

Long-Range Balanced Electron- and Hole-Transport Layer  
NH<sub>3</sub> PbI<sub>3</sub>

Science

342, 344-347

DOI: 10.1126/science.1243167

Citation Report

#	ARTICLE	IF	CITATIONS
11	Perovskites under the Sun. Nature Materials, 2013, 12, 1087-1089.	13.3	109
12	Small Photocarrier Effective Masses Featuring Ambipolar Transport in Methylammonium Lead Iodide Perovskite: A Density Functional Analysis. Journal of Physical Chemistry Letters, 2013, 4, 4213-4216.	2.1	675
13	Perovskite-Based Solar Cells. Science, 2013, 342, 317-318.	6.0	731
14	Plasmonic Structure Enhanced Exciton Generation at the Interface between the Perovskite Absorber and Copper Nanoparticles. Scientific World Journal, The, 2014, 2014, 1-6.	0.8	14
15	Synergistic Microbial Consortium for Bioenergy Generation from Complex Natural Energy Sources. Scientific World Journal, The, 2014, 2014, 1-5.	0.8	1
16	Rutherford Backscattering Spectroscopy of Mass Transport by Transformation of PbI <sub>2</sub> into CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> within np-TiO <sub>2</sub> . Hybrid Materials, 2014, 1, .	0.7	3
17	Optical properties of organometallic perovskite: An ab initio study using relativistic GW correction and Bethe-Salpeter equation. Europhysics Letters, 2014, 108, 67015.	0.7	47
18	Calcium manganate: A promising candidate as buffer layer for hybrid halide perovskite photovoltaic-thermoelectric systems. Journal of Applied Physics, 2014, 116, 194901.	1.1	8
19	band gap of the hybrid organic-inorganic perovskite $G < W$ Effect of spin-orbit interaction, semicore electrons, an. Physical Review B, 2014, 90, .	1.1	126
20	Density Functional Theory Simulations of Semiconductors for Photovoltaic Applications: Hybrid Organic-Inorganic Perovskites and III/V Heterostructures. International Journal of Photoenergy, 2014, 2014, 1-11.	1.4	23
21	Ultrafast charge generation, high and balanced charge carrier mobilities in organo halide perovskite solar cell. , 2014, , .		2
22	Perovskites and their Potential use in Solar Energy Applications. Science Progress, 2014, 97, 279-287.	1.0	12
23	CHAPTER 7. Perovskite Solar Cells. RSC Energy and Environment Series, 0, , 242-257.	0.2	3
24	Chemistry of Sensitizers for Dye-sensitized Solar Cells. RSC Energy and Environment Series, 2014, , 186-241.	0.2	3
25	Steric engineering of metal-halide perovskites with tunable optical band gaps. Nature Communications, 2014, 5, 5757.	5.8	787
26	Lasing behaviors upon phase transition in solution-processed perovskite thin films. Applied Physics Letters, 2014, 105, .	1.5	59
27	Efficient methylammonium lead iodide perovskite solar cells with active layers from 300 to 900 nm. APL Materials, 2014, 2, .	2.2	118
29	Perovskite-based low-cost and high-efficiency hybrid halide solar cells. Photonics Research, 2014, 2, 111.	3.4	89

#	ARTICLE	IF	CITATIONS
30	Mechanical properties of hybrid organic-inorganic CH <sub>3</sub> NH <sub>3</sub> BX <sub>3</sub> (B = Sn, Pb; X = Br, I) perovskites for solar cell absorbers. APL Materials, 2014, 2, .	2.2	293
31	Shallow halogen vacancies in halide optoelectronic materials. Physical Review B, 2014, 90, .	1.1	119
32	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
33	Chloride in Lead Chloride-Derived Organo-Metal Halides for Perovskite-Absorber Solar Cells. Chemistry of Materials, 2014, 26, 7158-7165.	3.2	256
34	Ptâ€“Ni Alloy Nanoparticles as Superior Counter Electrodes for Dyeâ€“Sensitized Solar Cells: Experimental and Theoretical Understanding. Advanced Materials, 2014, 26, 8101-8106.	11.1	149
35	An easy-to-fabricate low-temperature TiO <sub>2</sub> electron collection layer for high efficiency planar heterojunction perovskite solar cells. APL Materials, 2014, 2, .	2.2	99
36	CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> -Based Planar Solar Cells with Magnetron-Sputtered Nickel Oxide. ACS Applied Materials & Interfaces, 2014, 6, 22862-22870.	4.0	214
37	Moisture assisted perovskite film growth for high performance solar cells. Applied Physics Letters, 2014, 105, .	1.5	667
38	Magnetron Sputtered Zinc Oxide Nanorods as Thickness-Insensitive Cathode Interlayer for Perovskite Planar-Heterojunction Solar Cells. ACS Applied Materials & Interfaces, 2014, 6, 20585-20589.	4.0	63
39	Parameters influencing the deposition of methylammonium lead halide iodide in hole conductor free perovskite-based solar cells. APL Materials, 2014, 2, .	2.2	93
40	Tuning the Light Emission Properties by Band Gap Engineering in Hybrid Lead Halide Perovskite. Journal of the American Chemical Society, 2014, 136, 17730-17733.	6.6	546
41	Efficient electron/hole transport in inorganic/organic hybrid solar cells by lithium ion and molybdenum trioxide codoping. Journal of Power Sources, 2014, 268, 874-881.	4.0	20
42	Theoretical insights into multibandgap hybrid perovskites for photovoltaic applications. Proceedings of SPIE, 2014, , .	0.8	9
43	Efficient perovskite solar cells based on low-temperature solution-processed (CH <sub>3</sub> NH <sub>3</sub> )PbI <sub>3</sub> perovskite/CuInS <sub>2</sub> planar heterojunctions. Nanoscale Research Letters, 2014, 9, 457.	3.1	22
44	Perovskite Based Hybrid Solar Cells with Transparent Carbon Nanotube electrodes. Materials Research Society Symposia Proceedings, 2014, 1667, 20.	0.1	3
45	Switchable $\langle i \rangle_S = 1/2$ and $\langle i \rangle_J = 1/2$ Rashba bands in ferroelectric halide perovskites. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 6900-6904.	3.3	252
46	Investigating Charge Dynamics in Halide Perovskite Sensitized Mesostructured Solar Cells. Materials Research Society Symposia Proceedings, 2014, 1667, 7.	0.1	2
47	Reproducible Fabrication of Efficient Perovskite-based Solar Cells: X-ray Crystallographic Studies on the Formation of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Layers. Chemistry Letters, 2014, 43, 711-713.	0.7	284

#	ARTICLE	IF	CITATIONS
48	Nickel Oxide Electrode Interlayer in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite/PCBM Planar-Heterojunction Hybrid Solar Cells. <i>Advanced Materials</i> , 2014, 26, 4107-4113.	11.1	646
49	Mixed solvents for the optimization of morphology in solution-processed, inverted-type perovskite/fullerene hybrid solar cells. <i>Nanoscale</i> , 2014, 6, 6679.	2.8	275
50	Low-temperature solution-processed wavelength-tunable perovskites for lasing. <i>Nature Materials</i> , 2014, 13, 476-480.	13.3	2,725
51	A dual functional additive for the HTM layer in perovskite solar cells. <i>Chemical Communications</i> , 2014, 50, 5020.	2.2	110
52	Simple Way to Engineer Metal-Semiconductor Interface for Enhanced Performance of Perovskite Organic Lead Iodide Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 5651-5656.	4.0	93
53	Air-Exposure-Induced Gas-Molecule Incorporation into Spiro-MeOTAD Films. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 1374-1379.	2.1	96
54	Arising applications of ferroelectric materials in photovoltaic devices. <i>Journal of Materials Chemistry A</i> , 2014, 2, 6027-6041.	5.2	408
55	Investigating charge dynamics in halide perovskite-sensitized mesostructured solar cells. <i>Energy and Environmental Science</i> , 2014, 7, 1889-1894.	15.6	151
56	A swivel-cruciform thiophene based hole-transporting material for efficient perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2014, 2, 6305-6309.	5.2	167
57	Recent progress in metal-organic complexes for optoelectronic applications. <i>Chemical Society Reviews</i> , 2014, 43, 3259-3302.	18.7	996
58	A Molecular Ferroelectric Thin Film of Imidazolium Perchlorate That Shows Superior Electromechanical Coupling. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 5064-5068.	7.2	103
59	High Photoluminescence Efficiency and Optically Pumped Lasing in Solution-Processed Mixed Halide Perovskite Semiconductors. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 1421-1426.	2.1	1,490
60	Current progress and future perspectives for organic/inorganic perovskite solar cells. <i>Materials Today</i> , 2014, 17, 16-23.	8.3	349
62	Updated Assessment of Possibilities and Limits for Solar Cells. <i>Advanced Materials</i> , 2014, 26, 1622-1628.	11.1	101
63	Organometal Halide Perovskite Solar Cell Materials Rationalized: Ultrafast Charge Generation, High and Microsecond-Long Balanced Mobilities, and Slow Recombination. <i>Journal of the American Chemical Society</i> , 2014, 136, 5189-5192.	6.6	1,106
64	Control of Charge Dynamics through a Charge-Separation Interface for All-Solid Perovskite-Sensitized Solar Cells. <i>ChemPhysChem</i> , 2014, 15, 1062-1069.	1.0	73
65	Additive Enhanced Crystallization of Solution-Processed Perovskite for Highly Efficient Planar-Heterojunction Solar Cells. <i>Advanced Materials</i> , 2014, 26, 3748-3754.	11.1	1,344
66	Stark Effect in Perovskite/TiO <sub>2</sub> Solar Cells: Evidence of Local Interfacial Order. <i>Nano Letters</i> , 2014, 14, 2168-2174.	4.5	200

#	ARTICLE	IF	CITATIONS
67	Unusual defect physics in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite solar cell absorber. Applied Physics Letters, 2014, 104, .	1.5	2,142
68	New Light on an Old Story: Perovskites Go Solar. Angewandte Chemie - International Edition, 2014, 53, 635-637.	7.2	175
69	Band-gap tuning of lead halide perovskites using a sequential deposition process. Journal of Materials Chemistry A, 2014, 2, 9221-9225.	5.2	494
70	Highly ordered mesoporous carbon for mesoscopic CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> /TiO <sub>2</sub> heterojunction solar cell. Journal of Materials Chemistry A, 2014, 2, 8607.	5.2	88
71	Atomistic Origins of High-Performance in Hybrid Halide Perovskite Solar Cells. Nano Letters, 2014, 14, 2584-2590.	4.5	2,068
72	Crystal Structures, Optical Properties, and Effective Mass Tensors of CH <sub>3</sub> NH <sub>3</sub> PbX <sub>3</sub> (X = I and Br) Phases Predicted from HSE06. Journal of Physical Chemistry Letters, 2014, 5, 1278-1282.	2.1	209
73	The Role of Intrinsic Defects in Methylammonium Lead Iodide Perovskite. Journal of Physical Chemistry Letters, 2014, 5, 1312-1317.	2.1	744
74	Charge Trapping in Photovoltaically Active Perovskites and Related Halogenoplumbate Compounds. Journal of Physical Chemistry Letters, 2014, 5, 1066-1071.	2.1	106
75	Supramolecular Halogen Bond Passivation of Organic-Inorganic Halide Perovskite Solar Cells. Nano Letters, 2014, 14, 3247-3254.	4.5	651
76	Lead-free organic-inorganic tin halide perovskites for photovoltaic applications. Energy and Environmental Science, 2014, 7, 3061-3068.	15.6	2,086
77	Lead-free solid-state organic-inorganic halide perovskite solar cells. Nature Photonics, 2014, 8, 489-494.	15.6	2,410
78	Organohalide lead perovskites for photovoltaic applications. Energy and Environmental Science, 2014, 7, 2448-2463.	15.6	1,220
79	Rutile TiO <sub>2</sub> -based perovskite solar cells. Journal of Materials Chemistry A, 2014, 2, 9251.	5.2	188
80	Depletion region effect of highly efficient hole conductor free CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite solar cells. Physical Chemistry Chemical Physics, 2014, 16, 10512-10518.	1.3	252
81	Titanium Dioxide Nanomaterials for Photovoltaic Applications. Chemical Reviews, 2014, 114, 10095-10130.	23.0	669
82	Modified Two-Step Deposition Method for High-Efficiency TiO <sub>2</sub> /CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Heterojunction Solar Cells. ACS Applied Materials & Interfaces, 2014, 6, 9711-9718.	4.0	167
83	Cobalt Dopant with Deep Redox Potential for Organometal Halide Hybrid Solar Cells. ChemSusChem, 2014, 7, 1909-1914.	3.6	50
84	Nanocrystalline Rutile Electron Extraction Layer Enables Low-Temperature Solution Processed Perovskite Photovoltaics with 13.7% Efficiency. Nano Letters, 2014, 14, 2591-2596.	4.5	397

#	ARTICLE	IF	CITATIONS
85	Voltage output of efficient perovskite solar cells with high open-circuit voltage and fill factor. <i>Energy and Environmental Science</i> , 2014, 7, 2614-2618.	15.6	692
86	Synthesis of Organic-Inorganic Lead Halide Perovskite Nanoplatelets: Towards High-Performance Perovskite Solar Cells and Optoelectronic Devices. <i>Advanced Optical Materials</i> , 2014, 2, 838-844.	3.6	363
87	Efficient, high yield perovskite photovoltaic devices grown by interdiffusion of solution-processed precursor stacking layers. <i>Energy and Environmental Science</i> , 2014, 7, 2619-2623.	15.6	1,154
88	Anomalous Band Gap Behavior in Mixed Sn and Pb Perovskites Enables Broadening of Absorption Spectrum in Solar Cells. <i>Journal of the American Chemical Society</i> , 2014, 136, 8094-8099.	6.6	1,234
89	CH <sub>3</sub> NH <sub>3</sub> Cl-Assisted One-Step Solution Growth of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> : Structure, Charge-Carrier Dynamics, and Photovoltaic Properties of Perovskite Solar Cells. <i>Journal of Physical Chemistry C</i> , 2014, 118, 9412-9418.	1.5	516
90	Recombination Study of Combined Halides (Cl, Br, I) Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 1628-1635.	2.1	384
91	Hybrid Lead Halide Iodide and Lead Halide Bromide in Efficient Hole Conductor Free Perovskite Solar Cell. <i>Journal of Physical Chemistry C</i> , 2014, 118, 17160-17165.	1.5	211
92	Inorganic Hole Conducting Layers for Perovskite-Based Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 1748-1753.	2.1	307
93	Cesium-doped methylammonium lead iodide perovskite light absorber for hybrid solar cells. <i>Nano Energy</i> , 2014, 7, 80-85.	8.2	459
94	Large fill-factor bilayer iodine perovskite solar cells fabricated by a low-temperature solution-process. <i>Energy and Environmental Science</i> , 2014, 7, 2359-2365.	15.6	754
95	Advancements in perovskite solar cells: photophysics behind the photovoltaics. <i>Energy and Environmental Science</i> , 2014, 7, 2518-2534.	15.6	694
96	Inorganic hole conductor-based lead halide perovskite solar cells with 12.4% conversion efficiency. <i>Nature Communications</i> , 2014, 5, 3834.	5.8	769
97	Unique Properties of Halide Perovskites as Possible Origins of the Superior Solar Cell Performance. <i>Advanced Materials</i> , 2014, 26, 4653-4658.	11.1	1,735
98	All-Solid Perovskite Solar Cells with HOCO-R-NH <sub>3</sub> <sup>+</sup> I <sup>-</sup> Anchor-Group Inserted between Porous Titania and Perovskite. <i>Journal of Physical Chemistry C</i> , 2014, 118, 16651-16659.	1.5	191
99	Analysis of Multivalley and Multibandgap Absorption and Enhancement of Free Carriers Related to Exciton Screening in Hybrid Perovskites. <i>Journal of Physical Chemistry C</i> , 2014, 118, 11566-11572.	1.5	463
100	Solution Deposition-Conversion for Planar Heterojunction Mixed Halide Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2014, 4, 1400355.	10.2	325
101	Homogeneous Emission Line Broadening in the Organo Lead Halide Perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Cl. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 1300-1306.	2.1	319
102	Efficient carrier transport in halide perovskites: theoretical perspectives. <i>Journal of Materials Chemistry A</i> , 2014, 2, 9091-9098.	5.2	414

#	ARTICLE	IF	CITATIONS
103	Planar Heterojunction Perovskite Solar Cells via Vapor-Assisted Solution Process. <i>Journal of the American Chemical Society</i> , 2014, 136, 622-625.	6.6	2,091
104	Structure of Methylammonium Lead Iodide Within Mesoporous Titanium Dioxide: Active Material in High-Performance Perovskite Solar Cells. <i>Nano Letters</i> , 2014, 14, 127-133.	4.5	282
105	The Raman Spectrum of the CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Hybrid Perovskite: Interplay of Theory and Experiment. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 279-284.	2.1	555
106	Flexible high efficiency perovskite solar cells. <i>Energy and Environmental Science</i> , 2014, 7, 994.	15.6	409
107	Unravelling the mechanism of photoinduced charge transfer processes in lead iodide perovskite solar cells. <i>Nature Photonics</i> , 2014, 8, 250-255.	15.6	648
109	Solid-State Mesostructured Perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Solar Cells: Charge Transport, Recombination, and Diffusion Length. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 490-494.	2.1	275
110	Mg-doped TiO <sub>2</sub> nanorods improving open-circuit voltages of ammonium lead halide perovskite solar cells. <i>RSC Advances</i> , 2014, 4, 9652-9655.	1.7	100
111	Organolead Halide Perovskite: New Horizons in Solar Cell Research. <i>Journal of Physical Chemistry C</i> , 2014, 118, 5615-5625.	1.5	616
112	Role of the Selective Contacts in the Performance of Lead Halide Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 680-685.	2.1	583
113	High voltage and efficient bilayer heterojunction solar cells based on an organic-inorganic hybrid perovskite absorber with a low-cost flexible substrate. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 6033-6040.	1.3	86
114	Why Lead Methylammonium Tri-Iodide Perovskite-Based Solar Cells Require a Mesoporous Electron Transporting Scaffold (but Not Necessarily a Hole Conductor). <i>Nano Letters</i> , 2014, 14, 1000-1004.	4.5	533
115	Perovskite solar cells with a planar heterojunction structure prepared using room-temperature solution processing techniques. <i>Nature Photonics</i> , 2014, 8, 133-138.	15.6	2,425
116	Density functional theory analysis of structural and electronic properties of orthorhombic perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> . <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 1424-1429.	1.3	306
117	Low-Temperature Solution-Processed Perovskite Solar Cells with High Efficiency and Flexibility. <i>ACS Nano</i> , 2014, 8, 1674-1680.	7.3	1,320
118	General Working Principles of CH <sub>3</sub> NH <sub>3</sub> PbX <sub>3</sub> Perovskite Solar Cells. <i>Nano Letters</i> , 2014, 14, 888-893.	4.5	786
119	Formamidinium lead trihalide: a broadly tunable perovskite for efficient planar heterojunction solar cells. <i>Energy and Environmental Science</i> , 2014, 7, 982.	15.6	3,352
120	Chloride Inclusion and Hole Transport Material Doping to Improve Methyl Ammonium Lead Bromide Perovskite-Based High Open-Circuit Voltage Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 429-433.	2.1	342
121	Improved Morphology Control Using a Modified Two-Step Method for Efficient Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 18751-18757.	4.0	62



#	ARTICLE	IF	CITATIONS
122	Effect of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> thickness on device efficiency in planar heterojunction perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2014, 2, 19873-19881.	5.2	314
123	Influence of the orientation of methylammonium lead iodide perovskite crystals on solar cell performance. <i>APL Materials</i> , 2014, 2, .	2.2	95
124	p-n Heterojunctions with BiFeO <sub>3</sub> Perovskite Nanoparticles and p- and n-Type Oxides: Photovoltaic Properties. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 20479-20486.	4.0	82
125	Room-Temperature Optical Tunability and Inhomogeneous Broadening in 2D-Layered Organic-Inorganic Perovskite Pseudobinary Alloys. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 3958-3963.	2.1	93
126	Controllable Perovskite Crystallization at a Gas-Solid Interface for Hole Conductor-Free Solar Cells with Steady Power Conversion Efficiency over 10%. <i>Journal of the American Chemical Society</i> , 2014, 136, 16411-16419.	6.6	383
127	Morphology and Carrier Extraction Study of Organic-Inorganic Metal Halide Perovskite by One- and Two-Photon Fluorescence Microscopy. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 3849-3853.	2.1	84
128	Perovskite Oxide SrTiO <sub>3</sub> as an Efficient Electron Transporter for Hybrid Perovskite Solar Cells. <i>Journal of Physical Chemistry C</i> , 2014, 118, 28494-28501.	1.5	251
129	Research Update: Physical and electrical characteristics of lead halide perovskites for solar cell applications. <i>APL Materials</i> , 2014, 2, .	2.2	136
130	Reduced ultraviolet light induced degradation and enhanced light harvesting using YVO <sub>4</sub> :Eu <sup>3+</sup> down-shifting nano-phosphor layer in organometal halide perovskite solar cells. <i>Applied Physics Letters</i> , 2014, 105, .	1.5	147
131	Solution-processed hybrid perovskite photodetectors with high detectivity. <i>Nature Communications</i> , 2014, 5, 5404.	5.8	2,214
132	Heterojunction Modification for Highly Efficient Organic-Inorganic Perovskite Solar Cells. <i>ACS Nano</i> , 2014, 8, 12701-12709.	7.3	614
133	Compact Layer Free Perovskite Solar Cells with 13.5% Efficiency. <i>Journal of the American Chemical Society</i> , 2014, 136, 17116-17122.	6.6	407
134	Formation Mechanism of Freestanding CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Functional Crystals: In Situ Transformation vs Dissolution-Crystallization. <i>Chemistry of Materials</i> , 2014, 26, 6705-6710.	3.2	143
135	Nanowires of Methylammonium Lead Iodide (CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> ) Prepared by Low Temperature Solution-Mediated Crystallization. <i>Nano Letters</i> , 2014, 14, 6761-6766.	4.5	257
136	Surface Effects and Adsorption of Methoxy Anchors on Hybrid Lead Iodide Perovskites: Insights for Spiro-MeOTAD Attachment. <i>Journal of Physical Chemistry C</i> , 2014, 118, 26947-26954.	1.5	115
137	Efficiency enhancement via tailoring energy level alignment induced by vanadium ion doping in organic/inorganic hybrid solar cells. <i>RSC Advances</i> , 2014, 4, 46008-46015.	1.7	7
138	Vapor deposition of organic-inorganic hybrid perovskite thin-films for photovoltaic applications. , 2014, , .		5
139	Understanding the solvent-assisted crystallization mechanism inherent in efficient organic-inorganic halide perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2014, 2, 20454-20461.	5.2	147



#	ARTICLE	IF	CITATIONS
140	Predictions for p-Type CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskites. Journal of Physical Chemistry C, 2014, 118, 25350-25354.	1.5	71
141	Improved charge transport of Nb-doped TiO <sub>2</sub> nanorods in methylammonium lead iodide bromide perovskite solar cells. Journal of Materials Chemistry A, 2014, 2, 19616-19622.	5.2	127
142	Femtosecond Excitonic Relaxation Dynamics of Perovskite on Mesoporous Films of Al <sub>2</sub> O <sub>3</sub> and NiO Nanoparticles. Angewandte Chemie, 2014, 126, 9493-9496.	1.6	31
143	Surface Photovoltage Spectroscopy Study of Organo-Lead Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2014, 5, 2408-2413.	2.1	90
144	Enhancing the efficiency of TiO <sub>2</sub> -perovskite heterojunction solar cell via evaporating Cs <sub>2</sub> CO <sub>3</sub> on TiO <sub>2</sub> . Physica Status Solidi - Rapid Research Letters, 2014, 8, 912-916.	1.2	12
145	Device modeling of perovskite solar cells based on structural similarity with thin film inorganic semiconductor solar cells. Journal of Applied Physics, 2014, 116, .	1.1	252
146	Cost-efficient clamping solar cells using candle soot for hole extraction from ambipolar perovskites. Energy and Environmental Science, 2014, 7, 3326-3333.	15.6	272
147	Influence of moisture on the preparation, crystal structure, and photophysical properties of organohalide perovskites. Chemical Communications, 2014, 50, 15819-15822.	2.2	158
148	The photophysics of perovskite solar cells. Proceedings of SPIE, 2014, , .	0.8	0
149	Synthesis and 2D self-assembly at the liquid–solid interface of novel H-bonding linear $\pi$ -conjugated oligomers terminated by uracil and melamine units. New Journal of Chemistry, 2014, 38, 2407-2413.	1.4	8
150	On the Uniqueness of Ideality Factor and Voltage Exponent of Perovskite-Based Solar Cells. Journal of Physical Chemistry Letters, 2014, 5, 4115-4121.	2.1	73
151	Graphene oxide as dual functional interface modifier for improving wettability and retarding recombination in hybrid perovskite solar cells. Journal of Materials Chemistry A, 2014, 2, 20105-20111.	5.2	194
152	Recombination Kinetics in Organic-Inorganic Perovskites: Excitons, Free Charge, and Subgap States. Physical Review Applied, 2014, 2, .	1.5	1,005
153	Energy level alignment at the methylammonium lead iodide/copper phthalocyanine interface. APL Materials, 2014, 2, .	2.2	80
154	Investigation Regarding the Role of Chloride in Organic–Inorganic Halide Perovskites Obtained from Chloride Containing Precursors. Nano Letters, 2014, 14, 6991-6996.	4.5	185
155	Solution Chemistry Engineering toward High-Efficiency Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2014, 5, 4175-4186.	2.1	227
156	Novel Barium–Organic Incorporated Iodometalates: Do They Have Template Properties for Constructing Rare Heterotrimetallic Hybrids?. Inorganic Chemistry, 2014, 53, 11721-11731.	1.9	57
157	Improved External Quantum Efficiency from Solution-Processed (CH <sub>3</sub> NH <sub>3</sub> )PbI <sub>3</sub> Perovskite/PC <sub>71</sub> BM Planar Heterojunction for High Efficiency Hybrid Solar Cells. Journal of Physical Chemistry C, 2014, 118, 25899-25905.	1.5	40

#	ARTICLE	IF	CITATIONS
158	Optimized Organometal Halide Perovskite Planar Hybrid Solar Cells via Control of Solvent Evaporation Rate. <i>Journal of Physical Chemistry C</i> , 2014, 118, 26513-26520.	1.5	58
159	Interplay of Orientational Order and Electronic Structure in Methylammonium Lead Iodide: Implications for Solar Cell Operation. <i>Chemistry of Materials</i> , 2014, 26, 6557-6569.	3.2	286
160	High voltage in hole conductor free organo metal halide perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2014, 2, 20776-20781.	5.2	62
161	Luminescent hybrid perovskite nanoparticles as a new platform for selective detection of 2,4,6-trinitrophenol. <i>RSC Advances</i> , 2014, 4, 55908-55911.	1.7	69
162	Room-temperature ABX <sub>3</sub> -typed molecular ferroelectric: [C <sub>5</sub> H <sub>9</sub> NH <sub>3</sub> ][CdCl <sub>3</sub> ]. <i>Inorganic Chemistry Frontiers</i> , 2014, 1, 118.	3.0	110
163	Perovskite photovoltaics featuring solution-processable TiO <sub>2</sub> as an interfacial electron-transporting layer display to improve performance and stability. <i>Nanoscale</i> , 2014, 6, 11403-11410.	2.8	24
164	Efficient Planar Heterojunction Perovskite Solar Cells Based on Formamidinium Lead Bromide. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 2791-2795.	2.1	250
165	Solvent Annealing of Perovskite-Induced Crystal Growth for Photovoltaic Device Efficiency Enhancement. <i>Advanced Materials</i> , 2014, 26, 6503-6509.	11.1	1,527
166	ORGANOMETAL HALIDE PEROVSKITE PHOTOVOLTAICS: A DIAMOND IN THE ROUGH. <i>Nano</i> , 2014, 09, 1440002.	0.5	24
167	The Impact of the Crystallization Processes on the Structural and Optical Properties of Hybrid Perovskite Films for Photovoltaics. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 3836-3842.	2.1	238
168	Optics and Light Trapping for Tandem Solar Cells on Silicon. <i>IEEE Journal of Photovoltaics</i> , 2014, 4, 1380-1386.	1.5	114
169	Composition-dependent photoluminescence intensity and prolonged recombination lifetime of perovskite CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> xCl <sub>x</sub> films. <i>Chemical Communications</i> , 2014, 50, 11727-11730.	2.2	225
171	Persistent photovoltage in methylammonium lead iodide perovskite solar cells. <i>APL Materials</i> , 2014, 2, .	2.2	86
172	Anomalous Alloy Properties in Mixed Halide Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 3625-3631.	2.1	231
173	A Layered Hybrid Perovskite Solar Cell Absorber with Enhanced Moisture Stability. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 11232-11235.	7.2	1,547
174	Femtosecond Excitonic Relaxation Dynamics of Perovskite on Mesoporous Films of Al <sub>2</sub> O <sub>3</sub> and NiO Nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 9339-9342.	7.2	57
175	Temperature-dependent excitonic photoluminescence of hybrid organometal halide perovskite films. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 22476-22481.	1.3	447
176	Perovskite Solar Cell with an Efficient TiO <sub>2</sub> Compact Film. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 15959-15965.	4.0	300

#	ARTICLE	IF	CITATIONS
177	Perovskites for Solar Thermoelectric Applications: A First Principle Study of $\text{CH}_3\text{NH}_3\text{Al}_3$ (A = Pb and Sn). <i>Chemistry of Materials</i> , 2014, 26, 5394-5400.	3.2	298
178	Sequential Deposition of $\text{CH}_3\text{NH}_3\text{Pb}_3$ on Planar NiO Film for Efficient Planar Perovskite Solar Cells. <i>ACS Photonics</i> , 2014, 1, 547-553.	3.2	245
179	Bright light-emitting diodes based on organometal halide perovskite. <i>Nature Nanotechnology</i> , 2014, 9, 687-692.	15.6	3,627
180	Liquid phase deposition of $\text{TiO}_2$ nanolayer affords $\text{CH}_3\text{NH}_3\text{Pb}_3$ /nanocarbon solar cells with high open-circuit voltage. <i>Faraday Discussions</i> , 2014, 176, 271-286.	1.6	54
181	Effective Masses and Electronic and Optical Properties of Nontoxic $\text{MASnX}_3$ (X = Cl, Br). <i>Physical Chemistry C</i> , 2014, 118, 19655-19660.	1.5	165
184	High-performance planar heterojunction perovskite solar cells: Preserving long charge carrier diffusion lengths and interfacial engineering. <i>Nano Research</i> , 2014, 7, 1749-1758.	5.8	205
185	Improved Understanding of the Electronic and Energetic Landscapes of Perovskite Solar Cells: High Local Charge Carrier Mobility, Reduced Recombination, and Extremely Shallow Traps. <i>Journal of the American Chemical Society</i> , 2014, 136, 13818-13825.	6.6	587
186	The light and shade of perovskite solar cells. <i>Nature Materials</i> , 2014, 13, 838-842.	13.3	1,877
187	Charge carrier recombination channels in the low-temperature phase of organic-inorganic lead halide perovskite thin films. <i>APL Materials</i> , 2014, 2, .	2.2	194
188	Termination Dependence of Tetragonal $\text{CH}_3\text{NH}_3\text{Pb}_3$ Surfaces for Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 2903-2909.	2.1	320
189	Binary Metal Perovskites Toward High Performance Planar Heterojunction Hybrid Solar Cells. <i>Advanced Materials</i> , 2014, 26, 6454-6460.	11.1	295
190	Parameters Affecting $J-V$ Hysteresis of $\text{CH}_3\text{NH}_3\text{Pb}_3$ Perovskite Solar Cells: Effects of Perovskite Crystal Size and Mesoporous $\text{TiO}_2$ Layer. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 2927-2934.	2.1	974
191	Band filling with free charge carriers in organometal halide perovskites. <i>Nature Photonics</i> , 2014, 8, 737-743.	15.6	943
192	Environmentally responsible fabrication of efficient perovskite solar cells from recycled car batteries. <i>Energy and Environmental Science</i> , 2014, 7, 3659-3665.	15.6	94
193	Extremely Slow Photoconductivity Response of $\text{CH}_3\text{NH}_3\text{Pb}_3$ Perovskites Suggesting Structural Changes under Working Conditions. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 2662-2669.	2.1	301
194	Planar heterojunction perovskite/PCBM solar cells with enhanced open-circuit voltage via a (2/1)-step spin-coating process. <i>Journal of Materials Chemistry A</i> , 2014, 2, 15897-15903.	5.2	317
195	Multifunctional perovskite capping layers in hybrid solar cells. <i>Journal of Materials Chemistry A</i> , 2014, 2, 14973.	5.2	57
196	Enabling Silicon for Solar-Fuel Production. <i>Chemical Reviews</i> , 2014, 114, 8662-8719.	23.0	329

#	ARTICLE	IF	CITATIONS
197	Integrating Perovskite Solar Cells into a Flexible Fiber. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 10425-10428.	7.2	268
198	Effective hole extraction using MoO <sub>x</sub> -Al contact in perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> solar cells. <i>Applied Physics Letters</i> , 2014, 104, .	1.5	135
199	Improved light absorption and charge transport for perovskite solar cells with rough interfaces by sequential deposition. <i>Nanoscale</i> , 2014, 6, 8171-8176.	2.8	172
200	Rate limiting interfacial hole transfer in Sb <sub>2</sub> S <sub>3</sub> solid-state solar cells. <i>Energy and Environmental Science</i> , 2014, 7, 1148-1158.	15.6	97
201	Size, Dimensionality, and Strong Electron Correlation in Nanoscience. <i>Accounts of Chemical Research</i> , 2014, 47, 2951-2959.	7.6	49
202	Photocarrier Recombination Dynamics in Perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> for Solar Cell Applications. <i>Journal of the American Chemical Society</i> , 2014, 136, 11610-11613.	6.6	701
203	Efficient planar-heterojunction perovskite solar cells achieved via interfacial modification of a sol-gel ZnO electron collection layer. <i>Journal of Materials Chemistry A</i> , 2014, 2, 17291-17296.	5.2	274
204	Lead Methylammonium Triiodide Perovskite-Based Solar Cells: An Interfacial Charge Transfer Investigation. <i>ChemSusChem</i> , 2014, 7, 3088-3094.	3.6	51
205	Hole-Conductor-Free, Metal-Electrode-Free TiO <sub>2</sub> /CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Heterojunction Solar Cells Based on a Low-Temperature Carbon Electrode. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 3241-3246.	2.1	258
206	Materials Processing Routes to Trap-Free Halide Perovskites. <i>Nano Letters</i> , 2014, 14, 6281-6286.	4.5	671
207	First-Principles Study of Lead Iodide Perovskite Tetragonal and Orthorhombic Phases for Photovoltaics. <i>Journal of Physical Chemistry C</i> , 2014, 118, 19565-19571.	1.5	220
208	Photoanode Based on (001)-Oriented Anatase Nanoplatelets for Organic-Inorganic Lead Iodide Perovskite Solar Cell. <i>Chemistry of Materials</i> , 2014, 26, 4675-4678.	3.2	39
209	The origin of efficiency enhancement of inorganic/organic Hybrid solar Cells by robust samarium phosphate nanophosphors. <i>Solar Energy Materials and Solar Cells</i> , 2014, 130, 426-434.	3.0	33
210	Engineering of Electron-Selective Contact for Perovskite Solar Cells with Efficiency Exceeding 15%. <i>ACS Nano</i> , 2014, 8, 10161-10167.	7.3	233
211	Growth of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> cuboids with controlled size for high-efficiency perovskite solar cells. <i>Nature Nanotechnology</i> , 2014, 9, 927-932.	15.6	1,600
212	Influence of Defects and Synthesis Conditions on the Photovoltaic Performance of Perovskite Semiconductor CsSn <sub>3</sub> . <i>Chemistry of Materials</i> , 2014, 26, 6068-6072.	3.2	256
213	Ultra-Low Thermal Conductivity in Organic-Inorganic Hybrid Perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> . <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 2488-2492.	2.1	416
214	Hysteresis and transient behavior in current-voltage measurements of hybrid-perovskite absorber solar cells. <i>Energy and Environmental Science</i> , 2014, 7, 3690-3698.	15.6	1,117

#	ARTICLE	IF	CITATIONS
215	Femtosecond Time-Resolved Transient Absorption Spectroscopy of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Films: Evidence for Passivation Effect of PbI <sub>2</sub> . Journal of the American Chemical Society, 2014, 136, 12205-12208.	6.6	501
216	Recent Research Developments of Perovskite Solar Cells. Chinese Journal of Chemistry, 2014, 32, 957-963.	2.6	37
217	Correlated electron-hole plasma in organometal perovskites. Nature Communications, 2014, 5, 5049.	5.8	497
218	Strong Covalency-Induced Recombination Centers in Perovskite Solar Cell Material CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> . Journal of the American Chemical Society, 2014, 136, 14570-14575.	6.6	462
219	Radiative Recombination and Photoconversion of Methylammonium Lead Iodide Perovskite by First Principles: Properties of an Inorganic Semiconductor within a Hybrid Body. Journal of Physical Chemistry C, 2014, 118, 24843-24853.	1.5	74
220	Charge transfer and recombination at the metal oxide/CH <sub>3</sub> NH <sub>3</sub> PbI <sub>2</sub> /spiro-OMeTAD interfaces: uncovering the detailed mechanism behind high efficiency solar cells. Physical Chemistry Chemical Physics, 2014, 16, 19984-19992.	1.3	88
221	Computed and Experimental Absorption Spectra of the Perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> . Journal of Physical Chemistry Letters, 2014, 5, 3061-3065.	2.1	94
222	Inkjet Printing and Instant Chemical Transformation of a CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> /Nanocarbon Electrode and Interface for Planar Perovskite Solar Cells. Angewandte Chemie - International Edition, 2014, 53, 13239-13243.	7.2	370
223	Structure Engineering of Hole-Conductor Free Perovskite-Based Solar Cells with Low-Temperature-Processed Commercial Carbon Paste As Cathode. ACS Applied Materials & Interfaces, 2014, 6, 16140-16146.	4.0	245
224	Electrochemical Design of Nanostructured ZnO Charge Carrier Layers for Efficient Solid-State Perovskite-Sensitized Solar Cells. Advanced Energy Materials, 2014, 4, 1400932.	10.2	117
225	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
226	An Above-Room-Temperature Ferroelectric Organo-Metal Halide Perovskite: (3-Pyrrolinium)(CdCl <sub>3</sub> ). Angewandte Chemie - International Edition, 2014, 53, 11242-11247.	7.2	160
227	Zn <sub>2</sub> SnO <sub>4</sub> -Based Photoelectrodes for Organolead Halide Perovskite Solar Cells. Journal of Physical Chemistry C, 2014, 118, 22991-22994.	1.5	92
228	Perovskite photovoltaics: a high-efficiency newcomer to the solar cell family. Nanoscale, 2014, 6, 12287-12297.	2.8	120
229	Direct Observation of Ferroelectric Domains in Solution-Processed CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Thin Films. Journal of Physical Chemistry Letters, 2014, 5, 3335-3339.	2.1	411
230	Elucidating Transport-Recombination Mechanisms in Perovskite Solar Cells by Small-Perturbation Techniques. Journal of Physical Chemistry C, 2014, 118, 22913-22922.	1.5	175
231	Lead-Free Halide Perovskite Solar Cells with High Photocurrents Realized Through Vacancy Modulation. Advanced Materials, 2014, 26, 7122-7127.	11.1	942
232	Incorporation of Cl into sequentially deposited lead halide perovskite films for highly efficient mesoporous solar cells. Nanoscale, 2014, 6, 13854-13860.	2.8	76

#	ARTICLE	IF	CITATIONS
233	Photoelectrochemical response and electronic structure analysis of mono-dispersed cuboid-shaped Bi <sub>2</sub> Fe <sub>4</sub> O <sub>9</sub> crystals with near-infrared absorption. RSC Advances, 2014, 4, 28209-28218.	1.7	29
234	The emergence of perovskite solar cells. Nature Photonics, 2014, 8, 506-514.	15.6	5,727
235	Efficient planar heterojunction perovskite solar cells employing graphene oxide as hole conductor. Nanoscale, 2014, 6, 10505-10510.	2.8	352
236	An 80.11% FF record achieved for perovskite solar cells by using the NH <sub>4</sub> Cl additive. Nanoscale, 2014, 6, 9935-9938.	2.8	368
237	A hole-conductor-free, fully printable mesoscopic perovskite solar cell with high stability. Science, 2014, 345, 295-298.	6.0	2,685
238	A dopant-free hole-transporting material for efficient and stable perovskite solar cells. Energy and Environmental Science, 2014, 7, 2963-2967.	15.6	668
239	Hole-conductor-free perovskite organic lead iodide heterojunction thin-film solar cells: High efficiency and junction property. Applied Physics Letters, 2014, 104, .	1.5	449
240	Exciton Generation/Dissociation/Charge-Transfer Enhancement in Inorganic/Organic Hybrid Solar Cells by Robust Single Nanocrystalline LnP <sub>x</sub> O <sub>y</sub> (Ln = Eu, Y) Doping. ACS Applied Materials & Interfaces, 2014, 6, 8771-8781.	4.0	40
241	Formamidinium-Containing Metal-Halide: An Alternative Material for Near-IR Absorption Perovskite Solar Cells. Journal of Physical Chemistry C, 2014, 118, 16458-16462.	1.5	657
242	Lessons Learned: From Dye-Sensitized Solar Cells to All-Solid-State Hybrid Devices. Advanced Materials, 2014, 26, 4013-4030.	11.1	144
243	Solvent engineering for high-performance inorganic-organic hybrid perovskite solar cells. Nature Materials, 2014, 13, 897-903.	13.3	5,796
244	Organolead halide perovskite: A rising player in high-efficiency solar cells. Chinese Journal of Catalysis, 2014, 35, 983-988.	6.9	28
245	Direct deposition strategy for highly ordered inorganic organic perovskite thin films and their optoelectronic applications. Optical Materials Express, 2014, 4, 1313.	1.6	44
246	Structural and electronic properties of organo-halide lead perovskites: a combined IR-spectroscopy and ab initio molecular dynamics investigation. Physical Chemistry Chemical Physics, 2014, 16, 16137-16144.	1.3	211
247	Controllable Self-Induced Passivation of Hybrid Lead Iodide Perovskites toward High Performance Solar Cells. Nano Letters, 2014, 14, 4158-4163.	4.5	1,343
248	Boosting the Photocurrent Density of p-Type Solar Cells Based on Organometal Halide Perovskite-Sensitized Mesoporous NiO Photocathodes. ACS Applied Materials & Interfaces, 2014, 6, 12609-12617.	4.0	50
249	Relativistic quasiparticle self-consistent electronic structure of hybrid halide perovskite photovoltaic absorbers. Physical Review B, 2014, 89, .	1.1	612
250	Organo-metal perovskite based solar cells: sensitized versus planar architecture. RSC Advances, 2014, 4, 29012-29021.	1.7	55



#	ARTICLE	IF	CITATIONS
251	High-Performance Flexible Broadband Photodetector Based on Organolead Halide Perovskite. <i>Advanced Functional Materials</i> , 2014, 24, 7373-7380.	7.8	791
252	Organohalide lead perovskite based photodetectors with much enhanced performance. <i>Chemical Communications</i> , 2014, 50, 13695-13697.	2.2	206
253	Hole blocking $\text{PbI}_2/\text{CH}_3\text{NH}_3\text{PbI}_3$ interface. <i>Physica Status Solidi - Rapid Research Letters</i> , 2014, 08, 763-766.	1.2	46
254	Improved High-Efficiency Perovskite Planar Heterojunction Solar Cells via Incorporation of a Polyelectrolyte Interlayer. <i>Chemistry of Materials</i> , 2014, 26, 5190-5193.	3.2	178
255	Two-step thermal annealing improves the morphology of spin-coated films for highly efficient perovskite hybrid photovoltaics. <i>Nanoscale</i> , 2014, 6, 10281-10288.	2.8	105
256	Room-Temperature Near-Infrared High-Q Perovskite Whispering-Gallery Planar Nanolasers. <i>Nano Letters</i> , 2014, 14, 5995-6001.	4.5	702
257	Impact of work function of back contact of perovskite solar cells without hole transport material analyzed by device simulation. <i>Current Applied Physics</i> , 2014, 14, 1428-1433.	1.1	123
258	A thin pristine non-triarylamine hole-transporting material layer for efficient $\text{CH}_3\text{NH}_3\text{PbI}_3$ perovskite solar cells. <i>RSC Advances</i> , 2014, 4, 32918.	1.7	35
259	Numerical simulation: Toward the design of high-efficiency planar perovskite solar cells. <i>Applied Physics Letters</i> , 2014, 104, .	1.5	232
260	Photo-induced charge recombination kinetics in $\text{MAPbI}_3\text{Cl}_x$ perovskite-like solar cells using low band-gap polymers as hole conductors. <i>Chemical Communications</i> , 2014, 50, 14566-14569.	2.2	33
261	Enhanced charge transport and photovoltaic performance induced by incorporating rare-earth phosphor into organic-inorganic hybrid solar cells. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 24499-24508.	1.3	7
262	$\text{CH}_3\text{NH}_3\text{PbI}_3/\text{poly-3-hexylthiophen}$ perovskite mesoscopic solar cells: Performance enhancement by Li-assisted hole conduction. <i>Physica Status Solidi - Rapid Research Letters</i> , 2014, 8, 816-821.	1.2	68
263	Surfactant enhanced surface coverage of $\text{CH}_3\text{NH}_3\text{PbI}_3\text{Cl}_x$ perovskite for highly efficient mesoscopic solar cells. <i>Journal of Power Sources</i> , 2014, 27, 351-355.	4.0	51
264	Fabrication and room-temperature exciton photoluminescence stability studies of inorganic-organic hybrid $(\text{C}_{12}\text{H}_{25}\text{NH}_3)_2\text{SnI}_4$ thin films. <i>Solid State Sciences</i> , 2014, 27, 60-64.	1.5	11
265	Unraveling the Nanoscale Morphologies of Mesoporous Perovskite Solar Cells and Their Correlation to Device Performance. <i>Nano Letters</i> , 2014, 14, 2735-2740.	4.5	52
266	Efficiency Enhancement of Perovskite Solar Cells through Fast Electron Extraction: The Role of Graphene Quantum Dots. <i>Journal of the American Chemical Society</i> , 2014, 136, 3760-3763.	6.6	688
267	Cation Role in Structural and Electronic Properties of 3D Organic-Inorganic Halide Perovskites: A DFT Analysis. <i>Journal of Physical Chemistry C</i> , 2014, 118, 12176-12183.	1.5	174
268	Influence of Thermal Processing Protocol upon the Crystallization and Photovoltaic Performance of Organic-Inorganic Lead Trihalide Perovskites. <i>Journal of Physical Chemistry C</i> , 2014, 118, 17171-17177.	1.5	225



