mi><mml:mn>6</mml:mn></mml:msub></mml:mrow></mml:math> : A first-principles study. Physical Review Materials, 2021, 5, .	0.9	3
4471	Manipulating crystallization dynamics through chelating molecules for bright perovskite emitters. Nature Communications, 2021, 12, 4831.	5.8	56
4472	Formation of Lead Halide Perovskite Precursors in Solution: Insight from Electronicâ€Structure Theory. Physica Status Solidi (B): Basic Research, 2021, 258, 2100359.	0.7	3
4473	Quasi-2D Halide Perovskite Memory Device Formed by Acidâ€"Base Binary Ligand Solution Composed of Oleylamine and Oleic Acid. ACS Applied Materials & Interfaces, 2021, 13, 40891-40900.	4.0	10
4474	Defect passivation grain boundaries using 3-aminopropyltrimethoxysilane for highly efficient and stable perovskite solar cells. Solar Energy, 2021, 224, 472-479.	2.9	14
4475	Highly efficient Cesium Titanium (IV) Bromide perovskite solar cell and its point defect investigation: A computational study. Superlattices and Microstructures, 2021, 156, 106946.	1.4	13
4476	Double-site defect passivation of perovskite film via fullerene additive engineering toward highly efficient and stable bulk heterojunction solar cells. Nano Today, 2021, 39, 101164.	6.2	33

#	Article	IF	Citations
4477	Mesoporous TiO2 electron transport layer engineering for efficient inorganic-organic hybrid perovskite solar cells using hydrochloric acid treatment. Thin Solid Films, 2021, 732, 138768.	0.8	10
4478	Immediate and Temporal Enhancement of Power Conversion Efficiency in Surface-Passivated Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 39178-39185.	4.0	10
4479	Complementary bulk and surface passivations for highly efficient perovskite solar cells by gas quenching. Cell Reports Physical Science, 2021, 2, 100511.	2.8	21
4480	2D/3D Halide Perovskites for Optoelectronic Devices. Frontiers in Chemistry, 2021, 9, 715157.	1.8	8
4481	Efficient defect passivation for high performance perovskite solar cell by adding alizarin red S. Journal of Materials Science, 2021, 56, 19552-19563.	1.7	2
4482	Recent Advances in Flexible Perovskite Lightâ€Emitting Diodes. Advanced Materials Interfaces, 2021, 8, 2100441.	1.9	28
4483	Charge transfer enhancement of TiO2/perovskite interface in perovskite solar cells. Journal of Materials Science: Materials in Electronics, 2021, 32, 22936-22943.	1.1	6
4484	Coexistent Integer Charge Transfer and Charge Transfer Complex in F4-TCNQ-Doped PTAA for Efficient Flexible Organic Light-Emitting Diodes. Journal of Physical Chemistry Letters, 2021, 12, 8533-8540.	2.1	17
4485	Sequentially Slotâ€Dieâ€Coated Perovskite for Efficient and Scalable Solar Cells. Advanced Materials Interfaces, 2021, 8, 2100743.	1.9	21
4486	Perovskite crystallization. Journal of Semiconductors, 2021, 42, 080203.	2.0	13
4487	MA Cation-Induced Diffusional Growth of Low-Bandgap FA-Cs Perovskites Driven by Natural Gradient Annealing. Research, 2021, 2021, 9765106.	2.8	8
4488	Grain Boundaries in Methylammonium Lead Halide Perovskites Facilitate Water Diffusion. Advanced Energy and Sustainability Research, 2021, 2, 2100087.	2.8	9
4489	A Review on Gasâ€Quenching Technique for Efficient Perovskite Solar Cells. Solar Rrl, 2021, 5, 2100386.	3.1	28
4490	Graphene quantum dot-embedded perovskite photodetectors with fast response and enhanced sensitivity through bulk defect passivation. Journal of Industrial and Engineering Chemistry, 2021, 100, 383-389.	2.9	1
4491	Fabrications of Halide Perovskite Single-Crystal Slices and Their Applications in Solar Cells, Photodetectors, and LEDs. Crystal Growth and Design, 2021, 21, 5983-5997.	1.4	9
4492	Highly efficient wide-band-gap perovskite solar cells fabricated by sequential deposition method. Nano Energy, 2021, 86, 106114.	8.2	34
4493	Elastic modulus tailoring in CH3NH3PbI3 perovskite system by the introduction of two dimensionality using (5-AVA)2PbI4. Solar Energy, 2021, 224, 27-34.	2.9	10
4494	Upscaling perovskite solar cells via the ambient deposition of perovskite thin films. Trends in Chemistry, 2021, 3, 747-764.	4.4	12

#	Article	IF	Citations
4495	Efficiency improvement of perovskite solar cells by charge transport balancing using length tunable ZnO nanorods and optimized perovskite morphology. Solar Energy Materials and Solar Cells, 2021, 230, 111206.	3.0	9
4496	Additive Engineering for Efficient and Stable MAPbI₃-Perovskite Solar Cells with an Efficiency of over 21%. ACS Applied Materials & Interfaces, 2021, 13, 44451-44459.	4.0	18
4497	Efficient perovskite solar mini-modules fabricated via bar-coating using 2-methoxyethanol-based formamidinium lead tri-iodide precursor solution. Joule, 2021, 5, 2420-2436.	11.7	85
4498	Numerical simulation analysis towards the effect of charge transport layers electrical properties on cesium based ternary cation perovskite solar cells performance. Solar Energy, 2021, 225, 842-850.	2.9	25
4499	Interfacial Linkage and Carbon Encapsulation Enable Full Solutionâ€Printed Perovskite Photovoltaics with Prolonged Lifespan. Angewandte Chemie, 2021, 133, 23928.	1.6	7
4500	Ab-initio studies of electronic and magnetic properties of titanium doped methylammonium lead halides. Computational Condensed Matter, 2021, 28, e00570.	0.9	4
4501	NH3+-Functionalized PAMAM Dendrimers Enhancing Power Conversion Efficiency and Stability of Perovskite Solar Cells. Journal of Electronic Materials, 2021, 50, 6414-6425.	1.0	2
4502	Modified colored semi-transparent perovskite solar cells with enhanced stability. Journal of Alloys and Compounds, 2021, 875, 159781.	2.8	11
4503	Quantum Dots Encapsulated by ZrO₂ Enhance the Stability of Perovskite Solar Cells. Advanced Materials Interfaces, 2021, 8, 2100776.	1.9	3
4504	Applications of carbon nanomaterials in perovskite solar cells for solar energy conversion. Nano Materials Science, 2021, 3, 276-290.	3.9	35
4505	Removal of residual compositions by powder engineering for high efficiency formamidinium-based perovskite solar cells with operation lifetime over 2000Âh. Nano Energy, 2021, 87, 106152.	8.2	41
4506	Enhancement of the performance of planar perovskite solar cells by active-layer surface/interface modification with optimal mixed solvent-antisolvent post-treatment. Organic Electronics, 2022, 100, 106349.	1.4	4
4507	Organic Matrix Assisted Lowâ€temperature Crystallization of Black Phase Inorganic Perovskites. Angewandte Chemie, 2022, 134, .	1.6	3
4508	Intermediate Phaseâ€Free Process for Methylammonium Lead Iodide Thin Film for Highâ€Efficiency Perovskite Solar Cells. Advanced Science, 2021, 8, e2102492.	5.6	20
4509	Additive engineering for stable halide perovskite solar cells. Journal of Energy Chemistry, 2021, 60, 599-634.	7.1	59
4510	Strategies and methods for fabricating high quality metal halide perovskite thin films for solar cells. Journal of Energy Chemistry, 2021, 60, 300-333.	7.1	31
4511	Modulating Oxygen Vacancies in BaSnO₃ for Printable Carbon-Based Mesoscopic Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 11032-11040.	2.5	17
4512	Unravelling the crystal structure and optoelectronic properties of C3H3MI3 (M = Sn, Pb) for solar cell applications. Solar Energy Materials and Solar Cells, 2021, 230, 111133.	3.0	1

#	Article	IF	Citations
4513	Unnatural Hygroscopic Property of Nicotinic Acid by Restructuring Molecular Density: Self-Healing Halide Perovskites. Journal of Physical Chemistry Letters, 2021, 12, 8932-8938.	2.1	2
4514	Air fabrication of SnO2 based planar perovskite solar cells with an efficiency approaching 20%: Synergistic passivation of multi-defects by choline chloride. Ceramics International, 2022, 48, 212-223.	2.3	6
4515	Materials and Methods for Highâ€Efficiency Perovskite Solar Modules. Solar Rrl, 2022, 6, 2100455.	3.1	51
4516	Bifunctional Graphene Oxide Hole-Transporting and Barrier Layers for Transparent Bifacial Flexible Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 8824-8831.	2.5	8
4517	Slot-die coated methylammonium-free perovskite solar cells with 18% efficiency. Solar Energy Materials and Solar Cells, 2021, 230, 111189.	3.0	28
4518	The green solvent: a critical perspective. Clean Technologies and Environmental Policy, 2021, 23, 2499-2522.	2.1	80
4519	Influence of charge transporting layers on ion migration and interfacial carrier recombination in CH3NH3PbI3 perovskite solar cells. Chemical Physics Letters, 2021, 784, 139094.	1.2	3
4520	Bifunctional-based small molecule as multifunctional additive for improved performance of perovskite solar cells. Organic Electronics, 2021, 96, 106226.	1.4	7
4521	Controlling the Crystallization Kinetics of Leadâ€Free Tin Halide Perovskites for High Performance Green Photovoltaics. Advanced Energy Materials, 2021, 11, 2102131.	10.2	47
4522	Graphene oxide as an effective hole transport material for low-cost carbon-based mesoscopic perovskite solar cells. Advances in Natural Sciences: Nanoscience and Nanotechnology, 2021, 12, 035001.	0.7	8
4523	Genetic Manipulation of M13 Bacteriophage for Enhancing the Efficiency of Virusâ€Inoculated Perovskite Solar Cells with a Certified Efficiency of 22.3%. Advanced Energy Materials, 2021, 11, 2101221.	10.2	20
4524	Improvement of interfacial contact for efficient PCBM/MAPbI3 planar heterojunction solar cells with a binary antisolvent mixture treatment. Nanotechnology, 2021, 32, 485401.	1.3	5
4525	MAPbI3 Deposition by LV-PSE on TiO2 for Photovoltaic Application. Frontiers in Electronics, 2021, 2, .	2.0	1
4526	All-in-One Lewis Base for Enhanced Precursor and Device Stability in Highly Efficient Perovskite Solar Cells. ACS Energy Letters, 2021, 6, 3425-3434.	8.8	41
4527	Solution process of selective color-gamut perovskite solar cell modulated with organic Fabry-Perot electrode for building-integrated photovoltaic. Solar Energy Materials and Solar Cells, 2021, 230, 111192.	3.0	7
4528	Selfâ€Patterned CsPbBr₃ Nanocrystal Based Plasmonic Hotâ€Carrier Photodetector at Telecommunications Wavelengths. Advanced Optical Materials, 2021, 9, 2101474.	3.6	5
4529	Organicâ€Inorganic Perovskite Films and Efficient Planar Heterojunction Solar Cells by Magnetron Sputtering. Advanced Science, 2021, 8, e2102081.	5.6	19
4530	Interfacial Linkage and Carbon Encapsulation Enable Full Solutionâ€Printed Perovskite Photovoltaics with Prolonged Lifespan. Angewandte Chemie - International Edition, 2021, 60, 23735-23742.	7.2	56

#	Article	IF	Citations
4531	Perovskite La0.7Sr0.3Fe0.8B0.2O3 (BÂ=ÂTi, Mn, Co, Ni, and Cu) as heterogeneous electrocatalysts for asymmetric electrocarboxylation of aromatic ketones. Journal of Catalysis, 2021, 401, 224-233.	3.1	11
4532	Deactivating grain boundary defect by bifunctional polymer additive for humid air-synthesized stable halide perovskite solar cells. Solar Energy, 2021, 225, 211-220.	2.9	5
4533	Sensitive, Highâ€Speed, and Broadband Perovskite Photodetectors with Builtâ€In TiO₂ Metalenses. Small, 2021, 17, e2102694.	5.2	4
4534	Influence of contact electrode and light power on the efficiency of tandem perovskite solar cell: Numerical simulation. Solar Energy, 2021, 226, 161-172.	2.9	32
4535	A critical review of materials innovation and interface stabilization for efficient and stable perovskite photovoltaics. Nano Energy, 2021, 87, 106141.	8.2	28
4536	Recent advances in carbon nanomaterial-optimized perovskite solar cells. Materials Today Energy, 2021, 21, 100769.	2.5	14
4537	Recent progress on all-inorganic metal halide perovskite solar cells. Materials Today Nano, 2021, 16, 100143.	2.3	13
4538	Surface Passivation with a Fluorocarbon-Based Pyridine Derivative for High-Crystallinity Perovskite Solar Cells with Efficiency Over 20% and Good Humidity Stability. ACS Applied Energy Materials, 2021, 4, 10484-10492.	2.5	14
4539	The Impact of Solvent Vapor on the Film Morphology and Crystallization Kinetics of Lead Halide Perovskites during Annealing. ACS Applied Materials & Interfaces, 2021, 13, 45365-45374.	4.0	12
4540	Iodide <i>vs</i> Chloride: The Impact of Different Lead Halides on the Solution Chemistry of Perovskite Precursors. ACS Applied Energy Materials, 2021, 4, 9827-9835.	2.5	11
4541	Piezophototronic Effect Enhanced Perovskite Solar Cell Based on P(VDFâ€TrFE). Solar Rrl, 2021, 5, 2100692.	3.1	8
4542	A review on perovskite solar cells (PSCs), materials and applications. Journal of Materiomics, 2021, 7, 940-956.	2.8	111
4543	Synergistic Effect of NiO and Spiro-OMeTAD for Hole Transfer in Perovskite Solar Cells. Journal of Electronic Materials, 2021, 50, 6512-6517.	1.0	5
4544	Stable and high-efficiency P3CT-Na based MAPbI3 solar cells with a graphene quantum-dots down-converter. Solar Energy, 2021, 225, 882-891.	2.9	5
4545	Conductive Path Mechanism for Bipolar Resistive Switching Characteristics in Leadâ€Free Perovskite CsSnBr 3 â€Based Nonvolatile Memories. Physica Status Solidi (A) Applications and Materials Science, 0, , 2100501.	0.8	4
4546	Chiral Hybrid Perovskite Singleâ€Crystal Nanowire Arrays for Highâ€Performance Circularly Polarized Light Detection. Advanced Science, 2021, 8, e2102065.	5.6	34
4547	Organic Matrix Assisted Lowâ€temperature Crystallization of Black Phase Inorganic Perovskites. Angewandte Chemie - International Edition, 2022, 61, .	7.2	32
4548	Residual solvent extraction via chemical displacement for efficient and stable perovskite solar cells. Journal of Energy Chemistry, 2021, 61, 8-14.	7.1	19

#	Article	IF	Citations
4549	Advances in surface passivation of perovskites using organic halide salts for efficient and stable solar cells. Surfaces and Interfaces, 2021, 26, 101420.	1.5	10
4550	Advances in perovskite solar cells: Film morphology control and interface engineering. Journal of Cleaner Production, 2021, 317, 128368.	4.6	10
4551	Fluorinated Cross-linkable and Dopant-free hole transporting materials for efficient and stable perovskite solar cells. Chemical Engineering Journal, 2021, 422, 130124.	6.6	26
4552	Ultrafast photo-induced carrier dynamics of FAPbI3-MAPbBr3 perovskite films fabricated with additives and a hole transport material. Chemical Physics Letters, 2021, 784, 139100.	1.2	4
4553	Influence of spin-coating methods on the properties of planar solar cells based on ambient-air-processed triple-cation mixed-halide perovskites. Journal of Alloys and Compounds, 2021, 879, 160373.	2.8	6
4554	The effect of defects in tin-based perovskites and their photovoltaic devices. Materials Today Physics, 2021, 21, 100513.	2.9	17
4555	CsCl-induced defect control of CsPbI2Br thin films for achieving open-circuit voltage of 1.33ÂV in all-inorganic perovskite solar cells. Journal of Power Sources, 2021, 512, 230481.	4.0	16
4556	An effective and reliable fluorescent sensor for selective detection of methylamine gas based on in-situ formation of MAPbBr3 perovskite nanocrystals in electrospun fibers. Sensors and Actuators B: Chemical, 2021, 347, 130618.	4.0	18
4557	Efficient application of intermediate phase for highly-oriented MAPbI3 perovskite solar cells in ambient air. Solar Energy, 2021, 228, 200-205.	2.9	7
4558	Materials, methods and strategies for encapsulation of perovskite solar cells: From past to present. Renewable and Sustainable Energy Reviews, 2021, 151, 111608.	8.2	45
4559	Molecular level interpretation of excess infrared spectroscopy. Journal of Molecular Liquids, 2021, 342, 117544.	2.3	0
4560	Interface modification by ethanolamine interfacial layer for efficient planar structure perovskite solar cells. Journal of Power Sources, 2021, 513, 230549.	4.0	11
4561	Fused-ring electron acceptor as an efficient interfacial material for planar and flexible perovskite solar cells. Organic Electronics, 2021, 98, 106293.	1.4	4
4562	Unraveling the hysteretic behavior at double cations-double halides perovskite - electrode interfaces. Nano Energy, 2021, 89, 106428.	8.2	11
4563	Binary antisolvent bathing enabled highly efficient and uniform large-area perovskite solar cells. Chemical Engineering Journal, 2021, 423, 130078.	6.6	8
4564	In situ nanocrystal seeding perovskite crystallization towardÂhigh-performance solar cells. Materials Today Energy, 2021, 22, 100855.	2.5	9
4565	Characteristics of Mo2C-CNTs hybrid blended hole transport layer in the perovskite solar cells and X-ray detectors. Journal of Alloys and Compounds, 2021, 885, 161039.	2.8	19
4566	Bifunctional green cellulose derivatives employed for high efficiency and stable perovskite solar cells under ambient environment. Journal of Alloys and Compounds, 2021, 886, 161247.	2.8	11

#	Article	IF	Citations
4567	High-performance perovskite solar cells using the graphene quantum dotâ€“modified SnO2/ZnO photoelectrode. Materials Today Energy, 2021, 22, 100853.	2.5	37
4568	Quest for robust electron transporting materials towards efficient, hysteresis-free and stable perovskite solar cells. Renewable and Sustainable Energy Reviews, 2021, 152, 111689.	8.2	12
4569	Green solvent engineering for environment-friendly fabrication of high-performance perovskite solar cells. Chemical Engineering Journal, 2021, 425, 131475.	6.6	12
4570	Laser induced anti-solvent carbon quantum dots in defect passivation for effective perovskite solar cells. Journal of Alloys and Compounds, 2021, 889, 161561.	2.8	10
4571	Simultaneously enhanced efficiency and ambient stability of inorganic perovskite solar cells by employing tetramethylammonium chloride additive in CsPbI2Br. Journal of Materials Science and Technology, 2022, 102, 224-231.	5.6	22
4572	Enlarging grain sizes for efficient perovskite solar cells by methylamine chloride assisted recrystallization. Journal of Energy Chemistry, 2022, 65, 55-61.	7.1	15
4573	Novel trifluoropropoxy-substituted asymmetric carbazole derivatives as efficient and hydrophobic hole transporting materials for high-performance and stable perovskite solar cells. Chemical Engineering Journal, 2022, 428, 131108.	6.6	22
4574	A strategic review on processing routes towards scalable fabrication of perovskite solar cells. Journal of Energy Chemistry, 2022, 64, 538-560.	7.1	33
4575	Light illumination and temperature-induced currentâ€“voltage hysteresis in single-crystal perovskite photodiodes. CrystEngComm, 2021, 23, 1663-1670.	1.3	9
4576	A synopsis of progressive transition in precursor inks development for metal halide perovskites-based photovoltaic technology. Journal of Materials Chemistry A, 2021, 9, 26650-26668.	5.2	6
4577	Enhancing efficiency and stability of perovskite solar cells <i>via in situ</i> incorporation of lead sulfide layer. Sustainable Energy and Fuels, 2021, 5, 3700-3704.	2.5	3
4578	Metal Halide Perovskite/2D Material Heterostructures: Syntheses and Applications. Small Methods, 2021, 5, e2000937.	4.6	24
4579	Solvent engineering of lead-free bismuth-based perovskite material for potential application of solar cell. Materials Today: Proceedings, 2021, 46, 1837-1842.	0.9	3
4580	Full-scale chemical and field-effect passivation: 21.52% efficiency of stable MAPbI3 solar cells via benzenamine modification. Nano Research, 2021, 14, 2783-2789.	5.8	20
4581	Metal Oxides for Perovskite Solar Cells. , 2021, , 197-233.		3
4582	Low-temperature sprayed carbon electrode in modular HTL-free perovskite solar cells: a comparative study on the choice of carbon sources. Journal of Materials Chemistry C, 2021, 9, 3546-3554.	2.7	16
4583	Interfaces in metal halide perovskites probed by solid-state NMR spectroscopy. Journal of Materials Chemistry A, 2021, 9, 19206-19244.	5.2	28
4584	Formamide iodide: a new cation additive for inhibiting Î´-phase formation of formamidinium lead iodide perovskite. Materials Advances, 2021, 2, 2272-2277.	2.6	2

#	Article	IF	Citations
4585	Reduced energy loss enabled by thiophene-based interlayers for high performance and stable perovskite solar cells. Journal of Materials Chemistry A, 2021, 9, 4138-4149.	5.2	80
4586	Recent advances and challenges of inverted lead-free tin-based perovskite solar cells. Energy and Environmental Science, 0, , .	15.6	62
4587	Suppressed oxidation of tin perovskite by Catechin for eco-friendly indoor photovoltaics. Applied Physics Letters, 2021, 118, .	1.5	28
4588	Strategies of modifying spiro-OMeTAD materials for perovskite solar cells: a review. Journal of Materials Chemistry A, 2021, 9, 4589-4625.	5.2	149
4589	Charge transfer balancing of planar perovskite solar cell based on a low cost and facile solution-processed CuOx as an efficient hole transporting layer. Journal of Materials Science: Materials in Electronics, 2021, 32, 2312-2325.	1.1	7
4590	A two-fold interfacial electric-field strategy: boosting the performance of electron transport layer-free perovskite solar cells with low-cost and versatile inorganic acid treatment. Journal of Materials Chemistry C, 2021, 9, 12920-12927.	2.7	12
4591	Exploring the film growth in perovskite solar cells. Journal of Materials Chemistry A, 2021, 9, 6029-6049.	5.2	20
4592	Future perspectives of perovskite solar cells: Metal oxide-based inorganic hole-transporting materials. , 2021, , 181-219.		5
4593	Progress in blade-coating method for perovskite solar cells toward commercialization. Journal of Renewable and Sustainable Energy, 2021, 13, .	0.8	17
4594	Evolution of ferroelectric domains in methylammonium lead iodide and correlation with the performance of perovskite solar cells. Journal of Materials Chemistry A, 2021, 9, 21845-21858.	5.2	7
4595	Merged interface construction toward ultra-low <i>V</i>_{oc} loss in inverted two-dimensional Dionâ€“Jacobson perovskite solar cells with efficiency over 18%. Journal of Materials Chemistry A, 2021, 9, 12566-12573.	5.2	32
4596	Emerging Carbon Nanomaterials for Organic and Perovskite-Based Optoelectronics Device Applications. Advances in Sustainability Science and Technology, 2021, , 419-444.	0.4	1
4597	A penetrated 2D/3D hybrid heterojunction for high-performance perovskite solar cells. Journal of Materials Chemistry A, 2021, 9, 23019-23027.	5.2	23
4598	Lead-Free Perovskite Materials for Solar Cells. Nano-Micro Letters, 2021, 13, 62.	14.4	175
4599	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
4600	A synergistic Cs₂CO₃ETL treatment to incorporate Cs cation into perovskite solar cells<i>via</i>two-step scalable fabrication. Journal of Materials Chemistry C, 2021, 9, 4367-4377.	2.7	17
4601	Application of two-dimensional materials in perovskite solar cells: recent progress, challenges, and prospective solutions. Journal of Materials Chemistry C, 2021, 9, 14065-14092.	2.7	24
4602	Porous Gold Nanolayer Coated Halide Metal Perovskite-Based Broadband Metamaterial Absorber in the Visible and Near-IR Regime. IEEE Access, 2021, 9, 8912-8919.	2.6	12

#	Article	IF	Citations
4603	A new metric to control nucleation and grain size distribution in hybrid organicâ€“inorganic perovskites by tuning the dielectric constant of the antisolvent. Journal of Materials Chemistry A, 2021, 9, 3668-3676.	5.2	10
4604	Morphology control of SnO2 layer by solvent engineering for efficient perovskite solar cells. Solar Energy, 2021, 214, 280-287.	2.9	29
4605	Sustainable solvent selection for the manufacture of methylammonium lead triiodide (MAPbI₃) perovskite solar cells. Green Chemistry, 2021, 23, 2471-2486.	4.6	45
4606	Enhanced stability in perovskite solar cells <i>via</i> room-temperature processing. Journal of Materials Chemistry C, 2021, 9, 14749-14756.	2.7	8
4607	Perovskite Single Crystals: Synthesis, Optoelectronic Properties, and Application. Advanced Functional Materials, 2021, 31, 2008684.	7.8	70
4608	Improved Efficiency and Stability of Perovskite Solar Cells Induced by Cï£¾O Functionalized Hydrophobic Ammoniumâ€Based Additives. Advanced Materials, 2018, 30, 1703670.	11.1	132
4609	Toward Perovskite Solar Cell Commercialization: A Perspective and Research Roadmap Based on Interfacial Engineering. Advanced Materials, 2018, 30, e1800455.	11.1	332
4610	Controlling Crystal Growth via an Autonomously Longitudinal Scaffold for Planar Perovskite Solar Cells. Advanced Materials, 2020, 32, e2000617.	11.1	118
4611	Rationally Induced Interfacial Dipole in Planar Heterojunction Perovskite Solar Cells for Reduced <i>J</i>â€“<i>V</i> Hysteresis. Advanced Energy Materials, 2018, 8, 1800568.	10.2	32
4612	Morphology Controlling of Allâ€Inorganic Perovskite at Low Temperature for Efficient Rigid and Flexible Solar Cells. Advanced Energy Materials, 2018, 8, 1800758.	10.2	124
4613	High Efficiency Perovskiteâ€Silicon Tandem Solar Cells: Effect of Surface Coating versus Bulk Incorporation of 2D Perovskite. Advanced Energy Materials, 2020, 10, 1903553.	10.2	110
4614	Selfâ€Aggregationâ€Controlled Rapid Chemical Bath Deposition of SnO₂ Layers and Stable Dark Depolarization Process for Highly Efficient Planar Perovskite Solar Cells. ChemSusChem, 2020, 13, 4051-4063.	3.6	17
4615	Biomaterials and Fabrication Methods of Scaffolds for Tissue Engineering Applications. Materials Horizons, 2020, , 167-186.	0.3	6
4616	All-Inorganic Perovskite Quantum Dots: Ligand Modification, Surface Treatment and Other Strategies for Enhanced Stability and Durability. Springer Series in Materials Science, 2020, , 51-106.	0.4	2
4617	Fabrication and characterization of perovskite (CH3NH3PbI3) solar cells. SN Applied Sciences, 2020, 2, 1.	1.5	13
4618	Ionic liquids engineering for high-efficiency and stable perovskite solar cells. Chemical Engineering Journal, 2020, 398, 125594.	6.6	85
4619	2D-Quasi-2D-3D Hierarchy Structure for Tin Perovskite Solar Cells with Enhanced Efficiency and Stability. Joule, 2018, 2, 2732-2743.	11.7	343
4620	Excitonic optical properties of cesium trifluoroacetate induced CsPbBr3 thin film with anti-solvent treatment. Optical Materials, 2020, 106, 110005.	1.7	8

#	Article	IF	Citations
4621	Conditioning lead iodide with dimethylsulfoxide and hydrochloric acid to control crystal growth improving performance of perovskite solar cell. Solar Energy, 2017, 157, 328-334.	2.9	7
4622	Bottom-up passivation effects by using 3D/2D mix structure for high performance p-i-n perovskite solar cells. Solar Energy, 2020, 205, 44-50.	2.9	26
4623	Progress and Opportunities for Cs Incorporated Perovskite Photovoltaics. Trends in Chemistry, 2020, 2, 638-653.	4.4	35
4624	Highly Crystalline and (110)-Oriented n-Type Perovskite Films with Excellent Structural Stability via Cu Doping. Crystal Growth and Design, 2021, 21, 462-470.	1.4	4
4625	Enhancing Chemical Stability and Suppressing Ion Migration in CH₃NH₃PbI₃ Perovskite Solar Cells <i>via</i> Direct Backbone Attachment of Polyesters on Grain Boundaries. Chemistry of Materials, 2020, 32, 5104-5117.	3.2	64
4626	Measure is Treasure: Proper Iodine Vapor Treatment as a New Method of Morphology Improvement of Lead-Halide Perovskite Films. Chemistry of Materials, 2020, 32, 9140-9146.	3.2	8
4627	High-Performance Layered Perovskite Transistors and Phototransistors by Binary Solvent Engineering. Chemistry of Materials, 2021, 33, 1174-1181.	3.2	29
4628	Layer-by-Layer Structural Identification of 2D Ruddlesdenâ€"Popper Hybrid Lead Iodide Perovskites by Solid-State NMR Spectroscopy. Chemistry of Materials, 2021, 33, 370-377.	3.2	44
4629	Modified Antisolvent Method for Improving the Performance and Stability of Triple-Cation Perovskite Solar Cells. ACS Omega, 2021, 6, 172-179.	1.6	14
4630	Planar pâ€"n homojunction perovskite solar cells with efficiency exceeding 21.3%. Nature Energy, 2019, 4, 150-159.	19.8	383
4631	Scalable fabrication and coating methods for perovskite solar cells and solar modules. Nature Reviews Materials, 2020, 5, 333-350.	23.3	568
4632	Chapter 2. Towards Optimum Solution-processed Planar Heterojunction Perovskite Solar Cells. RSC Energy and Environment Series, 2016, , 32-56.	0.2	5
4633	Chapter 5. The Role of Nanostructured Metal Oxides in Hybrid Solar Cells. RSC Energy and Environment Series, 2016, , 141-176.	0.2	1
4634	CHAPTER 4. Solution-processed Solar Cells: Perovskite Solar Cells. Inorganic Materials Series, 2019, , 153-192.	0.5	6
4635	A stable, efficient textile-based flexible perovskite solar cell with improved washable and deployable capabilities for wearable device applications. RSC Advances, 2017, 7, 54361-54368.	1.7	51
4636	Interface modification effects using a halide-free lead source for perovskite solar cells. Sustainable Energy and Fuels, 2017, 1, 1358-1365.	2.5	3
4637	A thiourea additive-based quadruple cation lead halide perovskite with an ultra-large grain size for efficient perovskite solar cells. Nanoscale, 2019, 11, 21824-21833.	2.8	53
4638	Advances in design engineering and merits of electron transporting layers in perovskite solar cells. Materials Horizons, 2020, 7, 2276-2291.	6.4	66

#	Article	IF	Citations
4639	Application of small molecules based on a dithienogermole core in bulk heterojunction organic solar cells and perovskite solar cells. Materials Chemistry Frontiers, 2020, 4, 2168-2175.	3.2	8
4640	Photovoltaics. EPJ Web of Conferences, 2020, 246, 00005.	0.1	8
4641	Roadmap on organicâ€“inorganic hybrid perovskite semiconductors and devices. APL Materials, 2021, 9, .	2.2	102
4642	Origin of Hysteresis in Perovskite Solar Cells. , 2020, , 1-1-1-42.		19
4643	Radiative recombination and electron-phonon coupling in lead-free <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">C</mml:mi><mml:msub><mml:mi mathvariant="normal">H</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mi mathvariant="normal">N</mml:mi><mml:msub><mml:mi mathvariant="normal">H</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mi>Sn</mml:mi><mml:msub><mml:mi	0.9	40
4644	xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">C</mml:mi><mml:msub><mml:mi mathvariant="normal">H</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mi	0.9	32
4645	Large thermal expansion leads to negative thermo-optic coefficient of halide perovskite <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">C</mml:mi><mml:msub><mml:mi mathvariant="normal">H</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mi mathvariant="normal">N</mml:mi><mml:msub><mml:mi mathvariant="normal">H</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mi>PbC</mml:mi><mml:msub><mml:mi	0.9	12
4646	Elucidating the atomistic origin of anharmonicity in tetragonal <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>CH</mml:mi><mml:mn>3</mml:mn></m with Raman scattering. Physical Review Materials, 2020, 4, .	0.9	34
4647	Investigating temperature-induced structural changes of lead halide perovskites by <i>in situ</i> X-ray powder diffraction. Journal of Applied Crystallography, 2019, 52, 1104-1118.	1.9	4
4648	Numerical Simulation of Vapor Deposition Process of Perovskite Solar Cells: The Influence of Methylammonium Iodide Vapor Flow to Perovskite Growth. Journal of Solar Energy Engineering, Transactions of the ASME, 2021, 143, .	1.1	3
4649	Air-stable alucone thin films deposited by molecular layer deposition using a 4-mercaptophenol organic reactant. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, 022411.	0.9	9
4650	Nanophotonic light management for perovskiteâ€“silicon tandem solar cells. Journal of Photonics for Energy, 2018, 8, 1.	0.8	40
4651	Spin coating epitaxial films. Science, 2019, 364, 166-169.	6.0	141
4653	Impact of strain relaxation on performance of Î±-formamidinium lead iodide perovskite solar cells. Science, 2020, 370, 108-112.	6.0	932
4654	Types of Solar Cells and Application. American Journal of Optics and Photonics, 2015, 3, 94.	1.2	319
4655	Synthesis of Sb(V) Complexes with Pyridyl Cations and Application for Lead-free Perovskite Solar Cells. Chemistry Letters, 2020, 49, 944-946.	0.7	1
4656	Perovskite Micro Laser arrays using Scalable Lithography: Towards Integrated Perovskite Photonics. , 2019, , .		1
4657	Enhanced optoelectronic performance of 2D organic-inorganic hybrid perovskite through light-illumination. Optics Express, 2019, 27, 30618.	1.7	6

#	Article	IF	Citations
4658	Air-stable perovskite photovoltaic cells with low temperature deposited NiOx as an efficient hole-transporting material. Optical Materials Express, 2020, 10, 1801.	1.6	19
4659	Highly luminescent and stable lead-free cesium copper halide perovskite powders for UV-pumped phosphor-converted light-emitting diodes. Photonics Research, 2020, 8, 768.	3.4	94
4660	Research progress in large-area perovskite solar cells. Photonics Research, 2020, 8, A1.	3.4	37
4661	Phase segregation in inorganic mixed-halide perovskites: from phenomena to mechanisms. Photonics Research, 2020, 8, A56.	3.4	45
4662	Growth of single crystals of methylammonium lead mixedhalide perovskites. Communications in Physics, 2018, 28, 237.	0.0	2
4663	Additive-induced Crystallization of Inorganic Perovskite Films for Efficient Solar Cells. International Journal of Electrochemical Science, 2018, 13, 4479-4488.	0.5	5
4664	Optical Analysis of Ag-NPs Containing Methyl Ammonium Lead Tri-Iodide Thin Films. TraektoriÃ¢ Nauki, 2017, 3, 2007-2015.	0.1	1
4665	Recent Progress in Long-term Stability of Perovskite Solar Cells. U Porto Journal of Engineering, 2015, 1, 52-62.	0.2	11
4666	Perovskite LEDs. , 2019, 1, 1-5.		3
4667	Computational Design of Highly Efficient and Robust Hole Transport Layers in Perovskite Solar Cells. Journal of Korean Institute of Metals and Materials, 2019, 57, 535-542.	0.4	3
4669	Recent Advances and Challenges in Halide Perovskite Crystals in Optoelectronic Devices from Solar Cells to Other Applications. Crystals, 2021, 11, 39.	1.0	17
4670	High-Performance and Hysteresis-Free Perovskite Solar Cells Based on Rare-Earth-Doped SnO ₂ Mesoporous Scaffold. Research, 2019, 2019, 4049793.	2.8	35
4671	Origin of High Efficiency and Long-Term Stability in Ionic Liquid Perovskite Photovoltaic. Research, 2020, 2020, 2616345.	2.8	59
4672	Recent Progress in Flexible Perovskite Solar Cell Development. Journal of the Korean Ceramic Society, 2018, 55, 325-336.	1.1	15
4673	Simulation and Optimization of Lead-Based Perovskite Solar Cells with Cuprous Oxide as a P-type Inorganic Layer. Journal of the Nigerian Society of Physical Sciences, 0, , 72-81.	0.0	8
4674	Perovskite solar cell. Vacuum Magazine, 2014, 1, 10-13.	0.0	3
4675	Nanostructures in Dye-Sensitized and Perovskite Solar Cells. , 0, , .		3
4676	Recent advances in planar heterojunction organic-inorganic hybrid perovskite solar cells. Wuli Xuebao/Acta Physica Sinica, 2015, 64, 038401.	0.2	16

#	Article	IF	Citations
4677	Key issues in highly efficient perovskite solar cells. Wuli Xuebao/Acta Physica Sinica, 2015, 64, 038404.	0.2	12
4678	Recent progress in research on solid organic-inorganic hybrid solar cells. Wuli Xuebao/Acta Physica Sinica, 2015, 64, 038405.	0.2	6
4679	progress in electron-transport materials in application of perovskite solar cells. Wuli Xuebao/Acta Physica Sinica, 2015, 64, 038802.	0.2	12
4680	Recent research progress in perovskite solar cells. Wuli Xuebao/Acta Physica Sinica, 2016, 65, 237902.	0.2	7
4681	An in-situ real time study of the perovskite film micro-structural evolution in a humid environment by using synchrotron based characterization technique. Wuli Xuebao/Acta Physica Sinica, 2017, 66, 018401.	0.2	3
4682	Influence of phenyl-C61-butyric acid methyl ester (PCBM) electron transport layer treated by two additives on perovskite solar cell performance. Wuli Xuebao/Acta Physica Sinica, 2017, 66, 118801.	0.2	3
4683	Quality management of high-efficiency planar heterojunction organic-inorganic hybrid perovskite solar cells. Wuli Xuebao/Acta Physica Sinica, 2018, 67, 158801.	0.2	3
4684	High throughput screening of novel tribromide perovskite materials for high-photovoltage solar cells. Journal of Materials Chemistry A, 2021, 9, 25502-25512.	5.2	8
4685	Strong Fermi-level pinning at metal contacts to halide perovskites. Journal of Materials Chemistry C, 2021, 9, 15212-15220.	2.7	12
4686	Regulating the crystalline phase of intermediate films enables FA_{1âˆ’<i>x</i>}MA_{<i>x</i>}PbI₃ perovskite solar cells with efficiency over 22%. Journal of Materials Chemistry A, 2021, 9, 24064-24070.	5.2	20
4687	Triple-cation perovskite solar cells fabricated by a hybrid PVD/blade coating process using green solvents. Journal of Materials Chemistry A, 2021, 9, 26680-26687.	5.2	17
4688	Out-of-equilibrium processes in crystallization of organic-inorganic perovskites during spin coating. Nature Communications, 2021, 12, 5624.	5.8	53
4689	Interfacial Assembly and Applications of Functional Mesoporous Materials. Chemical Reviews, 2021, 121, 14349-14429.	23.0	151
4690	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
4691	CH3NH3PbBr3 Thin Film Served as Guided-Wave Layer for Enhancing the Angular Sensitivity of Plasmon Biosensor. Biosensors, 2021, 11, 415.	2.3	5
4692	A comprehensive review on defect passivation and gradient energy alignment strategies for highly efficient perovskite solar cells. Journal Physics D: Applied Physics, 2022, 55, 043001.	1.3	9
4693	A Generic Protocol for Highly Reproducible Manufacturing of Efficient Perovskite Lightâ€Emitting Diodes Using Inâ€Situ Photoluminescence Monitoring. Advanced Materials Technologies, 2022, 7, 2100987.	3.0	3
4694	Emerging Perovskite Solar Cell Technology: Remedial Actions for the Foremost Challenges. Advanced Energy Materials, 2021, 11, .	10.2	40

#	Article	IF	Citations
4695	Upscaling Solutionâ€Processed Perovskite Photovoltaics. Advanced Energy Materials, 2021, 11, 2101973.	10.2	46
4696	Interband and Surfaceâ€Influenced Photophysical Processes in CH 3 NH 3 PbBr 3 Perovskites. Advanced Photonics Research, 2022, 3, 2100198.	1.7	3
4697	Interface Engineering for Perovskite Solar Cells Based on 2D-Materials: A Physics Point of View. Materials, 2021, 14, 5843.	1.3	7
4698	Metal Halide Semiconductors beyond Lead-Based Perovskites for Promising Optoelectronic Applications. Journal of Physical Chemistry Letters, 2021, 12, 10532-10550.	2.1	20
4699	Room-Temperature-Grown amorphous Indium-Tin-Silicon-Oxide thin film as a new electron transporting layer for perovskite solar cells. Applied Surface Science, 2022, 581, 151570.	3.1	2
4700	Benefitting from Synergistic Effect of Anion and Cation in Antimony Acetate for Stable CH₃NH₃PbI₃â€Based Perovskite Solar Cell with Efficiency Beyond 21%. Small, 2021, 17, e2102186.	5.2	28
4701	Ambient-environment processed perovskite solar cells: A review. Materials Today Physics, 2021, 21, 100557.	2.9	12
4702	Inhibition of iodide ion migration in flexible perovskite solar cells using oxideâ€"metalâ€"oxide transparent electrode. Surfaces and Interfaces, 2021, 27, 101546.	1.5	5
4703	Photon Recycling in CsPbBr₃ All-Inorganic Perovskite Nanocrystals. ACS Photonics, 2021, 8, 3201-3208.	3.2	10
4704	Efficient Skyâ€Blue Lightâ€Emitting Diodes Based on Oriented Perovskite Nanoplates. Advanced Optical Materials, 2022, 10, 2101525.	3.6	12
4705	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
4706	Heterojunction Doping of Poly(triarylamine) with Cesium-Doped Vanadium Oxide via Interfacial Electron Transfer toward High-Performance Perovskite Solar Cells. Journal of Physical Chemistry C, 2021, 125, 23474-23482.	1.5	4
4707	A-site phase segregation in mixed cation perovskite. Materials Reports Energy, 2021, 1, 100064.	1.7	19
4708	Processing and Preparation Method for High-Quality Opto-Electronic Perovskite Film. Frontiers in Materials, 2021, 8, .	1.2	10
4709	Halide Perovskite Solar Cells for Building Integrated Photovoltaics: Transforming Building FaÃ§ades into Power Generators. Advanced Materials, 2022, 34, e2104661.	11.1	37
4710	Lowâ€Bandgap Organic Bulkâ€Heterojunction Enabled Efficient and Flexible Perovskite Solar Cells. Advanced Materials, 2021, 33, e2105539.	11.1	89
4711	An Embedding 2D/3D Heterostructure Enables Highâ€Performance FAâ€Alloyed Flexible Perovskite Solar Cells with Efficiency over 20%. Advanced Science, 2021, 8, e2101856.	5.6	57
4712	Super Flexible Transparent Conducting Oxideâ€Free Organicâ€"Inorganic Hybrid Perovskite Solar Cells with 19.01% Efficiency (Active Areaâ€‰=â€‰1â€‰cm²). Solar Rrl, 2021, 5, 2100733.	3.1	10