#	ARTICLE	IF	CITATIONS
269	Synthesis, structure and optical studies of inorganic-organic hybrid semiconductor, (H <sub>3</sub> N <sub>3</sub> C <sub>6</sub> H <sub>4</sub> CH <sub>2</sub> NH <sub>3</sub> ) PbI <sub>4</sub> . Materials Research Bulletin, 2014, 52, 78-81.	2.7	5
270	Crystal structures and dielectric properties of two tert-butylammonium chlorocadmate(II) complexes. Inorganica Chimica Acta, 2014, 413, 97-101.	1.2	30
271	Vapour-based processing of hole-conductor-free CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite/C <sub>60</sub> fullerene planar solar cells. RSC Advances, 2014, 4, 28964-28967.	1.7	127
272	Montmorillonite as bifunctional buffer layer material for hybrid perovskite solar cells with protection from corrosion and retarding recombination. Journal of Materials Chemistry A, 2014, 2, 13587-13592.	5.2	277
273	A highly efficient mesoscopic solar cell based on CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> xCl <sub>x</sub> fabricated via sequential solution deposition. Chemical Communications, 2014, 50, 12458-12461.	2.2	87
274	HIGH-EFFICIENT SOLID-STATE PEROVSKITE SOLAR CELL WITHOUT LITHIUM SALT IN THE HOLE TRANSPORT MATERIAL. Nano, 2014, 09, 1440001.	0.5	34
275	Mixed Organic-Cation Perovskite Photovoltaics for Enhanced Solar Light Harvesting. Angewandte Chemie - International Edition, 2014, 53, 3151-3157.	7.2	1,117
276	Metal-Free Methylammonium Lead Iodide Perovskite-Based Solar Cells: the Influence of Organic Charge Transport Layers. Advanced Energy Materials, 2014, 4, 1400345.	10.2	164
277	High Efficiency Perovskite Solar Cells Based on the Black Polymorph of HC(NH <sub>2</sub> ) <sub>2</sub> PbI <sub>3</sub> . Advanced Materials, 2014, 26, 4991-4998.	11.1	847
278	Thermally Induced Structural Evolution and Performance of Mesoporous Block Copolymer-Directed Alumina Perovskite Solar Cells. ACS Nano, 2014, 8, 4730-4739.	7.3	269
279	Thermally Activated Exciton Dissociation and Recombination Control the Carrier Dynamics in Organometal Halide Perovskite. Journal of Physical Chemistry Letters, 2014, 5, 2189-2194.	2.1	465
280	Laminated Carbon Nanotube Networks for Metal Electrode-Free Efficient Perovskite Solar Cells. ACS Nano, 2014, 8, 6797-6804.	7.3	427
281	Benefits of very thin PCBM and LiF layers for solution-processed perovskite solar cells. Energy and Environmental Science, 2014, 7, 2642-2646.	15.6	622
282	Perovskite Solar Cells with 12.8% Efficiency by Using Conjugated Quinolizino Acridine Based Hole Transporting Material. Journal of the American Chemical Society, 2014, 136, 8516-8519.	6.6	243
283	Electronic Properties of Meso-Superstructured and Planar Organometal Halide Perovskite Films: Charge Trapping, Photodoping, and Carrier Mobility. ACS Nano, 2014, 8, 7147-7155.	7.3	370
284	Enhancement in the efficiency of an inorganic-organic hybrid solar cell with a doped P3HT hole-transporting layer on a void-free perovskite active layer. Journal of Materials Chemistry A, 2014, 2, 13827-13830.	5.2	163
285	How to Draw Energy Level Diagrams in Excitonic Solar Cells. Journal of Physical Chemistry Letters, 2014, 5, 2283-2288.	2.1	50
286	Unusual defect physics underlies perovskite solar cells' exceptional performance. Physics Today, 2014, 67, 13-15.	0.3	20

#	ARTICLE	IF	CITATIONS
287	Inhomogeneous Deactivation with UV Excitation in Submicron Grains of Lead Iodide Perovskite-based Solar Cell as Revealed by Femtosecond Transient Absorption Microscopy. Chemistry Letters, 2014, 43, 1656-1658.	0.7	17
290	Two-step deposition method for high-efficiency perovskite solar cells. MRS Bulletin, 2015, 40, 654-659.	1.7	50
291	Interface and Nanostructural Engineering of Low-cost, Efficient and Stable Perovskite Solar Cells. Materials Research Society Symposia Proceedings, 2015, 1771, 171-179.	0.1	1
292	Ab Initio Analysis of Charge Carrier Dynamics in Organic-Inorganic Lead Halide Perovskite Solar Cells. Materials Research Society Symposia Proceedings, 2015, 1776, 19-29.	0.1	4
293	Hole-transport material-free perovskite-based solar cells. MRS Bulletin, 2015, 40, 674-680.	1.7	39
294	Methylammonium fragmentation in amines as source of localized trap levels and the healing role of Cl in hybrid lead-iodide perovskites. Physical Review B, 2015, 92, .	1.1	54
295	Silver Iodide Formation in Methyl Ammonium Lead Iodide Perovskite Solar Cells with Silver Top Electrodes. Advanced Materials Interfaces, 2015, 2, 1500195.	1.9	646
296	Enhanced Charge Separation and FRET at Heterojunctions between Semiconductor Nanoparticles and Conducting Polymer Nanofibers for Efficient Solar Light Harvesting. Scientific Reports, 2015, 5, 17313.	1.6	87
297	Surface Engineering of ZnO Thin Film for High Efficiency Planar Perovskite Solar Cells. Scientific Reports, 2015, 5, 13211.	1.6	155
298	Direct Conversion of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> from Electrodeposited PbO for Highly Efficient Planar Perovskite Solar Cells. Scientific Reports, 2015, 5, 15889.	1.6	83
300	High-Performance Planar-Type Photodetector on (100) Facet of MAPbI <sub>3</sub> Single Crystal. Scientific Reports, 2015, 5, 16563.	1.6	270
301	Direct Observation of Long Electron-Hole Diffusion Distance in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Thin Film. Scientific Reports, 2015, 5, 14485.	1.6	172
302	Boosting of the Performance of Perovskite Solar Cells through Systematic Introduction of Reduced Graphene Oxide in TiO <sub>2</sub> Layers. Chemistry Letters, 2015, 44, 1410-1412.	0.7	39
303	Alternative, Lead-free, Hybrid Organic-Inorganic Perovskites for Solar Applications: A DFT Analysis. Chemistry Letters, 2015, 44, 826-828.	0.7	65
304	Conversion efficiency improvement of inverted CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite solar cells with room temperature sputtered ZnO by adding the C60 interlayer. Applied Physics Letters, 2015, 107, .	1.5	40
305	Effects of Different Solvents on the Planar Hetero-junction Perovskite Solar Cells. MATEC Web of Conferences, 2015, 22, 05002.	0.1	7
306	Self-regulation of charged defect compensation and formation energy pinning in semiconductors. Scientific Reports, 2015, 5, 16977.	1.6	56
307	Intrinsic slow charge response in the perovskite solar cells: Electron and ion transport. Applied Physics Letters, 2015, 107, 163901.	1.5	35

#	ARTICLE	IF	CITATIONS
308	Organic Charge Carriers for Perovskite Solar Cells. <i>ChemSusChem</i> , 2015, 8, 3012-3028.	3.6	109
309	Stable and Efficient Perovskite Solar Cells Based on Titania Nanotube Arrays. <i>Small</i> , 2015, 11, 5533-5539.	5.2	80
310	Efficient CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Solar Cells Employing Nanostructured p-type NiO Electrode Formed by a Pulsed Laser Deposition. <i>Advanced Materials</i> , 2015, 27, 4013-4019.	11.1	485
311	The First Organic-Inorganic Hybrid Luminescent Multiferroic: (Pyrrolidinium)MnBr <sub>3</sub> . <i>Advanced Materials</i> , 2015, 27, 3942-3946.	11.1	263
312	High-Quality Mixed-Organic-Cation Perovskites from a Phase-Pure Non-Stoichiometric Intermediate (FAI) <sub>x</sub> PbI <sub>2</sub> for Solar Cells. <i>Advanced Materials</i> , 2015, 27, 4918-4923.	11.1	140
313	Light-Induced Self-Poling Effect on Organometal Trihalide Perovskite Solar Cells for Increased Device Efficiency and Stability. <i>Advanced Energy Materials</i> , 2015, 5, 1500721.	10.2	214
314	A Smooth CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Film via a New Approach for Forming the PbI <sub>2</sub> Nanostructure Together with Strategically High CH <sub>3</sub> NH <sub>3</sub> I Concentration for High Efficient Planar Heterojunction Solar Cells. <i>Advanced Energy Materials</i> , 2015, 5, 1501354.	10.2	228
315	Plasmonic-Induced Photon Recycling in Metal Halide Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2015, 25, 5038-5046.	7.8	198
316	Copper(I) Iodide as Hole-Conductor in Planar Perovskite Solar Cells: Probing the Origin of <i>J</i> - <i>V</i> Hysteresis. <i>Advanced Functional Materials</i> , 2015, 25, 5650-5661.	7.8	260
317	Working Principles of Perovskite Photodetectors: Analyzing the Interplay Between Photoconductivity and Voltage-Driven Energy Level Alignment. <i>Advanced Functional Materials</i> , 2015, 25, 6936-6947.	7.8	129
318	Revealing Underlying Processes Involved in Light Soaking Effects and Hysteresis Phenomena in Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2015, 5, 1500279.	10.2	271
319	Stability of Metal Halide Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2015, 5, 1500963.	10.2	1,045
321	Probing Molecular and Crystalline Orientation in Solution-Processed Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2015, 25, 5529-5536.	7.8	57
322	Controllable Perovskite Crystallization by Water Additive for High-Performance Solar Cells. <i>Advanced Functional Materials</i> , 2015, 25, 6671-6678.	7.8	321
323	Effective Electron Blocking of CuPCl <sub>2</sub> Doped Spiro-OMeTAD for Highly Efficient Inorganic-Organic Hybrid Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2015, 5, 1501320.	10.2	84
324	Morphology-Controlled Synthesis of Organometal Halide Perovskite Inverse Opals. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 13806-13810.	7.2	68
325	Life Cycle Assessment of Titania Perovskite Solar Cell Technology for Sustainable Design and Manufacturing. <i>ChemSusChem</i> , 2015, 8, 3882-3891.	3.6	70
326	Advances and Prospects for Whispering Gallery Mode Microcavities. <i>Advanced Optical Materials</i> , 2015, 3, 1136-1162.	3.6	258

#	ARTICLE	IF	CITATIONS
327	Charge Accumulation and Hysteresis in Perovskite-Based Solar Cells: An Electro-Optical Analysis. <i>Advanced Energy Materials</i> , 2015, 5, 1500829.	10.2	217
328	The Significance of Ion Conduction in a Hybrid Organic-Inorganic Lead-Iodide-Based Perovskite Photosensitizer. <i>Angewandte Chemie</i> , 2015, 127, 8016-8021.	1.6	143
329	Solar Rechargeable Batteries Based on Lead-Organohalide Electrolyte. <i>Advanced Energy Materials</i> , 2015, 5, 1501418.	10.2	35
330	Toward Eco-friendly Green Organic Semiconductors: Recent Advances in Spiro[fluorene-9,9'-xanthene] (SFX)-Based Optoelectronic Materials and Devices. <i>Chinese Journal of Chemistry</i> , 2015, 33, 815-827.	2.6	38
331	High-Performance Semitransparent Perovskite Solar Cells with 10% Power Conversion Efficiency and 25% Average Visible Transmittance Based on Transparent CuSCN as the Hole-Transporting Material. <i>Advanced Energy Materials</i> , 2015, 5, 1500486.	10.2	221
332	Organic-Inorganic Perovskite Light-Emitting Electrochemical Cells with a Large Capacitance. <i>Advanced Functional Materials</i> , 2015, 25, 7226-7232.	7.8	87
333	Understanding the Impact of Bromide on the Photovoltaic Performance of $\text{CH}_3\text{NH}_3\text{PbI}_3$ Solar Cells. <i>Advanced Materials</i> , 2015, 27, 7221-7228.	11.1	73
334	A Low-Temperature, Solution-Processable, Cu-Doped Nickel Oxide Hole-Transporting Layer via the Combustion Method for High-Performance Thin-Film Perovskite Solar Cells. <i>Advanced Materials</i> , 2015, 27, 7874-7880.	11.1	405
335	A Strategy to Design a Donor-Acceptor Polymeric Hole Conductor for an Efficient Perovskite Solar Cell. <i>Advanced Energy Materials</i> , 2015, 5, 1500471.	10.2	55
337	Ultrathin 2D Nanolayer of $\text{RuO}_2$ Effectively Enhances Charge Separation in the Photochemical Processes of $\text{TiO}_2$ . <i>Small</i> , 2015, 11, 4469-4474.	5.2	12
338	High-Performance Planar Solar Cells Based On $\text{CH}_3\text{NH}_3\text{PbI}_3$ Perovskites with Determined Chlorine Mole Fraction. <i>Advanced Functional Materials</i> , 2015, 25, 4867-4873.	7.8	95
339	Two-Inch-Sized Perovskite $\text{CH}_3\text{NH}_3\text{PbX}_3$ (X = Cl, Br, I) Crystals: Growth and Characterization. <i>Advanced Materials</i> , 2015, 27, 5176-5183.	11.1	914
340	Can Trihalide Lead Perovskites Support Continuous Wave Lasing?. <i>Advanced Optical Materials</i> , 2015, 3, 1557-1564.	3.6	72
341	Lead Replacement in $\text{CH}_3\text{NH}_3\text{PbI}_3$ Perovskites. <i>Advanced Electronic Materials</i> , 2015, 1, 1500089.	2.6	67
342	16.1% Efficient Hysteresis-Free Mesoporous Perovskite Solar Cells Based on Synergistically Improved ZnO Nanorod Arrays. <i>Advanced Energy Materials</i> , 2015, 5, 1500568.	10.2	222
343	Formamidinium and Cesium Hybridization for Photo- and Moisture-Stable Perovskite Solar Cell. <i>Advanced Energy Materials</i> , 2015, 5, 1501310.	10.2	1,350
344	Microengineered $\text{CH}_3\text{NH}_3\text{PbI}_3$ Nanowire/Graphene Phototransistor for Low-Intensity Light Detection at Room Temperature. <i>Small</i> , 2015, 11, 4824-4828.	5.2	151
345	Current-voltage characteristics of manganite-titanite perovskite junctions. <i>Beilstein Journal of Nanotechnology</i> , 2015, 6, 1467-1484.	1.5	16

#	ARTICLE	IF	CITATIONS
346	Hybrid Organic-Inorganic Perovskites Open a New Era for Low-Cost, High Efficiency Solar Cells. <i>Journal of Nanomaterials</i> , 2015, 2015, 1-10.	1.5	19
347	Perovskite Solar Cells: Potentials, Challenges, and Opportunities. <i>International Journal of Photoenergy</i> , 2015, 2015, 1-13.	1.4	65
349	The electronic structure of metal oxide/organo metal halide perovskite junctions in perovskite based solar cells. <i>Scientific Reports</i> , 2015, 5, 8704.	1.6	91
350	Characterization of an abnormal photoluminescence behavior upon crystal-phase transition of perovskite $\text{CH}_3\text{NH}_3\text{PbI}_3$ . <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 16405-16411.	1.3	215
351	Atomistic origins of $\text{CH}_3\text{NH}_3\text{PbI}_3$ degradation to $\text{PbI}_2$ in vacuum. <i>Applied Physics Letters</i> , 2015, 106, .	1.5	158
352	Perovskite Quantum Dots Modeled Using ab Initio and Replica Exchange Molecular Dynamics. <i>Journal of Physical Chemistry C</i> , 2015, 119, 13965-13971.	1.5	28
353	Environmental Effects on the Photophysics of Organic-Inorganic Halide Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 2200-2205.	2.1	205
354	The dynamics of methylammonium ions in hybrid organic-inorganic perovskite solar cells. <i>Nature Communications</i> , 2015, 6, 7124.	5.8	517
355	Hysteresis-less mesoscopic $\text{CH}_3\text{NH}_3\text{PbI}_3$ perovskite hybrid solar cells by introduction of Li-treated $\text{TiO}_2$ electrode. <i>Nano Energy</i> , 2015, 15, 530-539.	8.2	246
356	Modulation of photovoltage in mesoscopic perovskite solar cell by controlled interfacial electron injection. <i>RSC Advances</i> , 2015, 5, 47334-47340.	1.7	25
357	Novel planar heterostructure perovskite solar cells with CdS nanorods array as electron transport layer. <i>Solar Energy Materials and Solar Cells</i> , 2015, 140, 396-404.	3.0	72
358	Effect of Annealing Temperature on Film Morphology of Planar Heterojunction Mixed Halide Perovskite $\text{CH}_3\text{NH}_3\text{PbI}_3$ $\text{Cl}_x$ Solar Cells Based on Compact ZnO. <i>Chemistry Letters</i> , 2015, 44, 1022-1024.	0.7	7
359	Low-Temperature Solution-Processed Tin Oxide as an Alternative Electron Transporting Layer for Efficient Perovskite Solar Cells. <i>Journal of the American Chemical Society</i> , 2015, 137, 6730-6733.	6.6	1,045
360	Detection of X-ray photons by solution-processed lead halide perovskites. <i>Nature Photonics</i> , 2015, 9, 444-449.	15.6	916
361	Solvent engineering towards controlled grain growth in perovskite planar heterojunction solar cells. <i>Nanoscale</i> , 2015, 7, 10595-10599.	2.8	294
362	Enhanced Carrier Lifetimes of Pure Iodide Hybrid Perovskite via Vapor-Equilibrated Re-Growth (VERG). <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 2503-2508.	2.1	39
363	Photoinduced Reversible Structural Transformations in Free-Standing $\text{CH}_3\text{NH}_3\text{PbI}_3$ Perovskite Films. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 2332-2338.	2.1	190
364	Efficiency Enhancement of Inverted Structure Perovskite Solar Cells via Oleamide Doping of PCBM Electron Transport Layer. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 13659-13665.	4.0	132

#	ARTICLE	IF	CITATIONS
365	Annealing-induced chemical and structural changes in tri-iodide and mixed-halide organometal perovskite layers. <i>Journal of Materials Chemistry A</i> , 2015, 3, 14195-14201.	5.2	21
366	Study on hole-transport-material-free planar $\text{TiO}_2/\text{CH}_3\text{NH}_3\text{PbI}_3$ heterojunction solar cells: the simplest configuration of a working perovskite solar cell. <i>Journal of Materials Chemistry A</i> , 2015, 3, 14902-14909.	5.2	40
367	Critical parameters in $\text{TiO}_2/\text{ZrO}_2/\text{Carbon}$ -based mesoscopic perovskite solar cell. <i>Journal of Power Sources</i> , 2015, 293, 533-538.	4.0	114
368	The efficiency limit of $\text{CH}_3\text{NH}_3\text{PbI}_3$ perovskite solar cells. <i>Applied Physics Letters</i> , 2015, 106, .	1.5	480
369	Effects of incorporating PbS quantum dots in perovskite solar cells based on $\text{CH}_3\text{NH}_3\text{PbI}_3$ . <i>Journal of Power Sources</i> , 2015, 293, 577-584.	4.0	56
370	Halide-Dependent Electronic Structure of Organolead Perovskite Materials. <i>Chemistry of Materials</i> , 2015, 27, 4405-4412.	3.2	305
371	Self-Template-Directed Synthesis of Porous Perovskite Nanowires at Room Temperature for High-Performance Visible-Light Photodetectors. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 5693-5696.	7.2	192
372	Elucidating the Reaction Pathways in the Synthesis of Organolead Trihalide Perovskite for High-Performance Solar Cells. <i>Scientific Reports</i> , 2015, 5, 10557.	1.6	48
373	Improving efficiency of planar hybrid $\text{CH}_3\text{NH}_3\text{PbI}_3$ x $\text{Cl}_x$ perovskite solar cells by isopropanol solvent treatment. <i>Organic Electronics</i> , 2015, 24, 205-211.	1.4	41
374	A lead-halide perovskite molecular ferroelectric semiconductor. <i>Nature Communications</i> , 2015, 6, 7338.	5.8	538
375	Organic-Inorganic Composites of Semiconductor Nanocrystals for Efficient Excitronics. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 2206-2215.	2.1	34
376	Smooth perovskite thin films and efficient perovskite solar cells prepared by the hybrid deposition method. <i>Journal of Materials Chemistry A</i> , 2015, 3, 14631-14641.	5.2	126
377	Efficient and non-hysteresis $\text{CH}_3\text{NH}_3\text{PbI}_3/\text{PCBM}$ planar heterojunction solar cells. <i>Organic Electronics</i> , 2015, 24, 106-112.	1.4	94
378	Temperature-assisted controlling morphology and charge transport property for highly efficient perovskite solar cells. <i>Nano Energy</i> , 2015, 15, 540-548.	8.2	85
379	Ferroelectric Polarization of $\text{CH}_3\text{NH}_3\text{PbI}_3$ : A Detailed Study Based on Density Functional Theory and Symmetry Mode Analysis. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 2223-2231.	2.1	179
380	Enhanced Performance of Perovskite $\text{CH}_3\text{NH}_3\text{PbI}_3$ Solar Cell by Using $\text{CH}_3\text{NH}_3\text{I}$ as Additive in Sequential Deposition. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 12937-12942.	4.0	80
381	Wearable Double-Twisted Fibrous Perovskite Solar Cell. <i>Advanced Materials</i> , 2015, 27, 3831-3835.	11.1	184
382	Spectroscopic ellipsometry studies of $\text{CH}_3\text{NH}_3\text{PbX}_3$ thin films and their growth evolution. , 2015, , .		5



#	ARTICLE	IF	CITATIONS
383	Zero-dipole molecular organic cations in mixed organic–inorganic halide perovskites: possible chemical solution for the reported anomalous hysteresis in the current–voltage curve measurements. <i>Nanotechnology</i> , 2015, 26, 442001.	1.3	38
384	Fast Crystallization and Improved Stability of Perovskite Solar Cells with Zn <sub>2</sub> SnO <sub>4</sub> Electron Transporting Layer: Interface Matters. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 28404-28411.	4.0	103
385	Organic–Inorganic Hybrid Ternary Bulk Heterojunction of Nanostructured Perovskite–Low Bandgap Polymer–PCBM for Improved Efficiency of Organic Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 28459-28465.	4.0	9
386	Kesterite Cu <sub>2</sub> ZnSnS <sub>4</sub> as a Low-Cost Inorganic Hole-Transporting Material for High-Efficiency Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 28466-28473.	4.0	147
387	Enhanced amplified spontaneous emission from morphology-controlled organic–inorganic halide perovskite films. <i>RSC Advances</i> , 2015, 5, 103674-103679.	1.7	23
388	DMSO-based PbI <sub>2</sub> precursor with PbCl <sub>2</sub> additive for highly efficient perovskite solar cells fabricated at low temperature. <i>RSC Advances</i> , 2015, 5, 104606-104611.	1.7	26
389	Mechanism of Charge Transfer and Recombination Dynamics in Organo Metal Halide Perovskites and Organic Electrodes, PCBM, and Spiro-OMeTAD: Role of Dark Carriers. <i>Journal of the American Chemical Society</i> , 2015, 137, 16043-16048.	6.6	101
390	Substitution induced band structure shape tuning in hybrid perovskites (CH <sub>3</sub> NH <sub>3</sub> Pb <sub>1-x</sub> Sn <sub>x</sub> I <sub>3</sub> ) for efficient solar cell applications. <i>RSC Advances</i> , 2015, 5, 107497-107502.	1.7	44
391	Exploring the performance limiting parameters of perovskite solar cell through experimental analysis and device simulation. <i>Solar Energy</i> , 2015, 122, 773-782.	2.9	42
392	Reversible Anion Exchange Reaction in Solid Halide Perovskites and Its Implication in Photovoltaics. <i>Journal of Physical Chemistry C</i> , 2015, 119, 26883-26888.	1.5	45
393	TiO <sub>2</sub> quantum dots as superb compact block layers for high-performance CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite solar cells with an efficiency of 16.97%. <i>Nanoscale</i> , 2015, 7, 20539-20546.	2.8	87
394	Thickness of the hole transport layer in perovskite solar cells: performance versus reproducibility. <i>RSC Advances</i> , 2015, 5, 99356-99360.	1.7	98
395	Molecular alignment and Rashba splitting in organometal halide perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> absorbers. , 2015, , .		1
396	Perovskite solar cells stabilized by carbon nanostructure-P3HT blends. , 2015, , .		3
397	Phenoxazine–Based Small Molecule Material for Efficient Perovskite Solar Cells and Bulk Heterojunction Organic Solar Cells. <i>Advanced Energy Materials</i> , 2015, 5, 1401720.	10.2	109
398	Compositional engineering of perovskite materials for high-performance solar cells. <i>Nature</i> , 2015, 517, 476-480.	13.7	5,478
399	HPbI <sub>3</sub> : A New Precursor Compound for Highly Efficient Solution–Processed Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2015, 25, 1120-1126.	7.8	293
400	Advancements in all-solid-state hybrid solar cells based on organometal halide perovskites. <i>Materials Horizons</i> , 2015, 2, 378-405.	6.4	110



#	ARTICLE	IF	CITATIONS
401	Development of Lead Iodide Perovskite Solar Cells Using Three-Dimensional Titanium Dioxide Nanowire Architectures. <i>ACS Nano</i> , 2015, 9, 564-572.	7.3	125
402	Understanding the rate-dependent $J-V$ hysteresis, slow time component, and aging in $\text{CH}_3\text{NH}_3\text{PbI}_3$ perovskite solar cells: the role of a compensated electric field. <i>Energy and Environmental Science</i> , 2015, 8, 995-1004.	15.6	1,150
403	Vacuum-Assisted Thermal Annealing of $\text{CH}_3\text{NH}_3\text{PbI}_3$ for Highly Stable and Efficient Perovskite Solar Cells. <i>ACS Nano</i> , 2015, 9, 639-646.	7.3	318
404	All Solution-Processed Lead Halide Perovskite- $\text{BiVO}_4$ Tandem Assembly for Photolytic Solar Fuels Production. <i>Journal of the American Chemical Society</i> , 2015, 137, 974-981.	6.6	244
405	Structure and function relationships in alkylammonium lead(II) iodide solar cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 9201-9207.	5.2	57
406	Phase transitions and dielectric properties of a hexagonal $\text{ABX}_3$ perovskite-type organic-inorganic hybrid compound: $[\text{C}_3\text{H}_4\text{NS}][\text{CdBr}_3]$ . <i>Dalton Transactions</i> , 2015, 44, 10614-10620.	1.6	60
407	Organic-Inorganic Hybrid Lead Iodide Perovskite Featuring Zero Dipole Moment Guanidinium Cations: A Theoretical Analysis. <i>Journal of Physical Chemistry C</i> , 2015, 119, 4694-4701.	1.5	132
408	Superior Photovoltaic Properties of Lead Halide Perovskites: Insights from First-Principles Theory. <i>Journal of Physical Chemistry C</i> , 2015, 119, 5253-5264.	1.5	246
409	Nanocarbons for mesoscopic perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 9020-9031.	5.2	104
410	Ultrathin Atomic Layer Deposited $\text{TiO}_2$ for Surface Passivation of Hydrothermally Grown 1D $\text{TiO}_2$ Nanorod Arrays for Efficient Solid-State Perovskite Solar Cells. <i>Chemistry of Materials</i> , 2015, 27, 1541-1551.	3.2	170
411	Ultralow Absorption Coefficient and Temperature Dependence of Radiative Recombination of $\text{CH}_3\text{NH}_3\text{PbI}_3$ Perovskite from Photoluminescence. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 767-772.	2.1	73
412	Phosphonium Halides as Both Processing Additives and Interfacial Modifiers for High Performance Planar Heterojunction Perovskite Solar Cells. <i>Small</i> , 2015, 11, 3344-3350.	5.2	91
413	Insights into Planar $\text{CH}_3\text{NH}_3\text{PbI}_3$ Perovskite Solar Cells Using Impedance Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2015, 119, 4444-4453.	1.5	160
414	Photophysics of Organic-Inorganic Hybrid Lead Iodide Perovskite Single Crystals. <i>Advanced Functional Materials</i> , 2015, 25, 2378-2385.	7.8	318
415	Interfaces in Perovskite Solar Cells. <i>Small</i> , 2015, 11, 2472-2486.	5.2	344
416	Enhanced Photovoltaic Performance of $\text{CH}_3\text{NH}_3\text{PbI}_3$ Perovskite Solar Cells through Interfacial Engineering Using Self-Assembling Monolayer. <i>Journal of the American Chemical Society</i> , 2015, 137, 2674-2679.	6.6	590
417	Recent progress in enhancing solar-to-hydrogen efficiency. <i>Journal of Power Sources</i> , 2015, 280, 649-666.	4.0	112
418	Organic-inorganic halide perovskite based solar cells – revolutionary progress in photovoltaics. <i>Inorganic Chemistry Frontiers</i> , 2015, 2, 315-335.	3.0	70

#	ARTICLE	IF	CITATIONS
419	M13 Virus-Enabled Synthesis of Titanium Dioxide Nanowires for Tunable Mesoporous Semiconducting Networks. <i>Chemistry of Materials</i> , 2015, 27, 1531-1540.	3.2	44
420	Formation of Thin Films of Organic-Inorganic Perovskites for High-Efficiency Solar Cells. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 3240-3248.	7.2	245
421	Control of organic-inorganic halide perovskites in solid-state solar cells: a perspective. <i>Science Bulletin</i> , 2015, 60, 405-418.	4.3	39
423	Unravelling the Effects of Cl Addition in Single Step $\text{CH}_3\text{NH}_3\text{PbI}_3$ Perovskite Solar Cells. <i>Chemistry of Materials</i> , 2015, 27, 2309-2314.	3.2	96
424	Perovskite Solar Cells: Beyond Methylammonium Lead Iodide. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 898-907.	2.1	266
425	Pathways for solar photovoltaics. <i>Energy and Environmental Science</i> , 2015, 8, 1200-1219.	15.6	385
426	Methylammonium Lead Bromide Perovskite-Based Solar Cells by Vapor-Assisted Deposition. <i>Journal of Physical Chemistry C</i> , 2015, 119, 3545-3549.	1.5	223
427	Investigation of $\text{CH}_3\text{NH}_3\text{PbI}_3$ Degradation Rates and Mechanisms in Controlled Humidity Environments Using <i>in Situ</i> Techniques. <i>ACS Nano</i> , 2015, 9, 1955-1963.	7.3	1,171
428	Zr Incorporation into $\text{TiO}_2$ Electrodes Reduces Hysteresis and Improves Performance in Hybrid Perovskite Solar Cells while Increasing Carrier Lifetimes. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 669-675.	2.1	106
429	Electrolytes in Dye-Sensitized Solar Cells. <i>Chemical Reviews</i> , 2015, 115, 2136-2173.	23.0	852
430	High-efficiency solution-processed perovskite solar cells with millimeter-scale grains. <i>Science</i> , 2015, 347, 522-525.	6.0	2,978
431	Ultrasoft organic-inorganic perovskite thin-film formation and crystallization for efficient planar heterojunction solar cells. <i>Nature Communications</i> , 2015, 6, 6142.	5.8	784
432	Trap States in Lead Iodide Perovskites. <i>Journal of the American Chemical Society</i> , 2015, 137, 2089-2096.	6.6	813
433	Air-Stable and Solution-Processable Perovskite Photodetectors for Solar-Blind UV and Visible Light. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 535-539.	2.1	265
434	Fabrication of Au/Graphene-Wrapped ZnO-Nanoparticle-Assembled Hollow Spheres with Effective Photoinduced Charge Transfer for Photocatalysis. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 3524-3531.	4.0	123
435	Mechanical Origin of the Structural Phase Transition in Methylammonium Lead Iodide $\text{CH}_3\text{NH}_3\text{PbI}_3$ . <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 681-685.	2.1	63
436	NiO/MAPbI <sub>3</sub> -xCl <sub>x</sub> /PCBM: A Model Case for an Improved Understanding of Inverted Mesoscopic Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 4283-4289.	4.0	59
437	A facile and low-cost fabrication of TiO <sub>2</sub> compact layer for efficient perovskite solar cells. <i>Current Applied Physics</i> , 2015, 15, 574-579.	1.1	34

#	ARTICLE	IF	CITATIONS
438	Atmospheric effects on the photovoltaic performance of hybrid perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2015, 137, 6-14.	3.0	117
439	Investigation on regeneration kinetics at perovskite/oxide interface with scanning electrochemical microscopy. <i>Journal of Materials Chemistry A</i> , 2015, 3, 9216-9222.	5.2	19
440	A Power Pack Based on Organometallic Perovskite Solar Cell and Supercapacitor. <i>ACS Nano</i> , 2015, 9, 1782-1787.	7.3	201
441	Inverted Planar Heterojunction Perovskite Solar Cells Employing Polymer as the Electron Conductor. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 3994-3999.	4.0	100
442	Trap-Assisted Non-Radiative Recombination in Organic-Inorganic Perovskite Solar Cells. <i>Advanced Materials</i> , 2015, 27, 1837-1841.	11.1	684
443	Highly Spin-Polarized Carrier Dynamics and Ultralarge Photoinduced Magnetization in $\text{CH}_3\text{NH}_3\text{PbI}_3$ Perovskite Thin Films. <i>Nano Letters</i> , 2015, 15, 1553-1558.	4.5	183
444	Cooperative kinetics of depolarization in $\text{CH}_3\text{NH}_3\text{PbI}_3$ perovskite solar cells. <i>Energy and Environmental Science</i> , 2015, 8, 910-915.	15.6	116
445	Efficient $\text{CH}_3\text{NH}_3\text{PbI}_3$ Perovskite Solar Cells Based on Graphdiyne (GD)-Modified P3HT Hole-Transporting Material. <i>Advanced Energy Materials</i> , 2015, 5, 1401943.	10.2	282
446	Introducing Perovskite Solar Cells to Undergraduates. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 251-255.	2.1	33
447	High-Performance Graphene-Based Hole Conductor-Free Perovskite Solar Cells: Schottky Junction Enhanced Hole Extraction and Electron Blocking. <i>Small</i> , 2015, 11, 2269-2274.	5.2	233
448	Fabrication of metal-oxide-free $\text{CH}_3\text{NH}_3\text{PbI}_3$ perovskite solar cells processed at low temperature. <i>Journal of Materials Chemistry A</i> , 2015, 3, 3271-3275.	5.2	162
449	Efficiency enhancement by defect engineering in perovskite photovoltaic cells prepared using evaporated $\text{PbI}_2/\text{CH}_3\text{NH}_3\text{I}$ multilayers. <i>Journal of Materials Chemistry A</i> , 2015, 3, 9223-9231.	5.2	82
450	Perovskite thin-film solar cell: excitation in photovoltaic science. <i>Science China Chemistry</i> , 2015, 58, 221-238.	4.2	63
451	Uniform, Stable, and Efficient Planar-Heterojunction Perovskite Solar Cells by Facile Low-Pressure Chemical Vapor Deposition under Fully Open-Air Conditions. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 2708-2714.	4.0	173
452	Inorganic p-type contact materials for perovskite-based solar cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 9011-9019.	5.2	143
453	Spontaneous Defect Annihilation in $\text{CH}_3\text{NH}_3\text{PbI}_3$ Thin Films at Room Temperature Revealed by Time-Resolved Photoluminescence Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 482-486.	2.1	83
454	Facile preparation of organometallic perovskite films and high-efficiency solar cells using solid-state chemistry. <i>Nano Research</i> , 2015, 8, 263-270.	5.8	32
455	Pressure-assisted $\text{CH}_3\text{NH}_3\text{PbI}_3$ morphology reconstruction to improve the high performance of perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 5289-5293.	5.2	76

#	ARTICLE	IF	CITATIONS
456	Photoelectronic Responses in Solution-Processed Perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Solar Cells Studied by Photoluminescence and Photoabsorption Spectroscopy. IEEE Journal of Photovoltaics, 2015, 5, 401-405.	1.5	170
457	Transformation of the Excited State and Photovoltaic Efficiency of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite upon Controlled Exposure to Humidified Air. Journal of the American Chemical Society, 2015, 137, 1530-1538.	6.6	1,160
458	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
459	Efficient Hybrid Mesoscopic Solar Cells with Morphology-Controlled CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3-x</sub> Cl <sub>x</sub> Derived from Two-Step Spin Coating Method. ACS Applied Materials & Interfaces, 2015, 7, 2242-2248.	4.0	92
460	Growth control of compact CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> 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
461	Unraveling film transformations and device performance of planar perovskite solar cells. Nano Energy, 2015, 12, 494-500.	8.2	65
462	Preparation of metal halide perovskite solar cells through a liquid droplet assisted method. Journal of Materials Chemistry A, 2015, 3, 9257-9263.	5.2	47
463	Structural and electronic properties of organo-halide hybrid perovskites from ab initio molecular dynamics. Physical Chemistry Chemical Physics, 2015, 17, 9394-9409.	1.3	130
464	Morphology control of the perovskite films for efficient solar cells. Dalton Transactions, 2015, 44, 10582-10593.	1.6	154
465	Formation of organic-inorganic mixed halide perovskite films by thermal evaporation of PbCl <sub>2</sub> and CH <sub>3</sub> NH <sub>3</sub> I compounds. RSC Advances, 2015, 5, 26175-26180.	1.7	47
466	Efficient mesoscopic perovskite solar cells based on the CH <sub>3</sub> NH <sub>3</sub> PbI <sub>2</sub> Br light absorber. Journal of Materials Chemistry A, 2015, 3, 9116-9122.	5.2	67
467	Efficient and Balanced Charge Transport Revealed in Planar Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 4471-4475.	4.0	131
468	Realistic absorption coefficient of each individual film in a multilayer architecture. Journal of Optics (United Kingdom), 2015, 17, 025610.	1.0	1
469	Spatially separated charge densities of electrons and holes in organic-inorganic halide perovskites. Journal of Applied Physics, 2015, 117, 074901.	1.1	12
470	Giant Photoluminescence Blinking of Perovskite Nanocrystals Reveals Single-Trap Control of Luminescence. Nano Letters, 2015, 15, 1603-1608.	4.5	185
471	Non-Thermal Annealing Fabrication of Efficient Planar Perovskite Solar Cells with Inclusion of NH <sub>4</sub> Cl. Chemistry of Materials, 2015, 27, 1448-1451.	3.2	123
472	Role of morphology and crystallinity of nanorod and planar electron transport layers on the performance and long term durability of perovskite solar cells. Journal of Power Sources, 2015, 283, 61-67.	4.0	106
473	Nanowire Perovskite Solar Cell. Nano Letters, 2015, 15, 2120-2126.	4.5	321

#	ARTICLE	IF	CITATIONS
474	Atmospheric Influence upon Crystallization and Electronic Disorder and Its Impact on the Photophysical Properties of Organic-Inorganic Perovskite Solar Cells. <i>ACS Nano</i> , 2015, 9, 2311-2320.	7.3	173
475	Improving the TiO <sub>2</sub> electron transport layer in perovskite solar cells using acetylacetonate-based additives. <i>Journal of Materials Chemistry A</i> , 2015, 3, 9108-9115.	5.2	104
476	Roles of Fullerene-Based Interlayers in Enhancing the Performance of Organometal Perovskite Thin-Film Solar Cells. <i>Advanced Energy Materials</i> , 2015, 5, 1402321.	10.2	289
477	Interfacial Control Toward Efficient and Low-Voltage Perovskite Light-Emitting Diodes. <i>Advanced Materials</i> , 2015, 27, 2311-2316.	11.1	631
478	Perovskite solar cells: film formation and properties. <i>Journal of Materials Chemistry A</i> , 2015, 3, 9032-9050.	5.2	392
479	Room temperature optical properties of organic-inorganic lead halide perovskites. <i>Solar Energy Materials and Solar Cells</i> , 2015, 137, 253-257.	3.0	96
480	Mesoporous SnO <sub>2</sub> nanoparticle films as electron-transporting material in perovskite solar cells. <i>RSC Advances</i> , 2015, 5, 28424-28429.	1.7	154
481	Hot-Electron Injection in a Sandwiched TiO <sub>x</sub> /Au-TiO <sub>x</sub> Structure for High-Performance Planar Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2015, 5, 1500038.	10.2	119
482	Triple Cathode Buffer Layers Composed of PCBM, C <sub>60</sub> , and LiF for High-Performance Planar Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 6230-6237.	4.0	136
483	Many-body interactions in photo-excited lead iodide perovskite. <i>Journal of Materials Chemistry A</i> , 2015, 3, 9285-9290.	5.2	144
484	Magnetic field effects in hybrid perovskite devices. <i>Nature Physics</i> , 2015, 11, 427-434.	6.5	227
485	The recombination mechanisms leading to amplified spontaneous emission at the true-green wavelength in CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> perovskites. <i>Applied Physics Letters</i> , 2015, 106, .	1.5	126
486	17.6% stabilized efficiency in low-temperature processed planar perovskite solar cells. <i>Energy and Environmental Science</i> , 2015, 8, 2365-2370.	15.6	300
487	Identifying the optimum thickness of electron transport layers for highly efficient perovskite planar solar cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 16445-16452.	5.2	91
488	Bulk intermixing-type perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> /TiO <sub>2</sub> nanorod hybrid solar cells. <i>Nanoscale</i> , 2015, 7, 14532-14537.	2.8	15
489	Elucidation of Perovskite Film Micro-Orientations Using Two-Photon Total Internal Reflectance Fluorescence Microscopy. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 3283-3288.	2.1	24
490	Thickness effects of ZnO thin film on the performance of tri-iodide perovskite absorber based photovoltaics. <i>Solar Energy</i> , 2015, 120, 117-122.	2.9	43
491	Surface Charge Trapping in Organolead Halide Perovskites Explored by Single-Particle Photoluminescence Imaging. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 3195-3201.	2.1	105

#	ARTICLE	IF	CITATIONS
492	Mechanical properties of organic–inorganic halide perovskites, $\text{CH}_3\text{NH}_3\text{PbX}_3$ (X = I, Br and Cl), by nanoindentation. <i>Journal of Materials Chemistry A</i> , 2015, 3, 18450-18455.	5.2	197
493	Molecular dynamics simulations of organohalide perovskite precursors: solvent effects in the formation of perovskite solar cells. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 22770-22777.	1.3	32
494	Efficient and low-temperature processed perovskite solar cells based on a cross-linkable hybrid interlayer. <i>Journal of Materials Chemistry A</i> , 2015, 3, 18483-18491.	5.2	55
495	Controllable Grain Morphology of Perovskite Absorber Film by Molecular Self-Assembly toward Efficient Solar Cell Exceeding 17%. <i>Journal of the American Chemical Society</i> , 2015, 137, 10399-10405.	6.6	347
496	Efficient planar perovskite solar cells with large fill factor and excellent stability. <i>Journal of Power Sources</i> , 2015, 297, 53-58.	4.0	59
497	Two-Photon Absorption in Organometallic Bromide Perovskites. <i>ACS Nano</i> , 2015, 9, 9340-9346.	7.3	254
498	Solvent-assisted growth of organic–inorganic hybrid perovskites with enhanced photovoltaic performances. <i>Solar Energy Materials and Solar Cells</i> , 2015, 143, 360-368.	3.0	14
499	Elucidating the role of disorder and free-carrier recombination kinetics in $\text{CH}_3\text{NH}_3\text{PbI}_3$ perovskite films. <i>Nature Communications</i> , 2015, 6, 7903.	5.8	132
500	Interface engineering for high-performance perovskite hybrid solar cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 19205-19217.	5.2	145
501	Energetics and dynamics in organic–inorganic halide perovskite photovoltaics and light emitters. <i>Nanotechnology</i> , 2015, 26, 342001.	1.3	75
502	Photovoltaic performance and the energy landscape of $\text{CH}_3\text{NH}_3\text{PbI}_3$ . <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 22604-22615.	1.3	35
503	Organometal Trihalide Perovskite Single Crystals: A Next Wave of Materials for 25% Efficiency Photovoltaics and Applications Beyond?. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 3218-3227.	2.1	220
504	Ultrafast photoinduced dynamics of the organolead trihalide perovskite $\text{CH}_3\text{NH}_3\text{PbI}_3$ on mesoporous $\text{TiO}_2$ scaffolds in the 320–920 nm range. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 19238-19246.	1.3	54
505	Formamidinium tin-based perovskite with low $E_g$ for photovoltaic applications. <i>Journal of Materials Chemistry A</i> , 2015, 3, 14996-15000.	5.2	449
506	Polyelectrolyte based hole-transporting materials for high performance solution processed planar perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 15024-15029.	5.2	107
507	Hole-transport-material-free perovskite solar cells based on nanoporous gold back electrode. <i>RSC Advances</i> , 2015, 5, 58543-58548.	1.7	20
508	High-quality bulk hybrid perovskite single crystals within minutes by inverse temperature crystallization. <i>Nature Communications</i> , 2015, 6, 7586.	5.8	1,478
509	A mesoporous nickel counter electrode for printable and reusable perovskite solar cells. <i>Nanoscale</i> , 2015, 7, 13363-13368.	2.8	64