#	Article	IF	Citations
4713	Highly oriented MAPbI3 crystals for efficient hole-conductor-free printable mesoscopic perovskite solar cells. Fundamental Research, 2022, 2, 276-283.	1.6	40
4714	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
4715	Lead Sources in Perovskite Solar Cells: Toward Controllable, Sustainable, and Largeâ€Scalable Production. Solar Rrl, 2021, 5, 2100665.	3.1	21
4716	Reformation of thiophene-functionalized phthalocyanine isomers for defect passivation to achieve stable and efficient perovskite solar cells. Journal of Energy Chemistry, 2022, 67, 263-275.	7.1	28
4717	Enhanced Performance and Stability of Carbon Counter Electrode-Based MAPbI₃ Perovskite Solar Cells with <i>p</i>-Methylphenylamine Iodate Additives. ACS Applied Energy Materials, 2021, 4, 11314-11324.	2.5	4
4718	Fluorination of an <i>N,N,Nâ€²,Nâ€²</i>-Tetraphenylbenzidine Derivative as a Dopant-Free Hole-Transporting Material for Moisture-Resistant Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 10459-10467.	2.5	5
4719	Degradation mechanisms of perovskite solar cells under vacuum and one atmosphere of nitrogen. Nature Energy, 2021, 6, 977-986.	19.8	103
4721	Progress in flexible perovskite solar cells with improved efficiency. Journal of Semiconductors, 2021, 42, 101605.	2.0	16
4722	A Regularityâ€Based Fullerene Interfacial Layer for Efficient and Stable Perovskite Solar Cells via Bladeâ€Coating. Advanced Functional Materials, 2022, 32, 2105917.	7.8	14
4723	Atomic Level Insights into Metal Halide Perovskite Materials by Scanning Tunneling Microscopy and Spectroscopy. Angewandte Chemie - International Edition, 2022, 61, .	7.2	3
4724	Atomic level insights intoÂmetal halide perovskiteÂmaterials by scanning tunneling microscopy and spectroscopy. Angewandte Chemie, 2022, 134, e202112352.	1.6	0
4725	Printed Memtransistor Utilizing a Hybrid Perovskite/Organic Heterojunction Channel. ACS Applied Materials & Interfaces, 2021, 13, 51592-51601.	4.0	9
4726	Machine learning stability and band gap of lead-free halide double perovskite materials for perovskite solar cells. Solar Energy, 2021, 228, 689-699.	2.9	23
4727	Recent progress and future prospects of perovskite tandem solar cells. Applied Physics Reviews, 2021, 8, .	5.5	71
4728	Technological Progress Towards Commercialization of Organometal Halide Perovskite Solar Cells. Journal of the Korean Institute of Electrical and Electronic Material Engineers, 2014, 27, 776-791.	0.0	1
4729	A Facile Spray Deposition Route for Uniform Perovskite Solar Cells Processed in Air. , 2015, , .		0
4730	Pre-synthesized quantum dot deposition approach to obtain high efficient quantum dot solar cells. Wuli Xuebao/Acta Physica Sinica, 2015, 64, 038806.	0.2	8
4731	S-shaped current-voltage characteristics in perovskite solar cell. Wuli Xuebao/Acta Physica Sinica, 2015, 64, 038402.	0.2	8

#	Article	IF	Citations
4732	Time- and Excitation-dependent Photoluminescence Characterisation of CH3NH3PbI3 Perovskite films. , 2015, , .		0
4733	Effect of solvent on the perovskite thin film morphology and crystallinity. Wuli Xuebao/Acta Physica Sinica, 2015, 64, 038403.	0.2	6
4735	Chapter 11. Modeling Organic Solar Cells: What are the Challenges Ahead?. RSC Energy and Environment Series, 2016, , 367-390.	0.2	0
4736	Chapter 6. Structural, Electronic, and Optical Properties of Lead Halide Perovskites. RSC Energy and Environment Series, 2016, , 177-201.	0.2	0
4737	Degradation and Stability of Organic-Inorganic Perovskite Solar Cells. Current Photovoltaic Research, 2016, 4, 68-79.	0.0	0
4738	Organometal Halide Perovskite CH3NH3PbI3 as an Effective Photosensitizer for p-Type Solar Cells. International Journal of Electrochemical Science, 0, , 10320-10328.	0.5	1
4739	The Influence of PbI₂ on Characteristic of Organic-Inorganic Hybrid Perovskite Thin Films. Modeling and Numerical Simulation of Material Science, 2017, 07, 47-57.	0.5	0
4740	Design and Control of Nanostructures and Interfaces for Excitonic Solar Cells. Engineering Materials and Processes, 2017, , 635-679.	0.2	0
4741	The alkyl amines effect on the optical properties of inorganic perovskite quantum dot. , 2017, , .		0
4742	Organometal halide perovskite light-emitting diodes with laminated carbon nanotube electrodes. , 2017, , .		1
4743	A quantitative evaluation of multiple biokinetic models using an assembled water phantom: A feasibility study. PLoS ONE, 2017, 12, e0189244.	1.1	7
4744	Current state and perspectives for organo-halide perovskite solar cells: Crystal structures and thin film formation, morphology, processing, degradation, stability improvement by carbon nanotube. Izvestiya Vysshikh Uchebnykh Zavedenii Materialy Elektronnoi Tekhniki = Materials of Electronics Engineering, 2017, 20, 153-193.	0.1	0
4745	Improvement of current characteristic of perovskite solar cells using dodecanedioic acid modified TiO2 electron transporting layer. Wuli Xuebao/Acta Physica Sinica, 2018, 67, 098801.	0.2	3
4746	Integrated Perovskite Devices: Scalable Lithography of Methylammonium Lead Iodide. , 2018, , .		0
4747	Lead-Free Perovskite Solar Cells with Efficiencies Reaching 8.29% Based on Single-Crystalline Precursor Solutions. SSRN Electronic Journal, 0, , .	0.4	0
4748	Novel growth techniques for the deposition of high-quality perovskite thin films. , 2018, , .		0
4749	Photophysics of organic-inorganic hybrid perovskite solar cells. , 2018, , .		0
4750	Technology Trend of Luminescent Nanomaterials. Journal of Korean Powder Metallurgy Institute, 2018, 25, 170-177.	0.2	1

#	Article	IF	Citations
4751	Photoluminescence behavior of nanoimprinted halide perovskite at low temperatures. , 2018, , .		0
4752	Photoelectronic properties of lead-free CH3NH3SnI3 perovskite solar cell materials and devices. , 2018, , .		0
4753	High color gamut of perovskite QDs/PMMA-based white light-emitting diode. , 2018, , .		0
4754	Photovoltaic performance of planar CH3NH3PbI3 perovskite solar cells based on CdS and high transmittance Cd(S,O) electron transport layers stacked with ZnO hole blocking layer. Journal of Photonics for Energy, 2018, 8, 1.	0.8	1
4755	Recent progress of ion migration in organometal halide perovskite. Wuli Xuebao/Acta Physica Sinica, 2019, 68, 158801.	0.2	11
4756	Continuous Wave Amplified Spontaneous Emission from Mixed Cation Perovskite devices. , 2019, , .		0
4757	Carrier Concentration in Bulk Perovskite CH3NH3PbI3 Thin Films. Engineering International, 2019, 7, 67-72.	0.7	1
4758	Recent advances in perovskite solar cells: Space potential and optoelectronic conversion mechanism. Wuli Xuebao/Acta Physica Sinica, 2019, 68, 158401.	0.2	3
4759	Temperature-dependent photoluminescence in hybrid iodine-based perovskites film. Wuli Xuebao/Acta Physica Sinica, 2019, 68, 246801.	0.2	7
4760	Counter Electrode Materials for Organic-Inorganic Perovskite Solar Cells. , 2019, , 165-225.		2
4761	Strategies for high-performance perovskite solar cells. , 2019, , .		1
4762	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
4763	Applications of Chalcogenides as Electron Transport Layers and Doping Materials in Perovskite Solar Cells. IFMBE Proceedings, 2020, , 173-176.	0.2	0
4764	Preparation of highly efficient carbon-based perovskite solar cells (C-based PSCs) by screen-printing. , 2019, , .		0
4765	Rutile TiO2 nanorod arrays grown by solution-processed for high efficiency solid-state perovskite solar cells. , 2019, , .		0
4766	Impact of Chlorine Doping on the Performance of Perovskite Solar Cells. Journal of the Institute of Science and Technology, 0, , 2070-2078.	0.3	0
4767	Solar elements based on organic and organo-inorganic materials. Surface, 2019, 11(26), 270-343.	0.4	0
4768	Tracking Intrinsic Properties of CH3NH3PbI3 Perovskite Thin Films Grown by Spin Coating Technique at Ambient Temperature. Asia Pacific Journal of Energy and Environment, 2019, 6, 59-68.	0.3	0

#	Article	IF	Citations
4769	Effects of Different Ratios of 45% N, N-Dimethylformamide (DMF) Solvent in Reaction with Derived 2D Hybrid Perovskite C6H8N2PbI3 Prepared via Nitrogen-Less Method. , 2020, , 465-472.		0
4770	Perovskite Materials in Photovoltaics. Materials Horizons, 2020, , 175-207.	0.3	1
4771	Current Perspectives and Advancements of Perovskite Photovoltaic Cells. Advances in Intelligent Systems and Computing, 2020, , 83-92.	0.5	0
4772	Predicting two-dimensional diphosphorus silicide monolayer by the global optimization method. Chemical Physics Letters, 2020, 752, 137514.	1.2	0
4774	Strategies for Largeâ€Scale Fabrication of Perovskite Films for Solar Cells. Solar Rrl, 2022, 6, 2100683.	3.1	10
4776	Theoretical prediction of the structural, electronic and optical properties of vacancy-ordered double perovskites Tl2TiX6 (X = Cl, Br, I). Journal of Solid State Chemistry, 2022, 305, 122684.	1.4	10
4777	In Situ Electron Transport Layers by a Carboxyl Ionic Liquid-Assisted Microwave Technique for a 20.1% Perovskite Solar Cell. ACS Applied Energy Materials, 0, , .	2.5	5
4778	Small Molecule Approach to Passivate Undercoordinated Ions in Perovskite Light Emitting Diodes: Progress and Challenges. Advanced Optical Materials, 2022, 10, 2101361.	3.6	34
4779	Understanding the effect of antisolvent on processing window and efficiency for large-area flexible perovskite solar cells. Materials Today Physics, 2021, 21, 100565.	2.9	9
4780	Progress in Perovskite Solar Cells towards Commercializationâ€"A Review. Materials, 2021, 14, 6569.	1.3	10
4781	Review: Perovskite Photovoltaics. Springer Theses, 2020, , 53-63.	0.0	0
4782	Hole Transport Bilayer for Highly Efficient and Stable Inverted Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 72-80.	2.5	14
4784	Single Crystal Hybrid Perovskite Optoelectronics: Progress and Perspectives. , 0, , .		0
4785	Approach To Enhance the Stability and Efficiency of Triple-Cation Perovskite Solar Cells by Reactive Antisolvents. ACS Applied Energy Materials, 2021, 4, 47-60.	2.5	4
4786	Reconstruction of the (EMIm)<i>_x</i>MA_{1â€"<i>x</i>}Pb[(BF₄)<i>_x</i>I_{1â€"<i>x</i>}]<sub>3 Interlayer for Efficient and Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 727-733.	4.0	8
4787	The Promise of Perovskite Solar Cells. , 2022, , 388-404.		3
4788	Hydroxylated non-fullerene acceptor for highly efficient inverted perovskite solar cells. Energy and Environmental Science, 2021, 14, 6536-6545.	15.6	33
4789	Sequential physical vapor deposited methylammonium lead tri-iodide perovskites on FTO and ITO modified zinc oxide nanorods for perovskite solar cells. Physica B: Condensed Matter, 2022, 625, 413462.	1.3	9

#	Article	IF	Citations
4790	Preparation of highly efficient and stable CsPbBr3 perovskite solar cells based on an anti-solvent rinsing strategy. Solar Energy Materials and Solar Cells, 2022, 234, 111420.	3.0	13
4791	Combining in-situ formed PbI2 passivation and secondary passivation for highly efficient and stable planar heterojunction perovskite solar cells. Organic Electronics, 2022, 100, 106361.	1.4	5
4792	Investigating the effect of lamination on FAMACs: toward a new phase space of perovskite solar cell fabrication. , 2019, , .		0
4793	LOW-COST AND HIGH-SPEED ATMOSPHERIC PLASMA PROCESSING OF PEROVSKITE THIN FILMS. , 2020, , .		0
4796	Interface and Grain Boundary Passivation by PEA-SCN Double Ions via One-Step Crystal Engineering for All Air-Processed, Stable Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 12290-12297.	2.5	6
4797	Optimization of a SnO₂-Based Electron Transport Layer Using Zirconium Acetylacetonate for Efficient and Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 54579-54588.	4.0	11
4798	Vertically Arranged Internal Grains and Superior Surface Textures of Perovskite Films Enabled by Ligandâ€"Solvent Engineering. Solar Rrl, 2021, 5, 2100606.	3.1	1
4799	Growth and Degradation Kinetics of Organicâ€"Inorganic Hybrid Perovskite Films Determined by In Situ Grazingâ€Incidence Xâ€Ray Scattering Techniques. Small Methods, 2021, 5, e2100829.	4.6	8
4800	One-step polymer assisted roll-to-roll gravure-printed perovskite solar cells without using anti-solvent bathing. Cell Reports Physical Science, 2021, 2, 100639.	2.8	23
4805	Flexible and Wearable Optoelectronic Devices Based on Perovskites. Advanced Materials Technologies, 2022, 7, .	3.0	26
4806	TiO2-intercalated graphite nanosheets increasing power conversion efficiency of MAxFA(1-x)PbI3 perovskite solar cells. Journal of Materials Science: Materials in Electronics, 0, , 1.	1.1	0
4808	The Voltage Loss in Tin Halide Perovskite Solar Cells: Origins and Perspectives. Advanced Functional Materials, 2022, 32, 2108832.	7.8	43
4809	Numerical simulation and optimization of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.svg"><mml:msub><mml:mi>CH</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:msub><mml:mi>NH</mml:mi><mml: mathvariant="normal">x</mml:mi></mml:mrow></mml:msub><mml:msub><mml:mi>Br</mml:mi><mml:mi mathvariant="normal">x</mml:mi></mml:msub></mml:math> perovskite solar cell for high conversion efficiency. Optical Materials, 2021, 122, 111734.	1.7	4
4810	Effect of Air-Flow and Solvent Annealing on Fabrication of Perovskite Active Layer and Photovoltaic Properties of Cells with the Active Layer. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2020, 33, 399-404.	0.1	4
4811	Effect of Au Decoration on the Performance of Perovskite Solar Cells. , 2021, , 97-104.		0
4812	Ultrasonik Sprey Piroliz YÃ¶ntemi ile Ãœretilen GÃ¼neÅŸ SoÄŸurucu CH3NH3PbI3-xClx Perovskit YapÄ±sÄ±nÄ±n Optik, Morfolojik ve YapÄ±sal Ã–zelliklerinin Ä°ncelenmesi. SDU Journal of Science, 0, , .	0.1	3
4813	Effect of 2-propanol Immersing on Organohalide Perovskite Layer in Perovskite Solar Cells Fabricated by Two-step Method. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2021, 34, 279-284.	0.1	1
4814	Updated Progresses in Perovskite Solar Cells. Chinese Physics Letters, 2021, 38, 107801.	1.3	11

#	Article	IF	Citations
4815	Preparation and characterization of planar heterojunction perovskite solar cells based on c-TiO2/CH3NH3PbI3/HTM/Ag structure. Journal of Sol-Gel Science and Technology, 2021, 100, 440-450.	1.1	4
4816	Lead-free B-site bimetallic perovskite photocatalyst for efficient benzylic Câ€“H bond activation. Cell Reports Physical Science, 2021, 2, 100656.	2.8	32
4817	2D PEA₂PbI₄â€“3D MAPbI₃ Composite Perovskite Interfacial Layer for Highly Efficient and Stable Mixed-Ion Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 13482-13491.	2.5	7
4819	Monolithic Perovskite/Silicon-Heterojunction Tandem Solar Cells with Nanocrystalline Si/SiOx Tunnel Junction. Energies, 2021, 14, 7684.	1.6	7
4820	Phenethylamineâ€Based Interfacial Dipole Engineering for High <i>V</i>_{oc} Tripleâ€Cation Perovskite Solar Cells. Advanced Energy Materials, 2022, 12, 2102856.	10.2	25
4821	Microstructural Evaluation of Phase Instability in Large Bandgap Metal Halide Perovskites. ACS Nano, 2021, 15, 20391-20402.	7.3	8
4822	28.2%-efficient, outdoor-stable perovskite/silicon tandem solar cell. Joule, 2021, 5, 3169-3186.	11.7	99
4824	Highly Stable Thiophene Perovskite Enabled by an Oxygen-Containing Moiety for Efficient Photovoltaics. Journal of Physical Chemistry C, 2021, 125, 25430-25445.	1.5	1
4825	Highly efficient (200) oriented MAPbI3 perovskite solar cells. Chemical Engineering Journal, 2022, 433, 133845.	6.6	21
4826	Current status and trends of carbon-based electrodes for fully solution-processed perovskite solar cells. Journal of Energy Chemistry, 2022, 68, 222-246.	7.1	29
4827	Restricting lithium-ion migration via Lewis base groups in hole transporting materials for efficient and stable perovskite solar cells. Chemical Engineering Journal, 2022, 433, 133534.	6.6	13
4828	High-Throughput Study of Antisolvents on the Stability of Multicomponent Metal Halide Perovskites through Robotics-Based Synthesis and Machine Learning Approaches. Journal of the American Chemical Society, 2021, 143, 19945-19955.	6.6	35
4829	Effect of alloying on the carrier dynamics in high-performance perovskite solar cells. Journal of Energy Chemistry, 2022, 68, 267-274.	7.1	2
4830	Lowâ€Temperature Atomic Layer Deposited Electron Transport Layers for Coâ€Evaporated Perovskite Solar Cells. Solar Rrl, 2022, 6, 2100842.	3.1	16
4831	Temperature-Dependent Crystallization Mechanisms of Methylammonium Lead Iodide Perovskite From Different Solvents. Frontiers in Energy Research, 2021, 9, .	1.2	6
4832	Device Performance of Emerging Photovoltaic Materials (Version 2). Advanced Energy Materials, 2021, 11, .	10.2	66
4833	Roll-to-roll manufacturing toward lab-to-fab-translation of perovskite solar cells. APL Materials, 2021, 9, .	2.2	14
4834	Multifunctional potassium thiocyanate interlayer for eco-friendly tin perovskite indoor and outdoor photovoltaics. Chemical Engineering Journal, 2022, 433, 133832.	6.6	39

#	Article	IF	Citations
4835	High-efficiency perovskite photovoltaic modules achieved via cesium doping. Chemical Engineering Journal, 2022, 431, 133713.	6.6	19
4836	Efficient Planar Perovskite Solar Cells with Carbon Quantum Dot-Modified spiro-MeOTAD as a Composite Hole Transport Layer. ACS Applied Materials & Interfaces, 2021, 13, 56265-56272.	4.0	13
4837	Efficient approach for optical and morphological characterization of hybrid perovskite films based on reflectance and transmittance measurements. Journal Physics D: Applied Physics, 2022, 55, 115303.	1.3	1
4838	Chemical insights into perovskite ink stability. CheM, 2022, 8, 31-45.	5.8	19
4839	The evolution and future of metal halide perovskite-based optoelectronic devices. Matter, 2021, 4, 3814-3834.	5.0	35
4840	Room-temperature multiple ligands-tailored SnO2 quantum dots endow in situ dual-interface binding for upscaling efficient perovskite photovoltaics with high VOC. Light: Science and Applications, 2021, 10, 239.	7.7	40
4841	Reducing energy loss via adjusting the anode work function and perovskite layer morphology for the efficient and stable hole transporting layer-free perovskite solar cells. Chemical Engineering Journal, 2022, 431, 133948.	6.6	17
4842	Universal Dynamic Liquid Interface for Healing Perovskite Solar Cells. SSRN Electronic Journal, 0, , .	0.4	0
4843	Exploring the Ruddlesdenâ€“Popper layered organicâ€“inorganic hybrid semiconducting perovskite for visible-blind ultraviolet photodetection. CrystEngComm, 2022, 24, 2258-2263.	1.3	2
4844	Perovskite Based Hyperbolic Metamaterials: Supercollimation in the Visible by Tailoring the Permittivity Properties. , 2021, , .		0
4845	Dynamics of photoconversion processes: the energetic cost of lifetime gain in photosynthetic and photovoltaic systems. Chemical Society Reviews, 2021, 50, 13372-13409.	18.7	10
4846	Defects in Solution-Processed Perovskite Semiconductors: Photophysics and Impact on Solar Cell Performance. , 2021, , 1-34.		1
4847	Electronic Doping Strategy in Perovskite Solar Cells. , 2021, , 1-56.		1
4848	Ionic liquid-induced <i>in situ</i> deposition of perovskite quantum dot films with a photoluminescence quantum yield of over 85%. Nanoscale, 2021, 13, 20067-20077.	2.8	3
4849	High efficiency perovskite solar cells using DC sputtered compact TiO₂ electron transport layer. EPJ Photovoltaics, 2021, 12, 8.	0.8	4
4850	Crystallization kinetics modulation and defect suppression of all-inorganic CsPbX₃ perovskite films. Energy and Environmental Science, 2022, 15, 413-438.	15.6	53
4851	The impact of annealing process on the grain morphology and performance of mesoporous n-i-p carbon-based perovskite solar cells. AIP Advances, 2022, 12, .	0.6	3
4852	Shedding light on the energy applications of emerging 2D hybrid organic-inorganic halide perovskites. IScience, 2022, 25, 103753.	1.9	9

#	Article	IF	Citations
4853	Ferroelectrics and photovoltaics in endohedral fullerenes-based van der Waals heterostructures. Applied Physics Letters, 2022, 120, 023301.	1.5	1
4854	Mechanical, thermal transport, electronic and photocatalytic properties of penta-PdPS, -PdPSe and -PdPTe monolayers explored by first-principles calculations. Journal of Materials Chemistry C, 2021, 10, 329-336.	2.7	14
4855	Fabrication of stable perovskite solar cells with efficiency over 20% in open air using <i>in situ</i> polymerized bi-functional additives. Journal of Materials Chemistry A, 2022, 10, 3688-3697.	5.2	16
4856	The Effect of Energy Level of Transport Layer on the Performance of Ambient Air Prepared Perovskite Solar Cell: A SCAPS-1D Simulation Study. Crystals, 2022, 12, 68.	1.0	13
4857	The Influence of CsBr on Crystal Orientation and Optoelectronic Properties of MAPbI₃-Based Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 2958-2967.	4.0	18
4858	Optimization of a Pb-free all-perovskite tandem solar cell with 30.85% efficiency. Optical Materials, 2022, 123, 111891.	1.7	18
4859	Size-tunable MoS₂nanosheets for controlling the crystal morphology and residual stress in sequentially deposited perovskite solar cells with over 22.5% efficiency. Journal of Materials Chemistry A, 2022, 10, 3605-3617.	5.2	15
4860	Characterization of Ti/SnO2 Interface by X-ray Photoelectron Spectroscopy. Nanomaterials, 2022, 12, 202.	1.9	1
4861	Unravelling the effect of defect density, grain boundary and gradient doping in an efficient lead-free formamidinium perovskite solar cell. Optical Materials, 2022, 124, 111952.	1.7	11
4862	Understanding the â€œdouble-edged-swordâ€•effect of dimethyl sulfoxide to guide the design of highly efficient perovskite solar cells in humid air. Nano Today, 2022, 42, 101371.	6.2	8
4863	Perovskite/P3HT graded heterojunction by an additive-assisted method for high-efficiency perovskite solar cells with carbon electrodes. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 635, 128072.	2.3	9
4864	Transferable transparent electrodes of liquid metals for bifacial perovskite solar cells and heaters. Nano Energy, 2022, 93, 106857.	8.2	24
4865	Recent progress in perovskite solar cells: challenges from efficiency to stability. Materials Today Chemistry, 2022, 23, 100686.	1.7	26
4866	Chlorine-terminated MXene quantum dots for improving crystallinity and moisture stability in high-performance perovskite solar cells. Chemical Engineering Journal, 2022, 432, 134382.	6.6	29
4867	Review of current progress in hole-transporting materials for perovskite solar cells. Journal of Energy Chemistry, 2022, 68, 330-386.	7.1	65
4868	Impact of Cu Doping on PV Cell Parameters of NiO:Cu Nanostructure-Based Organic-Inorganic Perovskite Solar Cells. , 2020, , .		1
4869	Ultrathin Polyamide Membranes Enabled by Spin-Coating Assisted Interfacial Polymerization for High-Flux Nanofiltration. SSRN Electronic Journal, 0, , .	0.4	0
4870	Ultrathin Polyamide Membranes Enabled by Spin-Coating Assisted Interfacial Polymerization for High-Flux Nanofiltration. SSRN Electronic Journal, 0, , .	0.4	0