#	ARTICLE	IF	CITATIONS
510	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. <i>Journal of Materials Chemistry A</i> , 2015, 3, 15897-15904.	5.2	85
511	Coherent Terahertz Control of Vertical Transport in Semiconductor Heterostructures. <i>Physical Review Letters</i> , 2015, 114, 116802.	2.9	6
512	Evolution of Organic-Inorganic Lead Halide Perovskite from Solid-State Iodoplumbate Complexes. <i>Journal of Physical Chemistry C</i> , 2015, 119, 17065-17073.	1.5	70
513	Perovskite Solar Cell Using a Two-Dimensional Titania Nanosheet Thin Film as the Compact Layer. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 15117-15122.	4.0	20
514	Transparent conducting oxide free backside illuminated perovskite solar cells. <i>Applied Physics Letters</i> , 2015, 107, .	1.5	11
515	Reversible Halide Exchange Reaction of Organometal Trihalide Perovskite Colloidal Nanocrystals for Full-Range Band Gap Tuning. <i>Nano Letters</i> , 2015, 15, 5191-5199.	4.5	432
516	Domain Walls Conductivity in Hybrid Organometallic Perovskites and Their Essential Role in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Solar Cell High Performance. <i>Scientific Reports</i> , 2015, 5, 11467.	1.6	41
517	A large grain size perovskite thin film with a dense structure for planar heterojunction solar cells via spray deposition under ambient conditions. <i>RSC Advances</i> , 2015, 5, 60562-60569.	1.7	130
518	Ionic transport in hybrid lead iodide perovskite solar cells. <i>Nature Communications</i> , 2015, 6, 7497.	5.8	2,154
519	Unraveling the high performance of tri-iodide perovskite absorber based photovoltaics with a non-polar solvent washing treatment. <i>Solar Energy Materials and Solar Cells</i> , 2015, 141, 309-314.	3.0	72
520	CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> and CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3-x</sub> Cl <sub>x</sub> in Planar or Mesoporous Perovskite Solar Cells: Comprehensive Insight into the Dependence of Performance on Architecture. <i>Journal of Physical Chemistry C</i> , 2015, 119, 15868-15873.	1.5	63
521	Heterogeneous Charge Carrier Dynamics in Organic-Inorganic Hybrid Materials: Nanoscale Lateral and Depth-Dependent Variation of Recombination Rates in Methylammonium Lead Halide Perovskite Thin Films. <i>Nano Letters</i> , 2015, 15, 4799-4807.	4.5	128
522	Abnormal crystal growth in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3-x</sub> Cl <sub>x</sub> using a multi-cycle solution coating process. <i>Energy and Environmental Science</i> , 2015, 8, 2464-2470.	15.6	240
523	Temperature dependent energy levels of methylammonium lead iodide perovskite. <i>Applied Physics Letters</i> , 2015, 106, .	1.5	159
524	Fast and effective electron transport in a Au-graphene-ZnO hybrid for enhanced photocurrent and photocatalysis. <i>RSC Advances</i> , 2015, 5, 63964-63969.	1.7	44
525	Spatial Localization of Excitons and Charge Carriers in Hybrid Perovskite Thin Films. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 3041-3047.	2.1	59
526	Lead iodide perovskite light-emitting field-effect transistor. <i>Nature Communications</i> , 2015, 6, 7383.	5.8	641
527	Charge Carriers in Planar and Meso-Structured Organic-Inorganic Perovskites: Mobilities, Lifetimes, and Concentrations of Trap States. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 3082-3090.	2.1	257



#	ARTICLE	IF	CITATIONS
528	Semitransparent Fully Air Processed Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 17776-17781.	4.0	75
529	Random Terpolymer Designed with Tunable Fluorescence Lifetime for Efficient Organic/Inorganic Hybrid Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 17408-17415.	4.0	17
530	CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3-x</sub> Cl <sub>x</sub> films with coverage approaching 100% and with highly oriented crystal domains for reproducible and efficient planar heterojunction perovskite solar cells. Physical Chemistry Chemical Physics, 2015, 17, 22015-22022.	1.3	61
531	Vertical TiO <sub>2</sub> Nanorods as a Medium for Stable and High-Efficiency Perovskite Solar Modules. ACS Nano, 2015, 9, 8420-8429.	7.3	174
532	Morphological control of organic-inorganic perovskite layers by hot isostatic pressing for efficient planar solar cells. Journal of Materials Chemistry A, 2015, 3, 17780-17787.	5.2	29
533	Highly porous Zinc Stannate (Zn <sub>2</sub> SnO <sub>4</sub> ) nanofibers scaffold photoelectrodes for efficient methyl ammonium halide perovskite solar cells. Scientific Reports, 2015, 5, 11424.	1.6	112
534	Perovskites for photovoltaics: a combined review of organic-inorganic halide perovskites and ferroelectric oxide perovskites. Journal of Materials Chemistry A, 2015, 3, 18809-18828.	5.2	232
535	Exciton Binding Energy and the Nature of Emissive States in Organometal Halide Perovskites. Journal of Physical Chemistry Letters, 2015, 6, 2969-2975.	2.1	211
536	Ferroelectric Graphene-Perovskite Interfaces. Journal of Physical Chemistry Letters, 2015, 6, 2496-2502.	2.1	67
537	Under the spotlight: The organic-inorganic hybrid halide perovskite for optoelectronic applications. Nano Today, 2015, 10, 355-396.	6.2	891
538	Methylammonium Rotational Dynamics in Lead Halide Perovskite by Classical Molecular Dynamics: The Role of Temperature. Journal of Physical Chemistry C, 2015, 119, 17421-17428.	1.5	255
539	Light-Induced Increase of Electron Diffusion Length in a p-n Junction Type CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> Perovskite Solar Cell. Journal of Physical Chemistry Letters, 2015, 6, 2469-2476.	2.1	91
540	Enhanced Amplified Spontaneous Emission in Perovskites Using a Flexible Cholesteric Liquid Crystal Reflector. Nano Letters, 2015, 15, 4935-4941.	4.5	117
541	The optoelectronic role of chlorine in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> (Cl)-based perovskite solar cells. Nature Communications, 2015, 6, 7269.	5.8	404
542	Conjugated polyelectrolyte hole transport layer for inverted-type perovskite solar cells. Nature Communications, 2015, 6, 7348.	5.8	281
543	<i>Ab Initio</i> Molecular Dynamics Simulations of Methylammonium Lead Iodide Perovskite Degradation by Water. Chemistry of Materials, 2015, 27, 4885-4892.	3.2	414
544	Large-Size CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> Single Crystal: Growth and In Situ Characterization of the Photophysics Properties. Journal of Physical Chemistry Letters, 2015, 6, 2622-2628.	2.1	48
545	Recent progress in efficient hybrid lead halide perovskite solar cells. Science and Technology of Advanced Materials, 2015, 16, 036004.	2.8	87

#	ARTICLE	IF	CITATIONS
546	Direct insight into crystallization and stability of hybrid perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> via solvothermal synthesis. <i>Journal of Materials Chemistry A</i> , 2015, 3, 15854-15857.	5.2	23
547	Transparent Conductive Oxide-Free Perovskite Solar Cells with PEDOT:PSS as Transparent Electrode. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 15314-15320.	4.0	201
548	Effect of modulating the molar ratio of organic to inorganic content on morphology, optical absorption and photoluminescence of perovskite CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> films. <i>Applied Surface Science</i> , 2015, 351, 1191-1196.	3.1	56
549	Vacuum-free laminated top electrode with conductive tapes for scalable manufacturing of efficient perovskite solar cells. <i>Nano Energy</i> , 2015, 16, 47-53.	8.2	36
550	Multi-step slow annealing perovskite films for high performance planar perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2015, 141, 377-382.	3.0	101
551	Thermal-Induced Volmer-Weber Growth Behavior for Planar Heterojunction Perovskites Solar Cells. <i>Chemistry of Materials</i> , 2015, 27, 5116-5121.	3.2	107
552	Spatial and temporal imaging of long-range charge transport in perovskite thin films by ultrafast microscopy. <i>Nature Communications</i> , 2015, 6, 7471.	5.8	269
553	A two-layer structured PbI <sub>2</sub> thin film for efficient planar perovskite solar cells. <i>Nanoscale</i> , 2015, 7, 12092-12095.	2.8	40
554	Colored, see-through perovskite solar cells employing an optical cavity. <i>Journal of Materials Chemistry C</i> , 2015, 3, 5377-5382.	2.7	89
555	Low-temperature, solution processed metal sulfide as an electron transport layer for efficient planar perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 11750-11755.	5.2	122
556	Improved Hole Interfacial Layer for Planar Perovskite Solar Cells with Efficiency Exceeding 15%. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 9645-9651.	4.0	114
557	Unipolar self-doping behavior in perovskite CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> . <i>Applied Physics Letters</i> , 2015, 106, .	1.5	181
558	A dopant-free organic hole transport material for efficient planar heterojunction perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 11940-11947.	5.2	213
559	Efficient perovskite/fullerene planar heterojunction solar cells with enhanced charge extraction and suppressed charge recombination. <i>Nanoscale</i> , 2015, 7, 9771-9778.	2.8	102
560	Effects of Seed Layer on Growth of ZnO Nanorod and Performance of Perovskite Solar Cell. <i>Journal of Physical Chemistry C</i> , 2015, 119, 10321-10328.	1.5	151
561	Efficient and stable planar heterojunction perovskite solar cells with an MoO <sub>3</sub> /PEDOT:PSS hole transporting layer. <i>Nanoscale</i> , 2015, 7, 9427-9432.	2.8	211
562	Direct monitoring of ultrafast electron and hole dynamics in perovskite solar cells. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 14674-14684.	1.3	141
563	Revealing the role of organic cations in hybrid halide perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> . <i>Nature Communications</i> , 2015, 6, 7026.	5.8	564

#	ARTICLE	IF	CITATIONS
564	High-Performance Fully Printable Perovskite Solar Cells via Blade-Coating Technique under the Ambient Condition. <i>Advanced Energy Materials</i> , 2015, 5, 1500328.	10.2	294
565	Impact of microstructure on local carrier lifetime in perovskite solar cells. <i>Science</i> , 2015, 348, 683-686.	6.0	1,833
566	Solution Growth of Single Crystal Methylammonium Lead Halide Perovskite Nanostructures for Optoelectronic and Photovoltaic Applications. <i>Journal of the American Chemical Society</i> , 2015, 137, 5810-5818.	6.6	368
567	Record Charge Carrier Diffusion Length in Colloidal Quantum Dot Solids via Mutual Dot-Surface Passivation. <i>Advanced Materials</i> , 2015, 27, 3325-3330.	11.1	118
568	Ferroelectric Polarization in $\text{CH}_3\text{NH}_3\text{PbI}_3$ Perovskite. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 1729-1735.	2.1	180
569	Direct observation of an inhomogeneous chlorine distribution in $\text{CH}_3\text{NH}_3\text{PbI}_{3-x}\text{Cl}_x$ layers: surface depletion and interface enrichment. <i>Energy and Environmental Science</i> , 2015, 8, 1609-1615.	15.6	97
570	Laser-Scribing Patterning for the Production of Organometallic Halide Perovskite Solar Modules. <i>IEEE Journal of Photovoltaics</i> , 2015, 5, 1087-1092.	1.5	109
571	Nonvolatile chlorinated additives adversely influence $\text{CH}_3\text{NH}_3\text{PbI}_3$ -based planar solar cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 9137-9140.	5.2	34
572	Ferroelectric solar cells based on inorganic-organic hybrid perovskites. <i>Journal of Materials Chemistry A</i> , 2015, 3, 7699-7705.	5.2	103
573	On the Role of Interfaces in Planar-Structured $\text{HC}(\text{NH}_2)_2\text{PbI}_3$ Perovskite Solar Cells. <i>ChemSusChem</i> , 2015, 8, 2414-2419.	3.6	67
574	Hybrid Graphene-Perovskite Phototransistors with Ultrahigh Responsivity and Gain. <i>Advanced Optical Materials</i> , 2015, 3, 1389-1396.	3.6	240
575	Thin Films of Dendritic Anatase Titania Nanowires Enable Effective Hole-Blocking and Efficient Light-Harvesting for High-Performance Mesoscopic Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2015, 25, 3264-3272.	7.8	101
576	Efficient planar perovskite solar cell by spray and brush solution-processing methods. <i>Journal of Photonics for Energy</i> , 2015, 5, 053093.	0.8	15
577	Electronic structure evolution of fullerene on $\text{CH}_3\text{NH}_3\text{PbI}_3$ . <i>Applied Physics Letters</i> , 2015, 106, .	1.5	44
578	Research progress of perovskite materials in photocatalysis- and photovoltaics-related energy conversion and environmental treatment. <i>Chemical Society Reviews</i> , 2015, 44, 5371-5408.	18.7	725
579	Multifaceted Excited State of $\text{CH}_3\text{NH}_3\text{PbI}_3$ . Charge Separation, Recombination, and Trapping. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 2086-2095.	2.1	107
580	Doped hole transport layer for efficiency enhancement in planar heterojunction organolead trihalide perovskite solar cells. <i>Nano Energy</i> , 2015, 15, 275-280.	8.2	268
581	Origin of the high open circuit voltage in planar heterojunction perovskite solar cells: Role of the reduced bimolecular recombination. <i>Journal of Applied Physics</i> , 2015, 117, .	1.1	69

#	ARTICLE	IF	CITATIONS
582	Efficient Semitransparent Perovskite Solar Cells with Graphene Electrodes. <i>Advanced Materials</i> , 2015, 27, 3632-3638.	11.1	456
583	Perovskites: transforming photovoltaics, a mini-review. <i>Journal of Photonics for Energy</i> , 2015, 5, 057402.	0.8	47
584	Investigating the charge carrier transport within the hole-transport material free perovskite solar cell processed in ambient air. <i>Solar Energy Materials and Solar Cells</i> , 2015, 140, 320-327.	3.0	52
585	Controlled thickness and morphology for highly efficient inverted planar heterojunction perovskite solar cells. <i>Nanoscale</i> , 2015, 7, 10699-10707.	2.8	21
586	Exciton versus Free Carrier Photogeneration in Organometal Trihalide Perovskites Probed by Broadband Ultrafast Polarization Memory Dynamics. <i>Physical Review Letters</i> , 2015, 114, 116601.	2.9	113
587	In situ synthesis of binary cobalt-ruthenium nanofiber alloy counter electrode for electrolyte-free cadmium sulfide quantum dot solar cells. <i>Journal of Power Sources</i> , 2015, 284, 162-169.	4.0	9
588	Unraveling the Effect of $\text{PbI}_2$ Concentration on Charge Recombination Kinetics in Perovskite Solar Cells. <i>ACS Photonics</i> , 2015, 2, 589-594.	3.2	97
589	High-performance hole-transporting layer-free conventional perovskite/fullerene heterojunction thin-film solar cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 9128-9132.	5.2	52
591	Optical absorption, charge separation and recombination dynamics in Sn/Pb cocktail perovskite solar cells and their relationships to photovoltaic performances. <i>Journal of Materials Chemistry A</i> , 2015, 3, 9308-9316.	5.2	85
592	Hole Selective NiO Contact for Efficient Perovskite Solar Cells with Carbon Electrode. <i>Nano Letters</i> , 2015, 15, 2402-2408.	4.5	412
593	Ferroelectricity of $\text{CH}_3\text{NH}_3\text{PbI}_3$ Perovskite. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 1155-1161.	2.1	295
594	Surface analytical investigation on organometal triiodide perovskite. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2015, 33, .	0.6	43
595	High intrinsic carrier mobility and photon absorption in the perovskite $\text{CH}_3\text{NH}_3\text{PbI}_3$ . <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 11516-11520.	1.3	182
596	Improved environmental stability of organic lead trihalide perovskite-based photoactive-layers in the presence of mesoporous $\text{TiO}_2$ . <i>Journal of Materials Chemistry A</i> , 2015, 3, 7219-7223.	5.2	112
597	Native defects in $\text{Ti}_6\text{Si}_4$ : Density functional calculations. <i>Journal of Applied Physics</i> , 2015, 117, .	1.1	7
598	Fundamental physics behind high-efficiency organo-metal halide perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 15372-15385.	5.2	120
599	Colloidal Organohalide Perovskite Nanoplatelets Exhibiting Quantum Confinement. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 1911-1916.	2.1	358
600	Recent Progress of Innovative Perovskite Hybrid Solar Cells. <i>Israel Journal of Chemistry</i> , 2015, 55, 966-977.	1.0	34

#	ARTICLE	IF	CITATIONS
601	Determination of Exciton Diffusion Length by Transient Photoluminescence Quenching and Its Application to Quantum Dot Films. <i>Journal of Physical Chemistry C</i> , 2015, 119, 9005-9015.	1.5	84
602	Bright Visible-Infrared Light Emitting Diodes Based on Hybrid Halide Perovskite with Spiro-OMeTAD as a Hole-Injecting Layer. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 1883-1890.	2.1	233
603	Nanophotonic front electrodes for perovskite solar cells. <i>Applied Physics Letters</i> , 2015, 106, .	1.5	52
604	CuSCN-Based Inverted Planar Perovskite Solar Cell with an Average PCE of 15.6%. <i>Nano Letters</i> , 2015, 15, 3723-3728.	4.5	506
605	Metal-halide perovskites for photovoltaic and light-emitting devices. <i>Nature Nanotechnology</i> , 2015, 10, 391-402.	15.6	2,604
606	Perovskiteâ€“Hematite Tandem Cells for Efficient Overall Solar Driven Water Splitting. <i>Nano Letters</i> , 2015, 15, 3833-3839.	4.5	249
607	The Mechanism of Slow Hot-Hole Cooling in Lead-Iodide Perovskite: First-Principles Calculation on Carrier Lifetime from Electronâ€“Phonon Interaction. <i>Nano Letters</i> , 2015, 15, 3103-3108.	4.5	140
608	Interfacial Charge Transfer Anisotropy in Polycrystalline Lead Iodide Perovskite Films. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 1396-1402.	2.1	141
609	Alternating precursor layer deposition for highly stable perovskite films towards efficient solar cells using vacuum deposition. <i>Journal of Materials Chemistry A</i> , 2015, 3, 9401-9405.	5.2	146
610	Hysteresis-less inverted CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> planar perovskite hybrid solar cells with 18.1% power conversion efficiency. <i>Energy and Environmental Science</i> , 2015, 8, 1602-1608.	15.6	1,079
611	Solid-State Physics Perspective on Hybrid Perovskite Semiconductors. <i>Journal of Physical Chemistry C</i> , 2015, 119, 10161-10177.	1.5	205
612	The expanding world of hybrid perovskites: materials properties and emerging applications. <i>MRS Communications</i> , 2015, 5, 7-26.	0.8	132
613	Highly Efficient Red-Light Emission in An Organicâ€“Inorganic Hybrid Ferroelectric: (Pyrrolidinium)MnCl <sub>3</sub> . <i>Journal of the American Chemical Society</i> , 2015, 137, 4928-4931.	6.6	308
614	Density Functional Calculations of Native Defects in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> : Effects of Spinâ€“Orbit Coupling and Self-Interaction Error. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 1461-1466.	2.1	301
615	Hybrid Halide Perovskite Solar Cell Precursors: Colloidal Chemistry and Coordination Engineering behind Device Processing for High Efficiency. <i>Journal of the American Chemical Society</i> , 2015, 137, 4460-4468.	6.6	586
616	Light Harvesting and Charge Recombination in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Solar Cells Studied by Hole Transport Layer Thickness Variation. <i>ACS Nano</i> , 2015, 9, 4200-4209.	7.3	205
617	Interfacial Electron Transfer Barrier at Compact TiO <sub>2</sub> /CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Heterojunction. <i>Small</i> , 2015, 11, 3606-3613.	5.2	196
618	Modified deposition process of electron transport layer for efficient inverted planar perovskite solar cells. <i>Chemical Communications</i> , 2015, 51, 8986-8989.	2.2	28

#	ARTICLE	IF	CITATIONS
619	Effect of Mesostuctured Layer upon Crystalline Properties and Device Performance on Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 1628-1637.	2.1	78
620	Stabilizing triplet excited states for ultralong organic phosphorescence. <i>Nature Materials</i> , 2015, 14, 685-690.	13.3	1,404
621	Interface band structure engineering by ferroelectric polarization in perovskite solar cells. <i>Nano Energy</i> , 2015, 13, 582-591.	8.2	109
622	Multifunctional MgO Layer in Perovskite Solar Cells. <i>ChemPhysChem</i> , 2015, 16, 1727-1732.	1.0	70
623	Perovskite-Based Solar Cells With Nickel-Oxidized Nickel Oxide Hole Transfer Layer. <i>IEEE Transactions on Electron Devices</i> , 2015, 62, 1590-1595.	1.6	28
624	Modulation of hybrid organic-inorganic perovskite photovoltaic performance by controlling the excited dynamics of fullerenes. <i>Materials Horizons</i> , 2015, 2, 414-419.	6.4	24
625	Lead halide perovskite nanowire lasers with low lasing thresholds and high quality factors. <i>Nature Materials</i> , 2015, 14, 636-642.	13.3	2,392
626	Hysteretic Behavior upon Light Soaking in Perovskite Solar Cells Prepared via Modified Vapor-Assisted Solution Process. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 9066-9071.	4.0	84
627	50 nm sized spherical TiO <sub>2</sub> nanocrystals for highly efficient mesoscopic perovskite solar cells. <i>Nanoscale</i> , 2015, 7, 8898-8906.	2.8	68
628	Green light-emitting diode from bromine based organic-inorganic halide perovskite. <i>Science China Materials</i> , 2015, 58, 186-191.	3.5	58
629	Transition from the Tetragonal to Cubic Phase of Organohalide Perovskite: The Role of Chlorine in Crystal Formation of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> on TiO <sub>2</sub> Substrates. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 4379-4384.	2.1	91
630	Hot-carrier cooling and photoinduced refractive index changes in organic-inorganic lead halide perovskites. <i>Nature Communications</i> , 2015, 6, 8420.	5.8	491
631	Graphene-covered perovskites: an effective strategy to enhance light absorption and resist moisture degradation. <i>RSC Advances</i> , 2015, 5, 82346-82350.	1.7	43
632	Enhanced Organo-Metal Halide Perovskite Photoluminescence from Nanosized Defect-Free Crystallites and Emitting Sites. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 4171-4177.	2.1	163
633	New Physical Deposition Approach for Low Cost Inorganic Hole Transport Layer in Normal Architecture of Durable Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 21807-21818.	4.0	80
634	Reduced energy offset via substitutional doping for efficient organic/inorganic hybrid solar cells. <i>Optics Express</i> , 2015, 23, A444.	1.7	4
635	Visualizing Carrier Diffusion in Individual Single-Crystal Organolead Halide Perovskite Nanowires and Nanoplates. <i>Journal of the American Chemical Society</i> , 2015, 137, 12458-12461.	6.6	196
636	Fast-growing procedure for perovskite films in planar heterojunction perovskite solar cells. <i>Chinese Chemical Letters</i> , 2015, 26, 1518-1521.	4.8	16



#	ARTICLE	IF	CITATIONS
637	Performance enhancement of planar heterojunction perovskite solar cells by n-doping of the electron transporting layer. <i>Chemical Communications</i> , 2015, 51, 17413-17416.	2.2	76
638	High efficiency flexible perovskite solar cells using superior low temperature TiO <sub>2</sub> . <i>Energy and Environmental Science</i> , 2015, 8, 3208-3214.	15.6	519
639	Working Mechanism for Flexible Perovskite Solar Cells with Simplified Architecture. <i>Nano Letters</i> , 2015, 15, 6514-6520.	4.5	91
640	Room-temperature, solution-processable organic electron extraction layer for high-performance planar heterojunction perovskite solar cells. <i>Nanoscale</i> , 2015, 7, 17343-17349.	2.8	64
641	Managing Carrier Lifetime and Doping Property of Lead Halide Perovskite by Postannealing Processes for Highly Efficient Perovskite Solar Cells. <i>Journal of Physical Chemistry C</i> , 2015, 119, 22812-22819.	1.5	123
642	Refractive index and extinction coefficient of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> studied by spectroscopic ellipsometry. <i>Optical Materials Express</i> , 2015, 5, 29.	1.6	135
643	TiO <sub>2</sub> nanoparticle-based electron transport layer with improved wettability for efficient planar-heterojunction perovskite solar cell. <i>Journal of Energy Chemistry</i> , 2015, 24, 717-721.	7.1	16
644	A repeated interdiffusion method for efficient planar formamidinium perovskite solar cells. <i>Journal of Energy Chemistry</i> , 2015, 24, 707-711.	7.1	17
645	A novel phenoxazine-based hole transport material for efficient perovskite solar cell. <i>Journal of Energy Chemistry</i> , 2015, 24, 698-706.	7.1	22
646	Vibrational Properties of the Organic-Inorganic Halide Perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> from Theory and Experiment: Factor Group Analysis, First-Principles Calculations, and Low-Temperature Infrared Spectra. <i>Journal of Physical Chemistry C</i> , 2015, 119, 25703-25718.	1.5	276
647	Characterization of Perovskite Obtained from Two-Step Deposition on Mesoporous Titania. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 25770-25776.	4.0	58
648	NiO nanosheets as efficient top hole transporters for carbon counter electrode based perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 24121-24127.	5.2	91
649	A general fabrication procedure for efficient and stable planar perovskite solar cells: Morphological and interfacial control by in-situ-generated layered perovskite. <i>Nano Energy</i> , 2015, 18, 165-175.	8.2	92
650	Chloride Incorporation Process in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> -xCl <sub>x</sub> Perovskites via Nanoscale Bandgap Maps. <i>Nano Letters</i> , 2015, 15, 8114-8121.	4.5	165
651	Engineering of hole-selective contact for low temperature-processed carbon counter electrode-based perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 24272-24280.	5.2	78
652	Mechanisms of Electron-Beam-Induced Damage in Perovskite Thin Films Revealed by Cathodoluminescence Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2015, 119, 26904-26911.	1.5	153
653	A [2,2]paracyclophane triarylamine-based hole-transporting material for high performance perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 24215-24220.	5.2	87
654	Band alignment and charge transfer in rutile-TiO <sub>2</sub> /CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> -xCl <sub>x</sub> interfaces. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 30417-30423.	1.3	12

#	ARTICLE	IF	CITATIONS
655	High-performance perovskite solar cells fabricated by vapor deposition with optimized $\text{PbI}_2$ precursor films. RSC Advances, 2015, 5, 95847-95853.	1.7	18
656	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
657	Improvement of $\text{CH}_3\text{NH}_3\text{PbI}_3$ Formation for Efficient and Better Reproducible Mesoscopic Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 24726-24732.	4.0	44
658	$(\text{CH}_3\text{NH}_3)_2\text{Pb}(\text{SCN})_2\text{I}_2$ : A More Stable Structural Motif for Hybrid Halide Photovoltaics?. Journal of Physical Chemistry Letters, 2015, 6, 4594-4598.	2.1	117
659	Rotational dynamics of organic cations in the $\text{CH}_3\text{NH}_3\text{PbI}_3$ perovskite. Physical Chemistry Chemical Physics, 2015, 17, 31278-31286.	1.3	212
660	Two different mechanisms of $\text{CH}_3\text{NH}_3\text{PbI}_3$ film 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
661	Efficient and stable large-area perovskite solar cells with inorganic charge extraction layers. Science, 2015, 350, 944-948.	6.0	2,007
662	Chlorine Doping Reduces Electron-Hole Recombination in Lead Iodide Perovskites: Time-Domain Ab Initio Analysis. Journal of Physical Chemistry Letters, 2015, 6, 4463-4469.	2.1	103
663	Absorption F-Sum Rule for the Exciton Binding Energy in Methylammonium Lead Halide Perovskites. Journal of Physical Chemistry Letters, 2015, 6, 4566-4572.	2.1	149
664	First-Principles Study of Ion Diffusion in Perovskite Solar Cell Sensitizers. Journal of the American Chemical Society, 2015, 137, 10048-10051.	6.6	582
665	Fabrication and Properties of High-Efficiency Perovskite/PCBM Organic Solar Cells. Nanoscale Research Letters, 2015, 10, 1020.	3.1	61
666	Exciton and Free Charge Dynamics of Methylammonium Lead Iodide Perovskites Are Different in the Tetragonal and Orthorhombic Phases. Journal of Physical Chemistry C, 2015, 119, 19590-19595.	1.5	65
667	Collective Behavior of Molecular Dipoles in $\text{CH}_3\text{NH}_3\text{PbI}_3$ . Journal of Physical Chemistry C, 2015, 119, 19674-19680.	1.5	46
668	Low surface recombination velocity in solution-grown $\text{CH}_3\text{NH}_3\text{PbBr}_3$ perovskite single crystal. Nature Communications, 2015, 6, 7961.	5.8	406
669	Hole-conductor-free planar perovskite solar cells with 16.0% efficiency. Journal of Materials Chemistry A, 2015, 3, 18389-18394.	5.2	83
670	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
671	Dynamic Optical Properties of $\text{CH}_3\text{NH}_3\text{PbI}_3$ Single Crystals As Revealed by One- and Two-Photon Excited Photoluminescence Measurements. Journal of the American Chemical Society, 2015, 137, 10456-10459.	6.6	335
672	Stable semi-transparent $\text{CH}_3\text{NH}_3\text{PbI}_3$ planar sandwich solar cells. Energy and Environmental Science, 2015, 8, 2922-2927.	15.6	109

#	ARTICLE	IF	CITATIONS
673	Large-scale aligned crystalline CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite array films. <i>Journal of Materials Chemistry A</i> , 2015, 3, 18847-18851.	5.2	19
674	Micrometer Sized Perovskite Crystals in Planar Hole Conductor Free Solar Cells. <i>Journal of Physical Chemistry C</i> , 2015, 119, 19722-19728.	1.5	45
675	Energy gradient architected praseodymium chalcogenide quantum dot solar cells: towards unidirectionally funneling energy transfer. <i>Journal of Materials Chemistry A</i> , 2015, 3, 23876-23887.	5.2	23
676	<i>GW</i> Band Structures and Carrier Effective Masses of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> and Hypothetical Perovskites of the Type APbI <sub>3</sub> : A = NH <sub>4</sub> , PH <sub>4</sub> , AsH <sub>4</sub> , and SbH <sub>4</sub> . <i>Journal of Physical Chemistry C</i> , 2015, 119, 25209-25219.	1.5	144
677	The Significance of Ion Conduction in a Hybrid Organic-Inorganic Lead Iodide-Based Perovskite Photosensitizer. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 7905-7910.	7.2	447
678	Inorganic Halide Perovskites for Efficient Light-Emitting Diodes. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 4360-4364.	2.1	482
679	Theoretical insights into multibandgap hybrid perovskites for photovoltaic applications. , 2015, , .		0
680	Tailoring solar energy spectrum for efficient organic/inorganic hybrid solar cells by up-conversion luminescence nanophosphors. <i>Electrochimica Acta</i> , 2015, 182, 416-423.	2.6	11
681	Copper iodide as inorganic hole conductor for perovskite solar cells with different thickness of mesoporous layer and hole transport layer. <i>Applied Surface Science</i> , 2015, 357, 2234-2240.	3.1	55
682	PbI <sub>2</sub> : A new precursor solution for efficient planar perovskite solar cell by vapor-assisted solution process. <i>Applied Surface Science</i> , 2015, 357, 2372-2377.	3.1	37
683	Simple Triphenylamine-Based Hole-Transporting Materials for Perovskite Solar Cells. <i>Electrochimica Acta</i> , 2015, 182, 733-741.	2.6	57
684	High efficiency methylammonium lead triiodide perovskite solar cells: the relevance of non-stoichiometric precursors. <i>Energy and Environmental Science</i> , 2015, 8, 3550-3556.	15.6	384
685	Intrinsic Thermal Instability of Methylammonium Lead Trihalide Perovskite. <i>Advanced Energy Materials</i> , 2015, 5, 1500477.	10.2	1,788
686	Trap-limited charge recombination in intrinsic perovskite film and meso-superstructured perovskite solar cells and the passivation effect of the hole-transport material on trap states. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 29501-29506.	1.3	36
687	Lead-free germanium iodide perovskite materials for photovoltaic applications. <i>Journal of Materials Chemistry A</i> , 2015, 3, 23829-23832.	5.2	841
688	Reduced Graphene Oxide/Mesoporous TiO <sub>2</sub> Nanocomposite Based Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 23521-23526.	4.0	180
689	Chlorine Incorporation for Enhanced Performance of Planar Perovskite Solar Cell Based on Lead Acetate Precursor. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 23110-23116.	4.0	118
690	Wafer-scale growth of large arrays of perovskite microplate crystals for functional electronics and optoelectronics. <i>Science Advances</i> , 2015, 1, e1500613.	4.7	265

#	ARTICLE	IF	CITATIONS
691	Rashba Spin-Orbit Coupling Enhanced Carrier Lifetime in $\text{CH}_3\text{NH}_3\text{PbI}_3$ . <i>Nano Letters</i> , 2015, 15, 7794-7800.	4.5	438
692	Dopants Control Electron-Hole Recombination at Perovskite-TiO <sub>2</sub> Interfaces: <i>Ab Initio</i> Time-Domain Study. <i>ACS Nano</i> , 2015, 9, 11143-11155.	7.3	108
693	Multiscale morphology design of hybrid halide perovskites through a polymeric template. <i>Nanoscale</i> , 2015, 7, 18956-18963.	2.8	80
694	The role of photonics in energy. <i>Journal of Photonics for Energy</i> , 2015, 5, 050997.	0.8	18
695	Structural Evolution in Methylammonium Lead Iodide $\text{CH}_3\text{NH}_3\text{PbI}_3$ . <i>Journal of Physical Chemistry A</i> , 2015, 119, 11033-11038.	1.1	66
696	The simulation of physical mechanism for HTM-free perovskite organic lead iodide planar heterojunction solar cells. <i>Journal of Optics (United Kingdom)</i> , 2015, 17, 105904.	1.0	23
697	Novel fabrication of copper nanowire/cuprous oxidebased semiconductor-liquid junction solar cells. <i>Nano Research</i> , 2015, 8, 3205-3215.	5.8	11
698	Solvent engineering of spin-coating solutions for planar-structured high-efficiency perovskite solar cells. <i>Chinese Journal of Catalysis</i> , 2015, 36, 1183-1190.	6.9	47
699	Highly efficient planar perovskite solar cells through band alignment engineering. <i>Energy and Environmental Science</i> , 2015, 8, 2928-2934.	15.6	1,097
700	Antagonism between Spin-Orbit Coupling and Steric Effects Causes Anomalous Band Gap Evolution in the Perovskite Photovoltaic Materials $\text{CH}_3\text{NH}_3\text{SnI}_3$ - $\text{PbI}_3$ . <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 3503-3509.	2.1	202
701	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. <i>Journal of Materials Chemistry A</i> , 2015, 3, 19353-19359.	5.2	239
702	Tracking the formation of methylammonium lead triiodide perovskite. <i>Applied Physics Letters</i> , 2015, 107, .	1.5	73
703	Optically Pumped Distributed Feedback Laser from Organo-Lead Iodide Perovskite Thin Films. , 2015, , .		4
704	Highly narrowband perovskite single-crystal photodetectors enabled by surface-charge recombination. <i>Nature Photonics</i> , 2015, 9, 679-686.	15.6	1,201
705	Low-threshold amplified spontaneous emission and lasing from colloidal nanocrystals of caesium lead halide perovskites. <i>Nature Communications</i> , 2015, 6, 8056.	5.8	1,278
706	Effect of solvents on the growth of TiO <sub>2</sub> nanorods and their perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 19476-19482.	5.2	63
707	Efficient Perovskite Hybrid Solar Cells via Controllable Crystallization Film Morphology. <i>IEEE Journal of Photovoltaics</i> , 2015, 5, 1402-1407.	1.5	4
708	Highly efficient perovskite solar cells based on mechanically durable molybdenum cathode. <i>Nano Energy</i> , 2015, 17, 131-139.	8.2	48

#	ARTICLE	IF	CITATIONS
709	Cupric bromide hybrid perovskite heterojunction solar cells. <i>Synthetic Metals</i> , 2015, 209, 247-250.	2.1	95
710	Role of microstructure in the electron–hole interaction of hybrid lead halide perovskites. <i>Nature Photonics</i> , 2015, 9, 695-701.	15.6	226
711	Ionic Charge Transfer Complex Induced Visible Light Harvesting and Photocharge Generation in Perovskite. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 20280-20284.	4.0	19
712	Influence of halide precursor type and its composition on the electronic properties of vacuum deposited perovskite films. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 24342-24348.	1.3	41
713	High-performance inverted planar perovskite solar cells without a hole transport layer via a solution process under ambient conditions. <i>Journal of Materials Chemistry A</i> , 2015, 3, 19294-19298.	5.2	35
714	Screening effect on photovoltaic performance in ferroelectric CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite thin films. <i>Journal of Materials Chemistry A</i> , 2015, 3, 20352-20358.	5.2	22
715	A simple approach for the fabrication of perovskite solar cells in air. <i>Journal of Power Sources</i> , 2015, 297, 504-510.	4.0	59
716	Solvent-Mediated Crystallization of CH <sub>3</sub> NH <sub>3</sub> SnI <sub>3</sub> Films for Heterojunction Depleted Perovskite Solar Cells. <i>Journal of the American Chemical Society</i> , 2015, 137, 11445-11452.	6.6	598
717	A resistance change effect in perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> films induced by ammonia. <i>Chemical Communications</i> , 2015, 51, 15426-15429.	2.2	86
718	Highly efficient planar perovskite solar cells with a TiO <sub>2</sub> /ZnO electron transport bilayer. <i>Journal of Materials Chemistry A</i> , 2015, 3, 19288-19293.	5.2	145
719	Universal Features of Electron Dynamics in Solar Cells with TiO <sub>2</sub> Contact: From Dye Solar Cells to Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 3923-3930.	2.1	49
720	Effects of Porosity and Amount of Surface Hydroxyl Groups of a Porous TiO <sub>2</sub> Layer on the Performance of a CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Photovoltaic Cell. <i>Journal of Physical Chemistry C</i> , 2015, 119, 22304-22309.	1.5	18
721	Elastic perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 21070-21076.	5.2	74
722	Ambipolar solution-processed hybrid perovskite phototransistors. <i>Nature Communications</i> , 2015, 6, 8238.	5.8	519
723	Filterless narrowband visible photodetectors. <i>Nature Photonics</i> , 2015, 9, 687-694.	15.6	445
724	A simple, low-cost CVD route to high-quality CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite thin films. <i>CrystEngComm</i> , 2015, 17, 7486-7489.	1.3	28
725	Investigation of degradation mechanisms of perovskite-based photovoltaic devices using laser beam induced current mapping. <i>Proceedings of SPIE</i> , 2015, , .	0.8	9
726	Charge Transfer Dynamics from Organometal Halide Perovskite to Polymeric Hole Transport Materials in Hybrid Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 3675-3681.	2.1	67

#	ARTICLE	IF	CITATIONS
727	Ultrafast time-resolved spectroscopy of lead halide perovskite films. Proceedings of SPIE, 2015, , .	0.8	0
728	Influence of annealing temperature on the crystallization and ferroelectricity of perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> film. Applied Surface Science, 2015, 357, 391-396.	3.1	27
729	High performance planar p-i-n perovskite solar cells with crown-ether functionalized fullerene and LiF as double cathode buffer layers. Applied Physics Letters, 2015, 107, .	1.5	42
730	Artifacts in Absorption Measurements of Organometal Halide Perovskite Materials: What Are the Real Spectra?. Journal of Physical Chemistry Letters, 2015, 6, 3466-3470.	2.1	92
731	Mechanistic insights into perovskite photoluminescence enhancement: light curing with oxygen can boost yield thousandfold. Physical Chemistry Chemical Physics, 2015, 17, 24978-24987.	1.3	325
732	CH <sub>3</sub> NH <sub>3</sub> PbCl <sub>3</sub> Single Crystals: Inverse Temperature Crystallization and Visible-Blind UV-Photodetector. Journal of Physical Chemistry Letters, 2015, 6, 3781-3786.	2.1	636
733	Controlling the conduction band offset for highly efficient ZnO nanorods based perovskite solar cell. Applied Physics Letters, 2015, 107, .	1.5	67
734	Stabilizing hybrid perovskites against moisture and temperature via non-hydrolytic atomic layer deposited overlayers. Journal of Materials Chemistry A, 2015, 3, 20092-20096.	5.2	61
735	Phonon-Electron Scattering Limits Free Charge Mobility in Methylammonium Lead Iodide Perovskites. Journal of Physical Chemistry Letters, 2015, 6, 4991-4996.	2.1	186
736	High efficiency hysteresis-less inverted planar heterojunction perovskite solar cells with a solution-derived NiO <sub>x</sub> hole contact layer. Journal of Materials Chemistry A, 2015, 3, 24495-24503.	5.2	130
737	Titanylphthalocyanine as hole transporting material for perovskite solar cells. Journal of Energy Chemistry, 2015, 24, 756-761.	7.1	28
738	Entropy-Suppressed Ferroelectricity in Hybrid Lead-Iodide Perovskites. Journal of Physical Chemistry Letters, 2015, 6, 4909-4915.	2.1	51
739	Modulating the Electron-Hole Interaction in a Hybrid Lead Halide Perovskite with an Electric Field. Journal of the American Chemical Society, 2015, 137, 15451-15459.	6.6	61
740	Charge Carriers in Hybrid Organic-Inorganic Lead Halide Perovskites Might Be Protected as Large Polarons. Journal of Physical Chemistry Letters, 2015, 6, 4758-4761.	2.1	456
742	Highly efficient and stable planar perovskite solar cells with reduced graphene oxide nanosheets as electrode interlayer. Nano Energy, 2015, 12, 96-104.	8.2	328
743	Effect of Carrier Thermalization Dynamics on Light Emission and Amplification in Organometal Halide Perovskites. Journal of Physical Chemistry Letters, 2015, 6, 153-158.	2.1	101
744	Semi-transparent perovskite solar cells for tandems with silicon and CIGS. Energy and Environmental Science, 2015, 8, 956-963.	15.6	630
745	Interface Engineering of Perovskite Hybrid Solar Cells with Solution-Processed Perylene-Diimide Heterojunctions toward High Performance. Chemistry of Materials, 2015, 27, 227-234.	3.2	233



#	ARTICLE	IF	CITATIONS
746	First-Principles Calculation of the Bulk Photovoltaic Effect in $\text{CH}_3\text{NH}_3\text{Pb}_3\text{Cl}_3$ and $\text{CH}_3\text{NH}_3\text{Pb}_3\text{I}_3$ . <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 31-37.	2.1	177
747	Inkjet printing of $\text{CH}_3\text{NH}_3\text{Pb}_3$ on a mesoscopic $\text{TiO}_2$ film for highly efficient perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 9092-9097.	5.2	210
748	High-performance semitransparent perovskite solar cells with solution-processed silver nanowires as top electrodes. <i>Nanoscale</i> , 2015, 7, 1642-1649.	2.8	300
749	Self-Regulation Mechanism for Charged Point Defects in Hybrid Halide Perovskites. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 1791-1794.	7.2	484
750	$\text{TiO}_2$ nanotube arrays based flexible perovskite solar cells with transparent carbon nanotube electrode. <i>Nano Energy</i> , 2015, 11, 728-735.	8.2	293
751	Nanoscale Charge Localization Induced by Random Orientations of Organic Molecules in Hybrid Perovskite $\text{CH}_3\text{NH}_3\text{Pb}_3$ . <i>Nano Letters</i> , 2015, 15, 248-253.	4.5	243
752	Optical properties and limiting photocurrent of thin-film perovskite solar cells. <i>Energy and Environmental Science</i> , 2015, 8, 602-609.	15.6	417
753	Density Functional Studies of Stoichiometric Surfaces of Orthorhombic Hybrid Perovskite $\text{CH}_3\text{NH}_3\text{Pb}_3$ . <i>Journal of Physical Chemistry C</i> , 2015, 119, 1136-1145.	1.5	73
754	Perovskite-based solar cells: impact of morphology and device architecture on device performance. <i>Journal of Materials Chemistry A</i> , 2015, 3, 8943-8969.	5.2	522
755	Recent advances in dye-sensitized photoelectrochemical cells for solar hydrogen production based on molecular components. <i>Energy and Environmental Science</i> , 2015, 8, 760-775.	15.6	363
756	Layer-by-Layer Growth of $\text{CH}_3\text{NH}_3\text{Pb}_3\text{Cl}_3$ for Highly Efficient Planar Heterojunction Perovskite Solar Cells. <i>Advanced Materials</i> , 2015, 27, 1053-1059.	11.1	211
757	Giant switchable photovoltaic effect in organometal trihalide perovskite devices. <i>Nature Materials</i> , 2015, 14, 193-198.	13.3	1,372
758	Switchable photovoltaics. <i>Nature Materials</i> , 2015, 14, 140-141.	13.3	39
759	High-Efficiency Solution-Processed Planar Perovskite Solar Cells with a Polymer Hole Transport Layer. <i>Advanced Energy Materials</i> , 2015, 5, 1401855.	10.2	337
760	Perovskite Solar Cells: From Materials to Devices. <i>Small</i> , 2015, 11, 10-25.	5.2	1,210
761	Enhancing efficiency of perovskite solar cell via surface microstructuring: Superior grain growth and light harvesting effect. <i>Solar Energy</i> , 2015, 112, 12-19.	2.9	33
762	Complex Refractive Index Spectra of $\text{CH}_3\text{NH}_3\text{Pb}_3$ Perovskite Thin Films Determined by Spectroscopic Ellipsometry and Spectrophotometry. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 66-71.	2.1	491
763	High-Performance and Environmentally Stable Planar Heterojunction Perovskite Solar Cells Based on a Solution-Processed Copper-Doped Nickel Oxide Hole-Transporting Layer. <i>Advanced Materials</i> , 2015, 27, 695-701.	11.1	751

#	ARTICLE	IF	CITATIONS
764	Organic-inorganic lead halide perovskite solar cell materials: A possible stability problem. <i>Chemical Physics Letters</i> , 2015, 619, 193-195.	1.2	101
765	Review of recent progress in chemical stability of perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 8970-8980.	5.2	1,609
766	Hybrid interfacial layer leads to solid performance improvement of inverted perovskite solar cells. <i>Energy and Environmental Science</i> , 2015, 8, 629-640.	15.6	285
767	Electrodeposition of PbO and its in situ conversion to $\text{CH}_3\text{NH}_3\text{PbI}_3$ for mesoscopic perovskite solar cells. <i>Chemical Communications</i> , 2015, 51, 1457-1460.	2.2	65
768	Multicolored Organic/Inorganic Hybrid Perovskite Light-Emitting Diodes. <i>Advanced Materials</i> , 2015, 27, 1248-1254.	11.1	1,077
769	Metallohalide perovskite-polymer composite film for hybrid planar heterojunction solar cells. <i>RSC Advances</i> , 2015, 5, 775-783.	1.7	76
770	Electronic properties of $\text{PbX}_3\text{CH}_3\text{NH}_3$ ( $X = \text{Cl, Br, I}$ ) compounds for photovoltaic and photocatalytic applications. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 2199-2209.	1.3	52
771	p-type Mesoscopic Nickel Oxide/Organometallic Perovskite Heterojunction Solar Cells. <i>Scientific Reports</i> , 2014, 4, 4756.	1.6	371
772	Organic-inorganic hybrids: From magnetic perovskite metal(II) halides to multifunctional metal(II) phosphonates. <i>Coordination Chemistry Reviews</i> , 2015, 289-290, 123-136.	9.5	60
773	Efficient $\text{CH}_3\text{NH}_3\text{PbI}_3$ perovskite solar cells with 2TPA-n-DP hole-transporting layers. <i>Nano Research</i> , 2015, 8, 1116-1127.	5.8	65
774	Electronic structures at the interface between Au and $\text{CH}_3\text{NH}_3\text{PbI}_3$ . <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 896-902.	1.3	82
775	Thermal Assisted Oxygen Annealing for High Efficiency Planar $\text{CH}_3\text{NH}_3\text{PbI}_3$ Perovskite Solar Cells. <i>Scientific Reports</i> , 2014, 4, 6752.	1.6	100
776	Perovskite Thin Films via Atomic Layer Deposition. <i>Advanced Materials</i> , 2015, 27, 53-58.	11.1	204
777	Organic-inorganic halide perovskites: an ambipolar class of materials with enhanced photovoltaic performances. <i>Journal of Materials Chemistry A</i> , 2015, 3, 8981-8991.	5.2	109
778	Stable and Low-Cost Mesoscopic $\text{CH}_3\text{NH}_3\text{PbI}_2\text{Br}$ Perovskite Solar Cells by using a Thin Poly(3-hexylthiophene) Layer as a Hole Transporter. <i>Chemistry - A European Journal</i> , 2015, 21, 434-439.	1.7	106
779	Dual nature of the excited state in organic-inorganic lead halide perovskites. <i>Energy and Environmental Science</i> , 2015, 8, 208-215.	15.6	351
780	p-Type mesoscopic NiO as an active interfacial layer for carbon counter electrode based perovskite solar cells. <i>Dalton Transactions</i> , 2015, 44, 3967-3973.	1.6	138
781	Recent progress in organic-inorganic halide perovskite solar cells: mechanisms and material design. <i>Journal of Materials Chemistry A</i> , 2015, 3, 8992-9010.	5.2	164

#	ARTICLE	IF	CITATIONS
782	Theoretical analysis on effect of band offsets in perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2015, 133, 8-14.	3.0	410
783	Opto-electronic properties of TiO <sub>2</sub> nanohelices with embedded HC(NH <sub>2</sub> ) <sub>2</sub> PbI <sub>3</sub> perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 9179-9186.	5.2	67
784	Enhancing the performance of planar organo-lead halide perovskite solar cells by using a mixed halide source. <i>Journal of Materials Chemistry A</i> , 2015, 3, 963-967.	5.2	91
785	Planar heterojunction perovskite solar cells with superior reproducibility. <i>Scientific Reports</i> , 2014, 4, 6953.	1.6	208
786	Halide perovskite materials for solar cells: a theoretical review. <i>Journal of Materials Chemistry A</i> , 2015, 3, 8926-8942.	5.2	1,114
787	High-Performance Perovskite-Graphene Hybrid Photodetector. <i>Advanced Materials</i> , 2015, 27, 41-46.	11.1	753
788	Reducing the excess energy offset in organic/inorganic hybrid solar cells: Toward faster electron transfer. <i>Applied Catalysis B: Environmental</i> , 2015, 162, 524-531.	10.8	40
789	High-Performance Planar Heterojunction Solar Cells Based on Ternary Halide Large Band Gap Perovskites. <i>Advanced Energy Materials</i> , 2015, 5, 1400960.	10.2	117
790	A Novel Oligomer as a Hole Transporting Material for Efficient Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2015, 5, 1400980.	10.2	80
791	Energy level control: toward an efficient hot electron transport. <i>Scientific Reports</i> , 2014, 4, 5983.	1.6	32
792	Perovskite solar cells: an emerging photovoltaic technology. <i>Materials Today</i> , 2015, 18, 65-72.	8.3	1,477
793	Retarding charge recombination in perovskite solar cells using ultrathin MgO-coated TiO <sub>2</sub> nanoparticulate films. <i>Journal of Materials Chemistry A</i> , 2015, 3, 9160-9164.	5.2	167
794	Predicting the Open-Circuit Voltage of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Solar Cells Using Electroluminescence and Photovoltaic Quantum Efficiency Spectra: the Role of Radiative and Non-Radiative Recombination. <i>Advanced Energy Materials</i> , 2015, 5, 1400812.	10.2	425
795	Photoexcitations and Emission Processes in Organometal Trihalide Perovskites. , 0, , .		5
796	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
797	Investigation of Optical and Dielectric Constants of Organic-Inorganic CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Thin Films. <i>Journal of Nanomedicine &amp; Nanotechnology</i> , 2016, 07, , .	1.1	5
798	Charge Carrier Dynamics in Organometal Halide Perovskite Probed by Time-Resolved Electrical Measurements. , 2016, , .		0
799	Optical, Excitonic, and Electronic Properties of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Thin Films and Their Application in Photovoltaics. , 0, , .		4

#	ARTICLE	IF	CITATIONS
800	Ambient Air and Hole Transport Layer Free Synthesis: Towards Low Cost CH <sub>3</sub> NH <sub>3</sub> Pb <sub>3</sub> Solar Cells. Journal of Nanomaterials, 2016, 2016, 1-12.	1.5	3
801	Charge Carrier Balance for Highly Efficient Inverted Planar Heterojunction Perovskite Solar Cells Based on Interface Engineering. , 2016, , .		0
802	Fullerene-Based Electron Transport Layers for Semi-Transparent MAPbBr <sub>3</sub> Perovskite Films in Planar Perovskite Solar Cells. Coatings, 2016, 6, 53.	1.2	11
803	Perovskite Solar Cells: Progress and Advancements. Energies, 2016, 9, 861.	1.6	106
804	Neutral- and Multi-Colored Semitransparent Perovskite Solar Cells. Molecules, 2016, 21, 475.	1.7	56
805	Highly Efficient Reproducible Perovskite Solar Cells Prepared by Low-Temperature Processing. Molecules, 2016, 21, 542.	1.7	18
806	Using Low Temperature Photoluminescence Spectroscopy to Investigate CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Hybrid Perovskite Degradation. Molecules, 2016, 21, 885.	1.7	17
807	Emission Enhancement and Intermittency in Polycrystalline Organolead Halide Perovskite Films. Molecules, 2016, 21, 1081.	1.7	33
808	A Study of Inverted-Type Perovskite Solar Cells with Various Composition Ratios of (FAPbI <sub>3</sub> ) <sub>1-x</sub> (MAPbBr <sub>3</sub> ) <sub>x</sub> . Nanomaterials, 2016, 6, 183.	1.9	22
809	Plasmon resonance scattering at perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> coated single gold nanoparticles: evidence for electron transfer. Chemical Communications, 2016, 52, 9933-9936.	2.2	20
810	Low-temperature plasma-enhanced atomic layer deposition of tin oxide electron selective layers for highly efficient planar perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 12080-12087.	5.2	210
811	Humidity versus photo-stability of metal halide perovskite films in a polymer matrix. Physical Chemistry Chemical Physics, 2016, 18, 21629-21639.	1.3	75
812	Determination of Interfacial Charge Transfer Rate Constants in Perovskite Solar Cells. ChemSusChem, 2016, 9, 1647-1659.	3.6	52
813	Interfacial electron accumulation for efficient homo-junction perovskite solar cells. Nano Energy, 2016, 28, 269-276.	8.2	63
814	Nonhazardous Solvent Systems for Processing Perovskite Photovoltaics. Advanced Energy Materials, 2016, 6, 1600386.	10.2	158
815	Slow Organic-Inorganic Sub-Lattice Thermalization in Methylammonium Lead Halide Perovskites Observed by Ultrafast Photoluminescence. Advanced Energy Materials, 2016, 6, 1600422.	10.2	32
816	Inverted Perovskite Solar Cells: Progresses and Perspectives. Advanced Energy Materials, 2016, 6, 1600457.	10.2	387
817	The Progress of Interface Design in Perovskite-Based Solar Cells. Advanced Energy Materials, 2016, 6, 1600460.	10.2	139

#	ARTICLE	IF	CITATIONS
818	Dopant-Free Hole Transporting Polymers for High Efficiency, Environmentally Stable Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2016, 6, 1600502.	10.2	156
819	Improved performance of perovskite solar cell by controlling CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> film morphology with CH <sub>3</sub> NH <sub>3</sub> Cl-assisted method. <i>Journal of Materials Science: Materials in Electronics</i> , 2016, 27, 10869-10876.	1.1	15
820	Photovoltaic Performance of Perovskite Solar Cells with Different Grain Sizes. <i>Advanced Materials</i> , 2016, 28, 917-922.	11.1	288
821	Chemistry of Mesoporous Organosilica in Nanotechnology: Molecularly Organic-Inorganic Hybridization into Frameworks. <i>Advanced Materials</i> , 2016, 28, 3235-3272.	11.1	291
822	Temperature-Dependent Bias Poling and Hysteresis in Planar Organic-Metal Halide Perovskite Photovoltaic Cells. <i>Advanced Energy Materials</i> , 2016, 6, 1501994.	10.2	36
823	Low cost, high throughput and centimeter-scale fabrication of efficient hybrid perovskite solar cells by closed space vapor transport. <i>Physica Status Solidi - Rapid Research Letters</i> , 2016, 10, 153-157.	1.2	27
824	Humidity controlled crystallization of thin CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> films for high performance perovskite solar cell. <i>Physica Status Solidi - Rapid Research Letters</i> , 2016, 10, 381-387.	1.2	39
825	A close examination of the structure and dynamics of HC(NH <sub>2</sub> ) <sub>2</sub> PbI <sub>3</sub> by MD simulations and group theory. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 27109-27118.	1.3	48
826	Ropy foam-like TiO <sub>2</sub> film grown by water-based process for electron-conduction layer of perovskite solar cells. <i>MRS Advances</i> , 2016, 1, 3169-3174.	0.5	4
827	Pyrolysis preparation of WO <sub>3</sub> thin films using ammonium metatungstate DMF/water solution for efficient compact layers in planar perovskite solar cells. <i>Journal of Semiconductors</i> , 2016, 37, 033002.	2.0	12
828	High-Efficiency Perovskite Solar Cells Employing a <i>S</i> , <i>N</i> -Heteropentacene-based D-A Hole Transport Material. <i>ChemSusChem</i> , 2016, 9, 433-438.	3.6	61
829	Stable Organic-Inorganic Perovskite Solar Cells without Hole-Conductor Layer Achieved via Cell Structure Design and Contact Engineering. <i>Advanced Functional Materials</i> , 2016, 26, 4866-4873.	7.8	84
830	The Effects of Electronic Impurities and Electron-Hole Recombination Dynamics on Large-Grain Organic-Inorganic Perovskite Photovoltaic Efficiencies. <i>Advanced Functional Materials</i> , 2016, 26, 4283-4292.	7.8	65
831	Controlled Growth and Reliable Thickness-Dependent Properties of Organic-Inorganic Perovskite Platelet Crystal. <i>Advanced Functional Materials</i> , 2016, 26, 5263-5270.	7.8	64
832	Degradation Mechanisms of Solution-Processed Planar Perovskite Solar Cells: Thermally Stimulated Current Measurement for Analysis of Carrier Traps. <i>Advanced Materials</i> , 2016, 28, 466-471.	11.1	107
833	Identifying Fundamental Limitations in Halide Perovskite Solar Cells. <i>Advanced Materials</i> , 2016, 28, 2439-2445.	11.1	129
834	Unbroken Perovskite: Interplay of Morphology, Electro-Optical Properties, and Ionic Movement. <i>Advanced Materials</i> , 2016, 28, 5031-5037.	11.1	242
835	Structure-Triggered High Quantum Yield Luminescence and Switchable Dielectric Properties in Manganese(II) Based Hybrid Compounds. <i>Chemistry - an Asian Journal</i> , 2016, 11, 981-985.	1.7	49

#	ARTICLE	IF	CITATIONS
836	N-phenylindole-diketopyrrolopyrrole-containing narrow band-gap materials for dopant-free hole transporting layer of perovskite solar cell. <i>Organic Electronics</i> , 2016, 37, 134-140.	1.4	36
837	Enhanced performance of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> x Cl <sub>x</sub> perovskite solar cells by CH <sub>3</sub> NH <sub>3</sub> I modification of TiO <sub>2</sub> -perovskite layer interface. <i>Nanoscale Research Letters</i> , 2016, 11, 316.	3.1	50
838	The ultimate efficiency of organolead halide perovskite solar cells limited by Auger processes. <i>Journal of Materials Research</i> , 2016, 31, 2197-2203.	1.2	6
839	Zinc oxide as a hole blocking layer for perovskite solar cells deposited in atmospheric conditions. <i>RSC Advances</i> , 2016, 6, 67715-67723.	1.7	23
840	Low Cost and Solution Processed Interfacial Layer Based on Poly(2-ethyl-2-oxazoline) Nanodots for Inverted Perovskite Solar Cells. <i>Chemistry of Materials</i> , 2016, 28, 4879-4883.	3.2	45
841	High performance planar perovskite solar cells with a perovskite of mixed organic cations and mixed halides, MA <sub>1-x</sub> FA <sub>x</sub> PbI <sub>3-y</sub> Cl <sub>y</sub> . <i>Journal of Materials Chemistry A</i> , 2016, 4, 12543-12553.	5.2	64
842	Electric-Field-Driven Reversible Conversion Between Methylammonium Lead Triiodide Perovskites and Lead Iodide at Elevated Temperatures. <i>Advanced Energy Materials</i> , 2016, 6, 1501803.	10.2	287
843	Nanostructuring Mixed-Dimensional Perovskites: A Route Toward Tunable, Efficient Photovoltaics. <i>Advanced Materials</i> , 2016, 28, 3653-3661.	11.1	251
844	Solution-Grown Monocrystalline Hybrid Perovskite Films for Hole-Transporter-Free Solar Cells. <i>Advanced Materials</i> , 2016, 28, 3383-3390.	11.1	298
845	Improving the Stability and Performance of Perovskite Light-Emitting Diodes by Thermal Annealing Treatment. <i>Advanced Materials</i> , 2016, 28, 6906-6913.	11.1	111
846	Improve Hole Collection by Interfacial Chemical Redox Reaction at a Mesoscopic NiO/CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Heterojunction for Efficient Photovoltaic Cells. <i>Advanced Materials Interfaces</i> , 2016, 3, 1600135.	1.9	18
847	A Solution-Processed Organometal Halide Perovskite Hole Transport Layer for Highly Efficient Organic Light-Emitting Diodes. <i>Advanced Electronic Materials</i> , 2016, 2, 1600165.	2.6	25
848	Amino-Functionalized Conjugated Polymer as an Efficient Electron Transport Layer for High-Performance Planar Heterojunction Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2016, 6, 1501534.	10.2	278
849	Discerning the Surface and Bulk Recombination Kinetics of Organic-Inorganic Halide Perovskite Single Crystals. <i>Advanced Energy Materials</i> , 2016, 6, 1600551.	10.2	271
850	Hole-Transporting Materials for Perovskite-Sensitized Solar Cells. <i>Energy Technology</i> , 2016, 4, 891-938.	1.8	50
851	Controlled Substitution of Chlorine for Iodine in Single-Crystal Nanofibers of Mixed Perovskite MAPbI <sub>3-x</sub> Cl <sub>x</sub> . <i>Small</i> , 2016, 12, 3780-3787.	5.2	20
852	Versatile Molybdenum Isopropoxide for Efficient Mesoporous Perovskite Solar Cells: Simultaneously Optimized Morphology and Interfacial Engineering. <i>Journal of Physical Chemistry C</i> , 2016, 120, 15089-15095.	1.5	8
853	Local Time-Dependent Charging in a Perovskite Solar Cell. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 19402-19409.	4.0	109



#	ARTICLE	IF	CITATIONS
854	An efficient perovskite solar cell with symmetrical Zn(ii) phthalocyanine infiltrated buffering porous Al <sub>2</sub> O <sub>3</sub> as the hybrid interfacial hole-transporting layer. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 27083-27089.	1.3	38
855	First-principles study of photovoltaics and carrier mobility for non-toxic halide perovskite CH <sub>3</sub> NH <sub>3</sub> SnCl <sub>3</sub> : theoretical prediction. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 22188-22195.	1.3	53
856	Optical analysis of CH <sub>3</sub> NH <sub>3</sub> Sn <sub>x</sub> Pb <sub>1-x</sub> I <sub>3</sub> absorbers: a roadmap for perovskite-on-perovskite tandem solar cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 11214-11221.	5.2	101
857	Enhanced performance of perovskite solar cells with solution-processed n-doping of the PCBM interlayer. <i>RSC Advances</i> , 2016, 6, 64962-64966.	1.7	6
858	Efficiency and Stability Enhancement in Perovskite Solar Cells by Inserting Lithium-Neutralized Graphene Oxide as Electron Transporting Layer. <i>Advanced Functional Materials</i> , 2016, 26, 2686-2694.	7.8	180
859	Perovskite Solar Cells Employing Dopant-Free Organic Hole Transport Materials with Tunable Energy Levels. <i>Advanced Materials</i> , 2016, 28, 440-446.	11.1	249
860	High-Performance Integrated Perovskite and Organic Solar Cells with Enhanced Fill Factors and Near-Infrared Harvesting. <i>Advanced Materials</i> , 2016, 28, 3159-3165.	11.1	84
861	Intrinsic Charge Transport across Phase Transitions in Hybrid Organo-Inorganic Perovskites. <i>Advanced Materials</i> , 2016, 28, 6509-6514.	11.1	103
862	A Flexible UV-Vis-NIR Photodetector based on a Perovskite/Conjugated-Polymer Composite. <i>Advanced Materials</i> , 2016, 28, 5969-5974.	11.1	329
863	Perovskite Materials for Light-Emitting Diodes and Lasers. <i>Advanced Materials</i> , 2016, 28, 6804-6834.	11.1	1,188
864	Copper-Doped Chromium Oxide Hole-Transporting Layer for Perovskite Solar Cells: Interface Engineering and Performance Improvement. <i>Advanced Materials Interfaces</i> , 2016, 3, 1500799.	1.9	72
865	Transparent Conductive Oxide-Free Graphene-Based Perovskite Solar Cells with over 17% Efficiency. <i>Advanced Energy Materials</i> , 2016, 6, 1501873.	10.2	206
866	Solvent Engineering Boosts the Efficiency of Paintable Carbon-Based Perovskite Solar Cells to Beyond 14%. <i>Advanced Energy Materials</i> , 2016, 6, 1502087.	10.2	306
867	Role of Intrinsic Ion Accumulation in the Photocurrent and Photocapacitive Responses of MAPbBr <sub>3</sub> Photodetectors. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 35447-35453.	4.0	15
868	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. <i>Materials Today Energy</i> , 2016, 1-2, 1-10.	2.5	30
869	Appealing Perspectives of Hybrid Lead-Iodide Perovskites as Thermoelectric Materials. <i>Journal of Physical Chemistry C</i> , 2016, 120, 28472-28479.	1.5	66
870	Temperature Dependence of the Energy Levels of Methylammonium Lead Iodide Perovskite from First-Principles. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 5247-5252.	2.1	100
871	Synergistic Effects of Water and Oxygen Molecule Co-adsorption on (001) Surfaces of Tetragonal CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> : A First-Principles Study. <i>Journal of Physical Chemistry C</i> , 2016, 120, 28448-28455.	1.5	47

#	ARTICLE	IF	CITATIONS
872	Imaging the Long Transport Lengths of Photo-generated Carriers in Oriented Perovskite Films. Nano Letters, 2016, 16, 7925-7929.	4.5	50
873	Purcell effect in an organic-inorganic halide perovskite semiconductor microcavity system. Applied Physics Letters, 2016, 108, 022103.	1.5	36
874	Research Update: Luminescence in lead halide perovskites. APL Materials, 2016, 4, .	2.2	12
875	Photoelectric characteristics of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> /p-Si heterojunction. Journal of Semiconductors, 2016, 37, 053002.	2.0	5
876	Rotation mechanism of methylammonium molecules in organometal halide perovskite in cubic phase: An <i>ab initio</i> molecular dynamics study. Journal of Chemical Physics, 2016, 145, 224503.	1.2	14
877	Efficient thermal conductance in organometallic perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> films. Applied Physics Letters, 2016, 108, 081902.	1.5	22
878	Research Update: Hybrid organic-inorganic perovskite (HOIP) thin films and solar cells by vapor phase reaction. APL Materials, 2016, 4, .	2.2	33
879	Research Update: Behind the high efficiency of hybrid perovskite solar cells. APL Materials, 2016, 4, .	2.2	47
880	CH <sub>3</sub> NH <sub>3</sub> Cd <sub>0.875</sub> Pb <sub>0.125</sub> I <sub>3</sub> perovskite as potential photovoltaic materials. AIP Advances, 2016, 6, 115208.	0.6	5
881	Optically pumped lasing in single crystals of organometal halide perovskites prepared by cast-capping method. Applied Physics Letters, 2016, 108, 261105.	1.5	40
882	Room-temperature dynamic correlation between methylammonium molecules in lead-iodine based perovskites: An <i>ab initio</i> molecular dynamics perspective. Physical Review B, 2016, 94, .	1.1	62
883	Enhanced emissive and lasing characteristics of nano-crystalline MAPbBr <sub>3</sub> films grown via anti-solvent precipitation. Journal of Applied Physics, 2016, 120, 143101.	1.1	15
884	Opto-electro-modulated transient photovoltage and photocurrent system for investigation of charge transport and recombination in solar cells. Review of Scientific Instruments, 2016, 87, 123107.	0.6	84
885	Fabrication and characteristics of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite solar cells with molybdenum-selenide hole-transport layer. Applied Physics Express, 2016, 9, 122301.	1.1	13
886	Quantitative determination of optical and recombination losses in thin-film photovoltaic devices based on external quantum efficiency analysis. Journal of Applied Physics, 2016, 120, .	1.1	105
887	Enhancing photoluminescence yields in lead halide perovskites by photon recycling and light out-coupling. Nature Communications, 2016, 7, 13941.	5.8	427
888	Nature of the cubic to tetragonal phase transition in methylammonium lead iodide perovskite. Journal of Chemical Physics, 2016, 145, 144702.	1.2	53
889	Exciton dynamics and non-linearities in two-dimensional hybrid organic perovskites. Journal of Applied Physics, 2016, 119, .	1.1	39

#	ARTICLE	IF	CITATIONS
890	Room-temperature electroluminescence from two-dimensional lead halide perovskites. <i>Applied Physics Letters</i> , 2016, 109, .	1.5	65
891	Effects of defect states on the performance of perovskite solar cells. <i>Journal of Semiconductors</i> , 2016, 37, 072003.	2.0	17
892	Large diffusion lengths of excitons in perovskite and $\text{TiO}_2$ heterojunction. <i>Applied Physics Letters</i> , 2016, 108, .	1.5	20
893	Two-dimensional photonic crystal bandedge laser with hybrid perovskite thin film for optical gain. <i>Applied Physics Letters</i> , 2016, 108, .	1.5	48
894	Improving the photovoltaic performance of perovskite solar cells with acetate. <i>Scientific Reports</i> , 2016, 6, 38670.	1.6	55
895	Charge carrier recombination dynamics in perovskite and polymer solar cells. <i>Applied Physics Letters</i> , 2016, 108, .	1.5	42
896	Organic-Inorganic Hybrid Perovskite Solar Cells Using Hole Transport Layer Based on $\alpha$ -Naphthyl Diamine Derivative. <i>Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi]</i> , 2016, 29, 581-586.	0.1	3
897	Mobility&acircumlifetime Products in $\text{MAPbI}_3$ Films. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 5219-5226.	2.1	55
898	Probing the Soft and Nanoductile Mechanical Nature of Single and Polycrystalline Organic&acircumlorganic Hybrid Perovskites for Flexible Functional Devices. <i>ACS Nano</i> , 2016, 10, 11044-11057.	7.3	89
899	Ytterbium&acircerbiium ion doped strontium molybdate ( $\text{SrMoO}_4$ ): synthesis, characterization, photophysical properties and application in solar cells. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 33320-33328.	1.3	7
900	Solution-processed $\text{BiI}_3$ solar cells. , 2016, , .		0
901	Stabilizing perovskite halide solar absorbers through direct atomic layer deposition of pinhole-free oxides. , 2016, , .		0
902	The nature of free-carrier transport in organometal halide perovskites. <i>Scientific Reports</i> , 2016, 6, 19599.	1.6	38
903	The nature of hydrogen-bonding interaction in the prototypic hybrid halide perovskite, tetragonal $\text{CH}_3\text{NH}_3\text{PbI}_3$ . <i>Scientific Reports</i> , 2016, 6, 21687.	1.6	123
904	Mixture interlayer for high performance organic-inorganic perovskite photodetectors. <i>Applied Physics Letters</i> , 2016, 109, .	1.5	38
906	Atomic partial charges on $\text{CH}_3\text{NH}_3\text{PbI}_3$ from first-principles electronic structure calculations. <i>Journal of Applied Physics</i> , 2016, 119, .	1.1	20
907	A hybrid CMOS-imager with perovskites as photoactive layer. , 2016, , .		1
908	Oxygen influencing the photocarriers lifetime of $\text{CH}_3\text{NH}_3\text{PbI}_3\text{xClx}$ film grown by two-step interdiffusion method and its photovoltaic performance. <i>Applied Physics Letters</i> , 2016, 108, .	1.5	26

#	ARTICLE	IF	CITATIONS
909	Photoelectrochemical characterization of p-type CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite. , 2016, , .		0
910	Effect of interface charges on the efficiency of perovskite based solar cells. , 2016, , .		0
911	Density functional theory + U modeling of polarons in organohalide lead perovskites. AIP Advances, 2016, 6, .	0.6	25
912	Solution-based mist CVD technique for CH <sub>3</sub> NH <sub>3</sub> Pb(Br <sub>1-x</sub> I <sub>x</sub> ) <sub>3</sub> thin films. Applied Physics, 2016, 55, 100308.	0.8	21
913	Low resistivity ZnO-GO electron transport layer based CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> solar cells. AIP Advances, 2016, 6, .	0.6	26
914	Perovskite heterojunction based on CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> single crystal for high-sensitive self-powered photodetector. Applied Physics Letters, 2016, 109, .	1.5	90
915	Iodine and Chlorine Element Evolution in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> and CH <sub>3</sub> NH <sub>3</sub> PbCl <sub>3</sub> Thin Films for Highly Efficient Planar Heterojunction Perovskite Solar Cells. Chemistry of Materials, 2016, 28, 2742-2749.	3.2	48
916	A self-powered photodetector based on a CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> single crystal with asymmetric electrodes. CrystEngComm, 2016, 18, 4405-4411.	1.3	95
917	Preparation of ultra-thin and high-quality WO <sub>3</sub> compact layers and comparison of WO <sub>3</sub> and TiO <sub>2</sub> compact layer thickness in planar perovskite solar cells. Journal of Solid State Chemistry, 2016, 238, 223-228.	1.4	50
918	Voltage-Induced Transients in Methylammonium Lead Triiodide Probed by Dynamic Photoluminescence Spectroscopy. Journal of Physical Chemistry C, 2016, 120, 7893-7902.	1.5	24
919	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
920	Laser Processing in the Manufacture of Dye-Sensitized and Perovskite Solar Cell Technologies. ChemElectroChem, 2016, 3, 9-30.	1.7	67
921	Perovskites as new radical photoinitiators for radical and cationic polymerizations. Tetrahedron, 2016, 72, 7686-7690.	1.0	18
922	The Effects of the Organic-Inorganic Interactions on the Thermal Transport Properties of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> . Nano Letters, 2016, 16, 2749-2753.	4.5	95
923	Solution-processed flexible planar perovskite solar cells: A strategy to enhance efficiency by controlling the ZnO electron transfer layer, Pbl <sub>2</sub> phase, and CH <sub>3</sub> NH <sub>3</sub> Pbl <sub>3</sub> morphologies. Journal of Power Sources, 2016, 324, 142-149.	4.0	17
924	F4TCNQ-doped DEPT-SC as hole transporting material for stable perovskite solar cells. Organic Electronics, 2016, 35, 171-175.	1.4	14
925	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
926	Quantification of spatial inhomogeneity in perovskite solar cells by hyperspectral luminescence imaging. Energy and Environmental Science, 2016, 9, 2286-2294.	15.6	102

#	ARTICLE	IF	CITATIONS
927	Hysteresis-free low-temperature-processed planar perovskite solar cells with 19.1% efficiency. <i>Energy and Environmental Science</i> , 2016, 9, 2262-2266.	15.6	265
928	Ultrafast charge carrier dynamics in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> : evidence for hot hole injection into spiro-OMeTAD. <i>Journal of Materials Chemistry C</i> , 2016, 4, 5922-5931.	2.7	34
929	Suppressed hysteresis and improved stability in perovskite solar cells with conductive organic network. <i>Nano Energy</i> , 2016, 26, 139-147.	8.2	97
930	Low electron-polar optical phonon scattering as a fundamental aspect of carrier mobility in methylammonium lead halide CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskites. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 15352-15362.	1.3	77
931	Effect of multi-armed triphenylamine-based hole transporting materials for high performance perovskite solar cells. <i>Chemical Science</i> , 2016, 7, 5517-5522.	3.7	78
932	Hydrophobic Hole-Transporting Materials Incorporating Multiple Thiophene Cores with Long Alkyl Chains for Efficient Perovskite Solar Cells. <i>Electrochimica Acta</i> , 2016, 209, 529-540.	2.6	29
933	Ammonium-iodide-salt additives induced photovoltaic performance enhancement in one-step solution process for perovskite solar cells. <i>Journal of Alloys and Compounds</i> , 2016, 684, 84-90.	2.8	59
934	Crystalline Mixed Halide Halobismuthates and Their Induced Second Harmonic Generation. <i>Chemistry of Materials</i> , 2016, 28, 4421-4431.	3.2	43
935	Synthesis of Perfectly Oriented and Micrometer-Sized MAPbBr <sub>3</sub> Perovskite Crystals for Thin-Film Photovoltaic Applications. <i>ACS Energy Letters</i> , 2016, 1, 150-154.	8.8	103
936	Unidirectional Lasing Emissions from CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> Perovskite Microdisks. <i>ACS Photonics</i> , 2016, 3, 1125-1130.	3.2	106
937	Towards optical optimization of planar monolithic perovskite/silicon-heterojunction tandem solar cells. <i>Journal of Optics (United Kingdom)</i> , 2016, 18, 064012.	1.0	82
938	Morphology fixing agent for [6,6]-phenyl C <sub>61</sub> -butyric acid methyl ester (PC <sub>60</sub> BM) in planar-type perovskite solar cells for enhanced stability. <i>RSC Advances</i> , 2016, 6, 51513-51519.	1.7	10
939	Hole Conductor Free Perovskite-based Solar Cells. <i>SpringerBriefs in Applied Sciences and Technology</i> , 2016, , .	0.2	7
940	Organo-Metal Lead Halide Perovskite Properties. <i>SpringerBriefs in Applied Sciences and Technology</i> , 2016, , 1-4.	0.2	0
941	Hole Transport Material (HTM) Free Perovskite Solar Cell. <i>SpringerBriefs in Applied Sciences and Technology</i> , 2016, , 9-24.	0.2	0
942	Crystal growth engineering for high efficiency perovskite solar cells. <i>CrystEngComm</i> , 2016, 18, 5977-5985.	1.3	85
943	An ultra-thin, un-doped NiO hole transporting layer of highly efficient (16.4%) organic-inorganic hybrid perovskite solar cells. <i>Nanoscale</i> , 2016, 8, 11403-11412.	2.8	307
944	The effect of porous lead iodide precursor film on perovskite film formation and its photovoltaic property after an effective pretreatment. <i>Superlattices and Microstructures</i> , 2016, 94, 196-203.	1.4	5

#	ARTICLE	IF	CITATIONS
945	A modified two-step sequential deposition method for preparing perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> solar cells. RSC Advances, 2016, 6, 42377-42381.	1.7	22
946	Tuning superior solar cell performance of carrier mobility and absorption in perovskite CH <sub>3</sub> NH <sub>3</sub> GeCl <sub>3</sub> : A density functional calculations. Journal of Power Sources, 2016, 313, 96-103.	4.0	51
947	Two-Photon-Pumped Perovskite Semiconductor Nanocrystal Lasers. Journal of the American Chemical Society, 2016, 138, 3761-3768.	6.6	496
948	Unravelling the Effects of Grain Boundary and Chemical Doping on Electron-Hole Recombination in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite by Time-Domain Atomistic Simulation. Journal of the American Chemical Society, 2016, 138, 3884-3890.	6.6	333
949	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
950	Low-Temperature TiO <sub>x</sub> Compact Layer for Planar Heterojunction Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 11076-11083.	4.0	100
951	Sulfamic Acid-Catalyzed Lead Perovskite Formation for Solar Cell Fabrication on Glass or Plastic Substrates. Journal of the American Chemical Society, 2016, 138, 5410-5416.	6.6	86
952	Advancements in the stability of perovskite solar cells: degradation mechanisms and improvement approaches. RSC Advances, 2016, 6, 38079-38091.	1.7	154
953	Mechanism of biphasic charge recombination and accumulation in TiO <sub>2</sub> mesoporous structured perovskite solar cells. Physical Chemistry Chemical Physics, 2016, 18, 12128-12134.	1.3	28
954	Two-dimensional modeling of TiO <sub>2</sub> nanowire based organic-inorganic hybrid perovskite solar cells. Solar Energy Materials and Solar Cells, 2016, 152, 111-117.	3.0	45
955	Dynamical Origin of the Rashba Effect in Organohalide Lead Perovskites: A Key to Suppressed Carrier Recombination in Perovskite Solar Cells?. Journal of Physical Chemistry Letters, 2016, 7, 1638-1645.	2.1	278
956	Visible blind ultraviolet photodetector based on CH <sub>3</sub> NH <sub>3</sub> PbCl <sub>3</sub> thin film. Optics Express, 2016, 24, 8411.	1.7	60
957	Atomically thin two-dimensional materials as hole extraction layers in organolead halide perovskite photovoltaic cells. Journal of Power Sources, 2016, 319, 1-8.	4.0	98
958	Multilayered Perovskite Materials Based on Polymeric-Ammonium Cations for Stable Large-Area Solar Cell. Chemistry of Materials, 2016, 28, 3131-3138.	3.2	174
959	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
960	Colored dual-functional photovoltaic cells. Journal of Optics (United Kingdom), 2016, 18, 064003.	1.0	17
961	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
962	An affordable green energy source—Evolving through current developments of organic, dye sensitized, and perovskite solar cells. International Journal of Green Energy, 2016, 13, 859-906.	2.1	4



#	ARTICLE	IF	CITATIONS
963	Life Cycle Assessment (LCA) of perovskite PV cells projected from lab to fab. <i>Solar Energy Materials and Solar Cells</i> , 2016, 156, 157-169.	3.0	168
964	Vertically aligned nanostructured TiO <sub>2</sub> photoelectrodes for high efficiency perovskite solar cells via a block copolymer template approach. <i>Nanoscale</i> , 2016, 8, 11472-11479.	2.8	48
965	Growth temperature-dependent performance of planar CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> solar cells fabricated by a two-step subliming vapor method below 120 °C. <i>RSC Advances</i> , 2016, 6, 47459-47467.	1.7	7
966	Light induced metastable modification of optical properties in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite films: Two-step mechanism. <i>Organic Electronics</i> , 2016, 34, 79-83.	1.4	73
967	Perovskite photonic sources. <i>Nature Photonics</i> , 2016, 10, 295-302.	15.6	1,369
968	State and prospects of solar cells based on perovskites. <i>Applied Solar Energy (English Translation of) Tj ETQq1 1 0.784314 rgBT / Over</i>	0.2	0
969	Induced Crystallization of Perovskites by a Perylene Underlayer for High-Performance Solar Cells. <i>ACS Nano</i> , 2016, 10, 5479-5489.	7.3	125
970	Stable and durable CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite solar cells at ambient conditions. <i>Nanotechnology</i> , 2016, 27, 235404.	1.3	61
971	Optical characterization of voltage-accelerated degradation in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite solar cells. <i>Optics Express</i> , 2016, 24, A917.	1.7	26
972	Ultrasensitive photoelectrochemical aptasensing of miR-155 using efficient and stable CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> quantum dots sensitized ZnO nanosheets as light harvester. <i>Biosensors and Bioelectronics</i> , 2016, 85, 142-150.	5.3	44
973	All solid-state solar cells based on CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> -sensitized TiO <sub>2</sub> nanotube arrays. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2016, 83, 322-328.	1.3	5
974	Room-temperature and gram-scale synthesis of CsPbX <sub>3</sub> (X = Cl, Br, I) perovskite nanocrystals with 50%–85% photoluminescence quantum yields. <i>Chemical Communications</i> , 2016, 52, 7265-7268.	2.2	330
975	Facile synthesis of a hole transporting material with a silafluorene core for efficient mesoscopic CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 8750-8754.	5.2	36
976	A facile one-step solution deposition via non-solvent/solvent mixture for efficient organometal halide perovskite light-emitting diodes. <i>Nanoscale</i> , 2016, 8, 11084-11090.	2.8	41
977	Super-Resolution Luminescence Microspectroscopy Reveals the Mechanism of Photoinduced Degradation in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Nanocrystals. <i>Journal of Physical Chemistry C</i> , 2016, 120, 10711-10719.	1.5	127
978	Imaging Electronic Trap States in Perovskite Thin Films with Combined Fluorescence and Femtosecond Transient Absorption Microscopy. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 1725-1731.	2.1	48
979	Halide-Substituted Electronic Properties of Organometal Halide Perovskite Films: Direct and Inverse Photoemission Studies. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 11526-11531.	4.0	111
980	Mapping the Photoresponse of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Hybrid Perovskite Thin Films at the Nanoscale. <i>Nano Letters</i> , 2016, 16, 3434-3441.	4.5	120

#	ARTICLE	IF	CITATIONS
981	Performance enhancement of high temperature SnO <sub>2</sub> -based planar perovskite solar cells: electrical characterization and understanding of the mechanism. <i>Journal of Materials Chemistry A</i> , 2016, 4, 8374-8383.	5.2	156
982	Dopant-free polymeric hole transport materials for highly efficient and stable perovskite solar cells. <i>Energy and Environmental Science</i> , 2016, 9, 2326-2333.	15.6	317
983	High-performance inverted planar heterojunction perovskite solar cells based on a solution-processed CuO <sub>x</sub> hole transport layer. <i>Nanoscale</i> , 2016, 8, 10806-10813.	2.8	206
984	Efficient perovskite solar cell fabricated in ambient air using one-step spin-coating. <i>RSC Advances</i> , 2016, 6, 43299-43303.	1.7	52
985	New fullerene design enables efficient passivation of surface traps in high performance p-i-n heterojunction perovskite solar cells. <i>Nano Energy</i> , 2016, 26, 7-15.	8.2	89
986	Interfacial Charge-Carrier Trapping in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> -Based Heterolayered Structures Revealed by Time-Resolved Photoluminescence Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 1972-1977.	2.1	58
987	Film-through large perovskite grains formation via a combination of sequential thermal and solvent treatment. <i>Journal of Materials Chemistry A</i> , 2016, 4, 8554-8561.	5.2	80
988	Efficient, high yield perovskite/fullerene planar-heterojunction solar cells via one-step spin-coating processing. <i>RSC Advances</i> , 2016, 6, 48449-48454.	1.7	10
989	Wavelength-dependent optical transition mechanisms for light-harvesting of perovskite MAPbI <sub>3</sub> solar cells using first-principles calculations. <i>Journal of Materials Chemistry C</i> , 2016, 4, 5248-5254.	2.7	11
990	Bromide regulated film formation of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> in low-pressure vapor-assisted deposition for efficient planar-heterojunction perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2016, 157, 1026-1037.	3.0	27
991	Understanding of the formation of shallow level defects from the intrinsic defects of lead tri-halide perovskites. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 27143-27147.	1.3	62
992	Influence of the mixed organic cation ratio in lead iodide based perovskite on the performance of solar cells. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 27148-27157.	1.3	75
993	A review of organic small molecule-based hole-transporting materials for meso-structured organic-inorganic perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 15788-15822.	5.2	150
994	Diketopyrrolopyrrole or benzodithiophene-arylamine small-molecule hole transporting materials for stable perovskite solar cells. <i>RSC Advances</i> , 2016, 6, 87454-87460.	1.7	26
995	Carrier trapping and recombination: the role of defect physics in enhancing the open circuit voltage of metal halide perovskite solar cells. <i>Energy and Environmental Science</i> , 2016, 9, 3472-3481.	15.6	409
996	Recent progress on stability issues of organic-inorganic hybrid lead perovskite-based solar cells. <i>RSC Advances</i> , 2016, 6, 89356-89366.	1.7	69
997	High-quality perovskite in thick scaffold: a core issue for hole transport material-free perovskite solar cells. <i>Science Bulletin</i> , 2016, 61, 1680-1688.	4.3	17
998	Printable Solar Cells from Advanced Solution-Processible Materials. <i>CheM</i> , 2016, 1, 197-219.	5.8	68

#	ARTICLE	IF	CITATIONS
999	Increased Efficiency for Perovskite Photovoltaics via Doping the Pbl <sub>2</sub> Layer. Journal of Physical Chemistry C, 2016, 120, 24577-24582.	1.5	33
1000	Charge Stripe Formation in Molecular Ferroelectric Organohalide Perovskites for Efficient Charge Separation. Journal of Physical Chemistry C, 2016, 120, 23969-23975.	1.5	14
1001	Chemical instability leads to unusual chemical-potential-independent defect formation and diffusion in perovskite solar cell material CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> . Journal of Materials Chemistry A, 2016, 4, 16975-16981.	5.2	67
1002	Hole-Transport Materials for Perovskite Solar Cells. Angewandte Chemie - International Edition, 2016, 55, 14522-14545.	7.2	786
1003	Effect of the modulating of organic content on optical properties of single-crystal perovskite. Optical Materials, 2016, 62, 273-278.	1.7	16
1004	Synergistic Effect of PbI <sub>2</sub> Passivation and Chlorine Inclusion Yielding High Open-Circuit Voltage Exceeding 1.15 V in Both Mesoscopic and Inverted Planar CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> (Cl)-Based Perovskite Solar Cells. Advanced Functional Materials, 2016, 26, 8119-8127.	7.8	93
1005	Engineering TiO <sub>2</sub> /Perovskite Planar Heterojunction for Hysteresis-Less Solar Cells. Advanced Materials Interfaces, 2016, 3, 1600493.	1.9	24
1006	Magnetic Manipulation of Spontaneous Emission from Inorganic CsPbBr <sub>3</sub> Perovskites Nanocrystals. Advanced Optical Materials, 2016, 4, 2004-2008.	3.6	14
1007	Efficient perovskite solar cells using trichlorosilanes as perovskite/PCBM interface modifiers. Organic Electronics, 2016, 39, 1-9.	1.4	24
1008	Observation of Quantum Confinement in Monodisperse Methylammonium Lead Halide Perovskite Nanocrystals Embedded in Mesoporous Silica. Journal of the American Chemical Society, 2016, 138, 13874-13881.	6.6	308
1009	A new family of thermoplastic photoluminescence polymers. Polymer Chemistry, 2016, 7, 6250-6256.	1.9	36
1010	Perovskite Solar Cells on Corrugated Substrates with Enhanced Efficiency. Small, 2016, 12, 6346-6352.	5.2	15
1011	Surface Passivation of Perovskite Film by Small Molecule Infiltration for Improved Efficiency of Perovskite Solar Cells. IEEE Photonics Journal, 2016, 8, 1-7.	1.0	8
1012	Vibrational Response of Methylammonium Lead Iodide: From Cation Dynamics to Phonon-Phonon Interactions. ChemSusChem, 2016, 9, 2994-3004.	3.6	51
1013	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
1014	TiO <sub>2</sub> single crystalline nanorod compact layer for high-performance CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite solar cells with an efficiency exceeding 17%. Journal of Power Sources, 2016, 332, 366-371.	4.0	21
1015	Layered and Pb-Free Organic-Inorganic Perovskite Materials for Ultraviolet Photoresponse: (010)-Oriented (CH <sub>3</sub> NH <sub>3</sub> ) <sub>2</sub> MnCl <sub>4</sub> Thin Film. ACS Applied Materials & Interfaces, 2016, 8, 28187-28193.	4.0	54
1016	Solution-Processable Cathode Buffer Layer for High-Performance ITO/CuSCN-based Planar Heterojunction Perovskite Solar Cell. Electrochimica Acta, 2016, 218, 263-270.	2.6	23