#	Article	IF	Citations
4871	An Amino-Phthalocyanine Additive Enhances the Efficiency of Perovskite Solar Cells Through Defect Passivation in Mixed-Halide Films. SSRN Electronic Journal, 0, , .	0.4	0
4872	Improving Device Performance of MaPbI ₃ Photovoltaic Cells by Manipulating the Crystal Orientation of Tetragonal Perovskites. SSRN Electronic Journal, 0, , .	0.4	0
4873	Ultrathin Polyamide Membranes Enabled by Spin-Coating Assisted Interfacial Polymerization for High-Flux Nanofiltration. SSRN Electronic Journal, 0, , .	0.4	0
4874	Physical Fields Manipulation for Highâ€Performance Perovskite Photovoltaics. Small, 2022, , 2107556.	5.2	6
4875	Role of electrochemical reactions in the degradation of formamidinium lead halide hybrid perovskite quantum dots. Analyst, The, 2022, 147, 841-850.	1.7	2
4876	Highly efficient and stable perovskite solar cells enabled by low-dimensional perovskitoids. Science Advances, 2022, 8, eabk2722.	4.7	53
4877	Robust molecular-dipole-induced surface functionalization of inorganic perovskites for efficient solar cells. Journal of Materials Chemistry A, 2022, 10, 1821-1830.	5.2	42
4878	Vacuum Quenching for Large-Area Perovskite Film Deposition. ACS Applied Materials & Interfaces, 2022, 14, 2949-2957.	4.0	15
4879	Effect of Perovskite CsPbBr₃ Concentration and Coating Method on Thin Film Morphology and its Photovoltaic Performance. Materials Science Forum, 0, 1051, 31-37.	0.3	0
4880	Solvent strategies toward high-performance perovskite light-emitting diodes. Journal of Materials Chemistry C, 2022, 10, 3276-3286.	2.7	9
4881	Facet Orientation and Intermediate Phase Regulation via a Green Antisolvent for Highâ€Performance Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	12
4882	A finely regulated quantum well structure in quasi-2D Ruddlesdenâ€"Popper perovskite solar cells with efficiency exceeding 20%. Energy and Environmental Science, 2022, 15, 296-310.	15.6	54
4883	A highâ€efficiency and stable perovskite solar cell fabricated in ambient air using a polyaniline passivation layer. Scientific Reports, 2022, 12, 697.	1.6	26
4884	A Demystified Guide on Fabrication and Characterization of Perovskitesâ€Based Optoelectronic Devices. Advanced Photonics Research, 2022, 3, .	1.7	2
4885	Fully Scalable and Stable CsPbI₂Br Solar Cells Realized by an All-Spray-Coating Process. ACS Applied Materials & Interfaces, 2022, 14, 7926-7935.	4.0	18
4886	Enhancement of perovskite solar cell performance by external downâ€conversion of Euâ€complex film. International Journal of Energy Research, 2022, 46, 7996-8006.	2.2	2
4887	Oriented 2D Perovskite Wafers for Anisotropic Xâ€ray Detection through a Fast Tableting Strategy. Advanced Materials, 2022, 34, e2108020.	11.1	43
4888	Low-pressure accessible gas-quenching for absolute methylammonium-free perovskite solar cells. Journal of Materials Chemistry A, 2022, 10, 2105-2112.	5.2	13

#	Article	IF	Citations
4889	Germanium ion doping of CsPbI₃ to obtain inorganic perovskite solar cells with low temperature processing. Japanese Journal of Applied Physics, 2022, 61, 020904.	0.8	5
4890	Overcoming Nanoscale Inhomogeneities in Thin-Film Perovskites via Exceptional Post-annealing Grain Growth for Enhanced Photodetection. Nano Letters, 2022, 22, 979-988.	4.5	9
4891	Stable copperâ€based <scp>2D</scp> perovskite (<scp>NH₃C₃H₆NH₃</scp>)<scp>CuBr₄</scp> thin film processed from green solvent for thermoelectric application. EcoMat, 2022, 4, .	6.8	4
4892	Defect tolerance in CsPbI₃: reconstruction of the potential energy landscape and band degeneracy in spinâ€"orbit coupling. Journal of Materials Chemistry A, 2022, 10, 3018-3024.	5.2	9
4893	Organometal halide perovskite photovoltaics. , 2022, , 273-317.		1
4894	Several Triazine-Based Small Molecules Assisted in the Preparation of High-Performance and Stable Perovskite Solar Cells by Trap Passivation and Heterojunction Engineering. ACS Applied Materials & Interfaces, 2022, 14, 6625-6637.	4.0	32
4895	Orientation Control of 2D Perovskite in 2D/3D Heterostructure by Templated Growth on 3D Perovskite. , 2022, 4, 378-384.		15
4896	Acetone complexes for high-performance perovskite photovoltaics with reduced nonradiative recombination. Materials Advances, 2022, 3, 2047-2055.	2.6	2
4897	Additive-Assisted Optimization in Morphology and Optoelectronic Properties of Inorganic Mixed Sn-Pb Halide Perovskites. Materials, 2022, 15, 899.	1.3	4
4898	Challenges for Thermally Stable Spiro-MeOTAD toward the Market Entry of Highly Efficient Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 34220-34227.	4.0	17
4899	Methylammonium Compensation Effects in MAPbI₃ Perovskite Solar Cells for High-Quality Inorganic CuSCN Hole Transport Layers. ACS Applied Materials & Interfaces, 2022, 14, 5203-5210.	4.0	24
4900	Antisolvents Treatment of Cs_{0.15}FA_{0.85}PbI₃ Boosting Efficiency for Perovskite Solar Cells. IEEE Journal of Photovoltaics, 2022, 12, 322-326.	1.5	1
4901	Green solvent engineering for enhanced performance and reproducibility in printed carbon-based mesoscopic perovskite solar cells and modules. Materials Advances, 2022, 3, 1125-1138.	2.6	16
4902	Framework structure materials in photovoltaics based on perovskites 3D. , 2022, 5, .		0
4903	Monolithic Perovskiteâ€Silicon Tandem Solar Cells: From the Lab to Fab?. Advanced Materials, 2022, 34, e2106540.	11.1	92
4904	Development and Prospects of Halide Perovskite Single Crystal Films. Advanced Electronic Materials, 2022, 8, .	2.6	6
4905	Use of anti-solvent to enhance thermoelectric response of hybrid halide perovskite thin films. Japanese Journal of Applied Physics, 2022, 61, SE1019.	0.8	2
4906	A Universal Cosolvent Evaporation Strategy Enables Direct Printing of Perovskite Single Crystals for Optoelectronic Device Applications. Advanced Materials, 2022, 34, e2109862.	11.1	18

#	Article	IF	Citations
4907	Bifunctional Interfacial Regulation with 4â€(Trifluoromethyl) Benzoic Acid to Reduce the Photovoltage Deficit of MAPbI₃â€Based Perovskite Solar Cells. ChemNanoMat, 2022, 8, .	1.5	2
4908	Multifunctional Compoundâ€Regulated SnO₂ for Highâ€Efficiency and Stable Perovskite Solar Cells under Ambient Air. ChemElectroChem, 2022, 9, .	1.7	6
4909	Comparison of the Electrochemical Behavior of Iodide Ion in Hydrophobic/Hydrophilic Ionic Liquids. Journal of the Electrochemical Society, 2022, 169, 026521.	1.3	0
4910	Understanding the crystallization of triple-cation perovskites assisted by mixed antisolvents for improved solar cell device performance. Journal of Materials Science: Materials in Electronics, 2022, 33, 4415-4425.	1.1	2
4911	Halide Ions Distribution and Charge Dynamics in Mixedâ€Halide Perovskites. Physica Status Solidi - Rapid Research Letters, 2022, 16, .	1.2	3
4912	Ambient processing of methylammonium lead iodide perovskite solar cells via magnetic field-assisted electrodeposition of the precursor film. Solar Energy, 2022, 233, 204-212.	2.9	6
4913	FAPbI₃ Perovskite Films Prepared by Solvent Self-Volatilization for Photovoltaic Applications. ACS Applied Energy Materials, 2022, 5, 1487-1495.	2.5	18
4914	Grainâ€Boundariesâ€Engineering via Laser Manufactured Laâ€Doped BaSnO₃ Nanocrystals with Tailored Surface States Enabling Perovskite Solar Cells with Efficiency of 23.74%. Advanced Functional Materials, 2022, 32, 2112388.	7.8	16
4915	Enhanced efficiency and stability of tripleâ€cation perovskite solar cells with CsPbI_{<i>x</i>}Br_{3â€‰â^'â€‰<i>x</i>} QDs â€œsurface patchesâ€. SmartMat, 2022, 3, 513-521.	6.4	22
4916	Scalable fabrication for efficient quasi two-dimensional perovskite solar cells via ultrasonic spray-coating method. Organic Electronics, 2022, 102, 106440.	1.4	4
4917	Ab-initio method to investigate organic halide based double perovskites (CH3NH3)2AgMBr6 (MÂ=ÂSb, Bi) for opto-electronic applications. Journal of Materials Research and Technology, 2022, 17, 649-657.	2.6	6
4918	Flexible hybrid perovskite nanofiber for all-inorganic perovskite solar cells. Materials Research Bulletin, 2022, 149, 111747.	2.7	11
4919	Improving the properties of MA-based wide-bandgap perovskite by simple precursor salts engineering for efficiency and ambient stability improvement in solar cells. Solar Energy Materials and Solar Cells, 2022, 238, 111617.	3.0	7
4921	Preserving the stoichiometry of triple-cation perovskites by carrier-gas-free antisolvent spraying. Journal of Materials Chemistry A, 2022, 10, 19743-19749.	5.2	6
4922	Inhibiting Ion Migration by Guanidinium Cation Doping for Efficient Perovskite Solar Cells with Enhanced Operational Stability. Solar Rrl, 2022, 6, .	3.1	5
4923	Slot-die processed perovskite solar cells: effects of solvent and temperature on device performances. Semiconductor Science and Technology, 2022, 37, 045007.	1.0	5
4924	Ambient Stable Perovskite Solar Cells through Trifluoro Acetic Acid-Mediated Multifunctional Anchoring. ACS Applied Energy Materials, 2022, 5, 1571-1579.	2.5	9
4925	Managing Phase Orientation and Crystallinity of Printed Dionâ€“Jacobson 2D Perovskite Layers via Controlling Crystallization Kinetics. Advanced Functional Materials, 2022, 32, .	7.8	33

#	Article	IF	Citations
4926	Postâ€Treatment Passivation by Quaternary Ammonium Chloride Zwitterion for Efficient and Stable Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	3
4927	Crystallization Kinetics Control Enabled by a Green Ionic Liquid Additive toward Efficient and Stable Carbon-Based Mesoscopic Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 9161-9171.	4.0	19
4928	Controlled growth of perovskite microplates arrays for functional optoelectronics. Current Applied Physics, 2022, 37, 27-27.	1.1	2
4929	Synergistic effect of surface active agent in defect passivation by for ambient air-synthesized halide perovskite solar cells. Journal of Power Sources, 2022, 524, 231038.	4.0	5
4930	Study on Electronic, Mechanical and Optical Properties of Perovskite Cs₂AgGaX₆ (X = Cl, Br). Journal of Nanoelectronics and Optoelectronics, 2021, 16, 1521-1527.	0.1	3
4931	Development of SnO2 Composites as Electron Transport Layer in Unencapsulated CH3NH3PbI3 Solar Cells. Solids, 2021, 2, 407-419.	1.1	4
4932	Temperature-Controlled Slot-Die Coating for Efficient and Stable Perovskite Solar Cells. SSRN Electronic Journal, 0, , .	0.4	0
4933	All Green Solvent Engineering of Organic-Inorganic Hybrid Perovskite Layer for High-Performance Solar Cells. SSRN Electronic Journal, 0, , .	0.4	0
4934	ååŒ–ç‰©é’™é’›çŸ¿è–„è†œçš„å®æ¸©ç»“æ™¶ä¸Žç¨³å®šæ€§ç”ç©¶. Scientia Sinica: Physica, Mechanica Et Astronomica, 2022, , .	0.2	0
4935	Realization of Ultra-Flat Perovskite Films with Surprisingly Large-Grain Distribution Using High-Pressure Cooking. SSRN Electronic Journal, 0, , .	0.4	0
4936	One-Step Anti-Solvent Associated Method for High Performance Two-Dimensional Perovskite Photodetectors Fabrication at Low Temperature. SSRN Electronic Journal, 0, , .	0.4	0
4937	Sustainable development of perovskite solar cells: keeping a balance between toxicity and efficiency. Journal of Materials Chemistry A, 2022, 10, 8159-8171.	5.2	19
4938	Boosting Radiation of Stacked Halide Layer for Perovskite Solar Cells With Efficiency Over 25%. SSRN Electronic Journal, 0, , .	0.4	0
4939	A small-molecule-templated nanostructure back electrode for enhanced light absorption and photocurrent in perovskite quantum dot photovoltaics. Journal of Materials Chemistry A, 2022, 10, 8966-8974.	5.2	3
4942	More Effective Perovskite Surface Passivation Strategy Via Optimized Functional Groups Enables Efficient P-I-N Perovskite Solar Cells. SSRN Electronic Journal, 0, , .	0.4	0
4943	Doping MAPbBr₃ hybrid perovskites with CdSe/CdZnS quantum dots: from emissive thin films to hybrid single-photon sources. Nanoscale, 2022, 14, 5769-5781.	2.8	5
4944	Air-stable CsPbIBr₂ photodetector via dual-ligand-assisted solution strategy. Wuli Xuebao/Acta Physica Sinica, 2022, 71, 116801.	0.2	2
4945	Selection of the ultimate perovskite solar cell materials and fabrication processes towards its industrialization: A review. Energy Science and Engineering, 2022, 10, 1478-1525.	1.9	9

#	Article	IF	Citations
4946	Intermediate phase engineering of halide perovskites for photovoltaics. Joule, 2022, 6, 315-339.	11.7	60
4947	Short Photoluminescence Lifetimes Linked to Crystallite Dimensions, Connectivity, and Perovskite Crystal Phases. Journal of Physical Chemistry C, 2022, 126, 3466-3474.	1.5	4
4948	Drying and Coating of Perovskite Thin Films: How to Control the Thin Film Morphology in Scalable Dynamic Coating Systems. ACS Applied Materials & Interfaces, 2022, 14, 11300-11312.	4.0	12
4949	Ultraviolet Photocatalytic Degradation of Perovskite Solar Cells: Progress, Challenges, and Strategies. Advanced Energy and Sustainability Research, 2022, 3, .	2.8	16
4950	Fabrication of highly transparent CsPbBr3 quantum-dot thin film via bath coating for light emission applications. Ceramics International, 2022, 48, 15729-15736.	2.3	2
4951	Microstructure of Methylammonium Lead iodide Perovskite Thin Films: A Comprehensive Study of the Strain and Texture. Advanced Energy Materials, 0, , 2103627.	10.2	7
4952	Understanding the PEDOT:PSS, PTAA and P3CT-X Hole-Transport-Layer-Based Inverted Perovskite Solar Cells. Polymers, 2022, 14, 823.	2.0	16
4953	Brominated PEAI as Multiâ€Functional Passivator for Highâ€Efficiency Perovskite Solar Cell. Energy and Environmental Materials, 2023, 6, .	7.3	16
4954	Molecular Engineering of Fluoreneâ€Based Holeâ€Transporting Materials for Efficient Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	6
4955	Construction of Stable Donorâ€"Acceptor Type Covalent Organic Frameworks as Functional Platform for Effective Perovskite Solar Cell Enhancement. Advanced Functional Materials, 2022, 32, .	7.8	46
4956	Controllable Introduction of Surface Defects on CH3NH3PbI3 Perovskite. Nanomaterials, 2022, 12, 1002.	1.9	1
4957	Iodine Solution Treatment in Nonpolar Solvents as a Facile Approach to Improve the Morphology and Photostability of Perovskite Films. Journal of Physical Chemistry Letters, 2022, 13, 2695-2703.	2.1	2
4958	Neutral-Colored Semitransparent Perovskite Solar Cells with Aperture Ratios Controlled via Laser Patterning. ACS Applied Energy Materials, 2022, 5, 3660-3667.	2.5	7
4959	Acetylammonium chloride as an additive for crystallization control and defect passivation in MAPbI₃ based perovskite solar cells. Journal Physics D: Applied Physics, 2022, 55, 265501.	1.3	7
4960	Hybrid Halide Perovskiteâ€Based Nearâ€Infrared Photodetectors and Imaging Arrays. Advanced Optical Materials, 2022, 10, .	3.6	35
4961	Incorporating polyvinyl pyrrolidone in green anti-solvent isopropanol: A facile approach to obtain high efficient and stable perovskite solar cells. Thin Solid Films, 2022, 752, 139196.	0.8	6
4962	In Situ Growth Mechanism for Highâ€Quality Hybrid Perovskite Singleâ€Crystal Thin Films with High Area to Thickness Ratio: Looking for the Sweet Spot. Advanced Science, 2022, 9, e2104788.	5.6	16
4963	Poly(vinylidene fluoride)-Stabilized Black Î³-Phase CsPbI₃ Perovskite for High-Performance Piezoelectric Nanogenerators. ACS Omega, 2022, 7, 10559-10567.	1.6	9

#	Article	IF	Citations
4964	Adenosine Triphosphate Disodium Modified Hole Transport Layer for Efficient Inverted Perovskite Solar Cells. ChemNanoMat, 2022, 8, .	1.5	2
4965	Gradient Doping in Snâ€“Pb Perovskites by Barium Ions for Efficient Singleâ€Junction and Tandem Solar Cells. Advanced Materials, 2022, 34, e2110351.	11.1	62
4966	Methylammonium thiocyanate seeds assisted heterogeneous nucleation for achieving high-performance perovskite solar cells. Applied Surface Science, 2022, 592, 153206.	3.1	8
4967	Efficient and stable TiO2 nanorod array structured perovskite solar cells in air: Co-passivation and synergistic mechanism. Ceramics International, 2022, 48, 17950-17959.	2.3	9
4968	Synthesis and characterization of Cuâ€“doped Cs2KBiBr6 double perovskite phosphors for photoluminescent applications. Ceramics International, 2022, 48, 18384-18391.	2.3	5
4969	Manipulating Crystallization Kinetics in Highâ€Performance Bladeâ€Coated Perovskite Solar Cells via Cosolventâ€Assisted Phase Transition. Advanced Materials, 2022, 34, e2200276.	11.1	64
4970	Boosting the efficiency of inverted perovskite solar cells via ethanolamine doped PEDOT:PSS as hole transport layer. Chinese Physics B, 0, , .	0.7	4
4971	Multifunctional Additive of Potassium Cinnamate Improve Crystallization and Passivate Defect for Perovskite Solar Cell with Efficiency Exceeding 22%. Energy Technology, 0, , 2200125.	1.8	3
4972	An Integrated Bulk and Surface Modification Strategy for Gasâ€Quenched Inverted Perovskite Solar Cells with Efficiencies Exceeding 22%. Solar Rrl, 2022, 6, .	3.1	10
4974	Oxygen Vacancy Management for Highâ€Temperature Mesoporous SnO₂ Electron Transport Layers in Printable Perovskite Solar Cells. Angewandte Chemie - International Edition, 2022, 61, .	7.2	32
4975	Four-penta-graphenes: Novel two-dimensional fenestrane-based auxetic nanocarbon allotropes for nanoelectronics and optoelectronics. Carbon, 2022, 195, 154-164.	5.4	13
4976	Timeâ€Resolved Orientation and Phase Analysis of Lead Halide Perovskite Film Annealing Probed by In Situ GIWAXS. Advanced Optical Materials, 2022, 10, .	3.6	22
4977	Metal Halide Perovskite Heterojunction for Photocatalytic Hydrogen Generation: Progress and Future Opportunities. Advanced Materials Interfaces, 2022, 9, .	1.9	20
4978	Mixed Chalcogenideâ€Halides for Stable, Leadâ€Free and Defectâ€Tolerant Photovoltaics: Computational Screening and Experimental Validation of CuBiSCl₂ with Ideal Band Gap. Advanced Functional Materials, 2022, 32, .	7.8	7
4979	Effective Surface Passivation via Intermolecular Interactions for Highâ€Performance Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	10
4980	A Novel Solvent for Multistep Solutionâ€Processed Planar CsPbBr₃ Perovskite Solar Cells Using In₂S₃ as Electron Transport Layer. Energy Technology, 2022, 10, .	1.8	6
4981	Oxygen Vacancy Management for Highâ€Temperature Mesoporous SnO₂ Electron Transport Layers in Printable Perovskite Solar Cells. Angewandte Chemie, 2022, 134, .	1.6	3
4982	Enhancement of Piezoelectricity in Dimensionally Engineered Metalâ€Halide Perovskites Induced by Deep Level Defects. Advanced Energy Materials, 0, , 2200181.	10.2	4