#	ARTICLE	IF	CITATIONS
1017	First-Principles Study of Molecular Adsorption on Lead Iodide Perovskite Surface: A Case Study of Halogen Bond Passivation for Solar Cell Application. <i>Journal of Physical Chemistry C</i> , 2016, 120, 23536-23541.	1.5	37
1018	Periodic Organic-Inorganic Halide Perovskite Microplatelet Arrays on Silicon Substrates for Room-Temperature Lasing. <i>Advanced Science</i> , 2016, 3, 1600137.	5.6	121
1019	High-coverage organic-inorganic perovskite film fabricated by double spin coating for improved solar power conversion and amplified spontaneous emission. <i>Chemical Physics Letters</i> , 2016, 661, 131-135.	1.2	11
1020	Optical Properties of Heterojunction between Hybrid Halide Perovskite and Charge Transport Materials: Exciplex Emission and Large Polaron. <i>Journal of Physical Chemistry C</i> , 2016, 120, 23299-23303.	1.5	7
1021	Carrier-phonon interactions in hybrid halide perovskites probed with ultrafast anisotropy studies. , 2016, , .		1
1022	The Effect of the Microstructure on Trap-Assisted Recombination and Light Soaking Phenomenon in Hybrid Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2016, 26, 8094-8102.	7.8	108
1023	Lasing from halide perovskites. , 2016, , .		0
1024	Near-Field Energy Transfer Using Nanoemitters For Optoelectronics. <i>Advanced Functional Materials</i> , 2016, 26, 8158-8177.	7.8	73
1025	Device simulation of lead-free CH <sub>3</sub> NH <sub>3</sub> Snl <sub>3</sub> perovskite solar cells with high efficiency. <i>Chinese Physics B</i> , 2016, 25, 108802.	0.7	228
1026	Optical Probe Ion and Carrier Dynamics at the CH <sub>3</sub> NH <sub>3</sub> Pbl <sub>3</sub> Interface with Electron and Hole Transport Materials. <i>Advanced Materials Interfaces</i> , 2016, 3, 1600467.	1.9	23
1027	Progress of interface engineering in perovskite solar cells. <i>Science China Materials</i> , 2016, 59, 728-742.	3.5	43
1028	Large Planar $\pi$ -Conjugated Porphyrin for Interfacial Engineering in p-i-n Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 27438-27443.	4.0	70
1029	Synthesis, properties, and optical applications of low-dimensional perovskites. <i>Chemical Communications</i> , 2016, 52, 13637-13655.	2.2	252
1030	Near-Infrared Photoresponse of One-Sided Abrupt MAPbl <sub>3</sub> /TiO <sub>2</sub> Heterojunction through a Tunneling Process. <i>Advanced Functional Materials</i> , 2016, 26, 8545-8554.	7.8	23
1031	The Additive Coordination Effect on Hybrids Perovskite Crystallization and High-Performance Solar Cell. <i>Advanced Materials</i> , 2016, 28, 9862-9868.	11.1	270
1032	Molecular structure simplification of the most common hole transport materials in perovskite solar cells. <i>RSC Advances</i> , 2016, 6, 96990-96996.	1.7	13
1033	All-inorganic quantum-dot light-emitting-diodes with vertical nickel oxide nanosheets as hole transport layer. <i>Progress in Natural Science: Materials International</i> , 2016, 26, 503-509.	1.8	11
1034	Pbl <sub>2</sub> -HMPA Complex Pretreatment for Highly Reproducible and Efficient CH <sub>3</sub> NH <sub>3</sub> Pbl <sub>3</sub> Perovskite Solar Cells. <i>Journal of the American Chemical Society</i> , 2016, 138, 14380-14387.	6.6	107

#	ARTICLE	IF	CITATIONS
1035	Controllable lasing performance in solution-processed organic-inorganic hybrid perovskites. <i>Nanoscale</i> , 2016, 8, 18483-18488.	2.8	26
1036	Elucidating the charge carrier transport and extraction in planar heterojunction perovskite solar cells by Kelvin probe force microscopy. <i>Journal of Materials Chemistry A</i> , 2016, 4, 17464-17472.	5.2	43
1037	Constructing water-resistant CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite films via coordination interaction. <i>Journal of Materials Chemistry A</i> , 2016, 4, 17018-17024.	5.2	89
1038	Rb as an Alternative Cation for Templating Inorganic Lead-Free Perovskites for Solution Processed Photovoltaics. <i>Chemistry of Materials</i> , 2016, 28, 7496-7504.	3.2	249
1039	Simple biphenyl or carbazole derivatives with four di(anisyl)amino substituents as efficient hole-transporting materials for perovskite solar cells. <i>RSC Advances</i> , 2016, 6, 92213-92217.	1.7	9
1040	Screening in crystalline liquids protects energetic carriers in hybrid perovskites. <i>Science</i> , 2016, 353, 1409-1413.	6.0	655
1041	Performance Improvement of Perovskite Solar Cells Based on PCBM-Modified ZnO-Nanorod Arrays. <i>IEEE Journal of Photovoltaics</i> , 2016, 6, 1530-1536.	1.5	20
1042	Optical monitoring of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> thin films upon atmospheric exposure. <i>Journal Physics D: Applied Physics</i> , 2016, 49, 405102.	1.3	18
1043	Flexible perovskite solar cells based on the metal-insulator-semiconductor structure. <i>Chemical Communications</i> , 2016, 52, 10791-10794.	2.2	30
1044	Fatigue behavior of planar CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite solar cells revealed by light on/off diurnal cycling. <i>Nano Energy</i> , 2016, 27, 509-514.	8.2	76
1045	Quantifying Hole Transfer Yield from Perovskite to Polymer Layer: Statistical Correlation of Solar Cell Outputs with Kinetic and Energetic Properties. <i>ACS Photonics</i> , 2016, 3, 1678-1688.	3.2	54
1046	Charge Injection at the Heterointerface in Perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Solar Cells Studied by Simultaneous Microscopic Photoluminescence and Photocurrent Imaging Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 3186-3191.	2.1	38
1047	Thermodynamic Stability and Defect Chemistry of Bismuth-Based Lead-Free Double Perovskites. <i>ChemSusChem</i> , 2016, 9, 2628-2633.	3.6	273
1049	Air-stable, hole-conductor-free high photocurrent perovskite solar cells with CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> -NiO nanoparticles composite. <i>Nano Energy</i> , 2016, 27, 535-544.	8.2	73
1050	Coulomb Screening and Coherent Phonon in Methylammonium Lead Iodide Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 3284-3289.	2.1	30
1051	Room-temperature and solution-processed copper iodide as the hole transport layer for inverted planar perovskite solar cells. <i>Nanoscale</i> , 2016, 8, 15954-15960.	2.8	170
1052	Size of the Organic Cation Tunes the Band Gap of Colloidal Organolead Bromide Perovskite Nanocrystals. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 3270-3277.	2.1	118
1053	Ambient Engineering for High-Performance Organic-Inorganic Perovskite Hybrid Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 21505-21511.	4.0	25

#	ARTICLE	IF	CITATIONS
1054	Ultrafast Spectroscopy of Photoexcitations in Organometal Trihalide Perovskites. <i>Advanced Functional Materials</i> , 2016, 26, 1617-1627.	7.8	35
1055	Copper Salts Doped Spiro-OMeTAD for High-Performance Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2016, 6, 1601156.	10.2	205
1056	Facile Thiol-Ene Thermal Crosslinking Reaction Facilitated Hole-Transporting Layer for Highly Efficient and Stable Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2016, 6, 1601165.	10.2	62
1057	The interface and its role in carrier transfer/recombination dynamics for the planar perovskite solar cells prepared under fully open air conditions. <i>Current Applied Physics</i> , 2016, 16, 1353-1363.	1.1	16
1058	Novel insight into the function of PC61BM in efficient planar perovskite solar cells. <i>Nano Energy</i> , 2016, 27, 561-568.	8.2	14
1059	20- $\mu\text{m}$ -Large Single-Crystalline Formamidinium-Perovskite Wafer for Mass Production of Integrated Photodetectors. <i>Advanced Optical Materials</i> , 2016, 4, 1829-1837.	3.6	316
1060	Interface studies of the planar heterojunction perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2016, 157, 783-790.	3.0	42
1061	Magnesium-doped Zinc Oxide as Electron Selective Contact Layers for Efficient Perovskite Solar Cells. <i>ChemSusChem</i> , 2016, 9, 2640-2647.	3.6	74
1062	Microscopic Charge Transport and Recombination Processes behind the Photoelectric Hysteresis in Perovskite Solar Cells. <i>Small</i> , 2016, 12, 5288-5294.	5.2	29
1063	Optimization of $\text{PbI}_2/\text{MAPbI}_3$ Perovskite Composites by Scanning Electrochemical Microscopy. <i>Journal of Physical Chemistry C</i> , 2016, 120, 19890-19895.	1.5	50
1064	Integrating Perovskite Photovoltaics and Noble-Metal-Free Catalysts toward Efficient Solar Energy Conversion and $\text{H}_2\text{S}$ Splitting. <i>ACS Catalysis</i> , 2016, 6, 6198-6206.	5.5	40
1065	Improved performance of perovskite light-emitting diodes using a PEDOT:PSS and $\text{MoO}_3$ composite layer. <i>Journal of Materials Chemistry C</i> , 2016, 4, 8161-8165.	2.7	75
1066	Surface Plasmon Resonance Effect in Inverted Perovskite Solar Cells. <i>Advanced Science</i> , 2016, 3, 1500312.	5.6	88
1067	Effective and reproducible method for preparing low defects perovskite film toward highly photoelectric properties with large fill factor by shaping capping layer. <i>Solar Energy</i> , 2016, 136, 505-514.	2.9	17
1068	Hysteresis in organic-inorganic hybrid perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2016, 157, 476-509.	3.0	146
1069	Electric-Field-Induced Degradation of Methylammonium Lead Iodide Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 3091-3096.	2.1	169
1070	Fast self-diffusion of ions in $\text{CH}_3\text{NH}_3\text{PbI}_3$ : the interstitially mechanism versus vacancy-assisted mechanism. <i>Journal of Materials Chemistry A</i> , 2016, 4, 13105-13112.	5.2	74
1071	High Performance Perovskite Solar Cells. <i>Advanced Science</i> , 2016, 3, 1500201.	5.6	105



#	ARTICLE	IF	CITATIONS
1072	A PCBM Electron Transport Layer Containing Small Amounts of Dual Polymer Additives that Enables Enhanced Perovskite Solar Cell Performance. <i>Advanced Science</i> , 2016, 3, 1500353.	5.6	67
1073	Enhanced Ambient Stability of Efficient Perovskite Solar Cells by Employing a Modified Fullerene Cathode Interlayer. <i>Advanced Science</i> , 2016, 3, 1600027.	5.6	86
1074	Efficient Perovskite Solar Cells Employing Inorganic Interlayers. <i>ChemNanoMat</i> , 2016, 2, 182-188.	1.5	49
1075	Inverted Planar Structure of Perovskite Solar Cells. , 2016, , 307-324.		2
1076	Defect Physics of CH <sub>3</sub> NH <sub>3</sub> PbX <sub>3</sub> (X=Å, Br, Cl) Perovskites. , 2016, , 79-105.		19
1077	APbI <sub>3</sub> (A=ÅCH <sub>3</sub> NH <sub>3</sub> and HC(NH <sub>2</sub> ) <sub>2</sub> ) Perovskite Solar Cells: From Sensitization to Planar Heterojunction. , 2016, , 223-253.		3
1078	Two-step ultrasonic spray deposition of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> for efficient and large-area perovskite solar cell. <i>Nano Energy</i> , 2016, 27, 352-358.	8.2	199
1079	Hexadecafluorophthalocyaninatocopper as an electron conductor for high-efficiency fullerene-free planar perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2016, 157, 510-516.	3.0	7
1080	Hexagonal Å <sup>2</sup> -NaYF <sub>4</sub> :Yb <sup>3+</sup> , Er <sup>3+</sup> Nanoprism-Incorporated Upconverting Layer in Perovskite Solar Cells for Near-Infrared Sunlight Harvesting. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 19847-19852.	4.0	109
1081	Structural and electronic features of small hybrid organic-inorganic halide perovskite clusters: a theoretical analysis. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 27124-27132.	1.3	21
1082	Photoluminescence study of time- and spatial-dependent light induced trap de-activation in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite films. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 22557-22564.	1.3	36
1083	Methodologies for high efficiency perovskite solar cells. <i>Nano Convergence</i> , 2016, 3, 15.	6.3	88
1084	Solution processed inorganic V <sub>2</sub> O <sub>5</sub> as interfacial function materials for inverted planar-heterojunction perovskite solar cells with enhanced efficiency. <i>Nano Research</i> , 2016, 9, 2960-2971.	5.8	81
1085	Highly Tunable Colloidal Perovskite Nanoplatelets through Variable Cation, Metal, and Halide Composition. <i>ACS Nano</i> , 2016, 10, 7830-7839.	7.3	466
1086	Impact of a Mesoporous Titania-Perovskite Interface on the Performance of Hybrid Organic-Inorganic Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 3264-3269.	2.1	85
1087	Interfacial engineering with amino-functionalized graphene for efficient perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 13482-13487.	5.2	80
1088	One-step fabrication of a mixed-halide perovskite film for a high-efficiency inverted solar cell and module. <i>Journal of Materials Chemistry A</i> , 2016, 4, 13525-13533.	5.2	90
1089	50% Sn-Based Planar Perovskite Solar Cell with Power Conversion Efficiency up to 13.6%. <i>Advanced Energy Materials</i> , 2016, 6, 1601353.	10.2	154

#	ARTICLE	IF	CITATIONS
1090	Ternary Halide Perovskites for Highly Efficient Solution-Processed Hybrid Solar Cells. ACS Energy Letters, 2016, 1, 712-718.	8.8	24
1091	Improved performance and air stability of planar perovskite solar cells via interfacial engineering using a fullerene amine interlayer. Nano Energy, 2016, 28, 330-337.	8.2	74
1092	Low temperature fabrication of formamidinium based perovskite solar cells with enhanced performance by chlorine incorporation. Organic Electronics, 2016, 38, 144-149.	1.4	8
1093	Solvent Engineering for Ambient-Air-Processed, Phase-Stable CsPbI <sub>3</sub> in Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2016, 7, 3603-3608.	2.1	328
1094	Advances in the Application of Atomic Layer Deposition for Organometal Halide Perovskite Solar Cells. Advanced Materials Interfaces, 2016, 3, 1600505.	1.9	18
1095	Improving the Performance of a CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> Perovskite Microrod Laser through Hybridization with Few-Layered Graphene. Advanced Optical Materials, 2016, 4, 2057-2062.	3.6	20
1096	Evolution of Diffusion Length and Trap State Induced by Chloride in Perovskite Solar Cell. Journal of Physical Chemistry C, 2016, 120, 21248-21253.	1.5	64
1097	Mixed-solvent-vapor annealing of perovskite for photovoltaic device efficiency enhancement. Nano Energy, 2016, 28, 417-425.	8.2	114
1098	Electron transport layer-free planar perovskite solar cells: Further performance enhancement perspective from device simulation. Solar Energy Materials and Solar Cells, 2016, 157, 1038-1047.	3.0	169
1099	Dynamic Stereochemical Activity of the Sn <sup>2+</sup> Lone Pair in Perovskite CsSnBr <sub>3</sub> . Journal of the American Chemical Society, 2016, 138, 11820-11832.	6.6	217
1100	Interplay of structural and compositional effects on carrier recombination in mixed-halide perovskites. RSC Advances, 2016, 6, 86947-86954.	1.7	20
1101	Effects of water molecules on the chemical stability of MAGel <sub>3</sub> perovskite explored from a theoretical viewpoint. Physical Chemistry Chemical Physics, 2016, 18, 24526-24536.	1.3	22
1102	Stable Low-Bandgap Pb-Sn Binary Perovskites for Tandem Solar Cells. Advanced Materials, 2016, 28, 8990-8997.	11.1	302
1103	Ultrathin and flexible perovskite solar cells with graphene transparent electrodes. Nano Energy, 2016, 28, 151-157.	8.2	200
1104	Cu <sub>2</sub> O particles mediated growth of perovskite for high efficient hole-transporting-layer free solar cells in ambient conditions. Solar Energy Materials and Solar Cells, 2016, 157, 937-942.	3.0	40
1105	A mesoporous planar hybrid architecture of methylammonium lead iodide perovskite based solar cells. Journal of Materials Chemistry A, 2016, 4, 14423-14429.	5.2	17
1106	Surface coverage enhancement of a mixed halide perovskite film by using an UV-ozone treatment. Journal of the Korean Physical Society, 2016, 69, 406-411.	0.3	19
1107	Nonradiative Relaxation in Real-Time Electronic Dynamics OSCF <sub>2</sub> : Organolead Triiodide Perovskite. Journal of Physical Chemistry A, 2016, 120, 6880-6887.	1.1	13

#	ARTICLE	IF	CITATIONS
1108	Efficiency-Enhanced Planar Perovskite Solar Cells via an Isopropanol/Ethanol Mixed Solvent Process. ACS Applied Materials & Interfaces, 2016, 8, 23837-23843.	4.0	53
1109	Rational Design of Dipolar Chromophore as an Efficient Dopant-Free Hole-Transporting Material for Perovskite Solar Cells. Journal of the American Chemical Society, 2016, 138, 11833-11839.	6.6	178
1110	Surface engineering of ZnO electron transporting layer via Al doping for high efficiency planar perovskite solar cells. Nano Energy, 2016, 28, 311-318.	8.2	147
1111	Impact of Conformality and Crystallinity for Ultrathin 4 nm Compact TiO <sub>2</sub> Layers in Perovskite Solar Cells. Advanced Materials Interfaces, 2016, 3, 1600580.	1.9	19
1112	Dopant-Free Donor (D)-D Conjugated Hole-Transport Materials for Efficient and Stable Perovskite Solar Cells. ChemSusChem, 2016, 9, 2578-2585.	3.6	83
1113	Surface Electronic Structure of Hybrid Organo Lead Bromide Perovskite Single Crystals. Journal of Physical Chemistry C, 2016, 120, 21710-21715.	1.5	58
1114	Interface engineering via an insulating polymer for highly efficient and environmentally stable perovskite solar cells. Chemical Communications, 2016, 52, 11355-11358.	2.2	58
1115	Antiferroelectric-to-Ferroelectric Switching in $CH_3NH_3PbBr_3$ and Its Potential Role in Effective Charge Sepa. Physical Review Applied, 2016, 6, .	1.5	30
1116	Synthesis of hybrid organic-inorganic perovskite platelets by Vacuum Impregnation. Solid State Sciences, 2016, 61, 116-120.	1.5	8
1117	Efficient planar perovskite solar cells prepared via a low-pressure vapor-assisted solution process with fullerene/TiO <sub>2</sub> as an electron collection bilayer. RSC Advances, 2016, 6, 78585-78594.	1.7	27
1118	Large dielectric constant, high acceptor density, and deep electron traps in perovskite solar cell material CsGel <sub>3</sub> . Journal of Materials Chemistry A, 2016, 4, 13852-13858.	5.2	148
1119	A First-Principles Study on the Structural and Electronic Properties of Sn-Based Organic-Inorganic Halide Perovskites. Journal of Electronic Materials, 2016, 45, 5956-5966.	1.0	29
1120	Dynamics of Photocarrier Separation in MAPbI <sub>3</sub> Perovskite Multigrain Films under a Quasistatic Electric Field. Journal of Physical Chemistry C, 2016, 120, 19595-19602.	1.5	22
1121	Optical properties of the organic-inorganic hybrid perovskite $CH_3NH_3PbI_3$ and its potential role in effective charge separation. Physical Review Applied, 2016, 6, .	1.1	50
1122	Cooperative tin oxide fullerene electron selective layers for high-performance planar perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 14276-14283.	5.2	204
1123	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
1124	Characteristics of Perovskite Solar Cells under Low-Illuminance Conditions. Journal of Physical Chemistry C, 2016, 120, 18986-18990.	1.5	43
1125	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

#	ARTICLE	IF	CITATIONS
1126	Cross-Linkable Fullerene Derivatives for Solution-Processed $\text{p}$ Perovskite Solar Cells. ACS Energy Letters, 2016, 1, 648-653.	8.8	67
1127	Schottky junctions on perovskite single crystals: light-modulated dielectric constant and self-biased photodetection. Journal of Materials Chemistry C, 2016, 4, 8304-8312.	2.7	134
1128	General Space-Confined On-Substrate Fabrication of Thickness-Adjustable Hybrid Perovskite Single-Crystalline Thin Films. Journal of the American Chemical Society, 2016, 138, 16196-16199.	6.6	205
1129	All-Inorganic Perovskite Solar Cells. Journal of the American Chemical Society, 2016, 138, 15829-15832.	6.6	899
1130	Review on charge transfer and chemical activity of $\text{TiO}_2$ : Mechanism and applications. Progress in Surface Science, 2016, 91, 183-202.	3.8	76
1131	Solution-Processable Ionic Liquid as an Independent or Modifying Electron Transport Layer for High-Efficiency Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 34464-34473.	4.0	111
1132	Efficient promotion of charge separation and suppression of charge recombination by blending PCBM and its dimer as electron transport layer in inverted perovskite solar cells. RSC Advances, 2016, 6, 112512-112519.	1.7	15
1133	Efficient promotion of charge separation and suppression of charge recombination by blending PCBM and its dimer as electron transport layer in inverted perovskite solar cells. RSC Advances, 2016, 6, 112512-112519.	1.1	49
1134	Carbon-Based $\text{CsPbBr}_3$ Perovskite Solar Cells: All-Ambient Processes and High Thermal Stability. ACS Applied Materials & Interfaces, 2016, 8, 33649-33655.	4.0	256
1135	Optically switched magnetism in photovoltaic perovskite $\text{CH}_3\text{NH}_3(\text{Mn:Pb})\text{I}_3$ . Nature Communications, 2016, 7, 13406.	5.8	106
1136	Nanoimprinted Perovskite Nanograting Photodetector with Improved Efficiency. ACS Nano, 2016, 10, 10921-10928.	7.3	168
1137	Decoupling Interfacial Charge Transfer from Bulk Diffusion Unravels Its Intrinsic Role for Efficient Charge Extraction in Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2016, 7, 5056-5061.	2.1	55
1138	100% Thermal Stability of Printable Perovskite Solar Cells Using Porous Carbon Counter Electrodes. ChemSusChem, 2016, 9, 2604-2608.	3.6	103
1139	Graphene Perovskite Solar Cells Exceed 18% Efficiency: A Stability Study. ChemSusChem, 2016, 9, 2609-2619.	3.6	163
1140	Room Temperature Phase Transition in Methylammonium Lead Iodide Perovskite Thin Films Induced by Hydrohalic Acid Additives. ChemSusChem, 2016, 9, 2656-2665.	3.6	47
1141	Dopant-Free Zinc Chlorophyll Aggregates as an Efficient Biocompatible Hole Transporter for Perovskite Solar Cells. ChemSusChem, 2016, 9, 2862-2869.	3.6	58
1142	Highly efficient and stable planar perovskite solar cells by solution-processed tin oxide. Energy and Environmental Science, 2016, 9, 3128-3134.	15.6	720
1143	Highly efficient $\text{CH}_3\text{NH}_3\text{PbI}_3\text{Cl}_x$ mixed halide perovskite solar cells prepared by re-dissolution and crystal grain growth via spray coating. Journal of Materials Chemistry A, 2016, 4, 17636-17642.	5.2	223

#	ARTICLE	IF	CITATIONS
1144	Band structure engineering in a MoS <sub>2</sub> /Pb <sub>2</sub> van der Waals heterostructure via an external electric field. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 28466-28473.	1.3	37
1145	Highly stabilized perovskite solar cell prepared using vacuum deposition. <i>RSC Advances</i> , 2016, 6, 93525-93531.	1.7	10
1146	Tuning the Fermi-level of TiO <sub>2</sub> mesoporous layer by lanthanum doping towards efficient perovskite solar cells. <i>Nanoscale</i> , 2016, 8, 16881-16885.	2.8	103
1147	A Strategy to Simplify the Preparation Process of Perovskite Solar Cells by Co-deposition of a Hole-Conductor and a Perovskite Layer. <i>Advanced Materials</i> , 2016, 28, 9648-9654.	11.1	150
1148	MAPb <sub>12.9-x</sub> Br <sub>x</sub> Cl <sub>0.1</sub> hybrid halide perovskites: Shedding light on the effect of chloride and bromide ions on structural and photoluminescence properties. <i>Applied Surface Science</i> , 2016, 390, 744-750.	3.1	16
1149	Evidence for reduced charge recombination in carbon nanotube/perovskite-based active layers. <i>Chemical Physics Letters</i> , 2016, 662, 35-41.	1.2	43
1150	Strategic improvement of the long-term stability of perovskite materials and perovskite solar cells. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 27026-27050.	1.3	134
1151	Boosting Perovskite Solar Cells Performance and Stability through Doping a Poly- $\pi$ (hexylthiophene) Hole Transporting Material with Organic Functionalized Carbon Nanostructures. <i>Advanced Functional Materials</i> , 2016, 26, 7443-7453.	7.8	86
1152	Advances in Perovskite Solar Cells. <i>Advanced Science</i> , 2016, 3, 1500324.	5.6	482
1153	Charge Transport in Organometal Halide Perovskites. , 2016, , 201-222.		9
1154	Perovskite CH <sub>3</sub> NH <sub>3</sub> Pb <sub>3</sub> (Cl) Single Crystals: Rapid Solution Growth, Unparalleled Crystalline Quality, and Low Trap Density toward $10^{18}$ cm <sup>-3</sup> . <i>Journal of the American Chemical Society</i> , 2016, 138, 9409-9412.	6.6	226
1155	Optimizing semiconductor thin films with smooth surfaces and well-interconnected networks for high-performance perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 12463-12470.	5.2	28
1156	Exploring the Electronic Band Structure of Organometal Halide Perovskite via Photoluminescence Anisotropy of Individual Nanocrystals. <i>Nano Letters</i> , 2016, 16, 5087-5094.	4.5	54
1157	Effects of ambient air processing on morphology and photoconductivity of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> . <i>Journal of Materials Science: Materials in Electronics</i> , 2016, 27, 12028-12035.	1.1	3
1158	A Strategy to Achieve High-Efficiency Organolead Trihalide Perovskite Solar Cells. <i>Journal of Electronic Materials</i> , 2016, 45, 5746-5755.	1.0	6
1159	Quasiparticle band gap of organic-inorganic hybrid perovskites: Crystal structure, spin-orbit coupling, and self-energy effects. <i>Physical Review B</i> , 2016, 93, .	1.1	67
1160	Broadband transient absorption study of photoexcitations in lead halide perovskites: Towards a multiband picture. <i>Physical Review B</i> , 2016, 93, .	1.1	47
1161	Atomic structure of metal-halide perovskites from first principles: The chicken-and-egg paradox of the organic-inorganic interaction. <i>Physical Review B</i> , 2016, 94, .	1.1	65

#	ARTICLE	IF	CITATIONS
1162	Low Threshold Two-Photon-Pumped Amplified Spontaneous Emission in $\text{CH}_3\text{NH}_3\text{PbBr}_3$ Microdisks. ACS Applied Materials & Interfaces, 2016, 8, 19587-19592.	4.0	54
1163	Unreacted $\text{PbI}_2$ as a Double-Edged Sword for Enhancing the Performance of Perovskite Solar Cells. Journal of the American Chemical Society, 2016, 138, 10331-10343.	6.6	696
1164	Highly Efficient $\text{p-n}$ Perovskite Solar Cells Utilizing Novel Low-Temperature Solution-Processed Hole Transport Materials with Linear $\pi$ -Conjugated Structure. Small, 2016, 12, 4902-4908.	5.2	53
1165	Pseudomorphic Transformation of Organometal Halide Perovskite Using the Gaseous Hydrogen Halide Reaction. Chemistry of Materials, 2016, 28, 5530-5537.	3.2	39
1166	Influences of bulk and surface recombinations on the power conversion efficiency of perovskite solar cells. Journal Physics D: Applied Physics, 2016, 49, 275106.	1.3	3
1167	Flexible organic-inorganic hybrid perovskite solar cells. Science China Materials, 2016, 59, 495-506.	3.5	7
1168	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
1169	Effects of alloying on the optical properties of organic-inorganic lead halide perovskite thin films. Journal of Materials Chemistry C, 2016, 4, 7775-7782.	2.7	100
1170	Organic-Inorganic Halide Perovskite Photovoltaics. , 2016, , .		115
1171	Revealing and reducing the possible recombination loss within $\text{TiO}_2$ compact layer by incorporating $\text{MgO}$ layer in perovskite solar cells. Solar Energy, 2016, 136, 379-384.	2.9	48
1172	Carrier Diffusion Lengths in Hybrid Perovskites: Processing, Composition, Aging, and Surface Passivation Effects. Chemistry of Materials, 2016, 28, 5259-5263.	3.2	109
1173	An amorphous precursor route to the conformable oriented crystallization of $\text{CH}_3\text{NH}_3\text{PbBr}_3$ in mesoporous scaffolds: toward efficient and thermally stable carbon-based perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 12897-12912.	5.2	77
1174	Solution-Processed $\text{TiO}_2$ -Based Perovskite for Near-Infrared Lasing. Advanced Materials, 2016, 28, 8191-8196.	11.1	222
1175	Room-Temperature, Hydrochloride-Assisted, One-Step Deposition for Highly Efficient and Air-Stable Perovskite Solar Cells. Advanced Materials, 2016, 28, 8309-8314.	11.1	96
1176	Unveiling the Low-Temperature Pseudodegradation of Photovoltaic Performance in Planar Perovskite Solar Cell by Optoelectronic Observation. Advanced Energy Materials, 2016, 6, 1600814.	10.2	21
1177	Mesoscale Growth and Assembly of Bright Luminescent Organolead Halide Perovskite Quantum Wires. Chemistry of Materials, 2016, 28, 5043-5054.	3.2	63
1178	Highly Efficient, Reproducible, Uniform $(\text{CH}_3\text{NH}_3)\text{PbI}_3$ Layer by Processing Additive Dripping for Solution-Processed Planar Heterojunction Perovskite Solar Cells. Chemistry - an Asian Journal, 2016, 11, 2399-2405.	1.7	5
1179	Using elemental Pb surface as a precursor to fabricate large area $\text{CH}_3\text{NH}_3\text{PbI}_3$ perovskite solar cells. Applied Surface Science, 2016, 389, 540-546.	3.1	28



#	ARTICLE	IF	CITATIONS
1180	Optical Transitions in Hybrid Perovskite Solar Cells: Ellipsometry, Density Functional Theory, and Quantum Efficiency Analyses for $\langle \text{mml:mrow} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{CH} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 3 \langle \text{mml:mrow} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle$ Physical Review Applied, 2016, 5, .	1.5	322
1181	Optical spintronics in organic-inorganic perovskite photovoltaics. Physical Review B, 2016, 93, .	1.1	36
1182	Chemical Trends of Electronic Properties of Two-Dimensional Halide Perovskites and Their Potential Applications for Electronics and Optoelectronics. Journal of Physical Chemistry C, 2016, 120, 24682-24687.	1.5	41
1183	The Bright Side of Perovskites. Journal of Physical Chemistry Letters, 2016, 7, 4322-4334.	2.1	115
1184	Simple and Efficient Green-Light-Emitting Diodes Based on Thin Organolead Bromide Perovskite Films via Tuning Precursor Ratios and Postannealing Temperature. Journal of Physical Chemistry Letters, 2016, 7, 4259-4266.	2.1	38
1185	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
1186	Room-temperature water-vapor annealing for high-performance planar perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 17267-17273.	5.2	58
1187	Band gap tuning of nickelates for photovoltaic applications. Journal Physics D: Applied Physics, 2016, 49, 44LT02.	1.3	22
1188	Charge-Carrier Balance for Highly Efficient Inverted Planar Heterojunction Perovskite Solar Cells. Advanced Materials, 2016, 28, 10718-10724.	11.1	214
1189	Lochtransportmaterialien für Perovskit-Solarzellen. Angewandte Chemie, 2016, 128, 14740-14764.	1.6	72
1190	Designing new fullerene derivatives as electron transporting materials for efficient perovskite solar cells with improved moisture resistance. Nano Energy, 2016, 30, 341-346.	8.2	72
1191	Optoelectronic modelling of perovskite solar cells under humid conditions and their correlation with power losses to quantify material degradation. Organic Electronics, 2016, 39, 258-266.	1.4	11
1192	Ternary Oxides in the TiO <sub>2</sub> -ZnO System as Efficient Electron-Transport Layers for Perovskite Solar Cells with Efficiency over 15%. ACS Applied Materials & Interfaces, 2016, 8, 29580-29587.	4.0	44
1193	Colloidal Precursor-Induced Growth of Ultra-Even CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> for High-Performance Paintable Carbon-Based Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 30184-30192.	4.0	53
1194	Zinc Porphyrin-Ethynylaniline Conjugates as Novel Hole-Transporting Materials for Perovskite Solar Cells with Power Conversion Efficiency of 16.6%. ACS Energy Letters, 2016, 1, 956-962.	8.8	87
1195	Defective TiO <sub>2</sub> with high photoconductive gain for efficient and stable planar heterojunction perovskite solar cells. Nature Communications, 2016, 7, 12446.	5.8	139
1196	Perovskite solar cells with 18.21% efficiency and area over 1 cm <sup>2</sup> fabricated by heterojunction engineering. Nature Energy, 2016, 1, .	19.8	555
1197	Self-formed grain boundary healing layer for highly efficient CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite solar cells. Nature Energy, 2016, 1, .	19.8	902

#	ARTICLE	IF	CITATIONS
1198	Molecularly Engineered Organic-Inorganic Hybrid Perovskite with Multiple Quantum Well Structure for Multicolored Light-Emitting Diodes. <i>Scientific Reports</i> , 2016, 6, 33546.	1.6	95
1199	High-performance integrated perovskite and organic solar cells with efficient near-infrared harvesting. , 2016, , .		1
1200	Sub-10 fs Time-Resolved Vibronic Optical Microscopy. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 4854-4859.	2.1	44
1201	Persistent Energetic Electrons in Methylammonium Lead Iodide Perovskite Thin Films. <i>Journal of the American Chemical Society</i> , 2016, 138, 15717-15726.	6.6	107
1202	Light-Induced Conversion of Chemical Permeability to Enhance Electron and Molecular Transfer in Nanoscale Assemblies. <i>Journal of the American Chemical Society</i> , 2016, 138, 16398-16406.	6.6	16
1203	Nonstoichiometric acid-base reaction as reliable synthetic route to highly stable CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite film. <i>Nature Communications</i> , 2016, 7, 13503.	5.8	94
1204	Highly Efficient Integrated Perovskite Solar Cells Containing a Small Molecule-PC <sub>70</sub> /BM Bulk Heterojunction Layer with an Extended Photovoltaic Response Up to 900 nm. <i>Chemistry of Materials</i> , 2016, 28, 8631-8639.	3.2	41
1205	Triarylamine: Versatile Platform for Organic, Dye-Sensitized, and Perovskite Solar Cells. <i>Chemical Reviews</i> , 2016, 116, 14675-14725.	23.0	418
1206	Stabilized Wide Bandgap Perovskite Solar Cells by Tin Substitution. <i>Nano Letters</i> , 2016, 16, 7739-7747.	4.5	193
1207	Intrinsic and Extrinsic Charge Transport in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskites Predicted from First-Principles. <i>Scientific Reports</i> , 2016, 6, 19968.	1.6	119
1208	Electronic structure of organometal halide perovskite CH <sub>3</sub> NH <sub>3</sub> BiI <sub>3</sub> and optical absorption extending to infrared region. <i>Scientific Reports</i> , 2016, 6, 37425.	1.6	29
1209	Spatial Electron-hole Separation in a One Dimensional Hybrid Organic-Inorganic Lead Iodide. <i>Scientific Reports</i> , 2016, 6, 20626.	1.6	25
1210	Solar photovoltaics: current state and trends. <i>Physics-Usppekhi</i> , 2016, 59, 727-772.	0.8	79
1211	Simple Approach to Improving the Amplified Spontaneous Emission Properties of Perovskite Films. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 32978-32983.	4.0	48
1212	High Excitation Intensity Opens a New Trapping Channel in Organic-Inorganic Hybrid Perovskite Nanoparticles. <i>ACS Energy Letters</i> , 2016, 1, 1154-1161.	8.8	81
1213	A Low-Temperature, Solution-Processable Organic Electron-Transporting Layer Based on Planar Coronene for High-performance Conventional Perovskite Solar Cells. <i>Advanced Materials</i> , 2016, 28, 10786-10793.	11.1	102
1214	Semiconductor Nanowires for Energy Harvesting. <i>Semiconductors and Semimetals</i> , 2016, 94, 297-368.	0.4	9
1215	Efficient Perovskite Solar Cells Based on Multilayer Transparent Electrodes through Morphology Control. <i>Journal of Physical Chemistry C</i> , 2016, 120, 26703-26709.	1.5	12

#	ARTICLE	IF	CITATIONS
1216	Liquid Water- and Heat-Resistant Hybrid Perovskite Photovoltaics via an Inverted ALD Oxide Electron Extraction Layer Design. <i>Nano Letters</i> , 2016, 16, 7786-7790.	4.5	71
1217	Giant photostriction in organic–inorganic lead halide perovskites. <i>Nature Communications</i> , 2016, 7, 11193.	5.8	164
1218	Toward Lead-Free Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2016, 1, 1233-1240.	8.8	848
1219	Interface Modification by Simple Organic Salts Improves Performance of Planar Perovskite Solar Cells. <i>Advanced Materials Interfaces</i> , 2016, 3, 1600506.	1.9	6
1220	Exciton localization in solution-processed organolead trihalide perovskites. <i>Nature Communications</i> , 2016, 7, 10896.	5.8	195
1221	PCBM doped with fluorene-based polyelectrolytes as electron transporting layers for improving the performance of planar heterojunction perovskite solar cells. <i>Chemical Communications</i> , 2016, 52, 13572-13575.	2.2	21
1222	Carrier dynamics in low-dimensional perovskites. , 2016, , .		0
1223	Cs <sup>+</sup> incorporation into CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite: substitution limit and stability enhancement. <i>Journal of Materials Chemistry A</i> , 2016, 4, 17819-17827.	5.2	99
1224	Evidence of band bending induced by hole trapping at MAPbI <sub>3</sub> perovskite/metal interface. <i>Journal of Materials Chemistry A</i> , 2016, 4, 17529-17536.	5.2	26
1225	Ultrahigh sensitivity of methylammonium lead tribromide perovskite single crystals to environmental gases. <i>Science Advances</i> , 2016, 2, e1600534.	4.7	304
1226	Pinhole-Free Perovskite Films by Methylamine Iodide Solution-Assisted Repair for High-Efficiency Photovoltaics under Ambient Conditions. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 30920-30925.	4.0	13
1227	Organic–inorganic perovskite plasmonic nanowire lasers with a low threshold and a good thermal stability. <i>Nanoscale</i> , 2016, 8, 19536-19540.	2.8	85
1228	Enhanced photovoltaic performance of planar perovskite solar cells fabricated in ambient air by solvent annealing treatment method. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 122301.	0.8	16
1229	Light-Induced Phase Segregation in Halide-Perovskite Absorbers. <i>ACS Energy Letters</i> , 2016, 1, 1199-1205.	8.8	532
1230	High-performance perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> thin films for solar cells prepared by single-source physical vapour deposition. <i>Scientific Reports</i> , 2016, 6, 29910.	1.6	132
1231	Carrier Diffusion Lengths of over 500 nm in Lead-Free Perovskite CH <sub>3</sub> NH <sub>3</sub> SnI <sub>3</sub> Films. <i>Journal of the American Chemical Society</i> , 2016, 138, 14750-14755.	6.6	252
1232	Enhancing stability and efficiency of perovskite solar cells with crosslinkable silane-functionalized and doped fullerene. <i>Nature Communications</i> , 2016, 7, 12806.	5.8	350
1233	Facet-dependent photovoltaic efficiency variations in single grains of hybrid halide perovskite. <i>Nature Energy</i> , 2016, 1, .	19.8	308

#	ARTICLE	IF	CITATIONS
1234	Highly Efficient Perovskite Solar Cells with Substantial Reduction of Lead Content. <i>Scientific Reports</i> , 2016, 6, 35705.	1.6	86
1235	The Impact of Phase Retention on the Structural and Optoelectronic Properties of Metal Halide Perovskites. <i>Advanced Materials</i> , 2016, 28, 10757-10763.	11.1	65
1236	Bright Perovskite Nanocrystal Films for Efficient Light-Emitting Devices. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 4602-4610.	2.1	288
1237	Polyethyleneimine High-Energy Hydrophilic Surface Interfacial Treatment toward Efficient and Stable Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 32574-32580.	4.0	52
1238	Light and Thermally Induced Evolutional Charge Transport in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2016, 1, 1000-1006.	8.8	23
1239	Hybrid organic-inorganic perovskites: low-cost semiconductors with intriguing charge-transport properties. <i>Nature Reviews Materials</i> , 2016, 1, .	23.3	1,173
1240	Specific cation interactions as the cause of slow dynamics and hysteresis in dye and perovskite solar cells: a small-perturbation study. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 31033-31042.	1.3	89
1241	Elimination of the J-V hysteresis of planar perovskite solar cells by interfacial modification with a thermo-cleavable fullerene derivative. <i>Journal of Materials Chemistry A</i> , 2016, 4, 17649-17654.	5.2	24
1242	Improved Performance and Stability of Inverted Planar Perovskite Solar Cells Using Fulleropyrrolidine Layers. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 31426-31432.	4.0	60
1243	Mesostructured Fullerene Electrodes for Highly Efficient n-i-p Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2016, 1, 1049-1056.	8.8	37
1244	Photo-induced halide redistribution in organic-inorganic perovskite films. <i>Nature Communications</i> , 2016, 7, 11683.	5.8	778
1245	Highly efficient light management for perovskite solar cells. <i>Scientific Reports</i> , 2016, 6, 18922.	1.6	105
1246	Unravelling the low-temperature metastable state in perovskite solar cells by noise spectroscopy. <i>Scientific Reports</i> , 2016, 6, 34675.	1.6	32
1247	Influence of the substrate on the bulk properties of hybrid lead halide perovskite films. <i>Journal of Materials Chemistry A</i> , 2016, 4, 18153-18163.	5.2	52
1248	Ultrafast Photogenerated Hole Extraction/Transport Behavior in a CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> /Carbon Nanocomposite and Its Application in a Metal-Free Solar Cell. <i>ChemPhysChem</i> , 2016, 17, 4102-4109.	1.0	21
1249	Acceptor-Donor Acceptor type ionic molecule materials for efficient perovskite solar cells and organic solar cells. <i>Nano Energy</i> , 2016, 30, 387-397.	8.2	79
1250	Origin of unusual bandgap shift and dual emission in organic-inorganic lead halide perovskites. <i>Science Advances</i> , 2016, 2, e1601156.	4.7	307
1251	Analysis of the Hysteresis Behavior of Perovskite Solar Cells with Interfacial Fullerene Self-Assembled Monolayers. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 4622-4628.	2.1	68

#	ARTICLE	IF	CITATIONS
1252	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
1253	Manipulating multicrystalline grain size in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> thin films for application in photovoltaics. Solar Energy, 2016, 139, 518-523.	2.9	18
1254	Enhanced perovskite morphology and crystallinity for high performance perovskite solar cells using a porous hole transport layer from polystyrene nanospheres. Physical Chemistry Chemical Physics, 2016, 18, 32903-32909.	1.3	23
1256	Solar Energy and Energy Storage Materials and Devices Research in Singapore. , 2016, , 113-156.		0
1257	ITO-free perovskite solar cells using photolithography processed metal grids as transparent anodes. , 2016, , .		1
1258	Highly Efficient Planar Perovskite Solar Cells Via Interfacial Modification with Fullerene Derivatives. Small, 2016, 12, 1098-1104.	5.2	107
1259	Photovoltaic and Amplified Spontaneous Emission Studies of High-Quality Formamidinium Lead Bromide Perovskite Films. Advanced Functional Materials, 2016, 26, 2846-2854.	7.8	66
1260	“Liquid Knife” to Fabricate Patterning Single-Crystalline Perovskite Microplates toward High-Performance Laser Arrays. Advanced Materials, 2016, 28, 3732-3741.	11.1	149
1261	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
1262	Pressure-Dependent Polymorphism and Band-Gap Tuning of Methylammonium Lead Iodide Perovskite. Angewandte Chemie - International Edition, 2016, 55, 6540-6544.	7.2	157
1263	Perovskite materials in energy storage and conversion. Asia-Pacific Journal of Chemical Engineering, 2016, 11, 338-369.	0.8	81
1264	Anisotropic and Ultralow Phonon Thermal Transport in Organic-Inorganic Hybrid Perovskites: Atomistic Insights into Solar Cell Thermal Management and Thermoelectric Energy Conversion Efficiency. Advanced Functional Materials, 2016, 26, 5297-5306.	7.8	125
1265	Structured Organic-Inorganic Perovskite toward a Distributed Feedback Laser. Advanced Materials, 2016, 28, 923-929.	11.1	257
1266	Structure-Tuned Lead Halide Perovskite Nanocrystals. Advanced Materials, 2016, 28, 566-573.	11.1	215
1267	Perovskite Photovoltaics with Outstanding Performance Produced by Chemical Conversion of Bilayer Mesostructured Lead Halide/TiO <sub>2</sub> Films. Advanced Materials, 2016, 28, 2964-2970.	11.1	144
1268	Heterostructured WS <sub>2</sub> /CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Photoconductors with Suppressed Dark Current and Enhanced Photodetectivity. Advanced Materials, 2016, 28, 3683-3689.	11.1	396
1269	Fast Free-Carrier Diffusion in CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> Single Crystals Revealed by Time-Resolved One- and Two-Photon Excitation Photoluminescence Spectroscopy. Advanced Electronic Materials, 2016, 2, 1500290.	2.6	111
1270	Growth Engineering of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Structures for High-Efficiency Solar Cells. Advanced Energy Materials, 2016, 6, 1501358.	10.2	36