#	Article	IF	Citations
4983	Progress on the stability and encapsulation techniques of perovskite solar cells. Organic Electronics, 2022, 106, 106515.	1.4	22
4984	Halide Perovskite Crystallization Processes and Methods in Nanocrystals, Single Crystals, and Thin Films. Advanced Materials, 2022, 34, e2200720.	11.1	50
4985	Electronic and optical properties of lead halide perovskite (MAPbX₃) (XÂ=Âl, Br, and Cl) by first principles calculations. Physica Scripta, 2022, 97, 055818.	1.2	3
4986	Encapsulation of commercial and emerging solar cells with focus on perovskite solar cells. Solar Energy, 2022, 237, 264-283.	2.9	35
4987	Multi-functional cyclic ammonium chloride additive for efficient and stable air-processed perovskite solar cells. Journal of Power Sources, 2022, 531, 231243.	4.0	10
4988	Ultrathin polyamide membranes enabled by spin-coating assisted interfacial polymerization for high-flux nanofiltration. Separation and Purification Technology, 2022, 288, 120648.	3.9	17
4989	Fabrication of opaque aluminum electrode-based perovskite solar cells enabled by the interface optimization. Organic Electronics, 2022, 104, 106475.	1.4	10
4990	Passivating defects via 4-cyanobenzenaminium iodide enables 22.44% efficiency perovskite solar cells. Electrochimica Acta, 2022, 413, 140172.	2.6	12
4991	Enhanced performance of hole-conductor free carbon-based perovskite solar cells through polyvinylidene fluoride as additive. Materials Today Communications, 2022, 31, 103446.	0.9	3
4992	Passivating buried interface with multifunctional novel ionic liquid containing simultaneously fluorinated anion and cation yielding stable perovskite solar cells over 23% efficiency. Journal of Energy Chemistry, 2022, 69, 659-666.	7.1	52
4993	All green solvent engineering of organicâ€“inorganic hybrid perovskite layer for high-performance solar cells. Chemical Engineering Journal, 2022, 437, 135458.	6.6	28
4994	Recent progress of perovskite devices fabricated using thermal evaporation method: Perspective and outlook. Materials Today Advances, 2022, 14, 100232.	2.5	28
4995	Loosening effect of perovskite intermolecular exchanger with strong steric hindrance for highly sensitive photodetector. Applied Surface Science, 2022, 591, 153207.	3.1	5
4996	One-step anti-solvent associated method for high performance two-dimensional perovskite photodetectors fabrication at low temperature. Chemical Engineering Journal, 2022, 441, 135997.	6.6	11
4997	Enhanced Photovoltaic Performance via a Bifunctional Additive in Tin-Based Perovskite Solar Cells. ACS Applied Energy Materials, 2022, 5, 108-115.	2.5	12
4998	Inkjet-Printed Electron Transport Layers for Perovskite Solar Cells. Materials, 2021, 14, 7525.	1.3	4
4999	Novel Anthracene HTM Containing TIPs for Perovskite Solar Cells. Processes, 2021, 9, 2249.	1.3	3
5000	Methylammonium Lead Tri-Iodide Perovskite Solar Cells with Varying Equimolar Concentrations of Perovskite Precursors. Applied Sciences (Switzerland), 2021, 11, 11689.	1.3	6

#	Article	IF	Citations
5001	Introducing Postmetalation Metalâ€“Organic Framework to Control Perovskite Crystal Growth for Efficient Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 60125-60134.	4.0	11
5002	Zeroâ€Waste Scalable Bladeâ€“Spin Coating as Universal Approach for Layerâ€byâ€Layer Deposition of 3D/2D Perovskite Films in Highâ€Efficiency Perovskite Solar Modules. Solar Rrl, 2022, 6, .	3.1	9
5003	Solidâ€State Ligandâ€Capped Metal Oxide Electronâ€Transporting Layer for Efficient and Stable Fullereneâ€Free Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	2
5004	A quick peek at solar cells and a closer insight at perovskite solar cells. Egyptian Journal of Petroleum, 2021, 30, 53-63.	1.2	4
5005	Millimeterâ€Sized Clusters of Triple Cation Perovskite Enables Highly Efficient and Reproducible Rollâ€toâ€Roll Fabricated Inverted Perovskite Solar Cells. Advanced Functional Materials, 2022, 32, .	7.8	36
5006	Ternary Phase Diagrams of MAIâ€“PbI₂â€“DMF and MAIâ€“PbI₂â€“DMSO Systems. Journal of Physical Chemistry C, 2022, 126, 169-173.	1.5	6
5007	Efficient and Stable Wideâ€Bandgap Perovskite Solar Cells Derived from a Thermodynamic Phaseâ€Pure Intermediate. Solar Rrl, 2022, 6, .	3.1	11
5008	A Review on the Development of Metal Grids for the Upscaling of Perovskite Solar Cells and Modules. Solar Rrl, 2022, 6, .	3.1	8
5009	Manipulating the film morphology evolution toward green solventâ€processed perovskite solar cells. SusMat, 2021, 1, 537-544.	7.8	21
5010	CHAPTER 10. Deposition Techniques for Perovskite Solar Cells. RSC Nanoscience and Nanotechnology, 0, , 341-366.	0.2	1
5011	A comprehensive optimization strategy: potassium phytate-doped SnO₂ as the electron-transport layer for high-efficiency perovskite solar cells. Journal of Materials Chemistry C, 2022, 10, 7641-7650.	2.7	2
5012	Dicyclopentadithienothiophene (DCDTT)-based organic semiconductor assisted grain boundary passivation for highly efficient and stable perovskite solar cells. Journal of Materials Chemistry A, 2022, 10, 11254-11267.	5.2	11
5013	Solvent Effects on the Structural and Optical Properties of MAPbI3 Perovskite Thin Film for Photovoltaic Active Layer. Coatings, 2022, 12, 549.	1.2	3
5014	In Situ Threeâ€Dimensional Observation of Perovskite Crystallization Revealed by Twoâ€Photon Fluorescence Imaging. Advanced Optical Materials, 0, , 2200089.	3.6	3
5015	Two-Dimensional Cs3Sb2I9â^'xClx Film with (201) Preferred Orientation for Efficient Perovskite Solar Cells. Materials, 2022, 15, 2883.	1.3	9
5016	Buried Interface Modification in Perovskite Solar Cells: A Materials Perspective. Advanced Energy Materials, 2022, 12, .	10.2	87
5017	Managing interfacial properties of planar perovskite solar cells using Y3N@C80 endohedral metallofullerene. Science China Materials, 2022, 65, 2325-2334.	3.5	5
5018	Silicon Dioxide Nanoparticles Increase the Incidence Depth of Short-Wavelength Light in Active Layer for High-Performance Perovskite Solar Cells. Journal of Physical Chemistry C, 2022, 126, 7400-7409.	1.5	1

#	Article	IF	Citations
5019	A Sustainable Supply Chain Network Model Considering Carbon Neutrality and Personalization. Sustainability, 2022, 14, 4803.	1.6	3
5020	A Sustainable Selfâ€Induced Solution Seeding Approach for Multipurpose BiFeO₃ Active Layers in Flexible Electronic Devices. Advanced Functional Materials, 2022, 32, .	7.8	4
5021	Surface Passivation and Energetic Modification Suppress Nonradiative Recombination in Perovskite Solar Cells. Nano-Micro Letters, 2022, 14, 108.	14.4	34
5024	Universal Dynamic Liquid Interface for Healing Perovskite Solar Cells. Advanced Materials, 2022, 34, e2202301.	11.1	57
5025	Modeling and Balancing the Solvent Evaporation of Thermal Annealing Process for Metal Halide Perovskites and Solar Cells. Small Methods, 2022, 6, e2200161.	4.6	2
5026	In Situ Polymer Network in Perovskite Solar Cells Enabled Superior Moisture and Thermal Resistance. Journal of Physical Chemistry Letters, 2022, 13, 3754-3762.	2.1	14
5028	CH₃NH₃⁺ and Pb Immobilization Through PbI₂ Binding by Organic Molecule Doping for Homogeneous Organometal Halide Perovskite Films. Journal of Materials Chemistry A, 0, , .	5.2	1
5029	Recent developments in perovskite-based precursor inks for scalable architectures of perovskite solar cell technology. Sustainable Energy and Fuels, 2022, 6, 2879-2900.	2.5	19
5030	Oriented Attachment Growth of Tin Halide Perovskites for High Performance Green Photovoltaics. SSRN Electronic Journal, 0, , .	0.4	0
5031	Synthesis and Extraction of Carbon-Encapsulated Iron Carbide Nanoparticles for Perovskite Solar Cell Application. SSRN Electronic Journal, 0, , .	0.4	0
5032	Inhibition of buried cavities and defects in metal halide perovskite photodetectors <i>via</i> a two-step spin-coating method. Journal of Materials Chemistry C, 2022, 10, 7886-7895.	2.7	13
5033	Synthesis, Structure, and Tunability of Zero-Dimensional Organicâ€"Inorganic Metal Halides Utilizing the <i>m</i>-Xylylenediammonium Cation: MXD₂PbI₆, MXDBiI₅, and MXD₃Bi₂Br₁₂Â·2H₂O. Crystal Growth and Design, 2022, 22, 3815-3823.	1.4	4
5034	Toward desirable 2D/3D hybrid perovskite films for solar cell application with additive engineering approach. Journal of Materials Science: Materials in Electronics, 0, , .	1.1	6
5035	Amino Acidâ€Based Lowâ€Dimensional Management for Enhanced Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	3
5036	Indigo: A Natural Molecular Passivator for Efficient Perovskite Solar Cells. Advanced Energy Materials, 2022, 12, .	10.2	60
5037	Precursor Engineering for Solution Method-Grown Spectroscopy-Grade CsPbBr₃ Crystals with High Energy Resolution. Chemistry of Materials, 2022, 34, 3993-4000.	3.2	14
5038	Multifunctional Polymer Capping Frameworks Enable High-Efficiency and Stable All-Inorganic Perovskite Solar Cells. ACS Applied Energy Materials, 2022, 5, 6432-6441.	2.5	12
5039	Unraveling the irreversible transformation by nucleophilic substitution: A hint for fully transparent perovskite. EcoMat, 2022, 4, .	6.8	9

#	Article	IF	Citations
5040	Hydrogen Bonds in Precursor Solution: The Origin of the Anomalous Jâ€“V Curves in Perovskite Solar Cells. Crystals, 2022, 12, 610.	1.0	1
5041	Organicâ€“Inorganic Hybrid Electron Transport Layer for Rigid or Flexible Perovskite Solar Cells under Ambient Conditions. ACS Sustainable Chemistry and Engineering, 2022, 10, 6826-6834.	3.2	5
5042	Enhanced Efficiency of Semitransparent Perovskite Solar Cells via Double-Sided Sandwich Evaporation Technique for Four Terminal Perovskite-Silicon Tandem Application. Nanomaterials, 2022, 12, 1569.	1.9	6
5043	Crucial Contribution of Polarity for the Bulk Photovoltaic Effect in a Series of Noncentrosymmetric Two-Dimensional Organicâ€“Inorganic Hybrid Perovskites. Chemistry of Materials, 2022, 34, 4428-4436.	3.2	15
5044	Pulsatile therapy for perovskite solar cells. Joule, 2022, 6, 1087-1102.	11.7	12
5045	Basic understanding of perovskite solar cells and passivation mechanism. AIP Advances, 2022, 12, .	0.6	13
5046	Solvent-Free Method for Defect Reduction and Improved Performance of p-i-n Vapor-Deposited Perovskite Solar Cells. ACS Energy Letters, 2022, 7, 1903-1911.	8.8	33
5047	High Power Irradiance Dependence of Charge Species Dynamics in Hybrid Perovskites and Kinetic Evidence for Transient Vibrational Stark Effect in Formamidinium. Nanomaterials, 2022, 12, 1616.	1.9	0
5048	Strategies for highâ€performance perovskite solar cells from materials, film engineering to carrier dynamics and photon management. InformaÄnÃ-MateriÃ¡ly, 2022, 4, .	8.5	27
5049	PTAA as Efficient Hole Transport Materials in Perovskite Solar Cells: A Review. Solar Rrl, 2022, 6, .	3.1	65
5050	Dye-modified halide perovskite materials. Organic Electronics, 2022, , 106545.	1.4	2
5051	Reversible Degradation in Hole Transport Layerâ€Free Carbonâ€Based Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	4
5052	Recent progress in quasi-two-dimensional and quantum dot perovskite light-emitting diodes harnessing the diverse effects of ligands: A review. Nano Research, 2022, 15, 6449-6465.	5.8	12
5053	Inhibition of Amineâ€“Water Proton Exchange Stabilizes Perovskite Ink for Scalable Solar Cell Fabrication. Chemistry of Materials, 2022, 34, 4394-4402.	3.2	5
5054	Multifunctional and Transformative Metaphotonics with Emerging Materials. Chemical Reviews, 2022, 122, 15414-15449.	23.0	23
5055	High-Throughput Evaluation of Emission and Structure in Reduced-Dimensional Perovskites. ACS Central Science, 2022, 8, 571-580.	5.3	6
5056	Tunable Photocatalytic Two-Electron Shuttle between Paired Redox Sites on Halide Perovskite Nanocrystals. ACS Catalysis, 2022, 12, 5903-5910.	5.5	13
5057	Revealing the Dynamics of the Thermal Reaction between Copper and Mixed Halide Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 20866-20874.	4.0	6

#	Article	IF	Citations
5058	Multivariate Analysis of Mixed Ternary and Quaternary A-Site Organic Cations in Tin Iodide Perovskite Solar Cells. , 2022, 4, 1124-1131.		9
5059	Perovskite solar cells by vapor deposition based and assisted methods. Applied Physics Reviews, 2022, 9, .	5.5	33
5060	Study of step annealing method and the effect on optical, structural, morphological and transport properties of CH3NH3PbI3. Synthetic Metals, 2022, 287, 117081.	2.1	1
5061	Study of DMSO concentration on the optical and structural properties of perovskite CH3NH3PbI3 and its use in solar cells. Journal of Solid State Chemistry, 2022, 312, 123158.	1.4	6
5062	Realization of ultra-flat perovskite films with surprisingly large-grain distribution using high-pressure cooking. Chemical Engineering Journal, 2022, 445, 136803.	6.6	8
5063	Recent development in MOFs for perovskite-based solar cells. , 2022, , 507-534.		1
5064	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
5065	Large-area large-grain CsPbCl₃ perovskite films by confined re-growth for violet photodetectors. Nanotechnology, 2022, 33, 33LT01.	1.3	2
5066	Quaternary ammonium halide-containing cellulose derivatives for defect passivation in MAPbI₃-based perovskite solar cells. Sustainable Energy and Fuels, 2022, 6, 3349-3362.	2.5	7
5067	Simultaneous Optimization of Charge Transport Properties in a Triple-Cation Perovskite Layer and Triple-Cation Perovskite/Spiro-OMeTAD Interface by Dual Passivation. ACS Omega, 2022, 7, 17907-17920.	1.6	2
5068	A Perspective on Perovskite Solar Cells: Emergence, Progress, and Commercialization. Frontiers in Chemistry, 2022, 10, 802890.	1.8	14
5069	Tin-based halide perovskite materials: properties and applications. Chemical Science, 2022, 13, 6766-6781.	3.7	31
5070	Impact of processing conditions on the film formation of lead-free halide double perovskite Cs₂AgBiBr₆. Journal of Materials Chemistry A, 2022, 10, 19868-19880.	5.2	12
5071	Sulfonyl passivation through synergistic hydrogen bonding and coordination interactions for efficient and stable perovskite solar cells. Journal of Materials Chemistry A, 2022, 10, 13048-13054.	5.2	18
5072	Zinc Oxide: A Fascinating Material for Photovoltaic Applications. Materials Horizons, 2022, , 173-241.	0.3	2
5074	Challenges of Scalable Development for Perovskite/Silicon Tandem Solar Cells. ACS Applied Energy Materials, 2022, 5, 6499-6515.	2.5	10
5075	High Radiance of Perovskite Lightâ€Emitting Diodes Enabled by Perovskite Heterojunctions. Advanced Functional Materials, 2022, 32, .	7.8	11
5076	X-ray diffraction of photovoltaic perovskites: Principles and applications. Applied Physics Reviews, 2022, 9, .	5.5	28

#	Article	IF	Citations
5077	Temperature-controlled slot-die coating for efficient and stable perovskite solar cells. Journal of Power Sources, 2022, 539, 231621.	4.0	9
5078	Core-twisted tetrachloroperylenediimide additives improve the crystallinity of perovskites to provide efficient perovskite solar cells. Solar Energy Materials and Solar Cells, 2022, 243, 111779.	3.0	3
5079	Ultrathin Single-Crystalline Perovskites: Toward Large Area Wafers. SSRN Electronic Journal, 0, , .	0.4	0
5080	Crystallization regulation of solution-processed two-dimensional perovskite solar cells. Journal of Materials Chemistry A, 2022, 10, 13625-13650.	5.2	11
5081	Light Modulation Strategy for Highest-Efficiency Water-Processed Perovskite Solar Cells. SSRN Electronic Journal, 0, , .	0.4	0
5082	Solvate phases crystallizing from hybrid halide perovskite solutions: Chemical classification and structural relations. Mendeleev Communications, 2022, 32, 311-314.	0.6	7
5084	Highly Efficient Perovskite Solar Cell Based on PVK Hole Transport Layer. Polymers, 2022, 14, 2249.	2.0	7
5086	Tin dioxide buffer layer-assisted efficiency and stability of wide-bandgap inverted perovskite solar cells. Journal of Semiconductors, 2022, 43, 052201.	2.0	5
5087	Toward Efficient Perovskite Solar Cells: Progress, Strategies, and Perspectives. ACS Energy Letters, 2022, 7, 2084-2091.	8.8	68
5088	The strategies for widening processing windows for perovskite solar cells: a mini review on the role of solvent/antisolvent. International Materials Reviews, 2023, 68, 301-322.	9.4	3
5089	Intrinsic and extrinsic stability of triple-cation perovskite solar cells through synergistic influence of organic additive. Cell Reports Physical Science, 2022, 3, 100906.	2.8	7
5090	Improving device performance of MAPbI₃ photovoltaic cells by manipulating the crystal orientation of tetragonal perovskites. Nanotechnology, 2022, 33, 415405.	1.3	7
5091	Surface-capping engineering for electrically neutral surface of perovskite films and stable solar cells. Nanotechnology, 2022, 33, 405405.	1.3	2
5092	Progress toward understanding the fullerene-related chemical interactions in perovskite solar cells. Nano Research, 2022, 15, 7139-7153.	5.8	12
5093	Ultrafast transient infrared spectroscopy for probing trapping states in hybrid perovskite films. Communications Chemistry, 2022, 5, .	2.0	14
5094	Influence/Effect of Deep-Level Defect of Absorber Layer and n/i Interface on the Performance of Antimony Triselenide Solar Cells by Numerical Simulation. Sustainability, 2022, 14, 6780.	1.6	7
5095	Suppressing interface charge recombination for efficient integrated perovskite/organic bulk-heterojunction solar cells. Journal of Power Sources, 2022, 541, 231665.	4.0	6
5096	Spray-coated nanocrystalline CsPbBr3 perovskite thin-films for large area and efficient rigid and flexible light emitting diodes. Journal of Alloys and Compounds, 2022, 918, 165560.	2.8	9

#	Article	IF	Citations
5097	Centimeter-sized lead-free iodide-based hybrid double perovskite single crystals for efficient X-ray photoresponsivity. Dalton Transactions, 2022, 51, 10234-10239.	1.6	4
5098	Solution-Processed Cu:SnO₂ as an Efficient Electron Transport Layer for Fabrication of Low-Temperature Planar Perovskite Solar Cell Under Ambient Conditions. IEEE Journal of Photovoltaics, 2022, 12, 1162-1169.	1.5	1
5099	Effect of nano-nucleation sites assisted crystallization on the performance of perovskite photodetector. Wuli Xuebao/Acta Physica Sinica, 2022, .	0.2	0
5101	Insights into the evaporation behaviour of FAI: material degradation and consequences for perovskite solar cells. Sustainable Energy and Fuels, 2022, 6, 3230-3239.	2.5	15
5102	MAPbI₃ Nanowire Arrays Were Prepared by Solution Method. Journal of Sensor Technology and Application, 2022, 10, 327-332.	0.1	0
5103	Processing of Lead Halide Perovskite Thin Films Studied with In-Situ Real-Time X-ray Scattering. ACS Applied Materials & Interfaces, 2022, 14, 26315-26326.	4.0	5
5104	Fabrication of Highâ€Quality CsBi₃I₁₀ Films via a Gasâ€Assisted Approach for Efficient Leadâ€Free Perovskite Solar Cells. Energy Technology, 2022, 10, .	1.8	4
5105	Photoinstability aversion in perovskite solar cell by downconversion cadmium chalcogenide filters. Journal of Photonics for Energy, 2022, 12, .	0.8	0
5106	Crystallization under control. Nature Energy, 2022, 7, 480-481.	19.8	3
5107	Improvements in Efficiency and Stability of Perovskite Solar Cells Using a Cesium Chloride Additive. ACS Applied Materials & Interfaces, 2022, 14, 26866-26872.	4.0	12
5108	Polymerâ€Assisted Crystal Growth Regulation and Defect Passivation for Efficient Perovskite Lightâ€Emitting Diodes. Advanced Functional Materials, 2022, 32, .	7.8	30
5110	Manipulation of Crystallization Kinetics for Perovskite Photovoltaics Prepared Using Two-Step Method. Crystals, 2022, 12, 815.	1.0	4
5113	Defects Passivation Strategy for Efficient and Stable Perovskite Solar Cells. Advanced Materials Interfaces, 2022, 9, .	1.9	13
5114	A Heatâ€Liquefiable Solid Precursor for Ambient Growth of Perovskites with High Tunability, Performance and Stability. Small Methods, 2022, 6, .	4.6	4
5115	Methylammonium and Bromideâ€Free Tinâ€Based Low Bandgap Perovskite Solar Cells. Advanced Energy Materials, 2022, 12, .	10.2	18
5116	Oneâ€Step Thermal Gradientâ€and Antisolventâ€Free Crystallization of Allâ€Inorganic Perovskites for Highly Efficient and Thermally Stable Solar Cells. Advanced Science, 2022, 9, .	5.6	17
5117	Mixed Solvents Assisted Postâ€Treatment Enables Highâ€Efficiency Singleâ€Junction Perovskite and 4T Perovskite/CIGS Tandem Solar Cells. Advanced Science, 2022, 9, .	5.6	10
5118	2D Material and Perovskite Heterostructure for Optoelectronic Applications. Nanomaterials, 2022, 12, 2100.	1.9	13

#	Article	IF	Citations
5120	A review of geometry-confined perovskite morphologies: From synthesis to efficient optoelectronic applications. Nano Research, 2022, 15, 7402-7431.	5.8	9
5121	Unassisted overall water splitting with a solarâ€toâ€hydrogen efficiency of over 10% by coupled lead halide perovskite photoelectrodes. , 2023, 5, .		9
5122	An amino-phthalocyanine additive enhances the efficiency of perovskite solar cells through defect passivation in mixed-halide films. Organic Electronics, 2022, 108, 106568.	1.4	4
5123	Recent Progress in Mixed Aâ€Site Cation Halide Perovskite Thinâ€Films and Nanocrystals for Solar Cells and Lightâ€Emitting Diodes. Advanced Optical Materials, 2022, 10, .	3.6	47
5124	Temperature-induced structural transition in an organicâ€“inorganic hybrid layered perovskite (MA)₂PbI_{2âˆ’<i>x</i>}Br_{<i>x</i>}(SCN)₂. CrystEngComm, 2022, 24, 5428-5434.	1.3	1
5125	Multiple-cation wide-bandgap perovskite solar cells grown using cesium formate as the Cs precursor with high efficiency under sunlight and indoor illumination. Physical Chemistry Chemical Physics, 2022, 24, 17526-17534.	1.3	6
5126	Perovskite Quantum Dots for Emerging Displays: Recent Progress and Perspectives. Nanomaterials, 2022, 12, 2243.	1.9	30
5127	Lead-Free Flexible Perovskite Solar Cells with Interfacial Native Oxide Have >10% Efficiency and Simultaneously Enhanced Stability and Reliability. ACS Energy Letters, 2022, 7, 2256-2264.	8.8	19
5128	Stable and Bright Electroluminescent Devices utilizing Emissive 0D Perovskite Nanocrystals Incorporated in a 3D CsPbBr₃ Matrix. Advanced Materials, 2022, 34, .	11.1	18
5129	Maltose as an ecoâ€friendly modifier of the buried interface for efficient and stable inverted perovskite solar cells. Energy Technology, 0, , .	1.8	0
5130	Phonon-Assisted Nonradiative Recombination Tuned by Organic Cations in Ruddlesden-Popper Hybrid Perovskites. Physical Review Applied, 2022, 17, .	1.5	4
5131	Ink Engineering in Bladeâ€Coating Largeâ€Area Perovskite Solar Cells. Advanced Energy Materials, 2022, 12, .	10.2	39
5132	Sustainable Pb Management in Perovskite Solar Cells toward Ecoâ€Friendly Development. Advanced Energy Materials, 2022, 12, .	10.2	38
5133	Organic Holeâ€Transport Layers for Efficient, Stable, and Scalable Inverted Perovskite Solar Cells. Advanced Materials, 2022, 34, .	11.1	107
5134	Untying the Cesium â€œNotâ€ Cesiumâ€“Iodoplumbate Complexation in Perovskite Solution-Processing Inks Has Implications for Crystallization. Journal of Physical Chemistry Letters, 2022, 13, 6130-6137.	2.1	4
5135	Improving the performance of perovskite solar cells via addition of poly(3-dodecylthiophene)-grafted multi-walled carbon nanotubes. Journal of Materials Science: Materials in Electronics, 0, , .	1.1	1
5136	Balanced-Strength Additive for High-Efficiency Stable Perovskite Solar Cells. ACS Applied Energy Materials, 2022, 5, 8034-8041.	2.5	10
5137	Synergistic Crystallization and Passivation by a Single Molecular Additive for Highâ€Performance Perovskite Solar Cells. Advanced Materials, 2022, 34, .	11.1	37

#	Article	IF	Citations
5138	More effective perovskite surface passivation strategy via optimized functional groups enables efficient p-i-n perovskite solar cells. Applied Surface Science, 2022, 602, 154248.	3.1	5
5139	Active Functional Groups and Adjacent Dual-Interaction Strategies Enable Perovskite Solar Cells to Prosper: Including Unique Morphology and Enhanced Optoelectronic Performance. ACS Sustainable Chemistry and Engineering, 2022, 10, 9946-9955.	3.2	6
5140	Patterning Technologies for Metal Halide Perovskites: A Review. Advanced Materials Technologies, 2023, 8, .	3.0	17
5141	Hotâ€Castingâ€Assisted Liquid Additive Engineering for Efficient and Stable Perovskite Solar Cells. Advanced Materials, 2022, 34, .	11.1	21
5142	Facile and Stable Fluorene Based Organic Hole Transporting Materials for Efficient Perovskite Solar Cells. Macromolecular Research, 2022, 30, 745-750.	1.0	7
5143	Acetamidinium-Methylammonium-Based Layered Hybrid Halide Perovskite [CH3C(NH2)2][CH3NH3]PbI4: Synthesis, Structure, and Optical Properties. Russian Journal of Inorganic Chemistry, 2022, 67, 997-1003.	0.3	5
5144	Synergistic Effect of Antiâ€Solvent and Component Engineering for Effective Passivation to Attain Highly Stable Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	15
5145	Recent progress of rare earth conversion material in perovskite solar cells: A mini review. Inorganic Chemistry Communication, 2022, 143, 109731.	1.8	7
5146	Recent defect passivation drifts and role of additive engineering in perovskite photovoltaics. Nano Energy, 2022, 101, 107579.	8.2	46
5147	Improvement of green antisolvent-isopropanol and additive-thiourea on carbon based CsPbIBr2 perovskite solar cells. Materials Science in Semiconductor Processing, 2022, 150, 106940.	1.9	3
5148	Progress and challenges of halide perovskite-based solar cell- a brief review. Materials Science in Semiconductor Processing, 2022, 150, 106953.	1.9	22
5149	Whether organic spacer cations induced 2D/3D or quasi-2D/3D mixed dimensional perovskites?. Chemical Engineering Journal, 2022, 450, 137887.	6.6	8
5150	Controllable Heterogenous Seedingâ€Induced Crystallization for Highâ€Efficiency FAPbI₃â€Based Perovskite Solar Cells Over 24%. Advanced Materials, 2022, 34, .	11.1	52
5151	Recent Criterion on Stability Enhancement of Perovskite Solar Cells. Processes, 2022, 10, 1408.	1.3	9
5152	Inkjet Printing of Quasiâ€2D Perovskite Layers with Optimized Drying Protocol for Efficient Solar Cells. Advanced Materials Technologies, 2022, 7, .	3.0	10
5153	Solvent Gaming Chemistry to Control the Quality of Halide Perovskite Thin Films for Photovoltaics. ACS Central Science, 2022, 8, 1008-1016.	5.3	37
5154	High-performance large-area perovskite photovoltaic modules. , 2022, 1, e9120024.		64
5155	Recent advancement in efficient metal oxide-based flexible perovskite solar cells: a short review. Materials Advances, 2022, 3, 7198-7211.	2.6	11

#	Article	IF	Citations
5156	Ammonia for post-healing of formamidinium-based Perovskite films. Nature Communications, 2022, 13, .	5.8	21
5157	Recent Advances in Nanostructured Inorganic Hole-Transporting Materials for Perovskite Solar Cells. Nanomaterials, 2022, 12, 2592.	1.9	11
5158	Efficient Lightâ€Emitting Diodes via Hydrogen Bonding Induced Phase Modulation in Quasiâ€2D Perovskites. Advanced Optical Materials, 2022, 10, .	3.6	5
5159	Titanium Dioxide (TiO2) Sensitized Zinc Oxide (ZnO)/Conducting Polymer Nanocomposites for Improving Performance of Hybrid Flexible Solar Cells. Journal of Electronic Materials, 2022, 51, 5986-6001.	1.0	5
5160	Electrochemically Prepared Polyaniline as an Alternative to Poly(3,4-ethylenedioxythiophene)-poly(styrenesulfonate) for Inverted Perovskite Solar Cells. ACS Applied Energy Materials, 2022, 5, 9351-9360.	2.5	2
5161	Data-driven design of high-performance MASnxPb1-xI3 perovskite materials by machine learning and experimental realization. Light: Science and Applications, 2022, 11, .	7.7	19
5162	Inactive (PbI ₂) ₂ RbCl stabilizes perovskite films for efficient solar cells. Science, 2022, 377, 531-534.	6.0	623
5163	Exploring Nanoscale Structure in Perovskite Precursor Solutions Using Neutron and Light Scattering. Chemistry of Materials, 2022, 34, 7232-7241.	3.2	11
5164	Short-Chain Acid Additives to Control PbI2 Crystallization in Hybrid Perovskite Films. Inorganics, 2022, 10, 114.	1.2	2
5165	Stabilized perovskite photovoltaics via Supramolecules composed of carbon/graphene quantum dots and Triisoâ€Propylsilylethynyl agents. International Journal of Energy Research, 2022, 46, 22832-22844.	2.2	0
5166	Fill Factor Losses and Deviations from the Superposition Principle in Lead Halide Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	22
5167	Synthesis, photophysical properties and DFT studies of pyrrolo[1,2â€<i>a</i>]quinoxaline hosted novel hole transporting molecules for perovskite solar cell (PSC). Journal of Physical Organic Chemistry, 2022, 35, .	0.9	2
5168	Progress of Solution-Processed Metal Oxides as Charge Transport Layers towards Efficient and Stable Perovskite Solar Cells and Modules. Materials Today Nano, 2022, , 100252.	2.3	2
5169	Singleâ€step postâ€production treatment of lead acetate precursorâ€based perovskite using alkylamine salts for reduced grainâ€boundary related film defects. Nano Select, 0, , .	1.9	0
5170	Study of lead-free vacancy ordered double perovskites Cs₂TeX₆ (XÂ=ÂCl, Br, I) for solar cells, and renewable energy. Physica Scripta, 2022, 97, 095801.	1.2	16
5171	Regulation of Quantum Wells Width Distribution in 2D Perovskite Films for Photovoltaic Application. Advanced Functional Materials, 2022, 32, .	7.8	29
5172	Application of Ionic Liquids and Derived Materials to High-Efficiency and Stable Perovskite Solar Cells. , 2022, 4, 1684-1715.		18
5173	Moisture-triggered fast crystallization enables efficient and stable perovskite solar cells. Nature Communications, 2022, 13, .	5.8	65

#	Article	IF	Citations
5174	Facile Uniaxial Electrospinning Strategy To Embed CsPbBr₃ Nanocrystals with Enhanced Water/Thermal Stabilities for Reversible Fluorescence Switches. Analytical Chemistry, 2022, 94, 11360-11367.	3.2	2
5175	Cavity Engineering of Perovskite Distributed Feedback Lasers. ACS Photonics, 2022, 9, 3124-3133.	3.2	9
5176	Nonplanar Spray-Coated Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 37587-37594.	4.0	9
5177	Thin-Film Coating Methods: A Successful Marriage of High-Quality and Cost-Effectivenessâ€"A Brief Exploration. Coatings, 2022, 12, 1115.	1.2	39
5178	Nanopatterning on Mixed Halide Perovskites for Promoting Photocurrent Generation of Flexible Photodetector. Advanced Functional Materials, 2022, 32, .	7.8	2
5179	Selection of a Suitable Solvent Additive for 2-Methoxyethanol-Based Antisolvent-Free Perovskite Film Fabrication. ACS Applied Materials & Interfaces, 2022, 14, 39132-39140.	4.0	8
5180	Crystallization and Defect Regulation in Snâ€“Pb Perovskite Solar Cells via Optimized Antiâ€Solvent Passivation Strategy. Solar Rrl, 2022, 6, .	3.1	3
5181	Emerging exotic properties of two-dimensional ternary tetrahexagonal BCN: Tunable anisotropic transport properties with huge excitonic effects for nanoelectronics and optoelectronics. Materials Today Physics, 2022, 27, 100792.	2.9	3
5182	Liquid crystal semiconductor C6TBTAPH2 for hole transport materials in pervoskite solar cells: Fabrication, characterization, and simulation. Optical Materials, 2022, 132, 112820.	1.7	1
5183	MAS and static NMR study on Nâ€“Hâ‹¯Br hydrogen bond in organic-inorganic perovskite [NH3(CH2)4NH3]CdBr4 crystal. Solid State Communications, 2022, 354, 114917.	0.9	0
5184	Ice-assisted electron-beam lithography for halide perovskite optoelectronic nanodevices. Nano Energy, 2022, 102, 107692.	8.2	1
5185	Advances in components engineering in vapor deposited perovskite thin film for photovoltaic application. Materials Today Advances, 2022, 16, 100277.	2.5	10
5186	Fabrication and Modification Strategies of Metal Halide Perovskite Absorbers. Journal of Renewable Materials, 2023, 11, 61-77.	1.1	1
5188	Azuleneâ€based Hole Transport Materials with Proper Electronic Properties for Perovskite Solar Cells. Asian Journal of Organic Chemistry, 0, , .	1.3	1
5189	Review of nanomaterials impact on improving the performance of dye-sensitized and perovskite solar cells. Optical and Quantum Electronics, 2022, 54, .	1.5	6
5190	Carbazole-Based Hole Transport Polymer for Methylammonium-Free Tinâ€“Lead Perovskite Solar Cells with Enhanced Efficiency and Stability. ACS Energy Letters, 2022, 7, 3353-3361.	8.8	32
5191	Ultrathin single-crystalline perovskites: Toward large area wafers. Journal of Crystal Growth, 2022, 597, 126848.	0.7	1
5192	Recrystallization and grain growth by intense pulsed light with mixed solvent annealing for efficient perovskite solar cells. Organic Electronics, 2022, 110, 106637.	1.4	0

#	Article	IF	Citations
5193	Solvent engineering for two-dimensional perovskite of guanidium lead iodide. Synthetic Metals, 2022, 291, 117175.	2.1	3
5194	Modified post-annealing process with N, N-dimethylformamide vapor to control the growth of hybrid perovskite microstructure. Results in Materials, 2022, 16, 100330.	0.9	1
5195	How the ionic liquid BMIMBF₄ influences the formation and optoelectronic properties of MAPbI₃ thin films. Journal of Materials Chemistry A, 2022, 10, 18038-18049.	5.2	4
5196	Tailoring the optoelectronic properties and dielectric profiles of few-layer S-doped MoO₃ and O-doped MoS₂ nanosheets: a first-principles study. Physical Chemistry Chemical Physics, 2022, 24, 25440-25451.	1.3	6
5197	Recent advances in the interfacial engineering of organicâ€“inorganic hybrid perovskite solar cells: a materials perspective. Journal of Materials Chemistry C, 2022, 10, 13611-13645.	2.7	12
5198	Biexciton dynamics in halide perovskite nanocrystals. Physical Chemistry Chemical Physics, 2022, 24, 22405-22425.	1.3	12
5199	Sprayed and Mechanical-Modified Graphite Layer as Transferred Electrode for High-Efficiency Perovskite Solar Cells. SSRN Electronic Journal, 0, , .	0.4	0
5200	Recent progress of lead-free bismuth-based perovskite materials for solar cell applications. Journal of Materials Chemistry C, 2022, 10, 16629-16656.	2.7	13
5201	Early Crystal Growth Suppression by Washing Solvent for Efficient Self-Powered Perovskite Photodetector. SSRN Electronic Journal, 0, , .	0.4	0
5202	Emerging Metal-Halide Perovskite Materials for Enhanced Solar Cells and Light-Emitting Applications. Engineering Materials, 2022, , 45-85.	0.3	1
5203	Surface Defect-Induced Electronic Structures of Lead-Free Cs2agbibr6 Double-Perovskite for Efficiently Solar-Driven Photocatalytic Performance. SSRN Electronic Journal, 0, , .	0.4	0
5204	Copper-incorporation for polytypism and bandgap engineering of MAPbBr₃ perovskite thin films with enhanced near-Infrared photocurrent-response. Materials Chemistry Frontiers, 2022, 6, 2690-2702.	3.2	4
5205	Modified Post-Annealing Process with N, N-Dimethylformamide Vapor to Control the Growth of Hybrid Perovskite Microstructure. SSRN Electronic Journal, 0, , .	0.4	0
5206	Cu katkÄ±sÄ±nÄ±n MAPbI3 Perovskit Ä°nce Filmlerin YapÄ±sal Ã–zellikleri ve Elektriksel Ã–zdirenÃ§ Ãœzerine Etkisi. UluslararasÄ± Muhendislik Arastirma Ve Gelistirme Dergisi, 2022, 14, 544-551.	0.1	0
5207	Highly effective biosorption capacity of Cladosporium sp. strain F1 to lead phosphate mineral and perovskite solar cell PbI2. Journal of Hazardous Materials, 2023, 442, 130106.	6.5	1
5208	Highly stable MAPbI3 microcrystals: a single precursor derived from low-grade PbI2 using sono-chemical method for economical and efficient perovskite solar cells. Journal of Materials Science: Materials in Electronics, 2022, 33, 21531-21545.	1.1	3
5209	Compositional engineering for lead halide perovskite solar cells. Journal of Semiconductors, 2022, 43, 080202.	2.0	8
5210	Fabrication of triple cation perovskite solar cells using different post-spin coating anti-solvent treatments. Journal of Materials Science: Materials in Electronics, 2022, 33, 21161-21171.	1.1	0

#	Article	IF	Citations
5211	Light modulation strategy for highest-efficiency water-processed perovskite solar cells. Matter, 2022, 5, 4450-4466.	5.0	8
5212	Surface reaction for efficient and stable inverted perovskite solar cells. Nature, 2022, 611, 278-283.	13.7	435
5213	Progress and Perspective on Inorganic CsPbI₂Br Perovskite Solar Cells. Advanced Energy Materials, 2022, 12, .	10.2	39
5214	Simultaneous Enhancement of Thermoelectric Power Factor and Phase Stability of Tin-Based Perovskites by Organic Cation Doping. ACS Applied Energy Materials, 2022, 5, 11191-11199.	2.5	6
5215	Dualâ€Interfaceâ€Reinforced Flexible Perovskite Solar Cells for Enhanced Performance and Mechanical Reliability. Advanced Materials, 2022, 34, .	11.1	32
5216	Spinor <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>G</mml:mi><mml:mi>W</mml:mi></mml:mrow></mml /Bethe-Salpeter calculations in BerkeleyGW: Implementation, symmetries, benchmarking, and performance. Physical Review B, 2022, 106, .	1.1	7
5217	Tuning coherent phonon dynamics in two-dimensional phenylethylammonium lead bromide perovskites. Nano Research, 2023, 16, 3408-3414.	5.8	3
5218	Stabilization of Perovskite Solar Cells: Recent Developments and Future Perspectives. Advanced Materials, 2022, 34, .	11.1	67
5219	Ionic Liquids for Efficient and Stable Perovskite Solar Cells. Advanced Materials Interfaces, 2022, 9, .	1.9	7
5220	How to Make 20% Efficient Perovskite Solar Cells in Ambient Air and Encapsulate Them for 500 h of Operational Stability. Chemistry of Materials, 2022, 34, 8112-8118.	3.2	14
5221	Lead Halide Perovskite Quantum Dots for Photovoltaics and Photocatalysis: A Review. ACS Applied Nano Materials, 2022, 5, 14092-14132.	2.4	18
5222	Switchable Color Semiconductors: Methylamine Intercalation, Deintercalation, and Retention in Two-Dimensional Halide Perovskites. ACS Applied Energy Materials, 2022, 5, 12029-12038.	2.5	2
5223	Temperature-Dependent Carrier Extraction and the Effects of Excitons on Emission and Photovoltaic Performance in Cs_{0.05}FA_{0.79}MA_{0.16}Pb(I_{0.83}Br_{0.17})₃ Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 44358-44366.	4.0	5
5224	Molecular Regulation of Perylenediimide and Fluoreneâ€Based Cathode Interfacial Materials for Efficient Inverted Perovskite Solar Cells. Advanced Materials Interfaces, 2022, 9, .	1.9	5
5225	Inhibiting the Growth of 1D Intermediates in Quasiâ€2D Ruddlesdenâ˘Popper Perovskites. Advanced Functional Materials, 2022, 32, .	7.8	7
5226	Modulating preferred crystal orientation for efficient and stable perovskite solar cellsâ€"From progress to perspectives. InformaÄnÃ-MateriÃ¡ly, 2022, 4, .	8.5	18
5227	Advances and challenges in understanding the microscopic structureâ€"propertyâ€"performance relationship in perovskite solar cells. Nature Energy, 2022, 7, 794-807.	19.8	89
5228	The Growth Dynamics of Organicâ€"Inorganic Metal Halide Perovskite Films. Journal of the American Chemical Society, 2022, 144, 17848-17856.	6.6	9

#	Article	IF	Citations
5229	Predeposited Multifunctional Carbon Nanotube:SnO₂ on the PbI₂ Film for Efficient and Stable Twoâ€Stepâ€Processed Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	5
5230	Targeted Management of Perovskite Film by Co(<scp>II</scp>) Sulfophenyl Porphyrin for Efficient and Stable Solar Cells^{â€}. Chinese Journal of Chemistry, 2023, 41, 43-49.	2.6	6
5231	Solutionâ€Processed Ternary Tin (II) Alloy as Holeâ€Transport Layer of Snâ€"Pb Perovskite Solar Cells for Enhanced Efficiency and Stability. Advanced Materials, 2022, 34, .	11.1	32
5232	Recent advances of interface engineering in inverted perovskite solar cells. Chinese Physics B, 2022, 31, 107307.	0.7	3
5233	Defect Passivation via Isoxazole Doping in Perovskite Solar Cells. ACS Omega, 2022, 7, 34278-34285.	1.6	2
5234	Elucidating the Factors Limiting the Photovoltaic Performance of Mixed Sbâ€"Bi Halide Elpasolite Absorbers. Solar Rrl, 2022, 6, .	3.1	5
5235	Methylammonium Chloride Additive in Lead Iodide Optimizing the Crystallization Process for Efficient Perovskite Solar Cells. International Journal of Photoenergy, 2022, 2022, 1-8.	1.4	2
5236	Interfaced Structures between Halide Perovskites: From Basics to Construction to Optoelectronic Applications. Advanced Energy Materials, 2023, 13, .	10.2	6
5237	Moisture-dependent room-temperature perovskite crystallization in vacuum flash-assisted solution processed intermediate phase films. Organic Electronics, 2022, 111, 106652.	1.4	2
5238	Solar Cell Efficiency Exceeding 25% through Rb-Based Perovskitoid Scaffold Stabilizing the Buried Perovskite Surface. ACS Energy Letters, 2022, 7, 3685-3694.	8.8	44
5239	Effect of Structural Morphology and Material Factors on Radiative Properties of Hybrid Perovskite/Nanoporous GaN Hierarchical Composite Structure. , 2023, 1, 261-273.		1
5240	Organic Ligandâ€Free ZnO Quantum Dots for Efficient and Stable Perovskite Solar Cells. Advanced Functional Materials, 2022, 32, .	7.8	17
5241	Photonic Processing of MAPbI₃ Films by Flash Annealing and Rapid Growth for Highâ€Performance Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	3
5242	Grain Boundary Passivation Using D131 Organic Dye Molecule for Efficient and Thermally Stable Perovskite Solar Cells. ACS Sustainable Chemistry and Engineering, 2022, 10, 13825-13834.	3.2	12
5243	Recent Progress in Large-Area Perovskite Photovoltaic Modules. Transactions of Tianjin University, 2022, 28, 323-340.	3.3	10
5244	Chlorobenzene solvent annealing of perovskite thin films for improving efficiency and reproducibility of perovskite solar cells. Journal of Materials Science: Materials in Electronics, 2022, 33, 24208-24219.	1.1	1
5245	Solvent engineering in inkjet-printed perovskite solar cells. Chemical Physics Letters, 2022, 807, 140084.	1.2	2
5246	Considering the effectiveness of a unique combined annealing-based postprocessing method on the optoelectronic properties of MAPbBr3-based light emitting diodes. Solid State Communications, 2022, 356, 114965.	0.9	2