#	ARTICLE	IF	CITATIONS
1271	Pressure-Dependent Polymorphism and Band-Gap Tuning of Methylammonium Lead Iodide Perovskite. <i>Angewandte Chemie</i> , 2016, 128, 6650-6654.	1.6	24
1272	Fast Diffusion of Native Defects and Impurities in Perovskite Solar Cell Material CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> . <i>Chemistry of Materials</i> , 2016, 28, 4349-4357.	3.2	139
1273	Energy Landscape of Molecular Motion in Cubic Methylammonium Lead Iodide from First-Principles. <i>Journal of Physical Chemistry C</i> , 2016, 120, 12403-12410.	1.5	57
1274	Acetate Salts as Nonhalogen Additives To Improve Perovskite Film Morphology for High-Efficiency Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 15333-15340.	4.0	56
1275	n and p-type properties in organo-metal halide perovskites studied by Seebeck effects. <i>Organic Electronics</i> , 2016, 35, 216-220.	1.4	15
1276	Free Carriers versus Excitons in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Thin Films at Low Temperatures: Charge Transfer from the Orthorhombic Phase to the Tetragonal Phase. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 2316-2321.	2.1	79
1277	An all-solid-state fiber-type solar cell achieving 9.49% efficiency. <i>Journal of Materials Chemistry A</i> , 2016, 4, 10105-10109.	5.2	77
1278	Organic-inorganic interactions of single crystalline organolead halide perovskites studied by Raman spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 18112-18118.	1.3	93
1279	A PCBM-assisted perovskite growth process to fabricate high efficiency semitransparent solar cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 11648-11655.	5.2	49
1280	Solvent engineering for fast growth of centimeter high-quality CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite single crystals. <i>New Journal of Chemistry</i> , 2016, 40, 7261-7264.	1.4	20
1281	Facilitating Electron Transportation in Perovskite Solar Cells via Water-Soluble Fullerene Interlayers. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 18284-18291.	4.0	78
1282	Tracking Iodide and Bromide Ion Segregation in Mixed Halide Lead Perovskites during Photoirradiation. <i>ACS Energy Letters</i> , 2016, 1, 290-296.	8.8	321
1283	Transformation of Sintered CsPbBr <sub>3</sub> Nanocrystals to Cubic CsPbI <sub>3</sub> and Gradient CsPbBr <sub>x</sub> I <sub>3-x</sub> through Halide Exchange. <i>Journal of the American Chemical Society</i> , 2016, 138, 8603-8611.	6.6	327
1284	Modulating carrier dynamics through perovskite film engineering. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 27119-27123.	1.3	33
1285	Soft-cover deposition of scaling-up uniform perovskite thin films for high cost-performance solar cells. <i>Energy and Environmental Science</i> , 2016, 9, 2295-2301.	15.6	173
1286	Strategy to Boost the Efficiency of Mixed-Ion Perovskite Solar Cells: Changing Geometry of the Hole Transporting Material. <i>ACS Nano</i> , 2016, 10, 6816-6825.	7.3	127
1287	Effective solvent-additive enhanced crystallization and coverage of absorber layers for high efficiency formamidinium perovskite solar cells. <i>RSC Advances</i> , 2016, 6, 56807-56811.	1.7	25
1288	Pure- or mixed-solvent assisted treatment for crystallization dynamics of planar lead halide perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2016, 155, 166-175.	3.0	19



#	ARTICLE	IF	CITATIONS
1289	Intriguing Optoelectronic Properties of Metal Halide Perovskites. <i>Chemical Reviews</i> , 2016, 116, 12956-13008.	23.0	1,343
1290	The rising star in photovoltaics-perovskite solar cells: The past, present and future. <i>Science China Technological Sciences</i> , 2016, 59, 989-1006.	2.0	33
1291	Tunable Near-Infrared Luminescence in Tin Halide Perovskite Devices. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 2653-2658.	2.1	122
1292	Color-Pure Violet-Light-Emitting Diodes Based on Layered Lead Halide Perovskite Nanoplates. <i>ACS Nano</i> , 2016, 10, 6897-6904.	7.3	378
1293	Room-Temperature Solution-Processed NiO <sub>x</sub> :PbI <sub>2</sub> Nanocomposite Structures for Realizing High-Performance Perovskite Photodetectors. <i>ACS Nano</i> , 2016, 10, 6808-6815.	7.3	122
1294	Perovskite energy funnels for efficient light-emitting diodes. <i>Nature Nanotechnology</i> , 2016, 11, 872-877.	15.6	1,868
1295	Hydrophobic coating over a CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> absorbing layer towards air stable perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2016, 4, 6848-6854.	2.7	47
1296	Enhanced photovoltaic performance of perovskite solar cells with mesoporous SiO <sub>2</sub> scaffolds. <i>Journal of Power Sources</i> , 2016, 325, 534-540.	4.0	26
1297	Reduced graphene oxide (rGO) grafted zinc stannate (Zn <sub>2</sub> SnO <sub>4</sub> ) nanofiber scaffolds for highly efficient mixed-halide perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 12158-12169.	5.2	65
1298	Systematic study on the impact of water on the performance and stability of perovskite solar cells. <i>RSC Advances</i> , 2016, 6, 52448-52458.	1.7	29
1299	Achieving Ultrafast Hole Transfer at the Monolayer MoS <sub>2</sub> and CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Interface by Defect Engineering. <i>ACS Nano</i> , 2016, 10, 6383-6391.	7.3	130
1300	Random lasing actions in self-assembled perovskite nanoparticles. <i>Optical Engineering</i> , 2016, 55, 057102.	0.5	29
1301	Elimination of the light soaking effect and performance enhancement in perovskite solar cells using a fullerene derivative. <i>Energy and Environmental Science</i> , 2016, 9, 2444-2452.	15.6	147
1302	Porous PbI <sub>2</sub> films for the fabrication of efficient, stable perovskite solar cells via sequential deposition. <i>Journal of Materials Chemistry A</i> , 2016, 4, 10223-10230.	5.2	56
1303	Tin chloride perovskite-sensitized core/shell photoanode solar cell with spiro-MeOTAD hole transport material for enhanced solar light harvesting. <i>Journal of Solid State Electrochemistry</i> , 2016, 20, 2633-2642.	1.2	10
1304	Understanding the relationship between ion migration and the anomalous hysteresis in high-efficiency perovskite solar cells: A fresh perspective from halide substitution. <i>Nano Energy</i> , 2016, 26, 620-630.	8.2	167
1305	Solution processed perovskite solar cells using highly conductive PEDOT:PSS interfacial layer. <i>Solar Energy Materials and Solar Cells</i> , 2016, 157, 318-325.	3.0	69
1306	Electroabsorption Spectroscopy Measurements of the Exciton Binding Energy, Electron Hole Reduced Effective Mass, and Band Gap in the Perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> . <i>ACS Photonics</i> , 2016, 3, 1060-1068.	3.2	116

#	ARTICLE	IF	CITATIONS
1307	High performance planar-heterojunction perovskite solar cells using amino-based fulleropyrrolidine as the electron transporting material. <i>Journal of Materials Chemistry A</i> , 2016, 4, 10130-10134.	5.2	44
1308	Is $\text{CH}_3\text{NH}_3\text{PbI}_3$ Polar?. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 2412-2419.	2.1	134
1309	Low temperature synthesis of hierarchical $\text{TiO}_2$ nanostructures for high performance perovskite solar cells by pulsed laser deposition. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 27067-27072.	1.3	29
1310	Initiating crystal growth kinetics of $\text{HC}(\text{NH}_2)_2\text{PbI}_3$ for flexible solar cells with long-term stability. <i>Nano Energy</i> , 2016, 26, 438-445.	8.2	35
1311	How photon pump fluence changes the charge carrier relaxation mechanism in an organic-inorganic hybrid lead triiodide perovskite. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 27090-27101.	1.3	32
1312	$\text{TiO}_2/\text{ZnO}/\text{TiO}_2$ sandwich multi-layer films as a hole-blocking layer for efficient perovskite solar cells. <i>International Journal of Energy Research</i> , 2016, 40, 806-813.	2.2	31
1313	Nanoconfined Crystallization of $\text{MAPbI}_3$ to Probe Crystal Evolution and Stability. <i>Crystal Growth and Design</i> , 2016, 16, 4744-4751.	1.4	24
1314	The effect of transparent conductive oxide on the performance $\text{CH}_3\text{NH}_3\text{PbI}_3$ perovskite solar cell without electron/hole selective layers. <i>Solar Energy</i> , 2016, 135, 654-661.	2.9	27
1315	Enhanced conversion efficiency in perovskite solar cells by effectively utilizing near infrared light. <i>Nanoscale</i> , 2016, 8, 14432-14437.	2.8	45
1316	Controlled orientation of perovskite films through mixed cations toward high performance perovskite solar cells. <i>Nano Energy</i> , 2016, 27, 87-94.	8.2	118
1317	Improvement in photovoltaic performance of perovskite solar cells by interface modification and co-sensitization with novel asymmetry 7-coumarinoxy-4-methyltetrasubstituted metallophthalocyanines. <i>Synthetic Metals</i> , 2016, 220, 187-193.	2.1	21
1318	High-Performance Inverted Planar Heterojunction Perovskite Solar Cells Based on Lead Acetate Precursor with Efficiency Exceeding 18%. <i>Advanced Functional Materials</i> , 2016, 26, 3508-3514.	7.8	176
1319	Highly Efficient Organic Hole Transporting Materials for Perovskite and Organic Solar Cells with Long-Term Stability. <i>Advanced Materials</i> , 2016, 28, 686-693.	11.1	166
1320	High-Efficiency Flexible Solar Cells Based on Organometal Halide Perovskites. <i>Advanced Materials</i> , 2016, 28, 4532-4540.	11.1	102
1321	Molecularly Designed, Nitrogen-Functionalized Graphene Quantum Dots for Optoelectronic Devices. <i>Advanced Materials</i> , 2016, 28, 4632-4638.	11.1	229
1322	Organolead Halide Perovskites for Low Operating Voltage Multilevel Resistive Switching. <i>Advanced Materials</i> , 2016, 28, 6562-6567.	11.1	285
1323	Two-Photon Pumped $\text{CH}_3\text{NH}_3\text{PbBr}_3$ Perovskite Microwire Lasers. <i>Advanced Optical Materials</i> , 2016, 4, 472-479.	3.6	134
1324	Solvent-Mediated Dimension Tuning of Semiconducting Oxide Nanostructures as Efficient Charge Extraction Thin Films for Perovskite Solar Cells with Efficiency Exceeding 16%. <i>Advanced Energy Materials</i> , 2016, 6, 1502027.	10.2	52

#	ARTICLE	IF	CITATIONS
1325	A Novel Dopant-Free Triphenylamine Based Molecular "Butterfly" Hole Transport Material for Highly Efficient and Stable Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2016, 6, 1600401.	10.2	161
1326	Ultrafast Carrier Dynamics in Methylammonium Lead Bromide Perovskite. <i>Journal of Physical Chemistry C</i> , 2016, 120, 2542-2547.	1.5	54
1327	Rapid growth of high quality perovskite crystal by solvent mixing. <i>CrystEngComm</i> , 2016, 18, 1184-1189.	1.3	6
1328	Solution processed graphene structures for perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 2605-2616.	5.2	73
1329	Solution-induced morphology change of organic-inorganic hybrid perovskite films for high efficiency inverted planar heterojunction solar cells. <i>Electrochimica Acta</i> , 2016, 191, 750-757.	2.6	27
1330	Trap States and Their Dynamics in Organometal Halide Perovskite Nanoparticles and Bulk Crystals. <i>Journal of Physical Chemistry C</i> , 2016, 120, 3077-3084.	1.5	128
1331	Kinetics of cesium lead halide perovskite nanoparticle growth; focusing and de-focusing of size distribution. <i>Nanoscale</i> , 2016, 8, 6403-6409.	2.8	164
1332	A review of one-dimensional TiO <sub>2</sub> nanostructured materials for environmental and energy applications. <i>Journal of Materials Chemistry A</i> , 2016, 4, 6772-6801.	5.2	793
1333	Enhancing the carrier thermalization time in organometallic perovskites by halide mixing. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 5219-5231.	1.3	61
1334	Unraveling the hidden function of a stabilizer in a precursor in improving hybrid perovskite film morphology for high efficiency solar cells. <i>Energy and Environmental Science</i> , 2016, 9, 867-872.	15.6	62
1335	Contactless Visualization of Fast Charge Carrier Diffusion in Hybrid Halide Perovskite Thin Films. <i>ACS Photonics</i> , 2016, 3, 255-261.	3.2	26
1336	Excited state and charge-carrier dynamics in perovskite solar cell materials. <i>Nanotechnology</i> , 2016, 27, 082001.	1.3	35
1337	All-solution processed semi-transparent perovskite solar cells with silver nanowires electrode. <i>Nanotechnology</i> , 2016, 27, 095202.	1.3	55
1338	Systematic analysis of the unique band gap modulation of mixed halide perovskites. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 4423-4428.	1.3	26
1339	Efficient planar perovskite solar cells without a high temperature processed titanium dioxide electron transport layer. <i>Solar Energy Materials and Solar Cells</i> , 2016, 149, 1-8.	3.0	38
1340	Flexible, hole transporting layer-free and stable CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> /PC61BM planar heterojunction perovskite solar cells. <i>Organic Electronics</i> , 2016, 30, 281-288.	1.4	69
1341	Fabrication and Characterization of Mesoscopic Perovskite Photodiodes. <i>IEEE Nanotechnology Magazine</i> , 2016, 15, 255-260.	1.1	29
1342	Interfacial Oxygen Vacancies as a Potential Cause of Hysteresis in Perovskite Solar Cells. <i>Chemistry of Materials</i> , 2016, 28, 802-812.	3.2	128

#	ARTICLE	IF	CITATIONS
1343	Lead-Free MA <sub>2</sub> CuCl <sub>4</sub> Br <sub>4</sub> Hybrid Perovskites. <i>Inorganic Chemistry</i> , 2016, 55, 1044-1052.	1.9	457
1344	N-type polymers as electron extraction layers in hybrid perovskite solar cells with improved ambient stability. <i>Journal of Materials Chemistry A</i> , 2016, 4, 2419-2426.	5.2	100
1345	Enhanced electronic properties in mesoporous TiO <sub>2</sub> via lithium doping for high-efficiency perovskite solar cells. <i>Nature Communications</i> , 2016, 7, 10379.	5.8	744
1346	Lewis Acid-Base Adduct Approach for High Efficiency Perovskite Solar Cells. <i>Accounts of Chemical Research</i> , 2016, 49, 311-319.	7.6	878
1347	Influence of void-free perovskite capping layer on the charge recombination process in high performance CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite solar cells. <i>Nanoscale</i> , 2016, 8, 4181-4193.	2.8	28
1348	Air-assisted flow and two-step spin-coating for highly efficient CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite solar cells. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 02BF08.	0.8	29
1349	PbCl <sub>2</sub> -assisted film formation for high-efficiency heterojunction perovskite solar cells. <i>RSC Advances</i> , 2016, 6, 648-655.	1.7	17
1350	Defect trapping states and charge carrier recombination in organic-inorganic halide perovskites. <i>Journal of Materials Chemistry C</i> , 2016, 4, 793-800.	2.7	171
1351	Toward high performance broad spectral hybrid organic-inorganic photodetectors based on multiple component organic bulk heterojunctions. <i>Journal of Materials Chemistry C</i> , 2016, 4, 815-822.	2.7	15
1352	Solution processed pristine PDPP3T polymer as hole transport layer for efficient perovskite solar cells with slower degradation. <i>Solar Energy Materials and Solar Cells</i> , 2016, 145, 193-199.	3.0	96
1353	Crystal organometal halide perovskites with promising optoelectronic applications. <i>Journal of Materials Chemistry C</i> , 2016, 4, 11-27.	2.7	185
1354	van der Waals Heterojunction Devices Based on Organohalide Perovskites and Two-Dimensional Materials. <i>Nano Letters</i> , 2016, 16, 367-373.	4.5	185
1355	Epitaxial Electrodeposition of Methylammonium Lead Iodide Perovskites. <i>Chemistry of Materials</i> , 2016, 28, 399-405.	3.2	70
1356	A room-temperature CuAlO <sub>2</sub> hole interfacial layer for efficient and stable planar perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 1326-1335.	5.2	122
1357	Effect of cesium chloride modification on the film morphology and UV-induced stability of planar perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 11688-11695.	5.2	103
1358	Two-dimensional device modeling of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> based planar heterojunction perovskite solar cells. <i>Solar Energy</i> , 2016, 123, 51-56.	2.9	73
1359	Computational Screening of Monovalent Lead Substitution in Organic-Inorganic Halide Perovskites. <i>Journal of Physical Chemistry C</i> , 2016, 120, 166-173.	1.5	208
1360	A numerical model for charge transport and energy conversion of perovskite solar cells. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 4476-4486.	1.3	56

#	ARTICLE	IF	CITATIONS
1361	In situ processed gold nanoparticle-embedded TiO <sub>2</sub> nanofibers enabling plasmonic perovskite solar cells to exceed 14% conversion efficiency. <i>Nanoscale</i> , 2016, 8, 2664-2677.	2.8	143
1362	SiO <sub>2</sub> /TiO <sub>2</sub> -based hollow nanostructures as scaffold layers and Al-doping in the electron transfer layer for efficient perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 1306-1311.	5.2	42
1363	Organic-inorganic hybrid lead halide perovskites for optoelectronic and electronic applications. <i>Chemical Society Reviews</i> , 2016, 45, 655-689.	18.7	1,285
1364	Photovoltaic Properties of Two-Dimensional (CH <sub>3</sub> NH <sub>3</sub> ) <sub>2</sub> Pb(SCN) <sub>2</sub> I <sub>2</sub> Perovskite: A Combined Experimental and Density Functional Theory Study. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 1213-1218.	2.1	135
1365	Ultrafast photoinduced carrier dynamics at ZnO nanohybrid interfaces for light-harvesting applications. <i>Nanotechnology Reviews</i> , 2016, 5, .	2.6	19
1366	Surface Decorating of CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> Nanoparticles with the Chemically Adsorbed Perylenetetracarboxylic Diimide. <i>Langmuir</i> , 2016, 32, 3294-3299.	1.6	25
1367	Effect of Structural Phase Transition on Charge-Carrier Lifetimes and Defects in CH <sub>3</sub> NH <sub>3</sub> SnI <sub>3</sub> Perovskite. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 1321-1326.	2.1	135
1368	Preheating-assisted deposition of solution-processed perovskite layer for an efficiency-improved inverted planar composite heterojunction solar cell. <i>RSC Advances</i> , 2016, 6, 30978-30985.	1.7	28
1369	Solution-processed photodetectors based on organic-inorganic hybrid perovskite and nanocrystalline graphite. <i>Nanotechnology</i> , 2016, 27, 175201.	1.3	38
1370	Sensitive X-ray detectors made of methylammonium lead tribromide perovskite single crystals. <i>Nature Photonics</i> , 2016, 10, 333-339.	15.6	1,271
1371	A low-temperature processed flower-like TiO <sub>2</sub> array as an electron transport layer for high-performance perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 6521-6526.	5.2	42
1372	A positive synergetic effect observed in the P3HT-SnO <sub>2</sub> composite semiconductor: the striking increase of carrier mobility. <i>RSC Advances</i> , 2016, 6, 2387-2393.	1.7	3
1373	Perovskite type oxide-supported Ni catalysts for the production of 2,5-dimethylfuran from biomass-derived 5-hydroxymethylfurfural. <i>Green Chemistry</i> , 2016, 18, 3858-3866.	4.6	79
1374	Cesium-containing triple cation perovskite solar cells: improved stability, reproducibility and high efficiency. <i>Energy and Environmental Science</i> , 2016, 9, 1989-1997.	15.6	4,560
1375	The improvement of open circuit voltage by the sputtered TiO <sub>2</sub> layer for efficient perovskite solar cell. <i>Vacuum</i> , 2016, 128, 91-98.	1.6	21
1376	Application of benzodithiophene based A <sub>2</sub> BA structured materials in efficient perovskite solar cells and organic solar cells. <i>Nano Energy</i> , 2016, 23, 40-49.	8.2	59
1377	Fast and Controllable Crystallization of Perovskite Films by Microwave Irradiation Process. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 7854-7861.	4.0	58
1378	Two methoxyaniline-substituted dibenzofuran derivatives as hole-transport materials for perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 5415-5422.	5.2	56

#	ARTICLE	IF	CITATIONS
1379	Evaluating replicability of laboratory experiments in economics. <i>Science</i> , 2016, 351, 1433-1436.	6.0	789
1380	Photon recycling in lead iodide perovskite solar cells. <i>Science</i> , 2016, 351, 1430-1433.	6.0	600
1381	Ultrafast terahertz probe of photoexcited free charge carriers in organometal CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite thin film. <i>Applied Physics A: Materials Science and Processing</i> , 2016, 122, 1.	1.1	19
1382	Efficient lead acetate sourced planar heterojunction perovskite solar cells with enhanced substrate coverage via one-step spin-coating. <i>Organic Electronics</i> , 2016, 33, 194-200.	1.4	48
1383	Structure and Growth Control of Organic-Inorganic Halide Perovskites for Optoelectronics: From Polycrystalline Films to Single Crystals. <i>Advanced Science</i> , 2016, 3, 1500392.	5.6	193
1384	Copolymers based on thiazolothiazole-dithienosilole as hole-transporting materials for high efficient perovskite solar cells. <i>Organic Electronics</i> , 2016, 33, 142-149.	1.4	29
1385	Charge carrier dynamics of methylammonium lead iodide: from PbI <sub>2</sub> -rich to low-dimensional broadly emitting perovskites. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 10800-10808.	1.3	51
1386	A Photonic Crystal Laser from Solution Based Organo-Lead Iodide Perovskite Thin Films. <i>ACS Nano</i> , 2016, 10, 3959-3967.	7.3	238
1387	Band gap engineering of organo metal lead halide perovskite photovoltaic absorber. <i>Optical and Quantum Electronics</i> , 2016, 48, 1.	1.5	13
1388	Low temperature processed planar heterojunction perovskite solar cells employing silver nanowires as top electrode. <i>Applied Surface Science</i> , 2016, 369, 308-313.	3.1	25
1389	Photophysics of Hybrid Lead Halide Perovskites: The Role of Microstructure. <i>Accounts of Chemical Research</i> , 2016, 49, 536-544.	7.6	107
1390	Organohalide Lead Perovskites for Photovoltaic Applications. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 851-866.	2.1	159
1391	Zero-Dimensional Hybrid Organic-Inorganic Halide Perovskite Modeling: Insights from First Principles. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 888-899.	2.1	40
1392	Origin of <i>J</i> - <i>V</i> Hysteresis in Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 905-917.	2.1	631
1393	Chalcogenide perovskites – an emerging class of ionic semiconductors. <i>Nano Energy</i> , 2016, 22, 129-135.	8.2	174
1394	Ultrathin Cu <sub>2</sub> O as an efficient inorganic hole transporting material for perovskite solar cells. <i>Nanoscale</i> , 2016, 8, 6173-6179.	2.8	191
1395	Reproducible formation of uniform CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> -xClx mixed halide perovskite film by separation of the powder formation and spin-coating process. <i>Journal of Power Sources</i> , 2016, 310, 130-136.	4.0	23
1396	Thin-film semiconductor perspective of organometal trihalide perovskite materials for high-efficiency solar cells. <i>Materials Science and Engineering Reports</i> , 2016, 101, 1-38.	14.8	117



#	ARTICLE	IF	CITATIONS
1397	Easily accessible polymer additives for tuning the crystal-growth of perovskite thin-films for highly efficient solar cells. <i>Nanoscale</i> , 2016, 8, 5552-5558.	2.8	83
1398	The growth of a CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> thin film using simplified close space sublimation for efficient and large dimensional perovskite solar cells. <i>Energy and Environmental Science</i> , 2016, 9, 1486-1494.	15.6	104
1399	An innovative design of perovskite solar cells with Al <sub>2</sub> O <sub>3</sub> inserting at ZnO/perovskite interface for improving the performance and stability. <i>Nano Energy</i> , 2016, 22, 223-231.	8.2	157
1400	Experimental Evidence of Localized Shallow States in Orthorhombic Phase of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Thin Films Revealed by Photocurrent Beat Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2016, 120, 5347-5352.	1.5	33
1401	Semitransparent quantum dot solar cell. <i>Nano Energy</i> , 2016, 22, 70-78.	8.2	37
1402	Non-fullerene acceptor with low energy loss and high external quantum efficiency: towards high performance polymer solar cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 5890-5897.	5.2	219
1403	Reduced graphene oxide as efficient and stable hole transporting material in mesoscopic perovskite solar cells. <i>Nano Energy</i> , 2016, 22, 349-360.	8.2	166
1404	Planar versus mesoscopic perovskite microstructures: The influence of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> morphology on charge transport and recombination dynamics. <i>Nano Energy</i> , 2016, 22, 439-452.	8.2	76
1405	Surface Properties of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> for Perovskite Solar Cells. <i>Accounts of Chemical Research</i> , 2016, 49, 554-561.	7.6	145
1406	Charge Carrier Lifetimes Exceeding 15 ns in Methylammonium Lead Iodide Single Crystals. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 923-928.	2.1	226
1407	Highly efficient quantum dot near-infrared light-emitting diodes. <i>Nature Photonics</i> , 2016, 10, 253-257.	15.6	361
1408	Two in one: switchable ion conductivity and white light emission integrated in an iodoplumbate-based twin chain hybrid crystal. <i>Dalton Transactions</i> , 2016, 45, 4810-4818.	1.6	27
1409	Perovskite solar cells fabricated using dicarboxylic fullerene derivatives. <i>New Journal of Chemistry</i> , 2016, 40, 2829-2834.	1.4	23
1410	Credible evidence for the passivation effect of remnant PbI <sub>2</sub> in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> films in improving the performance of perovskite solar cells. <i>Nanoscale</i> , 2016, 8, 6600-6608.	2.8	86
1411	Third-Order Optical Nonlinearities in Organometallic Methylammonium Lead Iodide Perovskite Thin Films. <i>ACS Photonics</i> , 2016, 3, 361-370.	3.2	140
1412	Visible light response, electrical transport, and amorphization in compressed organolead iodine perovskites. <i>Nanoscale</i> , 2016, 8, 11426-11431.	2.8	90
1413	Crystallinity and defect state engineering in organo-lead halide perovskite for high-efficiency solar cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 3806-3812.	5.2	76
1414	Critical kinetic control of non-stoichiometric intermediate phase transformation for efficient perovskite solar cells. <i>Nanoscale</i> , 2016, 8, 12892-12899.	2.8	98

#	ARTICLE	IF	CITATIONS
1415	Efficient charge extraction and slow recombination in organic-inorganic perovskites capped with semiconducting single-walled carbon nanotubes. <i>Energy and Environmental Science</i> , 2016, 9, 1439-1449.	15.6	126
1416	Organic Photovoltaics for Energy Efficiency in Buildings. , 2016, , 321-355.		2
1417	Graphene-based materials with tailored nanostructures for energy conversion and storage. <i>Materials Science and Engineering Reports</i> , 2016, 102, 1-72.	14.8	221
1418	Ligand-Stabilized Reduced-Dimensionality Perovskites. <i>Journal of the American Chemical Society</i> , 2016, 138, 2649-2655.	6.6	1,157
1419	Plasmonic-enhanced perovskite-graphene hybrid photodetectors. <i>Nanoscale</i> , 2016, 8, 7377-7383.	2.8	144
1420	Solvent-extraction crystal growth for highly efficient carbon-based mesoscopic perovskite solar cells free of hole conductors. <i>Journal of Materials Chemistry A</i> , 2016, 4, 3872-3878.	5.2	69
1421	Spatially Non-uniform Trap State Densities in Solution-Processed Hybrid Perovskite Thin Films. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 715-721.	2.1	160
1422	Synthesis of Cesium Lead Halide Perovskite Nanocrystals in a Droplet-Based Microfluidic Platform: Fast Parametric Space Mapping. <i>Nano Letters</i> , 2016, 16, 1869-1877.	4.5	425
1423	Output Coupling of Perovskite Lasers from Embedded Nanoscale Plasmonic Waveguides. <i>Journal of the American Chemical Society</i> , 2016, 138, 2122-2125.	6.6	144
1424	Spectral Features and Charge Dynamics of Lead Halide Perovskites: Origins and Interpretations. <i>Accounts of Chemical Research</i> , 2016, 49, 294-302.	7.6	159
1425	sec-Butyl alcohol assisted pinhole-free perovskite film growth for high-performance solar cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 3438-3445.	5.2	46
1426	Ultrasensitive 1D field-effect phototransistors: $\text{CH}_3\text{NH}_3\text{PbI}_3$ nanowire sensitized individual carbon nanotubes. <i>Nanoscale</i> , 2016, 8, 4888-4893.	2.8	54
1427	New insights into exciton binding and relaxation from high time resolution ultrafast spectroscopy of $\text{CH}_3\text{NH}_3\text{PbI}_3$ and $\text{CH}_3\text{NH}_3\text{PbBr}_3$ films. <i>Journal of Materials Chemistry A</i> , 2016, 4, 3546-3553.	5.2	28
1428	Organometallic hybrid perovskites: structural, optical characteristic and application in Schottky diode. <i>Journal of Materials Science: Materials in Electronics</i> , 2016, 27, 4275-4280.	1.1	17
1429	Electrochemical recycling of lead from hybrid organic-inorganic perovskites using deep eutectic solvents. <i>Green Chemistry</i> , 2016, 18, 2946-2955.	4.6	62
1430	Interface engineering of hybrid perovskite solar cells with poly(3-thiophene acetic acid) under ambient conditions. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 10182-10190.	1.3	49
1431	Fine control of perovskite-layered morphology and composition via sequential deposition crystallization process towards improved perovskite solar cells. <i>Journal of Power Sources</i> , 2016, 311, 130-136.	4.0	25
1432	A composite nanostructured electron-transport layer for stable hole-conductor free perovskite solar cells: design and characterization. <i>Nanoscale</i> , 2016, 8, 5847-5851.	2.8	25

#	ARTICLE	IF	CITATIONS
1433	Reduction and oxidation of poly(3,4-ethylenedioxythiophene):poly(styrenesulfonate) induced by methylamine (CH <sub>3</sub> NH <sub>2</sub> )-containing atmosphere for perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 4305-4311.	5.2	44
1434	Decoupling Charge Transfer and Transport at Polymeric Hole Transport Layer in Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 6546-6553.	4.0	33
1435	Hybrid Organic-Inorganic Coordination Complexes as Tunable Optical Response Materials. <i>Inorganic Chemistry</i> , 2016, 55, 3393-3400.	1.9	31
1436	Charge-Carrier Dynamics in Organic-Inorganic Metal Halide Perovskites. <i>Annual Review of Physical Chemistry</i> , 2016, 67, 65-89.	4.8	594
1437	Light management: porous 1-dimensional nanocolumnar structures as effective photonic crystals for perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 4962-4970.	5.2	19
1438	Efficiency enhancement of perovskite solar cells by fabricating as-prepared film before sequential spin-coating procedure. <i>Applied Surface Science</i> , 2016, 371, 289-295.	3.1	17
1439	Carrier injection and recombination processes in perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> solar cells studied by electroluminescence spectroscopy. <i>Proceedings of SPIE</i> , 2016, , .	0.8	1
1440	Solvent washing with toluene enhances efficiency and increases reproducibility in perovskite solar cells. <i>RSC Advances</i> , 2016, 6, 26606-26611.	1.7	36
1441	Enhancing the grain size of organic halide perovskites by sulfonate-carbon nanotube incorporation in high performance perovskite solar cells. <i>Chemical Communications</i> , 2016, 52, 5674-5677.	2.2	77
1442	Ultrafast Dynamics of Hole Injection and Recombination in Organometal Halide Perovskite Using Nickel Oxide as p-Type Contact Electrode. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 1096-1101.	2.1	97
1443	Perovskites at the nanoscale: from fundamentals to applications. <i>Nanoscale</i> , 2016, 8, 6206-6208.	2.8	21
1444	Graphene in perovskite solar cells: device design, characterization and implementation. <i>Journal of Materials Chemistry A</i> , 2016, 4, 6185-6235.	5.2	185
1445	Tunable perovskite microdisk lasers. <i>Nanoscale</i> , 2016, 8, 8717-8721.	2.8	32
1446	Efficient Planar Perovskite Solar Cells with Reduced Hysteresis and Enhanced Open Circuit Voltage by Using PW <sub>12</sub> as Electron Transport Layer. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 8520-8526.	4.0	40
1447	Diffusion-correlated local photoluminescence kinetics in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite single-crystalline particles. <i>Science Bulletin</i> , 2016, 61, 665-669.	4.3	15
1448	Graphene oxide modified hole transport layer for CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> planar heterojunction solar cells. <i>Solar Energy</i> , 2016, 131, 176-182.	2.9	59
1449	Formation of single-mode laser in transverse plane of perovskite microwire via micromanipulation. <i>Optics Letters</i> , 2016, 41, 555.	1.7	52
1450	Spectra-selective PbS quantum dot infrared photodetectors. <i>Nanoscale</i> , 2016, 8, 7137-7143.	2.8	68

#	ARTICLE	IF	CITATIONS
1451	Design rules for the broad application of fast (<math>\leq 1\text{ s}</math>) methylamine vapor based, hybrid perovskite post deposition treatments. RSC Advances, 2016, 6, 27475-27484.	1.7	41
1452	Highly reproducible, efficient hysteresis-less $\text{CH}_3\text{NH}_3\text{PbI}_{3-x}\text{Cl}_x$ planar hybrid solar cells without requiring heat-treatment. Nanoscale, 2016, 8, 2554-2560.	2.8	75
1453	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
1454	Effect of halide-mixing on the electronic transport properties of organometallic perovskites. Solar Energy Materials and Solar Cells, 2016, 148, 2-10.	3.0	25
1455	Efficiency enhancement of the $\text{MAPbI}_{3-x}\text{Cl}_x$ -based perovskite solar cell by a two-step annealing procedure. Semiconductor Science and Technology, 2016, 31, 025009.	1.0	16
1456	Efficient hysteresis-less bilayer type $\text{CH}_3\text{NH}_3\text{PbI}_3$ perovskite hybrid solar cells. Nanotechnology, 2016, 27, 024004.	1.3	13
1457	The electronic structure of organic-inorganic hybrid perovskite solar cell: A first-principles analysis. Computational Materials Science, 2016, 117, 573-578.	1.4	22
1458	Stability of perovskite solar cells. Solar Energy Materials and Solar Cells, 2016, 147, 255-275.	3.0	726
1459	Ultrafast photomodulation spectroscopy of $\pi$ -conjugated polymers, nanotubes and organometal trihalide perovskites: A comparison. Synthetic Metals, 2016, 216, 31-39.	2.1	4
1460	Revealing the ultrafast charge carrier dynamics in organo metal halide perovskite solar cell materials using time resolved THz spectroscopy. Nanoscale, 2016, 8, 6249-6257.	2.8	39
1461	High-efficiency robust perovskite solar cells on ultrathin flexible substrates. Nature Communications, 2016, 7, 10214.	5.8	534
1462	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
1463	Designing nanobowl arrays of mesoporous $\text{TiO}_2$ as an alternative electron transporting layer for carbon cathode-based perovskite solar cells. Nanoscale, 2016, 8, 6393-6402.	2.8	89
1464	Novel spherical $\text{TiO}_2$ aggregates with diameter of 100 nm for efficient mesoscopic perovskite solar cells. Nano Energy, 2016, 20, 272-282.	8.2	50
1465	Double-parallel-junction hybrid solar cells based on silicon nanocrystals. Organic Electronics, 2016, 30, 99-104.	1.4	9
1466	Enhanced UV-light stability of planar heterojunction perovskite solar cells with caesium bromide interface modification. Energy and Environmental Science, 2016, 9, 490-498.	15.6	535
1467	Photo-induced degradation of lead halide perovskite solar cells caused by the hole transport layer/metal electrode interface. Journal of Materials Chemistry A, 2016, 4, 1991-1998.	5.2	90
1468	Cubic: Column composite structure $(\text{NH}_2\text{CH}=\text{NH}_2)_x(\text{CH}_3\text{NH}_3)_{1-x}\text{PbI}_3$ 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

#	ARTICLE	IF	CITATIONS
1469	Nanowire Lasers of Formamidinium Lead Halide Perovskites and Their Stabilized Alloys with Improved Stability. <i>Nano Letters</i> , 2016, 16, 1000-1008.	4.5	391
1470	Laser cooling of organica€inorganic lead halide perovskites. <i>Nature Photonics</i> , 2016, 10, 115-121.	15.6	282
1471	Organic solvent vapor treatment of lead iodide layers in the two-step sequential deposition of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> -based perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 1947-1952.	5.2	58
1472	Elaboration, structural, vibrational and optical investigation of a two-dimensional self-assembled organica€inorganic hybrid compound. <i>Journal of Luminescence</i> , 2016, 173, 213-217.	1.5	25
1473	Impedance Spectroscopic Indication for Solid State Electrochemical Reaction in (CH <sub>3</sub> NH <sub>3</sub> )PbI <sub>3</sub> Films. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 191-197.	2.1	81
1474	Recent Advances in the Inverted Planar Structure of Perovskite Solar Cells. <i>Accounts of Chemical Research</i> , 2016, 49, 155-165.	7.6	559
1475	Stabilizing Perovskite Structures by Tuning Tolerance Factor: Formation of Formamidinium and Cesium Lead Iodide Solid-State Alloys. <i>Chemistry of Materials</i> , 2016, 28, 284-292.	3.2	1,606
1476	14.7% efficient mesoscopic perovskite solar cells using single walled carbon nanotubes/carbon composite counter electrodes. <i>Nanoscale</i> , 2016, 8, 6379-6385.	2.8	151
1477	Maximizing the optical performance of planar CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> hybrid perovskite heterojunction stacks. <i>Solar Energy Materials and Solar Cells</i> , 2016, 147, 327-333.	3.0	67
1478	A facile way to prepare nanoporous PbI <sub>2</sub> films and their application in fast conversion to CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> . <i>RSC Advances</i> , 2016, 6, 1611-1617.	1.7	36
1479	Unraveling Charge Carriers Generation, Diffusion, and Recombination in Formamidinium Lead Triiodide Perovskite Polycrystalline Thin Film. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 204-210.	2.1	67
1480	Light absorption in perovskite solar cell: Fundamentals and plasmonic enhancement of infrared band absorption. <i>Solar Energy</i> , 2016, 124, 143-152.	2.9	94
1481	Excited State Properties of Hybrid Perovskites. <i>Accounts of Chemical Research</i> , 2016, 49, 166-173.	7.6	144
1482	High Photoluminescence Quantum Yield in Band Gap Tunable Bromide Containing Mixed Halide Perovskites. <i>Nano Letters</i> , 2016, 16, 800-806.	4.5	269
1483	Hybrid Perovskite Quantum Nanostructures Synthesized by Electrospray Antisolventâ€Solvent Extraction and Intercalation. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 854-861.	4.0	49
1484	Synergistic improvements in stability and performance of lead iodide perovskite solar cells incorporating salt additives. <i>Journal of Materials Chemistry A</i> , 2016, 4, 1591-1597.	5.2	183
1485	Effect of the filtration of PbI <sub>2</sub> solution for zinc oxide nanowire based perovskite solar cells. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 01AE09.	0.8	4
1486	Introducing Cu <sub>2</sub> O Thin Films as a Hole-Transport Layer in Efficient Planar Perovskite Solar Cell Structures. <i>Journal of Physical Chemistry C</i> , 2016, 120, 1428-1437.	1.5	247

#	ARTICLE	IF	CITATIONS
1487	Determination of the exciton binding energy and effective masses for methylammonium and formamidinium lead tri-halide perovskite semiconductors. <i>Energy and Environmental Science</i> , 2016, 9, 962-970.	15.6	603
1488	Perovskite solar cells based on bottom-fused TiO <sub>2</sub> nanocones. <i>Journal of Materials Chemistry A</i> , 2016, 4, 1520-1530.	5.2	36
1489	Effect of crystal structure on the electronic transport properties of the organometallic perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> . <i>Solar Energy Materials and Solar Cells</i> , 2016, 148, 60-66.	3.0	18
1490	Progress in research on the stability of organometal perovskite solar cells. <i>Solar Energy</i> , 2016, 123, 74-87.	2.9	117
1491	Graphene oxide/PEDOT:PSS composite hole transport layer for efficient and stable planar heterojunction perovskite solar cells. <i>Nanoscale</i> , 2016, 8, 1513-1522.	2.8	156
1492	Boosting the performance of planar heterojunction perovskite solar cell by controlling the precursor purity of perovskite materials. <i>Journal of Materials Chemistry A</i> , 2016, 4, 887-893.	5.2	137
1493	A halide exchange engineering for CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Br perovskite solar cells with high performance and stability. <i>Nano Energy</i> , 2016, 19, 17-26.	8.2	123
1494	Entropic stabilization of mixed A-cation ABX <sub>3</sub> metal halide perovskites for high performance perovskite solar cells. <i>Energy and Environmental Science</i> , 2016, 9, 656-662.	15.6	1,077
1495	WO <sub>3</sub> with surface oxygen vacancies as an anode buffer layer for high performance polymer solar cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 894-900.	5.2	68
1496	A solution-processed n-doped fullerene cathode interfacial layer for efficient and stable large-area perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 640-648.	5.2	119
1497	Carbon nanotubes as an efficient hole collector for high voltage methylammonium lead bromide perovskite solar cells. <i>Nanoscale</i> , 2016, 8, 6352-6360.	2.8	88
1498	Room-temperature mixed-solvent-vapor annealing for high performance perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 321-326.	5.2	96
1499	Interface engineering toward enhanced efficiency of planar perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 217-222.	5.2	70
1500	Annealing-free efficient vacuum-deposited planar perovskite solar cells with evaporated fullerenes as electron-selective layers. <i>Nano Energy</i> , 2016, 19, 88-97.	8.2	125
1501	High-efficiency bulk heterojunction memory devices fabricated using organometallic halide perovskite:poly(N-vinylcarbazole) blend active layers. <i>Dalton Transactions</i> , 2016, 45, 484-488.	1.6	36
1502	Polar-solvent-free colloidal synthesis of highly luminescent alkylammonium lead halide perovskite nanocrystals. <i>Nanoscale</i> , 2016, 8, 6278-6283.	2.8	233
1503	Effect of relative humidity on crystal growth, device performance and hysteresis in planar heterojunction perovskite solar cells. <i>Nanoscale</i> , 2016, 8, 6300-6307.	2.8	113
1504	Synthesis of tunable-band-gap Open-Box-halide perovskites by use of anion exchange and internal dissolution procedures. <i>Journal of Colloid and Interface Science</i> , 2016, 461, 162-167.	5.0	2



#	ARTICLE	IF	CITATIONS
1505	Nano-structured electron transporting materials for perovskite solar cells. <i>Nanoscale</i> , 2016, 8, 6209-6221.	2.8	105
1506	Photo-excitation intensity dependent electron and hole injections from lead iodide perovskite to nanocrystalline TiO <sub>2</sub> and spiro-OMeTAD. <i>Chemical Communications</i> , 2016, 52, 673-676.	2.2	63
1507	Growth and evolution of solution-processed CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> -xCl <sub>x</sub> layer for highly efficient planar-heterojunction perovskite solar cells. <i>Journal of Power Sources</i> , 2016, 301, 242-250.	4.0	39
1508	Band-gap tuning of lead halide perovskite using a single step spin-coating deposition process. <i>Materials Letters</i> , 2016, 164, 498-501.	1.3	65
1509	Mesoscopic perovskite solar cells with an admixture of nanocrystalline TiO <sub>2</sub> and Al <sub>2</sub> O <sub>3</sub> : role of interconnectivity of TiO <sub>2</sub> in charge collection. <i>Nanoscale</i> , 2016, 8, 6341-6351.	2.8	26
1510	Observation of a hot-phonon bottleneck in lead-iodide perovskites. <i>Nature Photonics</i> , 2016, 10, 53-59.	15.6	760
1511	Monolithic perovskite/silicon-heterojunction tandem solar cells processed at low temperature. <i>Energy and Environmental Science</i> , 2016, 9, 81-88.	15.6	536
1512	Perovskite as an effective V <sub>oc</sub> switcher for high efficiency polymer solar cells. <i>Nano Energy</i> , 2016, 20, 126-133.	8.2	22
1513	Null current hysteresis for acetylacetonate electron extraction layer in perovskite solar cells. <i>Nanoscale</i> , 2016, 8, 6328-6334.	2.8	28
1514	Experimental and theoretical optical properties of methylammonium lead halide perovskites. <i>Nanoscale</i> , 2016, 8, 6317-6327.	2.8	385
1515	Organometal halide perovskite solar cells: degradation and stability. <i>Energy and Environmental Science</i> , 2016, 9, 323-356.	15.6	1,457
1516	An efficient planar-heterojunction solar cell based on wide-bandgap CH <sub>3</sub> NH <sub>3</sub> PbI <sub>2</sub> .1Br <sub>0.9</sub> perovskite film for tandem cell application. <i>Chemical Communications</i> , 2016, 52, 304-307.	2.2	42
1517	Structural and optical properties of methylammonium lead iodide across the tetragonal to cubic phase transition: implications for perovskite solar cells. <i>Energy and Environmental Science</i> , 2016, 9, 155-163.	15.6	423
1518	Ultrathin efficient perovskite solar cells employing a periodic structure of a composite hole conductor for elevated plasmonic light harvesting and hole collection. <i>Nanoscale</i> , 2016, 8, 6290-6299.	2.8	69
1519	Low-temperature processed SnO <sub>2</sub> compact layer for efficient mesostructure perovskite solar cells. <i>Applied Surface Science</i> , 2017, 391, 677-683.	3.1	52
1520	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. <i>Science China Chemistry</i> , 2017, 60, 136-143.	4.2	25
1521	Carbon Nanotubes in TiO <sub>2</sub> Nanofiber Photoelectrodes for High Performance Perovskite Solar Cells. <i>Advanced Science</i> , 2017, 4, 1600504.	5.6	83
1522	Defect Dynamics in Proton Irradiated CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Solar Cells. <i>Advanced Electronic Materials</i> , 2017, 3, 1600438.	2.6	96