#	Article	IF	Citations
5247	Inter-band and mid-gap luminescence in CH3NH3PbBr3 single crystal. Journal of Luminescence, 2022, 252, 119382.	1.5	0
5248	Understanding the efficiency enhancement of perovskite solar cells with NaGdF4: Er3+/Yb3+ nanorods. Solar Energy Materials and Solar Cells, 2022, 248, 112029.	3.0	4
5249	A practical guide to 3D halide perovskites: Structure, synthesis, and measurement. , 2022, , .		0
5250	Organicâ€"Inorganic Hybrid Devicesâ€"Perovskite-Based Devices. , 2022, , 283-307.		0
5251	Polarity and moisture induced trans-grain-boundaries 2D/3D coupling structure for flexible perovskite solar cells with high mechanical reliability and efficiency. Energy and Environmental Science, 2022, 15, 5168-5180.	15.6	25
5252	Uniaxial negative thermal expansion in the [(CH₃)₂NH₂]PbBr₃ hybrid perovskite. Journal of Materials Chemistry C, 2022, 10, 17567-17576.	2.7	3
5253	Recent progress of crystal orientation engineering in halide perovskite photovoltaics. Materials Horizons, 2023, 10, 13-40.	6.4	18
5254	Band Structure Engineering of 2D Heterotriangulene Polymers by Incorporating Acetylenic Linkages for Photocatalytic Hydrogen Production. Journal of Physical Chemistry C, 2022, 126, 17836-17843.	1.5	6
5255	Efficient Perovskite Solar Cells via Phenethylamine Iodide Cation-Modified Hole Transport Layer/Perovskite Interface. ACS Omega, 2022, 7, 37359-37368.	1.6	3
5256	Chemical reactivity at Sn/CuO interface investigated by X-ray photoelectron spectroscopy. Vacuum, 2023, 207, 111598.	1.6	3
5257	2D-Antimonene-assisted hetero-epitaxial growth of perovskite films for efficient solar cells. Materials Today, 2022, 61, 54-64.	8.3	7
5258	Suppressing Phase Segregation in Wide Bandgap Perovskites for Monolithic Perovskite/Organic Tandem Solar Cells with Reduced Voltage Loss. Small, 2022, 18, .	5.2	18
5259	Effect of 1,3-Disubstituted Urea Derivatives as Additives on the Efficiency and Stability of Perovskite Solar Cells. ACS Applied Energy Materials, 2022, 5, 13617-13626.	2.5	8
5260	Impact of Membrane Modification and Surface Immobilization Techniques on the Hemocompatibility of Hemodialysis Membranes: A Critical Review. Membranes, 2022, 12, 1063.	1.4	3
5261	An improved perovskite solar cell employing InxGa1-xAs as an efficient hole transport layer. Journal of Computational Electronics, 0, , .	1.3	0
5262	Degradation Mechanism of Halide Perovskite Crystals under Concurrent Light and Humidity Exposure. , 2022, 4, 2409-2414.		7
5263	Surface Doping Boosts Triplet Generation Yield in Perovskiteâ€Sensitized Upconversion. Advanced Optical Materials, 2023, 11, .	3.6	9
5264	Carbonized polymer dots enhanced stability and flexibility of quasi-2D perovskite photodetector. Light: Science and Applications, 2022, 11, .	7.7	12

#	Article	IF	Citations
5265	A Nontoxic NFM Solvent for High-Efficiency Perovskite Solar Cells with a Widened Processing Window. ACS Applied Materials & Interfaces, 2022, 14, 47758-47764.	4.0	4
5266	Stabilizing Wide Bandgap Tripleâ€Halide Perovskite Alloy through Organic Gelators. Solar Rrl, 2022, 6, .	3.1	2
5267	Competition of Iodide/Bromide Ions in the Formation of Methylammonium Lead Halide in Different Solvents. Journal of Physical Chemistry C, 2022, 126, 17656-17662.	1.5	1
5268	Synchrotron-based characterization of metal halide perovskites: advances and prospects from Brazilian Synchrotron Light Laboratory sources. , 2022, 1, .		1
5269	Perovskite/Hole Transport Layer Interfacial Engineering with Substoichiometric Tungsten Oxide Rich in Oxygen Vacancies to Boost the Photovoltaic Performance of Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	1
5270	Multifunctional Ionic Fullerene Additive for Synergistic Boundary and Defect Healing of Tin Perovskite to Achieve High-Efficiency Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 46603-46614.	4.0	4
5271	Covalent Organic Frameworks Based Inorganic/Organic Composite Materials for Photocatalytic Applications. ChemNanoMat, 2023, 9, .	1.5	4
5272	Water-Repelling Dopant-Free Hole-Transporting Materials for Stable and Efficient Planar Perovskite Solar Cells. ACS Sustainable Chemistry and Engineering, 2022, 10, 14948-14954.	3.2	7
5273	Chlorine-Rich Substitution Enabled 2D3D Hybrid Perovskites for High Efficiency and Stability in Sn-Based Fiber-Shaped Perovskite Solar Cells. Advanced Fiber Materials, 2023, 5, 296-311.	7.9	7
5274	Hybrid Block Copolymer/Perovskite Heterointerfaces for Efficient Solar Cells. Advanced Materials, 2023, 35, .	11.1	14
5275	A Wide Bandgap Halide Perovskite Based Selfâ€Powered Blue Photodetector with 84.9% of External Quantum Efficiency. Advanced Materials, 2022, 34, .	11.1	6
5276	Advances in Carbon Materials Applied to Carbonâ€Based Perovskite Solar Cells. Energy Technology, 2023, 11, .	1.8	6
5277	Oriented Crystal Growth during Perovskite Surface Reconstruction. ACS Applied Materials & Interfaces, 2022, 14, 51149-51156.	4.0	2
5278	Elimination of defect and strain by functionalized CQDs dual-engineering for all-inorganic HTMs-free perovskite solar cells with an ultrahigh voltage of 1.651ÂV. Nano Energy, 2022, 104, 107920.	8.2	14
5279	Surface defect-induced electronic structures of lead-free Cs2AgBiBr6 double-perovskite for efficiently solar-driven photocatalytic performance. Applied Surface Science, 2023, 609, 155446.	3.1	15
5280	Sprayed and mechanical-modified graphite layer as transferred electrode for high-efficiency perovskite solar cells. Carbon, 2023, 202, 161-166.	5.4	8
5281	Dynamics of photo-excited carriers in CsPbBr₃ perovskite. Shenzhen Daxue Xuebao (Ligong Ban)/Journal of Shenzhen University Science and Engineering, 2019, 36, 557-563.	0.1	0
5282	Lead-Free Perovskite and Improved Processes and Techniques for Creating Future Photovoltaic Cell to Aid Green Mobility. , 0, , .		1

#	Article	IF	Citations
5283	Cuttingâ€Edge Studies Toward Commercialization of Large Area Solutionâ€Processed Perovskite Solar Cells. Advanced Materials Technologies, 2023, 8, .	3.0	4
5284	Optoelectronic investigation and simulation study of zinc and cobalt doped lead halide perovskite nanocrystals. Solar Energy, 2022, 247, 553-563.	2.9	6
5285	Formation of Highly Efficient Perovskite Solar Cells by Applying Li-Doped CuSCN Hole Conductor and Interface Treatment. Nanomaterials, 2022, 12, 3969.	1.9	0
5286	Solvent Engineering of Ionic Liquids for Stable and Efficient Perovskite Solar Cells. Advanced Energy and Sustainability Research, 2023, 4, .	2.8	4
5287	Polaron-Enhanced Polariton Nonlinearity in Lead Halide Perovskites. Nano Letters, 2022, 22, 9092-9099.	4.5	9
5288	Simulation and Investigation of 26% Efficient and Robust Inverted Planar Perovskite Solar Cells Based on GA0.2FA0.78SnI3-1%EDAI2 Films. Nanomaterials, 2022, 12, 3885.	1.9	8
5289	Structural and Photophysical Properties of Guanidiniumâ€“Iodideâ€Treated Perovskite Solar Cells. Solar Rrl, 2023, 7, .	3.1	7
5290	Strategic approach for achieving high indoor efficiency of perovskite solar Cells: Frustration of charge recombination by dipole induced homogeneous charge distribution. Chemical Engineering Journal, 2023, 454, 140284.	6.6	7
5291	Control of perovskite film crystallization and growth direction to target homogeneous monolithic structures. Nature Communications, 2022, 13, .	5.8	25
5292	Eco-friendly MA₃Bi₂I₉ perovskite thin films based ammonia sensor. Nanotechnology, 2023, 34, 065501.	1.3	1
5293	Recent progress of scalable perovskite solar cells and modules. , 2022, 1, 100010.		14
5294	Defect Passivation of Low-Temperature-Sputtered Tin Oxide Electron Transport Layers through Magnesium Doping for Perovskite Solar Cells. ACS Applied Energy Materials, 2022, 5, 14901-14912.	2.5	7
5295	In Situ Process Monitoring and Multichannel Imaging for Vacuumâ€Assisted Growth Control of Inkjetâ€Printed and Bladeâ€Coated Perovskite Thinâ€Films. Advanced Materials Technologies, 2023, 8, .	3.0	7
5296	Generating spin-triplet states at the bulk perovskite/organic interface for photon upconversion. Nanoscale, 2023, 15, 998-1013.	2.8	8
5297	First-principles study of structural, electronic, elastic and optical properties of alkali lead iodides MPbI3 (M = Li, Na, K). Ukrainian Journal of Physical Optics, 2023, 24, 1-21.	9.7	1
5298	Ethylene glycol-containing ammonium salt for developing highly compatible interfaces in perovskite solar cells. Chemical Engineering Journal, 2023, 455, 140833.	6.6	2
5299	Efficient and stable formamidiniumâ€“caesium perovskite solar cells and modules from lead acetate-based precursors. Energy and Environmental Science, 2023, 16, 138-147.	15.6	17
5300	The progress and efficiency of CsPbI₂Br perovskite solar cells. Journal of Materials Chemistry C, 2023, 11, 426-455.	2.7	9

#	Article	IF	Citations
5301	Efficient and stable MAPbI3 perovskite solar cells via green anti-solvent diethyl carbonate. Organic Electronics, 2023, 113, 106709.	1.4	6
5302	Phase stability and optoelectronic properties of lead-free CsSn1âˆ'Ge I3 mixed halide perovskites: A first-principles study. Journal of Physics and Chemistry of Solids, 2023, 174, 111183.	1.9	0
5303	Mechanical properties estimation of 2Dâ€“3D mixed organic-inorganic perovskites based on methylammonium and phenylethyl-ammonium system using a combined experimental and first-principles approach. Journal of Alloys and Compounds, 2023, 936, 168328.	2.8	2
5304	Chemical approaches for electronic doping in photovoltaic materials beyond crystalline silicon. Chemical Society Reviews, 2022, 51, 10016-10063.	18.7	11
5305	Cutting-edge stability in perovskite solar cells through quantum dot-covered P3HT nanofibers. Polymer-Plastics Technology and Materials, 2023, 62, 162-176.	0.6	1
5306	Roll-to-Roll Fabrication of Perovskite Solar Cells Using Gravure Printing Technology. , 2022, 1, 65-77.		1
5307	Ni-Based Janus Pentagonal Monolayers as Promising Water-Splitting Photocatalysts. Journal of Physical Chemistry C, 2022, 126, 20354-20363.	1.5	6
5308	Reduced Surface Hydroxyl and Released Interfacial Strain by Inserting CsF Anchor Interlayer for Highâ€Performance Perovskite Solar Cells. Solar Rrl, 2023, 7, .	3.1	7
5309	Boosting radiation of stacked halide layer for perovskite solar cells with efficiency over 25%. Joule, 2023, 7, 112-127.	11.7	27
5310	Study on the Ambient Temperature as an Important but Easily Neglected Factor in the Process of Preparing Photovoltaic All-Inorganic CsPbIBr₂ Perovskite Film by the Elegant Solvent-Controlled Growth Strategy. Energy & Fuels, 2022, 36, 15145-15153.	2.5	1
5311	Crystallization control of air-processed wide-bandgap perovskite for carbon-based perovskite solar cells with 17.69% efficiency. Chemical Engineering Journal, 2023, 455, 140566.	6.6	13
5312	Efficient Planar Perovskite Solar Cells with ZnO Electron Transport Layer. Coatings, 2022, 12, 1981.	1.2	8
5313	Defect Passivation by Pyridine-Carbazole Molecules for Efficient and Stable Perovskite Solar Cells. ACS Applied Energy Materials, 2022, 5, 15819-15827.	2.5	6
5314	Antisolvent Choice Determines the Domain Distribution of Quasiâ€2D Perovskite for Blueâ€Emitting Perovskitesâ€Based Light Emitting Devices. Advanced Optical Materials, 2023, 11, .	3.6	5
5315	Air Annealing Facilitates Crystallization Reconstruction of Quasiâ€2D Perovskite. Solar Rrl, 2023, 7, .	3.1	2
5316	Defect Passivation with Multifunctional Fluoro-Group-Containing Organic Additives for Highly Efficient and Stable Perovskite Solar Cells. Energy & Fuels, 2023, 37, 667-674.	2.5	4
5317	Spin Coating Promotes the Epitaxial Growth of AgCN Microwires on 2D Materials. ACS Nano, 2022, 16, 20521-20532.	7.3	0
5318	A Review of Perovskite-Based Photodetectors and Their Applications. Nanomaterials, 2022, 12, 4390.	1.9	19

#	Article	IF	Citations
5319	Monovalent Copper Cation Doping Enables High-Performance CsPbIBr2-Based All-Inorganic Perovskite Solar Cells. Nanomaterials, 2022, 12, 4317.	1.9	10
5320	High-Efficiency Inorganic Perovskite Solar Cell in a Wide Additive-Processing Window. ACS Applied Energy Materials, 2023, 6, 109-119.	2.5	2
5321	In-situ organic-inorganic ferroelectric layer growth for efficient perovskite solar cells with high photovoltage. Nano Energy, 2023, 107, 108114.	8.2	10
5322	Separate observation of surface passivation and linking effects of oleylamine alkylamine ligands on metal-halide perovskite films. Organic Electronics, 2023, 114, 106731.	1.4	3
5323	Extrinsic photoresponse of Ag doped MAPbBr3 perovskite crystals. Applied Surface Science, 2023, 614, 156230.	3.1	4
5324	Thin Film Solution Processable Perovskite Solar Cell. , 0, , .		1
5325	Perovskite quantum dots: Synthesis, applications, prospects, and challenges. Journal of Applied Physics, 2022, 132, .	1.1	7
5326	Recent progress in perovskite solar cells: material science. Science China Chemistry, 2023, 66, 10-64.	4.2	53
5327	Intermediate-phase engineering via dimethylammonium cation additive for stable perovskite solar cells. Nature Materials, 2023, 22, 73-83.	13.3	73
5328	Blade Coating Inverted Perovskite Solar Cells with Vacuumâ€Assisted Nucleation Based on Bottom Quasiâ€2D Passivation. Solar Rrl, 2023, 7, .	3.1	3
5329	Addressing the Role of 2D Domains in Highâ€Dimensionality Ruddlesdenâ€“Popper Perovskite for Solar Cells. Solar Rrl, 0, , 2200860.	3.1	0
5330	Continuous Modification of Perovskite Film by a Eu Complex to Fabricate the Thermal and UV-Light-Stable Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 55538-55547.	4.0	2
5331	I/Pb Ratio Control in the Solid Perovskite Films toward Efficient and Stable Two-Dimensional Perovskite Solar Cells. ACS Applied Energy Materials, 2022, 5, 15233-15238.	2.5	2
5332	Clothing CsPbI₃ perovskite in a robust phase-pure armor to boost the thermal stability. Journal of Materials Chemistry A, 2023, 11, 1920-1926.	5.2	5
5333	Degradation Mechanism of Phenethylamineâ€Based Interlayers in Perovskite Solar Cells and Breakthrough. Solar Rrl, 2023, 7, .	3.1	2
5334	Antisolvent-Treated MAPbI₃ and PbS Quantum Dots for High-Performance Broadband Photodetectors. ACS Applied Nano Materials, 0, , .	2.4	3
5335	Semitransparent Perovskite Solar Cells for Building Integrated Photovoltaics: Recent Advances. Energies, 2023, 16, 889.	1.6	10
5336	Numerical Study on the Effect of Dual Electron Transport Layer in Improving the Performance of Perovskiteâ€“Perovskite Tandem Solar Cells. Advanced Theory and Simulations, 2023, 6, .	1.3	6

#	Article	IF	Citations
5337	Enhanced Photovoltaic Performance of Inverted Perovskite Solar Cells through Surface Modification of a NiOx-Based Hole-Transporting Layer with Quaternary Ammonium Halideâ€“Containing Cellulose Derivatives. Polymers, 2023, 15, 437.	2.0	4
5338	Morphology evolution of ultra-stable and low-cost all-inorganic lead-free perovskite solar cells. Materials Today Energy, 2023, 32, 101241.	2.5	1
5339	Controlled Growth of Hybrid Halide Perovskites by Crown Ether Complexation for Perovskite Solar Cells. Helvetica Chimica Acta, 2023, 106, .	1.0	2
5340	Effect of Edaravone (An Antioxidant) on the Performance of Organic Perovskite Solar Cells. Physica Status Solidi - Rapid Research Letters, 2023, 17, .	1.2	2
5341	Effects of Potassium Doping on the Active Layer of Inverse-structured Perovskite Solar Cells. IEICE Transactions on Electronics, 2023, , .	0.3	0
5342	Healing aged metal halide perovskite toward robust optoelectronic devices: Mechanisms, strategies, and perspectives. Nano Energy, 2023, 108, 108219.	8.2	4
5343	Comparison and integration of CuInGaSe and perovskite solar cells. Journal of Energy Chemistry, 2023, 78, 463-475.	7.1	4
5344	Amorphous Fâ€doped TiO_x Caulked SnO₂ Electron Transport Layer for Flexible Perovskite Solar Cells with Efficiency Exceeding 22.5%. Advanced Functional Materials, 2023, 33, .	7.8	17
5345	Effective Inhibition of Phase Segregation in Wideâ€Bandgap Perovskites with Alkali Halides Additives to Improve the Stability of Solar Cells. Solar Rrl, 2023, 7, .	3.1	10
5346	Largeâ€Area Perovskite Film Prepared by New FFASE Method for Stable Solar Modules Having High Efficiency under Both Outdoor and Indoor Light Harvesting. Advanced Science, 2023, 10, .	5.6	7
5347	Efficient thin-film perovskite solar cells from a two-step sintering of nanocrystals. Nanoscale, 2023, 15, 2924-2931.	2.8	5
5348	Theoretically proposed stable polymorph of two-dimensional pentagonal Î²-PdPSe. Physical Chemistry Chemical Physics, 0, , .	1.3	3
5349	New Pathways toward Sustainable Snâ€Related Perovskite Solar Cells. Advanced Energy and Sustainability Research, 2023, 4, .	2.8	0
5350	Toward commercialization with lightweight, flexible perovskite solar cells for residential photovoltaics. Joule, 2023, 7, 257-271.	11.7	23
5351	Performance enhancement strategies of fibrous solar cells for wearable hybrid energy systems. Journal of Materials Chemistry A, 2023, 11, 3210-3244.	5.2	5
5352	Preparation and Numerical Optimization of TiO2:CdS Thin Films in Double Perovskite Solar Cell. Energies, 2023, 16, 900.	1.6	15
5353	Hydrazone dye passivator for high-performance and stable perovskite solar cells. Dalton Transactions, 2023, 52, 1702-1710.	1.6	3
5354	Enhanced optical and electronic properties of chlorobenzene-assisted perovskite CH3NH3PbI3â^'xClx film incorporated in p-i-n solar cells. Journal of Materials Science: Materials in Electronics, 2023, 34, .	1.1	1