#	ARTICLE	IF	CITATIONS
1523	Management of perovskite intermediates for highly efficient inverted planar heterojunction perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 3193-3202.	5.2	113
1524	Enhancement of Perovskite Solar Cells Efficiency using N-Doped TiO <sub>2</sub> Nanorod Arrays as Electron Transfer Layer. <i>Nanoscale Research Letters</i> , 2017, 12, 43.	3.1	62
1525	Impact of iodide substitution on the physical properties and stability of cesium lead halide perovskite thin films CsPbBr <sub>3</sub> xI <sub>1-x</sub> (0 ≤ x ≤ 1). <i>Journal of Alloys and Compounds</i> , 2017, 702, 404-409.	2.8	55
1526	Efficiency enhancement in perovskite solar cell utilizing solution-processable phthalocyanine hole transport layer with thermal annealing. <i>Organic Electronics</i> , 2017, 43, 156-161.	1.4	39
1527	AgBiI <sub>4</sub> as a Lead-Free Solar Absorber with Potential Application in Photovoltaics. <i>Chemistry of Materials</i> , 2017, 29, 1538-1549.	3.2	102
1528	Thermal Conductivity of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> and CsPbI <sub>3</sub> : Measuring the Effect of the Methylammonium Ion on Phonon Scattering. <i>Journal of Physical Chemistry C</i> , 2017, 121, 3228-3233.	1.5	69
1529	Design of Lead-Free Inorganic Halide Perovskites for Solar Cells via Cation-Transmutation. <i>Journal of the American Chemical Society</i> , 2017, 139, 2630-2638.	6.6	714
1530	Top and bottom surfaces limit carrier lifetime in lead iodide perovskite films. <i>Nature Energy</i> , 2017, 2, .	19.8	376
1531	Solvent engineering for forming stonehenge-like PbI <sub>2</sub> nano-structures towards efficient perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 4376-4383.	5.2	59
1532	Optical and electronic properties of mixed halide (X = I, Cl, Br) methylammonium lead perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2017, 5, 1714-1723.	2.7	120
1533	Formation, location and beneficial role of PbI <sub>2</sub> in lead halide perovskite solar cells. <i>Sustainable Energy and Fuels</i> , 2017, 1, 119-126.	2.5	99
1534	Two-Step Sequential Deposition of Organometal Halide Perovskite for Photovoltaic Application. <i>Advanced Functional Materials</i> , 2017, 27, 1605654.	7.8	120
1535	2D homologous organic-inorganic hybrids as light-absorbers for planar and nanorod-based perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2017, 162, 93-102.	3.0	81
1536	Perovskite nanocrystals: synthesis, properties and applications. <i>Science Bulletin</i> , 2017, 62, 369-380.	4.3	96
1537	Photon Emission and Reabsorption Processes in $\text{CH}_3\text{NH}_3\text{PbI}_3$ Single Crystals Revealed by Time-Resolved Two-Photon-Ex. <i>Physical Review Applied</i> , 2017, 7, .	1.5	116
1538	Photoluminescence in Organometal Halide Perovskites: Free Carrier Versus Exciton. <i>IEEE Journal of Photovoltaics</i> , 2017, 7, 513-517.	1.5	2
1540	Highly efficient perovskite solar cells with crosslinked PCBM interlayers. <i>Journal of Materials Chemistry A</i> , 2017, 5, 2466-2472.	5.2	49
1541	Highly Efficient and Stable Perovskite Solar Cells by Interfacial Engineering Using Solution-Processed Polymer Layer. <i>Journal of Physical Chemistry C</i> , 2017, 121, 1562-1568.	1.5	166

#	ARTICLE	IF	CITATIONS
1542	Study on degradation mechanism of perovskite solar cell and their recovering effects by introducing CH <sub>3</sub> NH <sub>3</sub> I layers. <i>Organic Electronics</i> , 2017, 43, 229-234.	1.4	38
1543	Development of a Classical Interatomic Potential for MAPbBr <sub>3</sub> . <i>Journal of Physical Chemistry C</i> , 2017, 121, 3724-3733.	1.5	31
1544	Cs <sub>2</sub> InAgCl <sub>6</sub> : A New Lead-Free Halide Double Perovskite with Direct Band Gap. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 772-778.	2.1	752
1545	Applications of cesium in the perovskite solar cells. <i>Journal of Semiconductors</i> , 2017, 38, 011003.	2.0	26
1546	Double Charged Surface Layers in Lead Halide Perovskite Crystals. <i>Nano Letters</i> , 2017, 17, 2021-2027.	4.5	60
1547	Spatial Distribution of Lead Iodide and Local Passivation on Organo-Lead Halide Perovskite. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 6072-6078.	4.0	62
1548	Moving into the domain of perovskite sensitized solar cell. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 72, 907-915.	8.2	20
1549	Improving photovoltaic performance of perovskite solar cells: The interfacial modification role of aluminum chloride and ammonia on ZnO nanorods. <i>Functional Materials Letters</i> , 2017, 10, 1750017.	0.7	7
1550	Lead-Free Organic-Inorganic Hybrid Perovskites for Photovoltaic Applications: Recent Advances and Perspectives. <i>Advanced Materials</i> , 2017, 29, 1605005.	11.1	568
1551	Rigid Amino Acid as Linker to Enhance the Crystallinity of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Particles. <i>Particle and Particle Systems Characterization</i> , 2017, 34, 1600298.	1.2	19
1552	Optimization of substrates and physical properties of CdS thin films for perovskite solar cell applications. <i>Journal of Materials Science: Materials in Electronics</i> , 2017, 28, 6852-6859.	1.1	28
1553	A TiO <sub>2</sub> nanotube network electron transport layer for high efficiency perovskite solar cells. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 4956-4961.	1.3	33
1554	CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> converted from reactive magnetron sputtered PbO for large area perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2017, 163, 250-254.	3.0	15
1555	Readily synthesized dopant-free hole transport materials with phenol core for stabilized mixed perovskite solar cells. <i>Journal of Power Sources</i> , 2017, 344, 160-169.	4.0	63
1556	Textured CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> thin film with enhanced stability for high performance perovskite solar cells. <i>Nano Energy</i> , 2017, 33, 485-496.	8.2	74
1557	Performance enhancement of perovskite solar cells using a La-doped BaSnO <sub>3</sub> electron transport layer. <i>Journal of Materials Chemistry A</i> , 2017, 5, 3675-3682.	5.2	90
1558	Enhanced long-term stability of perovskite solar cells by 3-hydroxypyridine dipping. <i>Chemical Communications</i> , 2017, 53, 1829-1831.	2.2	59
1559	Complete ultrafast charge carrier dynamics in photo-excited all-inorganic perovskite nanocrystals (CsPbX <sub>3</sub> ). <i>Nanoscale</i> , 2017, 9, 1878-1885.	2.8	223

#	ARTICLE	IF	CITATIONS
1560	Two-Dimensional Metal Halide Perovskites: Theory, Synthesis, and Optoelectronics. <i>Small Methods</i> , 2017, 1, 1600018.	4.6	115
1561	An optical dynamic study of MAPbBr <sub>3</sub> single crystals passivated with MAPbCl <sub>3</sub> /I <sub>3</sub> -MAPbBr <sub>3</sub> heterojunctions. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 4516-4521.	1.3	42
1562	Ultra-high Seebeck coefficient and low thermal conductivity of a centimeter-sized perovskite single crystal acquired by a modified fast growth method. <i>Journal of Materials Chemistry C</i> , 2017, 5, 1255-1260.	2.7	101
1563	Vortex Fluidics Improved Morphology of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Cl <sub>x</sub> Films for Perovskite Solar Cells. <i>ChemistrySelect</i> , 2017, 2, 369-374.	0.7	5
1564	Perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> crystals and films. Synthesis and characterization. <i>Journal of Crystal Growth</i> , 2017, 462, 45-49.	0.7	21
1565	Ionic origin of a negative capacitance in lead halide perovskites. <i>Physica Status Solidi - Rapid Research Letters</i> , 2017, 11, 1600418.	1.2	24
1566	CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite:poly(N-vinylcarbazole) blends for broadband optical limiting. <i>RSC Advances</i> , 2017, 7, 1809-1813.	1.7	13
1567	Full printable perovskite solar cells based on mesoscopic TiO <sub>2</sub> /Al <sub>2</sub> O <sub>3</sub> /NiO (carbon nanotubes) architecture. <i>Solar Energy</i> , 2017, 144, 158-165.	2.9	63
1568	Impact of Excess CH <sub>3</sub> NH <sub>3</sub> I on Free Carrier Dynamics in High-Performance Nonstoichiometric Perovskites. <i>Journal of Physical Chemistry C</i> , 2017, 121, 3143-3148.	1.5	49
1569	Spatially Resolved Imaging on Photocurrent Generations and Band Alignments at Perovskite/PbI <sub>2</sub> Heterointerfaces of Perovskite Solar Cells by Light-Modulated Scanning Tunneling Microscopy. <i>Nano Letters</i> , 2017, 17, 1154-1160.	4.5	50
1570	Photon Reabsorption in Mixed CsPbCl <sub>3</sub> :CsPbI <sub>3</sub> Perovskite Nanocrystal Films for Light-Emitting Diodes. <i>Journal of Physical Chemistry C</i> , 2017, 121, 3790-3796.	1.5	57
1571	Photocurrent Spectroscopy of Perovskite Layers and Solar Cells: A Sensitive Probe of Material Degradation. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 838-843.	2.1	18
1572	Atomistic Origins of Surface Defects in CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> Perovskite and Their Electronic Structures. <i>ACS Nano</i> , 2017, 11, 2060-2065.	7.3	123
1573	Toward All Room-Temperature, Solution-Processed, High-Performance Planar Perovskite Solar Cells: A New Scheme of Pyridine-Promoted Perovskite Formation. <i>Advanced Materials</i> , 2017, 29, 1604695.	11.1	178
1574	Chemical Vapor Deposition of Perovskites for Photovoltaic Application. <i>Advanced Materials Interfaces</i> , 2017, 4, 1600970.	1.9	46
1575	An inorganic-organic hybrid crystal with a two-step dielectric response and thermochromic luminescence. <i>Dalton Transactions</i> , 2017, 46, 2220-2227.	1.6	26
1576	Effect of Precursor Solution Aging on the Crystallinity and Photovoltaic Performance of Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2017, 7, 1602159.	10.2	130
1577	Carbon-Based Perovskite Solar Cells without Hole Transport Materials: The Front Runner to the Market?. <i>Advanced Materials</i> , 2017, 29, 1603994.	11.1	261

#	ARTICLE	IF	CITATIONS
1578	Advances in hole transport materials engineering for stable and efficient perovskite solar cells. <i>Nano Energy</i> , 2017, 34, 271-305.	8.2	362
1579	Modeling and analysis of HTM-free perovskite solar cells based on ZnO electron transport layer. <i>Superlattices and Microstructures</i> , 2017, 104, 167-177.	1.4	61
1580	Controlled Synthesis of Composition Tunable Formamidinium Cesium Double Cation Lead Halide Perovskite Nanowires and Nanosheets with Improved Stability. <i>Chemistry of Materials</i> , 2017, 29, 2157-2166.	3.2	82
1581	Recent advances in perovskite solar cells: efficiency, stability and lead-free perovskite. <i>Journal of Materials Chemistry A</i> , 2017, 5, 11462-11482.	5.2	378
1582	Effect of the Microstructure of the Functional Layers on the Efficiency of Perovskite Solar Cells. <i>Advanced Materials</i> , 2017, 29, 1601715.	11.1	104
1583	Ultrahigh Carrier Mobility Achieved in Photoresponsive Hybrid Perovskite Films via Coupling with Single-Walled Carbon Nanotubes. <i>Advanced Materials</i> , 2017, 29, 1602432.	11.1	106
1584	Ascorbic acid as an effective antioxidant additive to enhance the efficiency and stability of Pb/Sn-based binary perovskite solar cells. <i>Nano Energy</i> , 2017, 34, 392-398.	8.2	162
1585	Structure and Characterization of a Zero-Dimensional Alkali Tin Dihalides Compound $\text{Cs}_3\text{Sn}_3\text{F}_2\text{Cl}_7$ with the $[\text{Sn}_2\text{F}_2\text{Cl}_4]^{\sup 2-}$ Clusters. <i>Inorganic Chemistry</i> , 2017, 56, 3081-3086.	1.9	9
1586	A dimeric fullerene derivative for efficient inverted planar perovskite solar cells with improved stability. <i>Journal of Materials Chemistry A</i> , 2017, 5, 7326-7332.	5.2	50
1587	Effect of $\text{CH}_3\text{NH}_3\text{I}$ concentration on the physical properties of solution-processed organometal halide perovskite $\text{CH}_3\text{NH}_3\text{PbI}_3$ . <i>Journal of Alloys and Compounds</i> , 2017, 706, 274-279.	2.8	22
1588	Origins and mechanisms of hysteresis in organometal halide perovskites. <i>Journal of Physics Condensed Matter</i> , 2017, 29, 193001.	0.7	55
1589	Simulation design of $\text{p-n}$ -type all-perovskite solar cells with high efficiency. <i>Chinese Physics B</i> , 2017, 26, 028803.	0.7	38
1590	Rapid and Complete Conversion of $\text{CH}_3\text{NH}_3\text{PbI}_3$ for Perovskite/ $\text{C}_60$ Planar Heterojunction Solar Cells by Two-Step Deposition. <i>Chinese Journal of Chemistry</i> , 2017, 35, 687-692.	2.6	7
1591	Scalable Ligand-Mediated Transport Synthesis of Organic-Inorganic Hybrid Perovskite Nanocrystals with Resolved Electronic Structure and Ultrafast Dynamics. <i>ACS Nano</i> , 2017, 11, 2689-2696.	7.3	62
1592	High-Q, Low-Threshold Monolithic Perovskite Thin-Film Vertical-Cavity Lasers. <i>Advanced Materials</i> , 2017, 29, 1604781.	11.1	112
1593	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. <i>Nano Energy</i> , 2017, 34, 58-68.	8.2	151
1594	Large Grain-Based Hole-Blocking Layer-Free Planar-Type Perovskite Solar Cell with Best Efficiency of 18.20%. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 8113-8120.	4.0	72
1595	Electrospun Perovskite Nanofibers. <i>Nanoscale Research Letters</i> , 2017, 12, 114.	3.1	15

#	ARTICLE	IF	CITATIONS
1596	Ultrasonic irradiation-promoted one-pot synthesis of CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> quantum dots without using flammable CH <sub>3</sub> NH <sub>2</sub> precursor. <i>Materials Research Express</i> , 2017, 4, 025038.	0.8	7
1597	Inorganic Rubidium Cation as an Enhancer for Photovoltaic Performance and Moisture Stability of HC(NH <sub>2</sub> ) <sub>2</sub> PbI <sub>3</sub> Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2017, 27, 1605988.	7.8	194
1598	Progress on lead-free metal halide perovskites for photovoltaic applications: a review. <i>Monatshefte für Chemie</i> , 2017, 148, 795-826.	0.9	431
1599	Stable monolithic hole-conductor-free perovskite solar cells using TiO <sub>2</sub> nanoparticle binding carbon films. <i>Organic Electronics</i> , 2017, 45, 131-138.	1.4	49
1600	Tunable Br-doping CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3-x</sub> Br <sub>x</sub> thin films for efficient planar perovskite solar cells. <i>Superlattices and Microstructures</i> , 2017, 104, 445-450.	1.4	17
1601	Tuning the Competitive Recombination of Free Carriers and Bound Excitons in Perovskite CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> Single Crystal. <i>Journal of Physical Chemistry C</i> , 2017, 121, 6916-6923.	1.5	18
1602	Effect of Energy Alignment, Electron Mobility, and Film Morphology of Perylene Diimide Based Polymers as Electron Transport Layer on the Performance of Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 10983-10991.	4.0	76
1603	Effect of halide-mixing on the switching behaviors of organic-inorganic hybrid perovskite memory. <i>Scientific Reports</i> , 2017, 7, 43794.	1.6	103
1604	Highly efficient and stable perovskite solar cell prepared from an in situ pre-wetted PbI <sub>2</sub> nano-sheet array film. <i>Sustainable Energy and Fuels</i> , 2017, 1, 1056-1064.	2.5	8
1605	Temperature dependent amplified spontaneous emission of vacuum annealed perovskite films. <i>RSC Advances</i> , 2017, 7, 15911-15916.	1.7	22
1606	Photoelectrochemical water splitting over mesoporous CuPbI <sub>3</sub> films prepared by electrophoretic technique. <i>Monatshefte für Chemie</i> , 2017, 148, 981-989.	0.9	13
1607	A facile synthesis of CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> perovskite quantum dots and their application in flexible nonvolatile memory. <i>Applied Physics Letters</i> , 2017, 110, .	1.5	89
1608	Benign Interfacial Iodine Vacancies in Perovskite Solar Cells. <i>Journal of Physical Chemistry C</i> , 2017, 121, 5905-5913.	1.5	36
1609	Photoinduced Stark Effects and Mechanism of Ion Displacement in Perovskite Solar Cell Materials. <i>ACS Nano</i> , 2017, 11, 2823-2834.	7.3	47
1610	Synergy of ammonium chloride and moisture on perovskite crystallization for efficient printable mesoscopic solar cells. <i>Nature Communications</i> , 2017, 8, 14555.	5.8	270
1611	Colloidal metal oxide nanocrystals as charge transporting layers for solution-processed light-emitting diodes and solar cells. <i>Chemical Society Reviews</i> , 2017, 46, 1730-1759.	18.7	99
1612	Two-Dimensional Hybrid Organohalide Perovskites from Ultrathin PbS Nanocrystals as Template. <i>Journal of Physical Chemistry C</i> , 2017, 121, 6401-6408.	1.5	16
1613	Enhanced performance of inverted perovskite solar cells using solution-processed carboxylic potassium salt as cathode buffer layer. <i>Organic Electronics</i> , 2017, 45, 97-103.	1.4	20



#	ARTICLE	IF	CITATIONS
1614	Carbon Quantum Dots/TiO <sub>2</sub> Electron Transport Layer Boosts Efficiency of Planar Heterojunction Perovskite Solar Cells to 19%. <i>Nano Letters</i> , 2017, 17, 2328-2335.	4.5	211
1615	Transcending the slow bimolecular recombination in lead-halide perovskites for electroluminescence. <i>Nature Communications</i> , 2017, 8, 14558.	5.8	473
1616	Electrochemical impedance analysis of perovskite/electrolyte interfaces. <i>Chemical Communications</i> , 2017, 53, 2467-2470.	2.2	46
1617	Study of ethoxyethane deposition time and Co (III) complex doping on the performance of mesoscopic perovskite based solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2017, 163, 224-230.	3.0	14
1618	Transparent Conductive Oxide Layer and Hole Selective Layer Free Back-Contacted Hybrid Perovskite Solar Cell. <i>Journal of Physical Chemistry C</i> , 2017, 121, 4214-4219.	1.5	12
1619	SrCl <sub>2</sub> Derived Perovskite Facilitating a High Efficiency of 16% in Hole-Free Fully Printable Mesoscopic Perovskite Solar Cells. <i>Advanced Materials</i> , 2017, 29, 1606608.	11.1	135
1620	Potassium Incorporation for Enhanced Performance and Stability of Fully Inorganic Cesium Lead Halide Perovskite Solar Cells. <i>Nano Letters</i> , 2017, 17, 2028-2033.	4.5	463
1621	Composition dependent structural, optical and photosensitive properties of a series of charge-transfer tin halides. <i>Dyes and Pigments</i> , 2017, 141, 66-73.	2.0	3
1622	Strong Interaction at the Perovskite/TiO <sub>2</sub> Interface Facilitates Ultrafast Photoinduced Charge Separation: A Nonadiabatic Molecular Dynamics Study. <i>Journal of Physical Chemistry C</i> , 2017, 121, 3797-3806.	1.5	69
1623	Surface Polarization Model for the Dynamic Hysteresis of Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 915-921.	2.1	122
1624	Enhanced perovskite electronic properties via a modified lead chloride Lewis acid-base adduct and their effect in high-efficiency perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 5195-5203.	5.2	128
1625	Photovoltaic enhancement of bismuth halide hybrid perovskite by N-methyl pyrrolidone-assisted morphology conversion. <i>RSC Advances</i> , 2017, 7, 9456-9460.	1.7	80
1626	The rapid evolution of highly efficient perovskite solar cells. <i>Energy and Environmental Science</i> , 2017, 10, 710-727.	15.6	942
1627	Cesium lead iodide solar cells controlled by annealing temperature. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 6257-6263.	1.3	82
1628	Stable FAPbBr <sub>3</sub> Devices with Improved Efficiency Using Sputtered ZnO as Electron Transport Layer. <i>Advanced Materials Interfaces</i> , 2017, 4, 1601143.	1.9	26
1629	Charge Injection Mechanism at Heterointerfaces in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Solar Cells Revealed by Simultaneous Time-Resolved Photoluminescence and Photocurrent Measurements. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 954-960.	2.1	91
1630	Electrospray technique in fabricating perovskite-based hybrid solar cells under ambient conditions. <i>RSC Advances</i> , 2017, 7, 10985-10991.	1.7	18
1631	Perovskite Solar Cells on the Way to Their Radiative Efficiency Limit – Insights Into a Success Story of High Open-Circuit Voltage and Low Recombination. <i>Advanced Energy Materials</i> , 2017, 7, 1602358.	10.2	430

#	ARTICLE	IF	CITATIONS
1632	The Functions of Fullerenes in Hybrid Perovskite Solar Cells. ACS Energy Letters, 2017, 2, 782-794.	8.8	217
1633	Nickel oxide nanoparticles for efficient hole transport in p-i-n and n-i-p perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 6597-6605.	5.2	188
1634	Origin of Dual-Peak Phosphorescence and Ultralong Lifetime of 4,6-Diethoxy-2-carbazoyl-1,3,5-triazine. Journal of Physical Chemistry Letters, 2017, 8, 1253-1258.	2.1	22
1635	Rational Design: A High-Throughput Computational Screening and Experimental Validation Methodology for Lead-Free and Emergent Hybrid Perovskites. ACS Energy Letters, 2017, 2, 837-845.	8.8	187
1636	CH <sub>3</sub> NH <sub>3</sub> Pb <sub>3</sub> grain growth and interfacial properties in meso-structured perovskite solar cells fabricated by two-step deposition. Science and Technology of Advanced Materials, 2017, 18, 253-262.	2.8	42
1637	Inhibition of a structural phase transition in one-dimensional organometal halide perovskite nanorods grown inside porous silicon nanotube templates. Physical Review B, 2017, 95, .	1.1	14
1638	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
1639	Solution-Processed Cu(In, Ga)(S, Se) <sub>2</sub> Nanocrystal as Inorganic Hole-Transporting Material for Efficient and Stable Perovskite Solar Cells. Nanoscale Research Letters, 2017, 12, 159.	3.1	38
1640	Synthesizing conditions for organic-inorganic hybrid perovskite using methylammonium lead iodide. Journal of Physics and Chemistry of Solids, 2017, 105, 16-22.	1.9	6
1641	Simplification of device structures for low-cost, high-efficiency perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 4756-4773.	5.2	57
1642	Recent progress of dopant-free organic hole-transporting materials in perovskite solar cells. Journal of Semiconductors, 2017, 38, 011005.	2.0	22
1643	Calculation studies on point defects in perovskite solar cells. Journal of Semiconductors, 2017, 38, 011006.	2.0	20
1644	Screened Charge Carrier Transport in Methylammonium Lead Iodide Perovskite Thin Films. Journal of Physical Chemistry Letters, 2017, 8, 948-953.	2.1	49
1645	Low-temperature processed ultrathin TiO <sub>2</sub> for efficient planar heterojunction perovskite solar cells. Electrochimica Acta, 2017, 231, 77-84.	2.6	31
1646	Time-Resolved Infrared Spectroscopy Directly Probes Free and Trapped Carriers in Organo-Halide Perovskites. ACS Energy Letters, 2017, 2, 651-658.	8.8	43
1647	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
1648	Spatially resolved studies of the phases and morphology of methylammonium and formamidinium lead tri-halide perovskites. Nanoscale, 2017, 9, 3222-3230.	2.8	44
1649	Crystallographically Aligned Perovskite Structures for High-Performance Polarization-Sensitive Photodetectors. Advanced Materials, 2017, 29, 1605993.	11.1	198

#	ARTICLE	IF	CITATIONS
1650	Formation of hybrid ABX <sub>3</sub> perovskite compounds for solar cell application: first-principles calculations of effective ionic radii and determination of tolerance factors. Dalton Transactions, 2017, 46, 3500-3509.	1.6	133
1651	Tuning Magneto-photocurrent between Positive and Negative Polarities in Perovskite Solar Cells. Journal of Physical Chemistry C, 2017, 121, 9537-9542.	1.5	8
1652	Unraveling the Exciton Binding Energy and the Dielectric Constant in Single-Crystal Methylammonium Lead Triiodide Perovskite. Journal of Physical Chemistry Letters, 2017, 8, 1851-1855.	2.1	152
1653	Extrinsic ion migration in perovskite solar cells. Energy and Environmental Science, 2017, 10, 1234-1242.	15.6	458
1654	Device stability of perovskite solar cells – A review. Renewable and Sustainable Energy Reviews, 2017, 77, 131-146.	8.2	345
1655	Perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Single Crystals with Charge-Carrier Lifetimes Exceeding 260 ns. ACS Applied Materials & Interfaces, 2017, 9, 14827-14832.	4.0	58
1656	Amino-Acid-Induced Preferential Orientation of Perovskite Crystals for Enhancing Interfacial Charge Transfer and Photovoltaic Performance. Small, 2017, 13, 1604305.	5.2	103
1657	The emerging roles of carbon dots in solar photovoltaics: a critical review. Environmental Science: Nano, 2017, 4, 1216-1263.	2.2	128
1658	Thermoresponsive Emission Switching via Lower Critical Solution Temperature Behavior of Organic-Inorganic Perovskite Nanoparticles. Advanced Materials, 2017, 29, 1700047.	11.1	11
1659	Alternative benzodithiophene (BDT) based polymeric hole transport layer for efficient perovskite solar cells. Solar Energy Materials and Solar Cells, 2017, 168, 8-13.	3.0	37
1660	Self-Organized Fullerene Interfacial Layer for Efficient and Low-Temperature Processed Planar Perovskite Solar Cells with High UV-Light Stability. Advanced Science, 2017, 4, 1700018.	5.6	47
1661	A Printable Organic Electron Transport Layer for Low-Temperature-Processed, Hysteresis-Free, and Stable Planar Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1700226.	10.2	46
1662	Ionic behavior of organic-inorganic metal halide perovskite based metal-oxide-semiconductor capacitors. Physical Chemistry Chemical Physics, 2017, 19, 13002-13009.	1.3	9
1663	Anti-solvent dependent device performance in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> 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
1664	High-Mobility p-Type Organic Semiconducting Interlayer Enhancing Efficiency and Stability of Perovskite Solar Cells. Advanced Science, 2017, 4, 1700025.	5.6	36
1665	Inhibition of Zero Drift in Perovskite-Based Photodetector Devices via [6,6]-Phenyl-C61-butyric Acid Methyl Ester Doping. ACS Applied Materials & Interfaces, 2017, 9, 15638-15643.	4.0	34
1666	Cu-In Halide Perovskite Solar Absorbers. Journal of the American Chemical Society, 2017, 139, 6718-6725.	6.6	316
1667	Fabrication of stable organometallic halide perovskite NWs based optoelectronic devices. Science Bulletin, 2017, 62, 645-647.	4.3	18

#	ARTICLE	IF	CITATIONS
1668	New insight into solvent engineering technology from evolution of intermediates via one-step spin-coating approach. <i>Science China Materials</i> , 2017, 60, 392-398.	3.5	53
1669	Up-Conversion Perovskite Nanolaser with Single Mode and Low Threshold. <i>Journal of Physical Chemistry C</i> , 2017, 121, 10071-10077.	1.5	30
1670	Annealing Induced Re-crystallization in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> -xCl <sub>x</sub> for High Performance Perovskite Solar Cells. <i>Scientific Reports</i> , 2017, 7, 46724.	1.6	53
1671	Facile preparation of high-quality perovskites for efficient solar cells via a fast conversion of wet PbI <sub>2</sub> precursor films. <i>RSC Advances</i> , 2017, 7, 22492-22500.	1.7	20
1672	Luminescent manganese-doped CsPbCl <sub>3</sub> perovskite quantum dots. <i>Scientific Reports</i> , 2017, 7, 45906.	1.6	78
1673	Eliminated hysteresis and stabilized power output over 20% in planar heterojunction perovskite solar cells by compositional and surface modifications to the low-temperature-processed TiO <sub>2</sub> layer. <i>Journal of Materials Chemistry A</i> , 2017, 5, 9402-9411.	5.2	127
1674	Single crystals of caesium formamidinium lead halide perovskites: solution growth and gamma dosimetry. <i>NPG Asia Materials</i> , 2017, 9, e373-e373.	3.8	145
1675	Au Nanoparticles Doped TiO <sub>2</sub> ; Mesoporous Perovskite Solar Cells. <i>Materials Science Forum</i> , 0, 896, 18-25.	0.3	3
1676	Origin and Whereabouts of Recombination in Perovskite Solar Cells. <i>Journal of Physical Chemistry C</i> , 2017, 121, 9705-9713.	1.5	65
1677	High-performance gas sensors based on a thiocyanate ion-doped organometal halide perovskite. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 12876-12881.	1.3	78
1678	Infiltration of methylammonium metal halide in highly porous membranes using sol-gel-derived coating method. <i>Applied Surface Science</i> , 2017, 416, 96-102.	3.1	10
1679	Photovoltaic Effect of 2D Homologous Perovskites. <i>Electrochimica Acta</i> , 2017, 240, 98-107.	2.6	15
1680	Halide Perovskites for Tandem Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 1999-2011.	2.1	47
1681	Amino-functionalized conjugated polymer electron transport layers enhance the UV-photostability of planar heterojunction perovskite solar cells. <i>Chemical Science</i> , 2017, 8, 4587-4594.	3.7	57
1682	Neutral-colored semitransparent solar cells based on pseudohalide (SCN <sup>-</sup> )-doped perovskite. <i>Sustainable Energy and Fuels</i> , 2017, 1, 1034-1040.	2.5	24
1683	Impact of moisture on efficiency-determining electronic processes in perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 10917-10927.	5.2	95
1684	Investigation of Carrier Dynamics in Templated Perovskite Films with Different Densities of Nanopores. <i>Chemistry Letters</i> , 2017, 46, 1105-1108.	0.7	2
1685	Temperature and Electrical Poling Effects on Ionic Motion in MAPbI <sub>3</sub> Photovoltaic Cells. <i>Advanced Energy Materials</i> , 2017, 7, 1700265.	10.2	26

#	ARTICLE	IF	CITATIONS
1686	Giant five-photon absorption from multidimensional core-shell halide perovskite colloidal nanocrystals. <i>Nature Communications</i> , 2017, 8, 15198.	5.8	177
1687	Transient absorption imaging of carrier dynamics in disordered semiconductors. <i>Proceedings of SPIE</i> , 2017, , .	0.8	0
1688	A Breakthrough Efficiency of 19.9% Obtained in Inverted Perovskite Solar Cells by Using an Efficient Trap State Passivator Cu(thiourea)I. <i>Journal of the American Chemical Society</i> , 2017, 139, 7504-7512.	6.6	330
1689	Organic-Inorganic Hybrid Perovskite with Controlled Dopant Modification and Application in Photovoltaic Device. <i>Small</i> , 2017, 13, 1604153.	5.2	59
1690	Tailored Au@TiO <sub>2</sub> nanostructures for the plasmonic effect in planar perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 12034-12042.	5.2	64
1691	Additive engineering for highly efficient organic-inorganic halide perovskite solar cells: recent advances and perspectives. <i>Journal of Materials Chemistry A</i> , 2017, 5, 12602-12652.	5.2	303
1692	Iodine-doped ZnO nanopillar arrays for perovskite solar cells with high efficiency up to 18.24%. <i>Journal of Materials Chemistry A</i> , 2017, 5, 12416-12425.	5.2	69
1693	High-Performance Near-IR Photodetector Using Low-Bandgap MA <sub>0.5</sub> FA <sub>0.5</sub> Pb <sub>0.5</sub> Sn <sub>0.5</sub> I <sub>3</sub> Perovskite. <i>Advanced Functional Materials</i> , 2017, 27, 1701053.	7.8	103
1694	A Perylenediimide Tetramer-Based 3D Electron Transport Material for Efficient Planar Perovskite Solar Cell. <i>Solar Rrl</i> , 2017, 1, 1700046.	3.1	28
1695	Trap-Free Hot Carrier Relaxation in Lead-Halide Perovskite Films. <i>Journal of Physical Chemistry C</i> , 2017, 121, 11201-11206.	1.5	43
1696	Role of Nonradiative Defects and Environmental Oxygen on Exciton Recombination Processes in CsPbBr <sub>3</sub> Perovskite Nanocrystals. <i>Nano Letters</i> , 2017, 17, 3844-3853.	4.5	101
1697	Colloidal Halide Perovskite Nanoplatelets: An Exciting New Class of Semiconductor Nanomaterials. <i>Chemistry of Materials</i> , 2017, 29, 5019-5030.	3.2	237
1698	Supertrap at Work: Extremely Efficient Nonradiative Recombination Channels in MAPbI <sub>3</sub> Perovskites Revealed by Luminescence Super-Resolution Imaging and Spectroscopy. <i>ACS Nano</i> , 2017, 11, 5391-5404.	7.3	92
1699	Perovskite as a Platform for Active Flexible Metaphotonic Devices. <i>ACS Photonics</i> , 2017, 4, 1595-1601.	3.2	86
1700	Recent progress in hybrid perovskite solar cells based on n-type materials. <i>Journal of Materials Chemistry A</i> , 2017, 5, 10092-10109.	5.2	136
1701	Photomodulated Hysteresis Behaviors in Perovskite Phototransistors with Ultra-Low Operating Voltage. <i>Journal of Physical Chemistry C</i> , 2017, 121, 11665-11671.	1.5	20
1702	Synthesis of a nanostructured rutile TiO <sub>2</sub> electron transporting layer via an etching process for efficient perovskite solar cells: impact of the structural and crystalline properties of TiO <sub>2</sub> . <i>Journal of Materials Chemistry A</i> , 2017, 5, 12340-12353.	5.2	25
1703	Multistep Photoluminescence Decay Reveals Dissociation of Geminate Charge Pairs in Organolead Trihalide Perovskites. <i>Advanced Energy Materials</i> , 2017, 7, 1700405.	10.2	8

#	ARTICLE	IF	CITATIONS
1704	Understanding and Eliminating Hysteresis for Highly Efficient Planar Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2017, 7, 1700414.	10.2	190
1705	Incorporation of High-Mobility and Room-Temperature-Deposited Cu <sub>x</sub> S as a Hole Transport Layer for Efficient and Stable Organo-Lead Halide Perovskite Solar Cells. <i>Solar Rrl</i> , 2017, 1, 1700038.	3.1	51
1706	High-performance ultraviolet-visible tunable perovskite photodetector based on solar cell structure. <i>Science China Materials</i> , 2017, 60, 407-414.	3.5	42
1707	Molecular engineering to enhance perovskite solar cell performance: Incorporation of benzothiadiazole as core unit for low cost hole transport materials. <i>Dyes and Pigments</i> , 2017, 143, 356-360.	2.0	33
1708	Recombination in Perovskite Solar Cells: Significance of Grain Boundaries, Interface Traps, and Defect Ions. <i>ACS Energy Letters</i> , 2017, 2, 1214-1222.	8.8	826
1709	Recent progress and remaining challenges in organometallic halides based perovskite solar cells. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 78, 1-14.	8.2	49
1710	Strong ferroelectric polarization of CH <sub>3</sub> NH <sub>3</sub> Gel <sub>3</sub> with high-absorption and mobility transport anisotropy: theoretical study. <i>Journal of Materials Chemistry C</i> , 2017, 5, 5356-5364.	2.7	101
1711	Theoretical studies on the structural, electronic and optical properties of orthorhombic perovskites CH <sub>3</sub> NH <sub>3</sub> PbX <sub>3</sub> (X=Al, Br, Cl). <i>Journal of Physics and Chemistry of Solids</i> , 2017, 110, 145-151.	1.9	7
1712	Enhanced light absorption of thin perovskite solar cells using textured substrates. <i>Solar Energy Materials and Solar Cells</i> , 2017, 168, 214-220.	3.0	50
1713	Rashba Band Splitting in Organohalide Lead Perovskites: Bulk and Surface Effects. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 2247-2252.	2.1	101
1714	Low-temperature solution-processed NiO <sub>x</sub> films for air-stable perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 11071-11077.	5.2	113
1715	Hole Trapping by Iodine Interstitial Defects Decreases Free Carrier Losses in Perovskite Solar Cells: A Time-Domain <i>Ab Initio</i> Study. <i>ACS Energy Letters</i> , 2017, 2, 1270-1278.	8.8	151
1716	Efficient planar perovskite solar cells using solution-processed amorphous WO <sub>x</sub> /fullerene C <sub>60</sub> as electron extraction layers. <i>Organic Electronics</i> , 2017, 46, 253-262.	1.4	51
1717	Pinhole-Free Hybrid Perovskite Film with Arbitrarily-Shaped Micro-Patterns for Functional Optoelectronic Devices. <i>Nano Letters</i> , 2017, 17, 3563-3569.	4.5	57
1718	Combinatorial screening of halide perovskite thin films and solar cells by mask-defined IR laser molecular beam epitaxy. <i>Science and Technology of Advanced Materials</i> , 2017, 18, 307-315.	2.8	26
1721	Carbon-Based Materials Used for Perovskite Solar Cells. <i>ChemNanoMat</i> , 2017, 3, 75-88.	1.5	24
1722	An unusual photoconductive property of polyiodide and enhancement by catenating with 3-thiophenemethylamine salt. <i>Chemical Communications</i> , 2017, 53, 432-435.	2.2	11
1723	Photophysical properties of wavelength-tunable methylammonium lead halide perovskite nanocrystals. <i>Journal of Materials Chemistry C</i> , 2017, 5, 118-126.	2.7	26



#	ARTICLE	IF	CITATIONS
1724	On the efficacy of anthracene isomers for triplet transmission from CdSe nanocrystals. <i>Chemical Communications</i> , 2017, 53, 1241-1244.	2.2	28
1725	Stabilität von Perowskit-Solarzellen: Einfluss der Substitution von Kation und Anion. <i>Angewandte Chemie</i> , 2017, 129, 1210-1233.	1.6	27
1726	Control of preferred orientation with slow crystallization for carbon-based mesoscopic perovskite solar cells attaining efficiency 15%. <i>Journal of Materials Chemistry A</i> , 2017, 5, 739-747.	5.2	79
1727	Pressure-Induced Bandgap Optimization in Lead-Based Perovskites with Prolonged Carrier Lifetime and Ambient Retainability. <i>Advanced Functional Materials</i> , 2017, 27, 1604208.	7.8	167
1728	Ambipolar Triple Cation Perovskite Field Effect Transistors and Inverters. <i>Advanced Materials</i> , 2017, 29, 1602940.	11.1	116
1729	Photocatalytic hydrogen generation from hydriodic acid using methylammonium lead iodide in dynamic equilibrium with aqueous solution. <i>Nature Energy</i> , 2017, 2, .	19.8	438
1730	Correlating Photoluminescence Heterogeneity with Local Electronic Properties in Methylammonium Lead Tribromide Perovskite Thin Films. <i>Chemistry of Materials</i> , 2017, 29, 5484-5492.	3.2	42
1731	Size-controlled CdSe quantum dots to boost light harvesting capability and stability of perovskite photovoltaic cells. <i>Nanoscale</i> , 2017, 9, 10075-10083.	2.8	24
1732	Efficient solid-state perovskite solar cells based on nanostructured zinc oxide designed by strategic low temperature water oxidation. <i>Journal of Materials Chemistry C</i> , 2017, 5, 8059-8070.	2.7	45
1733	Amplified Spontaneous Emission Properties of Solution Processed CsPbBr <sub>3</sub> Perovskite Thin Films. <i>Journal of Physical Chemistry C</i> , 2017, 121, 14772-14778.	1.5	58
1734	Degradation in perovskite solar cells stored under different environmental conditions. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 325105.	1.3	19
1735	Air-processed organo-metal halide perovskite solar cells and their air stability. <i>Journal of Materials Science</i> , 2017, 52, 10886-10897.	1.7	11
1736	Hole-transporting layer-free inverted planar mixed lead-tin perovskite-based solar cells. <i>Frontiers of Optoelectronics</i> , 2017, 10, 103-110.	1.9	15
1737	Theoretical insight into the carrier mobility anisotropy of hole transport material Spiro-OMeTAD. <i>Current Applied Physics</i> , 2017, 17, 1316-1322.	1.1	11
1738	Room-Temperature Processed Nb <sub>2</sub> O <sub>5</sub> as the Electron-Transporting Layer for Efficient Planar Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 23181-23188.	4.0	120
1739	Rapid Crystallization of All-Inorganic CsPbBr <sub>3</sub> Perovskite for High-Brightness Light-Emitting Diodes. <i>ACS Omega</i> , 2017, 2, 2757-2764.	1.6	28
1740	Secondary Hydrothermally Processed Engineered Titanium Dioxide Nanostructures for Efficient Perovskite Solar Cells. <i>Energy Technology</i> , 2017, 5, 1775-1787.	1.8	6
1741	Enhancing efficiency and stability of perovskite solar cells via a high mobility p-type PbS buffer layer. <i>Nano Energy</i> , 2017, 38, 1-11.	8.2	65

#	ARTICLE	IF	CITATIONS
1742	Solution processed double-decked V2Ox/PEDOT:PSS film serves as the hole transport layer of an inverted planar perovskite solar cell with high performance. RSC Advances, 2017, 7, 26202-26210.	1.7	23
1743	The Nature of Electron Mobility in Hybrid Perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> . Nano Letters, 2017, 17, 3646-3654.	4.5	50
1744	Combined optimization of emission layer morphology and hole-transport layer for enhanced performance of perovskite light-emitting diodes. Journal of Materials Chemistry C, 2017, 5, 6169-6175.	2.7	28
1745	Stable High-Performance Flexible Photodetector Based on Upconversion Nanoparticles/Perovskite Microarrays Composite. ACS Applied Materials & Interfaces, 2017, 9, 19176-19183.	4.0	70
1746	Effect of water on the effective Goldschmidt tolerance factor and photoelectric conversion efficiency of organic-inorganic perovskite: insights from first-principles calculations. Physical Chemistry Chemical Physics, 2017, 19, 14955-14960.	1.3	10
1747	High-current perovskite solar cells fabricated with optically enhanced transparent conductive oxides. Applied Physics Express, 2017, 10, 062301.	1.1	7
1748	Perovskite/Polymer Hybrid Thin Films for High External Quantum Efficiency Photodetectors with Wide Spectral Response from Visible to Near-Infrared Wavelengths. Advanced Optical Materials, 2017, 5, 1700213.	3.6	51
1749	Thiophene-Arylamine Hole-Transporting Materials in Perovskite Solar Cells: Substitution Position Effect. Energy Technology, 2017, 5, 1788-1794.	1.8	44
1750	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
1751	In situ dynamic observations of perovskite crystallisation and microstructure evolution intermediated from [PbI <sub>6</sub> ] <sup>4-</sup> cage nanoparticles. Nature Communications, 2017, 8, 15688.	5.8	191
1752	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
1753	Effects of organic cations on the defect physics of tin halide perovskites. Journal of Materials Chemistry A, 2017, 5, 15124-15129.	5.2	213
1754	Deciphering the NH <sub>4</sub> PbI <sub>3</sub> Intermediate Phase for Simultaneous Improvement on Nucleation and Crystal Growth of Perovskite. Advanced Functional Materials, 2017, 27, 1701804.	7.8	117
1755	Hybrid Lead Halide Perovskites for Ultrasensitive Photoactive Switching in Terahertz Metamaterial Devices. Advanced Materials, 2017, 29, 1605881.	11.1	140
1756	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
1757	A 200-nm length TiO <sub>2</sub> nanorod array with a diameter of 13 nm and areal density of 1100 Å <sup>2</sup> for efficient perovskite solar cells. Ceramics International, 2017, 43, 12534-12539.	2.3	15
1758	Effects of morphology and thickness of Al <sub>2</sub> O <sub>3</sub> scaffold on charge transport in Perovskite-based solar cells. Solar Energy, 2017, 153, 379-382.	2.9	9
1759	Low temperature reactively sputtered crystalline TiO <sub>2</sub> thin film as effective blocking layer for perovskite solar cells. Thin Solid Films, 2017, 636, 307-313.	0.8	20