#	Article	IF	Citations
5355	Incorporating formamidinium into 4-fluoro-phenethylammonium based quasi-2D perovskite films and their application in n-i-p perovskite solar cells. Optical Materials, 2023, 136, 113453.	1.7	2
5356	Organic-inorganic FAPbBr3 perovskite based flexible optoelectronic memory device for light-induced multi level resistive switching application. Materials Chemistry and Physics, 2023, 297, 127292.	2.0	5
5357	Khá»£o sÃ¡t tÃnh chá»¥t cá»§a tinh thá»ƒ perovskite (C6H5C2H4NH3)2PbCl4 chá»¿ tá»¡o bá»±ng phÆ°Æ¡ng phÃ¡p bay hÆ¡i siÃªu bÃ£o 2022, , 303-308.		0
5358	Inorganic Halide Perovskite Quantum Dots: A Versatile Nanomaterial Platform for Electronic Applications. Nano-Micro Letters, 2023, 15, .	14.4	36
5359	Inorganic Halide Perovskite Electromagnetic Wave Absorption System with Ultraâ€Wide Absorption Bandwidth and High Thermalâ€Stability. Advanced Electronic Materials, 0, , 2201179.	2.6	2
5360	Ferroelectric Wideâ€Bandgap Metal Halide Perovskite Fieldâ€Effect Transistors: Toward Transparent Electronics. Advanced Science, 2023, 10, .	5.6	4
5361	Recycling of halide perovskites. , 2023, , 385-446.		0
5362	Suppressing hydrogen bonds and controlling surface dipole: effective passivation for hydrophobic perovskite photoabsorber layers in solar cells. New Journal of Chemistry, 2023, 47, 4197-4201.	1.4	1
5363	Perovskite quantum dots. , 2023, , 189-214.		0
5364	Halide perovskite for photodetector applications. , 2023, , 335-367.		0
5365	Interface engineering using a neutral carbolong complex for efficient and stable pâ€“iâ€“n perovskite solar cells. Journal of Materials Chemistry C, 2023, 11, 2480-2483.	2.7	1
5366	Thermalâ€Induced Ceriumâ€Doped Perovskite Solar Cells with a Fill Factor Exceeding 81%. Solar Rrl, 2023, 7, .	3.1	5
5367	Enhancing the photovoltaic performance of planar heterojunction perovskite solar cells <i>via</i> introducing binary-mixed organic electron transport layers. New Journal of Chemistry, 2023, 47, 5048-5055.	1.4	14
5368	Synthesis techniques of metal halide perovskites. , 2023, , 91-151.		1
5369	Two-dimensional semiconducting Cu(<scp>i</scp>)/Sb(<scp>iii</scp>) bimetallic hybrid iodides with a double perovskite structure and photocurrent response. Nanoscale, 2023, 15, 5265-5273.	2.8	1
5370	Radical polymeric p-doping and grain modulation for stable, efficient perovskite solar modules. Science, 2023, 379, 288-294.	6.0	59
5371	Fundamentals and classification of halide perovskites. , 2023, , 19-55.		0
5372	Improvement in reproducibility of large-scale perovskite solar cells using automatic liquid injection in antisolvent method. Journal of Physics: Conference Series, 2023, 2431, 012064.	0.3	0

#	Article	IF	Citations
5373	An effective modulation of bulk perovskite by V₂CT_{<i>x</i>} nanosheets for efficient planar perovskite solar cells. Journal of Materials Chemistry A, 2023, 11, 5015-5026.	5.2	1
5374	Perovskite solar cells. , 2023, , 129-156.		0
5375	Fast electronic trapping and de-trapping by mid-gap states in CH₃NH₃PbCl₃ single crystal. Applied Physics Letters, 2023, 122, 041101.	1.5	0
5376	Polymer-based nano-inks for solar cells. , 2023, , 359-388.		0
5377	Inkjetâ€Printed Flexible Semitransparent Solar Cells with Perovskite and Polymeric Pillars. Solar Rrl, 2023, 7, .	3.1	3
5378	Solvent-vapor assisted conversion process for hybrid perovskites coupling thermal evaporation and slot-die coating. Materials Science in Semiconductor Processing, 2023, 158, 107358.	1.9	2
5379	Crystal structures for flexible photovoltaic application. , 2023, , 493-525.		0
5380	Alkylammonium bis(trifluoromethylsulfonyl)imide as a dopant in the hole-transporting layer for efficient and stable perovskite solar cells. Energy and Environmental Science, 2023, 16, 2226-2238.	15.6	12
5381	Halogen bonds regulating structures and optical properties of hybrid iodobismuthate perovskites. Dalton Transactions, 0, , .	1.6	2
5382	Halide perovskites and high-pressure technologies: a fruitful encounter. Materials Chemistry Frontiers, 2023, 7, 2102-2119.	3.2	2
5383	Room-Temperature Polaron-Mediated Polariton Nonlinearity in MAPbBr₃ Perovskites. ACS Photonics, 2023, 10, 691-698.	3.2	4
5384	Photoexcitation of perovskite precursor solution to induce high-valent iodoplumbate species for wide bandgap perovskite solar cells with enhanced photocurrent. Scientific Reports, 2023, 13, .	1.6	3
5385	Fabrication and characterization of TiO2: ZnO thin films as electron transport material in perovskite solar cell (PSC). Physica B: Condensed Matter, 2023, 654, 414690.	1.3	5
5386	Mechanical scanning probe lithography of perovskites for fabrication of high-Q planar polaritonic cavities. Applied Physics Letters, 2023, 122, .	1.5	1
5387	3D printing and solar cell fabrication methods: A review of challenges, opportunities, and future prospects. Results in Optics, 2023, 11, 100385.	0.9	6
5388	Recent developments of lead-free halide-perovskite nanocrystals: Synthesis strategies, stability, challenges, and potential in optoelectronic applications. Materials Today Physics, 2023, 34, 101079.	2.9	8
5389	Metal halide perovskites for photocatalytic CO2 reduction: An overview and prospects. Coordination Chemistry Reviews, 2023, 482, 215076.	9.5	18
5390	Two-dimensional materials for boosting the performance of perovskite solar cells: Fundamentals, materials and devices. Materials Science and Engineering Reports, 2023, 153, 100727.	14.8	5

#	Article	IF	Citations
5391	Efficient and stable perovskite solar cells based on blade-coated CH3NH3PbI3 thin films fabricated using â€œgreenâ€•solvents under ambient conditions. Organic Electronics, 2023, 116, 106763.	1.4	6
5392	Carboxylated carbon nanotubes as efficient additive to enhance the performance of different types of perovskite solar cells. Surfaces and Interfaces, 2023, 38, 102768.	1.5	0
5393	Effect of Cu doping on structural, electronic and thermoelectric properties of double perovskite Cs2NaVCl6. Computational Condensed Matter, 2023, 35, e00803.	0.9	2
5394	Enhanced performance of inverted hybrid perovskite solar cells with interfacial passivation filler. Materials Today Sustainability, 2023, 22, 100381.	1.9	0
5395	High-performance self-powered color filter-free blue photodetector based on wide-bandgap halide perovskites. Journal of Materials Science and Technology, 2023, 152, 100-108.	5.6	3
5396	Photoactive materials and devices for energy-efficient soft wearable optoelectronic systems. Nano Energy, 2023, 110, 108379.	8.2	7
5397	The role of hydrophobic molecules in the optoelectronical attributes of triple-cation perovskite solar cells. Synthetic Metals, 2023, 295, 117323.	2.1	4
5398	Solvent engineering towards scalable fabrication of high-quality perovskite films for efficient solar modules. Journal of Energy Chemistry, 2023, 80, 689-710.	7.1	16
5399	Retina-inspired narrowband perovskite sensor array for panchromatic imaging. Science Advances, 2023, 9, .	4.7	3
5400	Recent advances of two-dimensional material additives in hybrid perovskite solar cells. Nanotechnology, 2023, 34, 172001.	1.3	5
5401	Cs_{1âˆ’<i>x</i>}DMA_{<i>x</i>}PbI₃versus CsPbI₃for Perovskite Solar Cells. Solar Rrl, 2023, 7, .	3.1	5
5402	Photovoltaic Devices Using Sublimed Methylammonium Lead Iodide Perovskites: Longâ€Term Reproducible Processing. Solar Rrl, 2023, 7, .	3.1	7
5403	Instability of solution-processed perovskite films: origin and mitigation strategies. Materials Futures, 2023, 2, 012102.	3.1	11
5404	Orientated crystallization of FA-based perovskite via hydrogen-bonded polymer network for efficient and stable solar cells. Nature Communications, 2023, 14, .	5.8	66
5405	Highâ€Performance Photodetector and Angularâ€Dependent Random Lasing from Longâ€Chain Organic Diammonium Sandwiched 2D Hybrid Perovskite Nonâ€Linear Optical Single Crystal. Advanced Functional Materials, 2023, 33, .	7.8	2
5406	Functional Layers of Inverted Flexible Perovskite Solar Cells and Effective Technologies for Device Commercialization. Small Structures, 2023, 4, .	6.9	32
5407	Tunable Spin Seebeck Thermopower in Nonlocal Perovskite MAPbBr₃â€Based Structure. Advanced Optical Materials, 2023, 11, .	3.6	2
5408	Manipulating Crystallographic Orientation via Crossâ€Linkable Ligand for Efficient and Stable Perovskite Solar Cells. Small, 2023, 19, .	5.2	8

#	Article	IF	Citations
5409	Solution-Processable Copper Halide Based Hybrid Materials Consisting of Cationic Ligands with Different Coordination Modes. Inorganic Chemistry, 2023, 62, 3660-3668.	1.9	3
5410	Controlled growth of perovskite layers with volatile alkylammonium chlorides. Nature, 2023, 616, 724-730.	13.7	610
5411	Design Perspective, Fabrication, and Performance Analysis of Formamidinium Tin Halide Perovskite Solar Cell. IEEE Journal of Photovoltaics, 2023, 13, 404-410.	1.5	7
5412	Liquidâ€State Dithiocarbonateâ€Based Polymeric Additives with Monodispersity Rendering Perovskite Solar Cells with Exceptionally High Certified Photocurrent and Fill Factor. Advanced Energy Materials, 2023, 13, .	10.2	13
5413	Reinforcing the efficiency and stability of perovskite solar cells using a cesium sulfate additive. Journal of Materials Science: Materials in Electronics, 2023, 34, .	1.1	0
5414	Issues of phase segregation in wide-bandgap perovskites. Materials Chemistry Frontiers, 2023, 7, 1896-1911.	3.2	4
5415	Photoluminescence Characterization of Halide Perovskite Films according to Measuring Conditions. Korean Journal of Materials Research, 2022, 32, 419-424.	0.1	0
5416	3D Polydentate Complexing Agents for Passivating Defects and Modulating Crystallinity for Highâ€Performance Perovskite Solar Cells. Advanced Functional Materials, 2023, 33, .	7.8	13
5417	Oriented Attachment of Tin Halide Perovskites for Photovoltaic Applications. ACS Energy Letters, 2023, 8, 1590-1596.	8.8	6
5418	Facet Engineering for Decelerated Carrier Cooling in Polyhedral Perovskite Nanocrystals. Nano Letters, 2023, 23, 1946-1953.	4.5	6
5419	Bright future by enhancing the stability of methylammonium lead triiodide perovskites thin films through Rb, Cs and Li as dopants. Materials Research Bulletin, 2023, 163, 112213.	2.7	18
5420	Metalâ€Halide Perovskite Lasers: Cavity Formation and Emission Characteristics. Advanced Materials, 0, , .	11.1	12
5421	Surface Modification of Mesoporous TiO2 with Potassium ion Enhances Photo-Voltage in Perovskite Solar Cell. , 2022, , .		0
5422	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
5423	<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
5424	Roomâ€Temperature Exceptionalâ€Pointâ€Driven Polariton Lasing from Perovskite Metasurface. Advanced Functional Materials, 2023, 33, .	7.8	6
5425	Bridging the inter-grain charge transport <i>via</i> organic semiconductors for high-performance thickness-insensitive perovskite solar cells. Materials Chemistry Frontiers, 0, , .	3.2	0
5426	Machine Learning Enables Prediction of Halide Perovskitesâ€™ Optical Behavior with >90% Accuracy. ACS Energy Letters, 2023, 8, 1716-1722.	8.8	10

#	Article	IF	Citations
5427	Ameliorating Properties of Perovskite and Perovskiteâ€“Silicon Tandem Solar Cells via Mesoporous Antireflection Coating Model. Advanced Electronic Materials, 2023, 9, .	2.6	3
5428	Observation of Enhanced Generation of a Fifth Harmonic from Halide Perovskite Nonlocal Metasurfaces. ACS Photonics, 2023, 10, 1367-1375.	3.2	4
5429	Synthesis and Characterization of a Non-Conjugated Backbone Polymer Bearing [1]Benzothieno[3,2-<i>b</i>][1]benzothiophene with a Herringbone Packing Motif. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2022, 35, 205-211.	0.1	0
5430	An all ambient, room temperatureâ€“processed solar cell from a bare silicon wafer. , 2023, 2, .		2
5431	Inverted Perovskite Solar Cells with >85% Fill Factor via Sequential Interfacial Engineering. Solar Rrl, 2023, 7, .	3.1	3
5432	Development of Perovskite Quantum Dots for Two-Dimensional Temperature Sensors. ACS Applied Nano Materials, 2023, 6, 4661-4671.	2.4	1
5433	Fine-tuning chemical passivation over photovoltaic perovskites by varying the symmetry of bidentate acceptor in Dâ€“A molecules. Journal of Materials Chemistry A, 2023, 11, 8299-8307.	5.2	9
5434	Co-deposition of hole-selective contact and absorber for improving the processability of perovskite solar cells. Nature Energy, 2023, 8, 462-472.	19.8	43
5435	Molecular exchange and passivation at interface afford high-performing perovskite solar cells with efficiency over 24%. Journal of Energy Chemistry, 2023, 82, 219-227.	7.1	7
5436	Rethinking the Role of Excess/Residual Lead Iodide in Perovskite Solar Cells. Advanced Functional Materials, 2023, 33, .	7.8	21
5437	Recent Progress in Perovskite Solar Cells: Status and Future. Coatings, 2023, 13, 644.	1.2	8
5438	Farâ€Red Interlayer Excitons of Perovskite/Quantumâ€Dot Heterostructures. Advanced Science, 2023, 10, .	5.6	5
5439	Imidazolium Functionalized Polyelectrolyte Assisted Perovskite Crystallization for Efficient and Stable Perovskite Solar Cells. ACS Applied Energy Materials, 2023, 6, 10243-10250.	2.5	4
5440	Upcycled synthesis and extraction of carbonâ€encapsulated iron carbide nanoparticles for gap Plasmon applications in perovskite solar cells. EcoMat, 0, , .	6.8	1
5441	Ambientâ€Airâ€Stable Inverted Perovskite Solar Cells by Carbazole Analog Tailored Perovskite Thin Films. Solar Rrl, 2023, 7, .	3.1	2
5442	Recent Progress on Synthesis, Intrinsic Properties and Optoelectronic Applications of Perovskite Single Crystals. Advanced Functional Materials, 2023, 33, .	7.8	12
5443	Effects of Solvent Vapor Atmosphere on Photovoltaic Performance of Perovskite Solar Cells. Crystals, 2023, 13, 549.	1.0	1
5444	Characterization of Large-Energy-Bandgap Methylammonium Lead Tribromide (MAPbBr3) Perovskite Solar Cells. Nanomaterials, 2023, 13, 1152.	1.9	2

#	ARTICLE	IF	CITATIONS
5445	Effects of Lead Iodide Crystallization on Photovoltaic Performance of Perovskite Solar Cells by the Vapor-Solid Reaction Method. ACS Omega, 2023, 8, 12430-12438.	1.6	1
5446	Chemical Chelation-Assisted Highly Oriented Perovskite Solar Cells with Reduced Non-radiative Loss. ACS Sustainable Chemistry and Engineering, 2023, 11, 5589-5596.	3.2	7
5447	Light-Controlled Multiphase Structuring of Perovskite Crystal Enabled by Thermoplasmonic Metasurface. ACS Nano, 2023, 17, 9235-9244.	7.3	4
5448	Phase Control of Organometal Halide Perovskites for Development of Highly Efficient Solar Cells. ACS Applied Materials & Interfaces, 2023, 15, 21974-21981.	4.0	1
5449	Solar cell capacitance simulation and experimental photovoltaic performance analysis of perovskite solar cell based on CsGeI3. Materials Today: Proceedings, 2023, , .	0.9	2
5450	Brief Introduction on Manufacturing and Characterization of Metallic Electrode and Corresponding Modified Materials. Metals, 2023, 13, 703.	1.0	2
5451	Simulation, Design and Modeling of Lead-Free Double Halide Perovskite Solar Cell. , 2023, , .		0
5452	Perovskite Materials for Photovoltaics: A Review. EPJ Applied Physics, 0, , .	0.3	0
5453	Halidesâ€Enhanced Buried Interfaces for Stable and Extremely Lowâ€Voltageâ€Deficit Perovskite Solar Cells. Advanced Materials, 2023, 35, .	11.1	11
5454	Lead-free Metal Halide Perovskites for Solar Energy. , 2023, , 189-222.		0
5455	The optoelectronic application of <scp>CsSnI₃</scp> upon substitution with Pb: A <scp>DFT</scp> approach. International Journal of Quantum Chemistry, 2023, 123, .	1.0	1
5456	Hydrogen-bond-bridged intermediate for perovskite solar cells with enhanced efficiency and stability. Nature Photonics, 2023, 17, 478-484.	15.6	62
5457	Alkali Tin Halides: Exploring the Local Structure of A₂SnX₆ (A = K, Rb; X = Cl,) Tj ETQq0 0 0 rgBT /Overlock 10 127, 7284-7298.	1.5	1
5458	Effective Approaches for Perovskite Solar Cells; Recent Advances and Perspectives. Physica Status Solidi (A) Applications and Materials Science, 0, , .	0.8	0
5459	Br-I ordered CsPbBr2I perovskite single crystal toward extremely high mobility. CheM, 2023, 9, 1929-1944.	5.8	3
5460	Recent Progress of Film Fabrication Process for Carbon-Based All-Inorganic Perovskite Solar Cells. Crystals, 2023, 13, 679.	1.0	6
5461	Controllable Synthesis of Centimeter-Sized 2D Ruddlesdenâ€"Popper Perovskite Single Crystals through Intermediate-Phase Engineering. Crystal Growth and Design, 0, , .	1.4	1
5462	Seedâ€Assisted Growth of Tin Oxide Transport Layer for Efficient Perovskite Solar Cells. Solar Rrl, 2023, 7, .	3.1	3

#	Article	IF	Citations
5463	Efficient Liquidâ€Solid Coregulation Engineering in Mixedâ€cation Lead Mixedâ€halide Perovskite for Photovoltaic Performance Improvement. Solar Rrl, 0, , .	3.1	0
5464	Understanding the impact of surface roughness: changing from FTO to ITO to PEN/ITO for flexible perovskite solar cells. Scientific Reports, 2023, 13, .	1.6	7
5465	Deep-blue hybrid perovskite light emitting diode with high color purity based on CH3NH3PbCl3. Organic Electronics, 2023, , 106829.	1.4	0
5466	Fabricate the Compressive-Strained Perovskite Solar Cells through the Lattice-Matching Chelation. ACS Energy Letters, 2023, 8, 2308-2315.	8.8	11
5467	Perovskite Thin Film Growth Techniques. , 2023, , 17-25.		0
5468	In-depth study of the effect of annealing temperature on the structural, chemical, and optical properties of MAPI thin films prepared by a one-step deposition method. Journal of Materials Science: Materials in Electronics, 2023, 34, .	1.1	1
5475	Chemistry: Necessary for Sustainable Technology, but Not Sufficient. , 2021, , 247-329.		0
5483	Preparation and Physicochemical Properties of Nanostructured Halide Perovskites. , 2021, , 2-1-2-26.		0
5492	Toward Nonepitaxial Laser Diodes. Chemical Reviews, 2023, 123, 7548-7584.	23.0	4
5494	Numerical Simulations of FASnI₃ based Solar Cell with the Variation of Absorber Layer Thickness. , 2023, , .		3
5502	Review of recent trends and architecture developments of perovskite solar cells. AIP Conference Proceedings, 2023, , .	0.3	0
5527	Recent progress in the development of high-efficiency inverted perovskite solar cells. NPG Asia Materials, 2023, 15, .	3.8	38
5545	Unleashing methylammoniumâ€“guanidinium lead iodide hybrid perovskite spherulitic microstructures: A structural and morphological investigation. MRS Communications, 2023, 13, 406-415.	0.8	0
5553	Recent Progress in Interfacial Dipole Engineering for Perovskite Solar Cells. Nano-Micro Letters, 2023, 15, .	14.4	10
5555	Synergy of 3D and 2D Perovskites for Durable, Efficient Solar Cells and Beyond. Chemical Reviews, 2023, 123, 9565-9652.	23.0	21
5571	Nanorod Shaped TiO2 Photoanode and Mixed Halide Absorber-Based Perovskite Solar Cell Device Fabrication. Lecture Notes in Electrical Engineering, 2023, , 217-228.	0.3	0
5572	Industrial perspectives on the upscaling of perovskite materials for photovoltaic applications and its environmental impacts. , 2023, , 117-142.		0
5574	Recent advances in electrode interface modifications in perovskite solar cells. Materials Chemistry Frontiers, 0, , .	3.2	0

#	Article	IF	Citations
5592	Recent progress in metal halide perovskite-based photocatalysts: physicochemical properties, synthetic strategies, and solar-driven applications. Journal of Materials Chemistry A, 2023, 11, 22058-22086.	5.2	2
5596	Incorporation of functional polymers into metal halide perovskite thin-films: from interactions in solution to crystallization. Materials Advances, 2023, 4, 4294-4316.	2.6	1
5597	Rational design and recent advancements of addictives engineering in ASnI₃ tin-based perovskite solar cells: insights from experiments and computational. Sustainable Energy and Fuels, 2023, 7, 5198-5223.	2.5	0
5606	Optical detection of nitroaromatic compounds using MAPbBr3 at room temperature. Journal of Chemical Sciences, 2023, 135, .	0.7	0
5670	Solution fabrication methods and optimization strategies of CsPbBr₃ perovskite solar cells. Journal of Materials Chemistry C, 0, , .	2.7	0
5675	Perovskite Solar Cells. , 2023, , 131-164.		0
5690	Dimensional Engineering of 2D/3D Perovskite Halides for Efficient and Stable Solar Cells. Indian Institute of Metals Series, 2024, , 431-456.	0.2	0
5706	Templated-Seeding Renders Tailored Crystallization in Perovskite Photovoltaics: Path towards Future Efficient Modules. Journal of Materials Chemistry A, 0, , .	5.2	0
5734	Organic Solar Cells. , 2024, , 119-145.		0
5735	Review on Characteristics, Scalable Fabrication, Advancing Strategies, and Recent Enhancements in High-Performance Perovskite Photovoltaic Cells. , 2024, , .		0
5746	Enhancing the inherent stability of perovskite solar cells through chalcogenide-halide combinations. Energy and Environmental Science, 2024, 17, 1368-1386.	15.6	0
5752	Vapor phase deposition of perovskite photovoltaics: short track to commercialization?. Energy and Environmental Science, 2024, 17, 1645-1663.	15.6	1
5753	A review on challenges and opportunities in perovskite solar cells. AIP Conference Proceedings, 2024, , .	0.3	0
5767	The impact of moisture on the stability and degradation of perovskites in solar cells. Materials Advances, 2024, 5, 2200-2217.	2.6	0
5783	Halide Perovskite Materials for Photovoltaics and Lighting. Advances in Chemical and Materials Engineering Book Series, 2024, , 126-146.	0.2	0