#	ARTICLE	IF	CITATIONS
1760	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
1761	New PCBM/carbon based electron transport layer for perovskite solar cells. Physical Chemistry Chemical Physics, 2017, 19, 17960-17966.	1.3	54
1762	Composition design, optical gap and stability investigations of lead-free halide double perovskite Cs <sub>2</sub> AgInCl <sub>6</sub> . Journal of Materials Chemistry A, 2017, 5, 15031-15037.	5.2	319
1763	Spiro-Phenylpyrazole-Thioxanthene Analogues as Hole-Transporting Materials for Efficient Planar Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1700823.	10.2	74
1764	Broadband Light Absorption and Efficient Charge Separation Using a Light Scattering Layer with Mixed Cavities for High-Performance Perovskite Photovoltaic Cells with Stability. Small, 2017, 13, 1700418.	5.2	13
1765	Low-cost synthesis, fluorescent properties, growth mechanism and structure of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> with millimeter grains. Optik, 2017, 142, 293-300.	1.4	9
1766	The Interplay between Trap Density and Hysteresis in Planar Heterojunction Perovskite Solar Cells. Nano Letters, 2017, 17, 4270-4276.	4.5	226
1767	Refractive index and extinction coefficient of NH <sub>2</sub> CH <sub>2</sub> NH <sub>2</sub> PbI <sub>3</sub> perovskite photovoltaic material. Journal of Physics Condensed Matter, 2017, 29, 245702.	0.7	27
1768	O <sub>3</sub> fast and simple treatment-enhanced p-doped in Spiro-MeOTAD for CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite solar cells. Chinese Physics B, 2017, 26, 068803.	0.7	5
1769	Dimensionality and Interface Engineering of 2D Homologous Perovskites for Boosted Charge-Carrier Transport and Photodetection Performances. Journal of Physical Chemistry Letters, 2017, 8, 2565-2572.	2.1	77
1770	Engineering charge transport by heterostructuring solution-processed semiconductors. Nature Reviews Materials, 2017, 2, .	23.3	105
1771	The photocurrent response in the perovskite device based on coordination polymers: structure, topology, band gap and matched energy levels. Dalton Transactions, 2017, 46, 7866-7877.	1.6	9
1772	Layer-controlled two-dimensional perovskites: synthesis and optoelectronics. Journal of Materials Chemistry C, 2017, 5, 5610-5627.	2.7	60
1773	Studies on conducting nanocomposite with gallium nitride-doped ferrite, part-II. Proceedings of the Institution of Mechanical Engineers, Part N: Journal of Nanomaterials, Nanoengineering and Nanosystems, 2017, 231, 53-63.	0.5	0
1774	Theoretical Treatment of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Solar Cells. Angewandte Chemie - International Edition, 2017, 56, 15806-15817.	7.2	107
1775	Insight into the effect of ligand-exchange on colloidal CsPbBr <sub>3</sub> perovskite quantum dot/mesoporous-TiO <sub>2</sub> composite-based photodetectors: much faster electron injection. Journal of Materials Chemistry C, 2017, 5, 6224-6233.	2.7	92
1776	Three-Dimensionally Enlarged Photoelectrodes by a Protogenetic Inclusion of Vertically Aligned Carbon Nanotubes into CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> Single Crystals. Journal of Physical Chemistry C, 2017, 121, 13549-13556.	1.5	31
1777	Pronounced Exciton Dynamics in the Vacancy-Ordered Bismuth Halide Perovskite (CH <sub>3</sub> NH <sub>3</sub> ) <sub>3</sub> Bi <sub>2</sub> I <sub>9</sub> Observed by Ultrafast UV-vis-NIR Transient Absorption Spectroscopy. Journal of Physical Chemistry C, 2017, 121, 12110-12116.	1.5	39

#	ARTICLE	IF	CITATIONS
1778	Single-Walled Carbon Nanotubes Enhance the Efficiency and Stability of Mesoscopic Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 19945-19954.	4.0	49
1779	Understanding perovskite formation through the intramolecular exchange method in ambient conditions. <i>Journal of Photonics for Energy</i> , 2017, 7, 022002.	0.8	12
1780	Theoretische Abhandlung über $\text{CH}_3\text{NH}_3\text{PbI}_3$ Perowskit-Solarzellen. <i>Angewandte Chemie</i> , 2017, 129, 16014-16026.	1.6	5
1781	Dielectric Response: Answer to Many Questions in the Methylammonium Lead Halide Solar Cell Absorbers. <i>Advanced Energy Materials</i> , 2017, 7, 1700600.	10.2	163
1782	Chemically Tailoring the Dopant Emission in Manganese-Doped $\text{CsPbCl}_3$ Perovskite Nanocrystals. <i>Angewandte Chemie</i> , 2017, 129, 8872-8876.	1.6	30
1783	Chemically Tailoring the Dopant Emission in Manganese-Doped $\text{CsPbCl}_3$ Perovskite Nanocrystals. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 8746-8750.	7.2	177
1784	Recent advances in hierarchical three-dimensional titanium dioxide nanotree arrays for high-performance solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 12699-12717.	5.2	52
1785	Sequential multi-drop coating method for large crystallized $(\text{NH}_2)_2\text{CHPbI}_3$ and mixed-organic-cation perovskite films for highly efficient mesoscopic perovskite solar cells. <i>Journal of Power Sources</i> , 2017, 359, 147-156.	4.0	24
1786	Exploring the $\text{PbS-Bi}_2\text{S}_3$ Series for Next Generation Energy Conversion Materials. <i>Chemistry of Materials</i> , 2017, 29, 5156-5167.	3.2	32
1787	Charge-Carrier Mobilities in Metal Halide Perovskites: Fundamental Mechanisms and Limits. <i>ACS Energy Letters</i> , 2017, 2, 1539-1548.	8.8	928
1788	Halide perovskite solar cells using monocrystalline $\text{TiO}_2$ nanorod arrays as electron transport layers: impact of nanorod morphology. <i>Nanotechnology</i> , 2017, 28, 274001.	1.3	67
1789	Improving power conversion efficiency of perovskite solar cells by cooperative LSPR of gold-silver dual nanoparticles. <i>Chinese Physics B</i> , 2017, 26, 058401.	0.7	15
1790	Hole Blocking Layer-Free Perovskite Solar Cells with over 15% Efficiency. <i>Energy Procedia</i> , 2017, 105, 188-193.	1.8	8
1791	High Efficient Planar-heterojunction Perovskite Solar Cell Based on Two-step Deposition Process. <i>Energy Procedia</i> , 2017, 105, 793-798.	1.8	18
1792	Sequential Dip-spin Coating Method: Fully Infiltration of $\text{MAPbI}_3\text{-xCl}_x$ into Mesoporous $\text{TiO}_2$ for Stable Hybrid Perovskite Solar Cells. <i>Electrochimica Acta</i> , 2017, 245, 734-741.	2.6	14
1793	Investigation of Interfacial Charge Transfer in Solution Processed $\text{Cs}_2\text{SnI}_6$ Thin Films. <i>Journal of Physical Chemistry C</i> , 2017, 121, 13092-13100.	1.5	66
1794	Ultrafast terahertz snapshots of excitonic Rydberg states and electronic coherence in an organometal halide perovskite. <i>Nature Communications</i> , 2017, 8, 15565.	5.8	72
1795	Charge transport in a two-dimensional hybrid metal halide thiocyanate compound. <i>Journal of Materials Chemistry C</i> , 2017, 5, 5930-5938.	2.7	37

#	ARTICLE	IF	CITATIONS
1796	Effect of precursors ratio on crystallinity and thermal stability of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> . AIP Conference Proceedings, 2017, , .	0.3	5
1797	Moisture-stable Perovskite Material with 1,3-Propanediaminium Cation for Solar Cell Application. Chemistry Letters, 2017, 46, 1227-1229.	0.7	3
1798	Inverse-architecture perovskite solar cells with 5,6,11,12-tetraphenylanthracene as a hole conductor. RSC Advances, 2017, 7, 29944-29952.	1.7	16
1799	Cesium Doped NiO<sub>x</sub> as an Efficient Hole Extraction Layer for Inverted Planar Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1700722.	10.2	353
1800	Enhanced Crystalline Phase Purity of CH<sub>3</sub>NH<sub>3</sub>PbI<sub>3</sub> Cl<sub>x</sub> Film for High-Efficiency Hysteresis-Free Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 23141-23151.	4.0	41
1801	Impact of the Halide Cage on the Electronic Properties of Fully Inorganic Cesium Lead Halide Perovskites. ACS Energy Letters, 2017, 2, 1621-1627.	8.8	215
1802	Diffusion engineering of ions and charge carriers for stable efficient perovskite solar cells. Nature Communications, 2017, 8, 15330.	5.8	356
1803	Surface plasmon enhanced luminescence from organic-inorganic hybrid perovskites. Applied Physics Letters, 2017, 110, 233113.	1.5	22
1804	First determination of the valence band dispersion of CH<sub>3</sub>NH<sub>3</sub>PbI<sub>3</sub> hybrid organic-inorganic perovskite. Journal Physics D: Applied Physics, 2017, 50, 26LT02.	1.3	33
1805	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
1806	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
1807	[(CH<sub>3</sub>)<sub>3</sub>PCH<sub>2</sub>OH][CdBr<sub>3</sub>] is a perovskite-type ferroelastic compound above room temperature. Chemical Communications, 2017, 53, 7756-7759.	2.2	31
1808	Preferential CH<sub>3</sub>NH<sub>3</sub> Alignment and Octahedral Tilting Affect Charge Localization in Cubic Phase CH<sub>3</sub>NH<sub>3</sub>PbI<sub>3</sub>. Journal of Physical Chemistry C, 2017, 121, 8319-8326.	1.5	24
1809	Atomic force microscopy investigation of a step generation and bunching on the (100) facet of a CH<sub>3</sub>NH<sub>3</sub>PbI<sub>3</sub> crystal, grown from <sup>1</sup> Butyrolactone. Crystal Research and Technology, 2017, 52, 1700021.	0.6	6
1810	Effects of precursor concentration and annealing temperature on CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> film crystallization and photovoltaic performance. Journal of Physics and Chemistry of Solids, 2017, 107, 55-61.	1.9	6
1811	Water-Soluble Polymeric Interfacial Material for Planar Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 14129-14135.	4.0	9
1812	The intrinsic properties of FA<sub>(1-x)</sub>MA<sub>x</sub>PbI<sub>3</sub> perovskite single crystals. Journal of Materials Chemistry A, 2017, 5, 8537-8544.	5.2	152
1813	Revealing the properties of defects formed by CH <sub>3</sub> NH <sub>2</sub> molecules in organic-inorganic hybrid perovskite MAPbBr <sub>3</sub> . Applied Physics Letters, 2017, 110, .	1.5	16

#	ARTICLE	IF	CITATIONS
1814	Revealing the stability and efficiency enhancement in mixed halide perovskites MAPb(I $1 \times$ Cl $x$ ) $3$ with ab initio calculations. <i>Journal of Power Sources</i> , 2017, 350, 65-72.	4.0	53
1815	Effective hot-air annealing for improving the performance of perovskite solar cells. <i>Solar Energy</i> , 2017, 146, 359-367.	2.9	20
1816	A critical review on tin halide perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 11518-11549.	5.2	463
1817	Luminescence spectroscopy of lead-halide perovskites: materials properties and application as photovoltaic devices. <i>Journal of Materials Chemistry C</i> , 2017, 5, 3427-3437.	2.7	111
1818	Impact of White Light Illumination on the Electronic and Chemical Structures of Mixed Halide and Single Crystal Perovskites. <i>Advanced Optical Materials</i> , 2017, 5, 1700139.	3.6	136
1819	Ag-Incorporated Organic-Inorganic Perovskite Films and Planar Heterojunction Solar Cells. <i>Nano Letters</i> , 2017, 17, 3231-3237.	4.5	149
1820	Improved carriers injection capacity in perovskite solar cells by introducing A-site interstitial defects. <i>Journal of Materials Chemistry A</i> , 2017, 5, 7905-7911.	5.2	99
1821	Pushing up the efficiency of planar perovskite solar cells to 18.2% with organic small molecules as the electron transport layer. <i>Journal of Materials Chemistry A</i> , 2017, 5, 7339-7344.	5.2	170
1822	Fast Fabrication of a Stable Perovskite Solar Cell with an Ultrathin Effective Novel Inorganic Hole Transport Layer. <i>Langmuir</i> , 2017, 33, 3624-3634.	1.6	22
1823	Evolution of the Dynamics of As-Deposited and Annealed Lead Halide Perovskites. <i>ACS Photonics</i> , 2017, 4, 1195-1206.	3.2	3
1824	Single-Crystal-like Perovskite for High-Performance Solar Cells Using the Effective Merged Annealing Method. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 12382-12390.	4.0	41
1825	Bose-Einstein oscillators and the excitation mechanism of free excitons in 2D layered organic-inorganic perovskites. <i>RSC Advances</i> , 2017, 7, 18366-18373.	1.7	9
1826	Improving the stability of the perovskite solar cells by $V_{2O_5}$ modified transport layer film. <i>RSC Advances</i> , 2017, 7, 18456-18465.	1.7	30
1827	Thermochromic Perovskite Inks for Reversible Smart Window Applications. <i>Chemistry of Materials</i> , 2017, 29, 3367-3370.	3.2	130
1828	Programmable Colloidal Approach to Hierarchical Structures of Methylammonium Lead Bromide Perovskite Nanocrystals with Bright Photoluminescent Properties. <i>Chemistry of Materials</i> , 2017, 29, 3526-3537.	3.2	37
1829	Identifying and suppressing interfacial recombination to achieve high open-circuit voltage in perovskite solar cells. <i>Energy and Environmental Science</i> , 2017, 10, 1207-1212.	15.6	288
1830	Long-range hot-carrier transport in hybrid perovskites visualized by ultrafast microscopy. <i>Science</i> , 2017, 356, 59-62.	6.0	434
1831	Thermal Annealing Effect on Ultrafast Charge Transfer in All-Polymer Solar Cells with a Non-Fullerene Acceptor N2200. <i>Journal of Physical Chemistry C</i> , 2017, 121, 8804-8811.	1.5	20



#	ARTICLE	IF	CITATIONS
1832	Highly Efficient Perovskite Light-Emitting Diodes Incorporating Full Film Coverage and Bipolar Charge Injection. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 1810-1818.	2.1	97
1833	Dry-Stamping-Transferred PC71BM Charge Transport Layer via an Interface-Controlled Polyurethane Acrylate Mold Film for Efficient Planar-Type Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 15623-15630.	4.0	15
1834	FAPb <sub>1-x</sub> Sn <sub>x</sub> I <sub>3</sub> mixed metal halide perovskites with improved light harvesting and stability for efficient planar heterojunction solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 9097-9106.	5.2	56
1835	Highly efficient inverted solar cells based on perovskite grown nanostructures mediated by CuSCN. <i>Nanoscale</i> , 2017, 9, 6136-6144.	2.8	42
1836	Enhanced interfacial electron transfer of inverted perovskite solar cells by introduction of CoSe into the electron-transporting-layer. <i>Journal of Power Sources</i> , 2017, 353, 123-130.	4.0	22
1837	Morphology-Independent Stable White-Light Emission from Self-Assembled Two-Dimensional Perovskites Driven by Strong Exciton-Phonon Coupling to the Organic Framework. <i>Chemistry of Materials</i> , 2017, 29, 3947-3953.	3.2	200
1838	Degradation behavior of planar heterojunction CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite solar cells. <i>Synthetic Metals</i> , 2017, 227, 43-51.	2.1	31
1839	Universal rules for visible-light absorption in hybrid perovskite materials. <i>Journal of Applied Physics</i> , 2017, 121, .	1.1	91
1840	Addressing Toxicity of Lead: Progress and Applications of Low-Toxic Metal Halide Perovskites and Their Derivatives. <i>Advanced Energy Materials</i> , 2017, 7, 1602512.	10.2	290
1841	Intermolecular Interactions in Hybrid Perovskites Understood from a Combined Density Functional Theory and Effective Hamiltonian Approach. <i>ACS Energy Letters</i> , 2017, 2, 937-942.	8.8	28
1842	Molecular engineering of face-on oriented dopant-free hole transporting material for perovskite solar cells with 19% PCE. <i>Journal of Materials Chemistry A</i> , 2017, 5, 7811-7815.	5.2	209
1843	Potassium-chemical synthesis of 3D graphene from CO <sub>2</sub> and its excellent performance in HTM-free perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 7749-7752.	5.2	66
1844	Fast preparation of compact and stable perovskite films derived from PbCl <sub>2</sub> and Pb(Ac) <sub>2</sub> ·3H <sub>2</sub> O mixed-lead-halide precursors. <i>Solar Energy Materials and Solar Cells</i> , 2017, 167, 1-6.	3.0	17
1845	Electronic and defect properties of (CH <sub>3</sub> NH <sub>3</sub> ) <sub>2</sub> Pb(SCN) <sub>2</sub> I <sub>2</sub> analogues for photovoltaic applications. <i>Journal of Materials Chemistry A</i> , 2017, 5, 7845-7853.	5.2	43
1846	Dynamics of Charged Excitons and Biexcitons in CsPbBr <sub>3</sub> Perovskite Nanocrystals Revealed by Femtosecond Transient-Absorption and Single-Dot Luminescence Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 1413-1418.	2.1	149
1847	Comparison of life cycle environmental impacts of different perovskite solar cell systems. <i>Solar Energy Materials and Solar Cells</i> , 2017, 166, 9-17.	3.0	79
1848	Boron Doping of Multiwalled Carbon Nanotubes Significantly Enhances Hole Extraction in Carbon-Based Perovskite Solar Cells. <i>Nano Letters</i> , 2017, 17, 2496-2505.	4.5	184
1850	Dual-Source Precursor Approach for Highly Efficient Inverted Planar Heterojunction Perovskite Solar Cells. <i>Advanced Materials</i> , 2017, 29, 1604758.	11.1	142

#	ARTICLE	IF	CITATIONS
1851	Exploring the Way To Approach the Efficiency Limit of Perovskite Solar Cells by Drift-Diffusion Model. ACS Photonics, 2017, 4, 934-942.	3.2	98
1852	Activating efficient room temperature phosphorescence of carbon dots by synergism of orderly non-noble metals and dual structural confinements. Nanoscale, 2017, 9, 6658-6664.	2.8	106
1853	Nanostructured Bulk-Heterojunction Solar Cells Based on Amorphous Carbon. ACS Energy Letters, 2017, 2, 882-888.	8.8	3
1854	Modulation of electronic and optical properties in mixed halide perovskites CsPbCl <sub>3</sub> Br <sub>3</sub> (1-x) and CsPbBr <sub>3</sub> I <sub>3</sub> (1-x). Applied Physics Letters, 2017, 110, .	1.5	28
1855	Anomalous photovoltaic effect in organic-inorganic hybrid perovskite solar cells. Science Advances, 2017, 3, e1602164.	4.7	165
1856	Modulation of interfacial electronic properties in Pbl <sub>2</sub> and BN van der Waals heterobilayer via external electric field. Applied Surface Science, 2017, 411, 46-52.	3.1	16
1857	Modulated CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> xBr <sub>x</sub> film for efficient perovskite solar cells exceeding 18%. Scientific Reports, 2017, 7, 44603.	1.6	60
1858	Transition metal oxides as hole-transporting materials in organic semiconductor and hybrid perovskite based solar cells. Science China Chemistry, 2017, 60, 472-489.	4.2	52
1859	TiO <sub>2</sub> colloid-based compact layers for hybrid lead halide perovskite solar cells. Applied Materials Today, 2017, 7, 112-119.	2.3	24
1860	An ammonia modified PEDOT: PSS for interfacial engineering in inverted planar perovskite solar cells. Organic Electronics, 2017, 46, 22-27.	1.4	33
1861	Current status of electron transport layers in perovskite solar cells: materials and properties. RSC Advances, 2017, 7, 17044-17062.	1.7	317
1862	Solution-processed visible-blind UV-A photodetectors based on CH <sub>3</sub> NH <sub>3</sub> PbCl <sub>3</sub> perovskite thin films. Journal of Materials Chemistry C, 2017, 5, 3796-3806.	2.7	90
1863	Atomic Layer Deposition Enabled Perovskite/PEDOT Solar Cells in a Regular n-i-p Architectural Design. Advanced Materials Interfaces, 2017, 4, 1700043.	1.9	33
1864	Low-Dimensional Halide Perovskites and Their Advanced Optoelectronic Applications. Nano-Micro Letters, 2017, 9, 36.	14.4	73
1865	Optical determination of Shockley-Read-Hall and interface recombination currents in hybrid perovskites. Scientific Reports, 2017, 7, 44629.	1.6	175
1866	Inkjet-printed optoelectronics. Nanoscale, 2017, 9, 965-993.	2.8	132
1867	The Influence of Morphology and Pbl <sub>2</sub> on the Intrinsic Trap State Distribution in Perovskite Films Determined by Using Temperature-Dependent Fluorescence Spectroscopy. ChemPhysChem, 2017, 18, 310-317.	1.0	7
1868	High concentration Pbl <sub>2</sub> ·DMSO complex precursor solution of 1.7Å in DMF for high-thickness and full-coverage CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> xBr <sub>x</sub> thin films. Journal of Materials Science: Materials in Electronics, 2017, 28, 5603-5608.	1.1	7

#	ARTICLE	IF	CITATIONS
1869	Bandgap Control via Structural and Chemical Tuning of Transition Metal Perovskite Chalcogenides. <i>Advanced Materials</i> , 2017, 29, 1604733.	11.1	154
1870	Global Analysis of Perovskite Photophysics Reveals Importance of Geminate Pathways. <i>Journal of Physical Chemistry C</i> , 2017, 121, 1062-1071.	1.5	22
1871	Sequential Introduction of Cations Deriving Large Grain Cs <sub>x</sub> FA <sub>1-x</sub> Pb <sub>3</sub> Thin Film for Planar Hybrid Solar Cells: Insight into Phase Segregation and Thermal Healing Behavior. <i>Small</i> , 2017, 13, 1603225.	5.2	69
1872	Lead-Free Perovskite Nanowire Array Photodetectors with Drastically Improved Stability in Nanoengineering Templates. <i>Nano Letters</i> , 2017, 17, 523-530.	4.5	232
1873	3D In Situ ToF-SIMS Imaging of Perovskite Films under Controlled Humidity Environmental Conditions. <i>Advanced Materials Interfaces</i> , 2017, 4, 1600673.	1.9	32
1874	Modifying CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> nanocrystals with arylamines. <i>Journal of Physics and Chemistry of Solids</i> , 2017, 103, 164-169.	1.9	7
1875	Functionality-Directed Screening of Pb-Free Hybrid Organic-Inorganic Perovskites with Desired Intrinsic Photovoltaic Functionalities. <i>Chemistry of Materials</i> , 2017, 29, 524-538.	3.2	135
1876	Channeling Exciton Migration into Electron Transfer in Formamidinium Lead Bromide Perovskite Nanocrystal/Fullerene Composites. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 1214-1218.	7.2	42
1877	Channeling Exciton Migration into Electron Transfer in Formamidinium Lead Bromide Perovskite Nanocrystal/Fullerene Composites. <i>Angewandte Chemie</i> , 2017, 129, 1234-1238.	1.6	15
1878	Heterometallic iodoplumbates modified by copper(I) or silver(I) with viologens. <i>Journal of Coordination Chemistry</i> , 2017, 70, 71-83.	0.8	1
1879	Reproducible Planar Heterojunction Solar Cells Based on One-Step Solution-Processed Methylammonium Lead Halide Perovskites. <i>Chemistry of Materials</i> , 2017, 29, 462-473.	3.2	35
1880	Cu-based quaternary chalcogenide Cu <sub>2</sub> BaSnS <sub>4</sub> thin films acting as hole transport layers in inverted perovskite CH <sub>3</sub> NH <sub>3</sub> Pb <sub>3</sub> solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 2920-2928.	5.2	57
1881	Emerging of Inorganic Hole Transporting Materials For Perovskite Solar Cells. <i>Chemical Record</i> , 2017, 17, 681-699.	2.9	83
1882	Room temperature formation of organic-inorganic lead halide perovskites: design of nanostructured and highly reactive intermediates. <i>Journal of Materials Chemistry A</i> , 2017, 5, 3599-3608.	5.2	48
1883	Understanding the Role of the Electron Transport Layer in Highly Efficient Planar Perovskite Solar Cells. <i>ChemPhysChem</i> , 2017, 18, 617-625.	1.0	44
1884	Low Density of Conduction and Valence Band States Contribute to the High Open-Circuit Voltage in Perovskite Solar Cells. <i>Journal of Physical Chemistry C</i> , 2017, 121, 1455-1462.	1.5	57
1885	Effect of the solvent used for fabrication of perovskite films by solvent dropping on performance of perovskite light-emitting diodes. <i>Nanoscale</i> , 2017, 9, 2088-2094.	2.8	61
1886	Long Minority Carrier Diffusion Length and Low Surface Recombination Velocity in Inorganic Lead-Free CsSnI <sub>3</sub> Perovskite Crystal for Solar Cells. <i>Advanced Functional Materials</i> , 2017, 27, 1604818.	7.8	164

#	ARTICLE	IF	CITATIONS
1887	Controllable intermediates by molecular self-assembly for optimizing the fabrication of large-grain perovskite films via one-step spin-coating. <i>Journal of Alloys and Compounds</i> , 2017, 705, 205-210.	2.8	52
1888	Structural Stabilities and Electronic Properties of High-Angle Grain Boundaries in Perovskite Cesium Lead Halides. <i>Journal of Physical Chemistry C</i> , 2017, 121, 1715-1722.	1.5	99
1889	Construction of Compact Methylammonium Bismuth Iodide Film Promoting Lead-Free Inverted Planar Heterojunction Organohalide Solar Cells with Open-Circuit Voltage over 0.8 V. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 394-400.	2.1	151
1890	Integrated planar and bulk dual heterojunctions capable of efficient electron and hole extraction for perovskite solar cells with >17% efficiency. <i>Nano Energy</i> , 2017, 32, 187-194.	8.2	23
1891	Enhanced Efficiency of Hot-Cast Large-Area Planar Perovskite Solar Cells/Modules Having Controlled Chloride Incorporation. <i>Advanced Energy Materials</i> , 2017, 7, 1601660.	10.2	191
1892	Solution-Processed Nb:SnO <sub>2</sub> Electron Transport Layer for Efficient Planar Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 2421-2429.	4.0	315
1893	High-Performance Color-Tunable Perovskite Light Emitting Devices through Structural Modulation from Bulk to Layered Film. <i>Advanced Materials</i> , 2017, 29, 1603157.	11.1	218
1894	Annealing-free perovskite films based on solvent engineering for efficient solar cells. <i>Journal of Materials Chemistry C</i> , 2017, 5, 842-847.	2.7	63
1895	Versatile plasmonic-effects at the interface of inverted perovskite solar cells. <i>Nanoscale</i> , 2017, 9, 1229-1236.	2.8	50
1896	Interconnection Optimization for Highly Efficient Perovskite Modules. <i>IEEE Journal of Photovoltaics</i> , 2017, 7, 404-408.	1.5	86
1897	A review of thin film solar cell technologies and challenges. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 70, 1286-1297.	8.2	709
1898	Ultrafast carrier dynamics in bimetallic nanostructure-enhanced methylammonium lead bromide perovskites. <i>Nanoscale</i> , 2017, 9, 1475-1483.	2.8	37
1899	Enhancement of the Performance of Perovskite Solar Cells, LEDs, and Optical Amplifiers by Anti-Solvent Additive Deposition. <i>Advanced Materials</i> , 2017, 29, 1604056.	11.1	63
1900	Tetraphenylmethane-Arylamine Hole-Transporting Materials for Perovskite Solar Cells. <i>ChemSusChem</i> , 2017, 10, 968-975.	3.6	45
1901	Influence of $\pi$ -linker on triphenylamine-based hole transporting materials in perovskite solar cells. <i>Dyes and Pigments</i> , 2017, 139, 129-135.	2.0	69
1902	High efficiency CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> :CdS perovskite solar cells with CuInS <sub>2</sub> as the hole transporting layer. <i>Journal of Power Sources</i> , 2017, 341, 396-403.	4.0	62
1903	Instability and Efficiency of Mixed Halide Perovskites CH <sub>3</sub> NH <sub>3</sub> Al <sub>3</sub> Cl <sub>x</sub> (A = Pb and Sn): A First-Principles, Computational Study. <i>Chemistry of Materials</i> , 2017, 29, 682-689.	3.2	18
1904	Multinuclear Magnetic Resonance Tracking of Hydro, Thermal, and Hydrothermal Decomposition of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> . <i>Journal of Physical Chemistry C</i> , 2017, 121, 1013-1024.	1.5	77

#	ARTICLE	IF	CITATIONS
1905	Whispering Gallery Mode Lasing from Self-Assembled Hexagonal Perovskite Single Crystals and Porous Thin Films Decorated by Dielectric Spherical Resonators. ACS Photonics, 2017, 4, 146-155.	3.2	19
1906	Metal halide perovskite nanomaterials: synthesis and applications. Chemical Science, 2017, 8, 2522-2536.	3.7	233
1907	First principles modelling of perovskite solar cells based on $\text{TiO}_2$ and $\text{Al}_2\text{O}_3$ : stability and interfacial electronic structure. Journal of Materials Chemistry A, 2017, 5, 2339-2345.	5.2	34
1908	$\text{CsPbBr}_3$ Solar Cells: Controlled Film Growth through Layer-by-Layer Quantum Dot Deposition. Chemistry of Materials, 2017, 29, 9767-9774.	3.2	178
1909	Synthesis of Hybrid Tin Halide Perovskite Solar Cells with Less Hazardous Solvents: Methanol and 1,4-dioxane. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2017, 643, 1704-1711.	0.6	19
1910	Fermi level alignment by copper doping for efficient ITO/perovskite junction solar cells. Journal of Materials Chemistry A, 2017, 5, 25211-25219.	5.2	53
1911	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
1912	Octamethyl-substituted Pd( <i>phthalocyanine</i> ) phthalocyanine with long carrier lifetime as a dopant-free hole selective material for performance enhancement of perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 24416-24424.	5.2	45
1913	Atmospheric pressure chemical vapor deposition of methylammonium bismuth iodide thin films. Journal of Materials Chemistry A, 2017, 5, 24728-24739.	5.2	41
1914	Numerical simulation and experimental validation of inverted planar perovskite solar cells based on $\text{NiO}_x$ hole transport layer. Superlattices and Microstructures, 2017, 112, 383-393.	1.4	26
1915	Pinning Down the Anomalous Light Soaking Effect toward High-Performance and Fast-Response Perovskite Solar Cells: The Ion-Migration-Induced Charge Accumulation. Journal of Physical Chemistry Letters, 2017, 8, 5069-5076.	2.1	60
1916	Lead-free Single-molecule Switching Material with Electric, Optical, Thermal Triple Controllable Multifunction Based on Perovskite-like Crystal and Flexible Thin Film. Scientific Reports, 2017, 7, 12493.	1.6	13
1917	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
1918	Highly conductive Na-embedded carbon nanowalls for hole-transport-material-free perovskite solar cells without metal electrodes. Journal of Materials Chemistry A, 2017, 5, 24126-24130.	5.2	24
1919	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
1920	Pinhole induced efficiency variation in perovskite solar cells. Journal of Applied Physics, 2017, 122, .	1.1	38
1921	2D black phosphorous nanosheets as a hole transporting material in perovskite solar cells. Journal of Power Sources, 2017, 371, 156-161.	4.0	52
1922	Interfacial characteristics and leakage current transfer mechanisms in organometal trihalide perovskite gate-controlled devices via doping of PCBM. Journal Physics D: Applied Physics, 2017, 50, 475101.	1.3	4

#	ARTICLE	IF	CITATIONS
1923	Role of Dielectric Drag in Polaron Mobility in Lead Halide Perovskites. <i>ACS Energy Letters</i> , 2017, 2, 2555-2562.	8.8	90
1924	High-Performance and Hysteresis-Free Planar Solar Cells with PC <sub>71</sub> BM and C <sub>60</sub> Composed Structure Prepared Irrespective of Humidity. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 9718-9724.	3.2	11
1925	The Stability Effect of Atomic Layer Deposition (ALD) of Al <sub>2</sub> O <sub>3</sub> on CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Solar Cell Fabricated by Vapor Deposition. <i>Key Engineering Materials</i> , 0, 753, 156-162.	0.4	3
1926	Ba <sup>2+</sup> Doped CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> to Tune the Energy State and Improve the Performance of Perovskite Solar Cells. <i>Electrochimica Acta</i> , 2017, 254, 165-171.	2.6	44
1927	Highly efficient Cs-based perovskite light-emitting diodes enabled by energy funnelling. <i>Chemical Communications</i> , 2017, 53, 12004-12007.	2.2	85
1928	Cost-effective hole transporting material for stable and efficient perovskite solar cells with fill factors up to 82%. <i>Journal of Materials Chemistry A</i> , 2017, 5, 23319-23327.	5.2	40
1929	First-principles study on the initial decomposition process of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> . <i>Journal of Chemical Physics</i> , 2017, 147, 124702.	1.2	10
1930	Free Carrier Radiative Recombination and Photon Recycling in Lead Halide Perovskite Solar Cell Materials. <i>Bulletin of the Chemical Society of Japan</i> , 2017, 90, 1129-1140.	2.0	65
1931	Metal-Halide Perovskite Transistors for Printed Electronics: Challenges and Opportunities. <i>Advanced Materials</i> , 2017, 29, 1702838.	11.1	117
1932	Effect of Water Addition during Preparation on the Early-Time Photodynamics of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Layers. <i>ChemPhysChem</i> , 2017, 18, 3320-3324.	1.0	4
1933	Cesium-Containing Perovskite Solar Cell Based on Graphene/TiO <sub>2</sub> Electron Transport Layer. <i>ChemistrySelect</i> , 2017, 2, 9433-9437.	0.7	21
1934	Wavelength Tunable Plasmonic Lasers Based on Intrinsic Self-Absorption of Gain Material. <i>ACS Photonics</i> , 2017, 4, 2789-2796.	3.2	30
1935	Anisotropic Electric Field Effect on the Photoluminescence of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Sandwiched between Conducting and Insulating Films. <i>Journal of Physical Chemistry C</i> , 2017, 121, 22700-22706.	1.5	12
1936	Exploring the Antipolar Nature of Methylammonium Lead Halides: A Monte Carlo and Pyrocurrent Study. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 4906-4911.	2.1	24
1937	Simple and low-cost thiophene and benzene-conjugated triarylamines as hole-transporting materials for perovskite solar cells. <i>RSC Advances</i> , 2017, 7, 45478-45483.	1.7	17
1938	3D hole-transporting materials based on coplanar quinolizino acridine for highly efficient perovskite solar cells. <i>Chemical Science</i> , 2017, 8, 7807-7814.	3.7	36
1939	Organometal Trihalide Perovskites with Intriguing Ferroelectric and Piezoelectric Properties. <i>Advanced Functional Materials</i> , 2017, 27, 1702207.	7.8	37
1940	Optical detection of charge dynamics in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> /carbon nanotube composites. <i>Nanoscale</i> , 2017, 9, 17781-17787.	2.8	7



#	ARTICLE	IF	CITATIONS
1941	Imaging the Anomalous Charge Distribution Inside CsPbBr <sub>3</sub> Perovskite Quantum Dots Sensitized Solar Cells. ACS Nano, 2017, 11, 10214-10221.	7.3	103
1942	Perovskite solar cells with CuSCN hole extraction layers yield stabilized efficiencies greater than 20%. Science, 2017, 358, 768-771.	6.0	1,285
1943	Unravelling additive-based nanocrystal pinning for high efficiency organic-inorganic halide perovskite light-emitting diodes. Nano Energy, 2017, 42, 157-165.	8.2	98
1944	Photoluminescenceâ€“Voltage (PLâ€“ <i>V</i> ) Hysteresis of Perovskite Solar Cells. Journal of Physical Chemistry C, 2017, 121, 24389-24396.	1.5	16
1945	Monolithic perovskite/silicon-homojunction tandem solar cell with over 22% efficiency. Energy and Environmental Science, 2017, 10, 2472-2479.	15.6	178
1946	Slow hot carrier cooling in cesium lead iodide perovskites. Applied Physics Letters, 2017, 111, .	1.5	56
1947	Lead halide perovskites: Crystal-liquid duality, phonon glass electron crystals, and large polaron formation. Science Advances, 2017, 3, e1701469.	4.7	323
1948	Enhanced Efficiency of Perovskite Solar Cells by using Coreâ€“Ultrathin Shell Structure Ag@SiO <sub>2</sub> Nanowires as Plasmonic Antennas. Advanced Electronic Materials, 2017, 3, 1700169.	2.6	24
1949	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
1950	Molecular Engineering of the Lead Iodide Perovskite Surface: Case Study on Molecules with Pyridyl Groups. Journal of Physical Chemistry C, 2017, 121, 24612-24617.	1.5	20
1951	High-Performance Ultraviolet-to-Infrared Broadband Perovskite Photodetectors Achieved via Inter-/Intraband Transitions. ACS Applied Materials & Interfaces, 2017, 9, 37832-37838.	4.0	91
1952	Enhancing the performance and stability of carbon-based perovskite solar cells by the cold isostatic pressing method. RSC Advances, 2017, 7, 48958-48961.	1.7	12
1953	Understanding the stability of mixed A-cation lead iodide perovskites. Journal of Materials Chemistry A, 2017, 5, 22495-22499.	5.2	91
1954	Hybrid organicâ€“inorganic CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite building blocks: Revealing ultraâ€“strong hydrogen bonding and mulliken inner complexes and their implications in materials design. Journal of Computational Chemistry, 2017, 38, 2802-2818.	1.5	32
1955	17% efficient printable mesoscopic PIN metal oxide framework perovskite solar cells using cesium-containing triple cation perovskite. Journal of Materials Chemistry A, 2017, 5, 22952-22958.	5.2	119
1956	Recent progress of metal halide perovskite photodetectors. Journal of Materials Chemistry C, 2017, 5, 11369-11394.	2.7	138
1957	Using Bulk Heterojunctions and Selective Electron Trapping to Enhance the Responsivity of Perovskiteâ€“Graphene Photodetectors. Advanced Functional Materials, 2017, 27, 1704173.	7.8	79
1958	Unraveling the Charge Extraction Mechanism of Perovskite Solar Cells Fabricated with Two-Step Spin Coating: Interfacial Energetics between Methylammonium Lead Iodide and C <sub>60</sub> . Journal of Physical Chemistry Letters, 2017, 8, 5423-5429.	2.1	32

#	ARTICLE	IF	CITATIONS
1959	Efficient and stable perovskite solar cells based on high-quality CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3-x</sub> Cl <sub>x</sub> films modified by V <sub>2</sub> O <sub>x</sub> additives. <i>Journal of Materials Chemistry A</i> , 2017, 5, 24282-24291.	5.2	27
1960	Structural Evolution in BaSn <sub>2</sub> F <sub>5</sub> X (X = Cl, Br, I): A Family of Alkaline Earth Metal Tin Mixed Halides. <i>Inorganic Chemistry</i> , 2017, 56, 13593-13599.	1.9	11
1961	Development of Dopant-Free Donor-Acceptor-type Hole Transporting Material for Highly Efficient and Stable Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 39511-39518.	4.0	42
1962	Outstanding Performance of Hole-Blocking Layer-Free Perovskite Solar Cell Using Hierarchically Porous Fluorine-Doped Tin Oxide Substrate. <i>Advanced Energy Materials</i> , 2017, 7, 1700749.	10.2	50
1963	Progress in Theoretical Study of Metal Halide Perovskite Solar Cell Materials. <i>Advanced Energy Materials</i> , 2017, 7, 1701136.	10.2	257
1964	A Facile Route to Cesium Lead Bromiodide Perovskite Microcrystals and Their Potential Application as Sensors for Nitrophenol Explosives. <i>European Journal of Inorganic Chemistry</i> , 2017, 2017, 3755-3760.	1.0	32
1965	Solvent engineering for high-quality perovskite solar cell with an efficiency approaching 20%. <i>Journal of Power Sources</i> , 2017, 365, 1-6.	4.0	63
1966	High-Quality (CH <sub>3</sub> NH <sub>3</sub> ) <sub>3</sub> Bi <sub>2</sub> I <sub>9</sub> Film-Based Solar Cells: Pushing Efficiency up to 1.64%. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 4300-4307.	2.1	215
1967	Ambient-air-solution-processed efficient and highly stable perovskite solar cells based on CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3-x</sub> Cl <sub>x</sub> -NiO composite with Al <sub>2</sub> O <sub>3</sub> /NiO interfacial engineering. <i>Nano Energy</i> , 2017, 40, 408-417.	8.2	60
1968	Surface/Interface Carrier-Transport Modulation for Constructing Photon-Alternative Ultraviolet Detectors Based on Self-Bending-Assembled ZnO Nanowires. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 31042-31053.	4.0	15
1969	Light-induced picosecond rotational disordering of the inorganic sublattice in hybrid perovskites. <i>Science Advances</i> , 2017, 3, e1602388.	4.7	149
1970	Electrodeposition of SnO <sub>2</sub> on FTO and its Application in Planar Heterojunction Perovskite Solar Cells as an Electron Transport Layer. <i>Nanoscale Research Letters</i> , 2017, 12, 498.	3.1	29
1971	Recent Advances in Metal Halide-Based Perovskite Light-Emitting Diodes. <i>Energy Technology</i> , 2017, 5, 1734-1749.	1.8	79
1972	Mesoporous Zn <sub>2</sub> SnO <sub>4</sub> as effective electron transport materials for high-performance perovskite solar cells. <i>Electrochimica Acta</i> , 2017, 251, 307-315.	2.6	39
1973	Thin-film formation of 2D MoS <sub>2</sub> and its application as a hole-transport layer in planar perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2017, 172, 353-360.	3.0	111
1974	Enhanced Endurance Organolead Halide Perovskite Resistive Switching Memories Operable under an Extremely Low Bending Radius. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 30764-30771.	4.0	135
1975	Ion Migration Heals Trapping Centers in CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> Perovskite. <i>ACS Energy Letters</i> , 2017, 2, 2133-2139.	8.8	51
1976	Temperature-assisted rapid nucleation: a facile method to optimize the film morphology for perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 20327-20333.	5.2	148

#	ARTICLE	IF	CITATIONS
1977	Modulating Excitonic Recombination Effects through One-Step Synthesis of Perovskite Nanoparticles for Light-Emitting Diodes. <i>ChemSusChem</i> , 2017, 10, 3818-3824.	3.6	12
1978	Fabrication of perovskite solar cells using sputter-processed $\text{CH}_3\text{NH}_3\text{PbI}_3$ films. <i>Applied Physics Express</i> , 2017, 10, 094101.	1.1	19
1979	Unveiling Structurally Engineered Carrier Dynamics in Hybrid Quasi-Two-Dimensional Perovskite Thin Films toward Controllable Emission. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 4431-4438.	2.1	147
1980	Oxasmaragdyrins as New and Efficient Hole-Transporting Materials for High-Performance Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 31950-31958.	4.0	26
1981	Pressure-induced dramatic changes in organic-inorganic halide perovskites. <i>Chemical Science</i> , 2017, 8, 6764-6776.	3.7	74
1982	Single-Mode Distributed Feedback Laser Operation in Solution-Processed Halide Perovskite Alloy System. <i>Advanced Optical Materials</i> , 2017, 5, 1700545.	3.6	28
1983	A facilely synthesized spiro hole-transporting material based on spiro[3.3]heptane-2,6-dispirofluorene for efficient planar perovskite solar cells. <i>RSC Advances</i> , 2017, 7, 41903-41908.	1.7	31
1984	Influence of processing temperature and precursor composition on phase region of solution processed methylammonium lead iodide perovskite. <i>Materials Research Express</i> , 2017, 4, 096201.	0.8	1
1985	All-Inorganic Halide Perovskites for Optoelectronics: Progress and Prospects. <i>Solar Rrl</i> , 2017, 1, 1700086.	3.1	167
1986	Non-dissipative internal optical filtering with solution-grown perovskite single crystals for full-colour imaging. <i>NPG Asia Materials</i> , 2017, 9, e431-e431.	3.8	44
1987	Simple synthesis and molecular engineering of low-cost and star-shaped carbazole-based hole transporting materials for highly efficient perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 20263-20276.	5.2	92
1988	Ultrasensitive and Fast All-Inorganic Perovskite-Based Photodetector via Fast Carrier Diffusion. <i>Advanced Materials</i> , 2017, 29, 1703758.	11.1	255
1989	$\text{Al}_2\text{O}_3$ Underlayer Prepared by Atomic Layer Deposition for Efficient Perovskite Solar Cells. <i>ChemSusChem</i> , 2017, 10, 3810-3817.	3.6	34
1990	Reducing hysteresis and enhancing performance of perovskite solar cells using acetylacetonate modified $\text{TiO}_2$ nanoparticles as electron transport layers. <i>Journal of Power Sources</i> , 2017, 365, 83-91.	4.0	22
1991	Cation Effect on Hot Carrier Cooling in Halide Perovskite Materials. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 4439-4445.	2.1	97
1992	Bismuth Incorporation Stabilized $\text{CsPbI}_3$ for Fully Inorganic Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2017, 2, 2219-2227.	8.8	468
1993	Electronic excitation induced hydrogen-bond adjustment and lattice control in organic-inorganic hybrid cubic perovskites: a fixed occupation molecular dynamics study. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 26164-26168.	1.3	2
1994	Electronic and optical properties of the wurtzite- $\text{ZnO}/\text{CH}_3\text{NH}_3\text{PbI}_3$ interface: first-principles calculations. <i>Journal of Materials Science</i> , 2017, 52, 13841-13851.	1.7	10

#	ARTICLE	IF	CITATIONS
1995	Modified Conducting Polymer Hole Injection Layer for High-Efficiency Perovskite Light-Emitting Devices: Enhanced Hole Injection and Reduced Luminescence Quenching. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 4691-4697.	2.1	64
1996	Polaronic Charge Carrier–Lattice Interactions in Lead Halide Perovskites. <i>ChemSusChem</i> , 2017, 10, 3705-3711.	3.6	18
1997	Optical and Scanning Probe Identification of Electronic Structure and Phases in $\text{CH}_3\text{NH}_3\text{PbBr}_3$ Crystal. <i>Journal of Physical Chemistry C</i> , 2017, 121, 21930-21934.	1.5	22
1998	Absence of ferroelectricity in methylammonium lead iodide perovskite. <i>AIP Advances</i> , 2017, 7, 095110.	0.6	27
1999	Monolithic Wide Band Gap Perovskite/Perovskite Tandem Solar Cells with Organic Recombination Layers. <i>Journal of Physical Chemistry C</i> , 2017, 121, 27256-27262.	1.5	40
2000	High-Stability, Self-Powered Perovskite Photodetector Based on a $\text{CH}_3\text{NH}_3\text{PbI}_3/\text{GaN}$ Heterojunction with $\text{C}_{60}$ as an Electron Transport Layer. <i>Journal of Physical Chemistry C</i> , 2017, 121, 21541-21545.	1.5	64
2001	Effects of High Temperature and Thermal Cycling on the Performance of Perovskite Solar Cells: Acceleration of Charge Recombination and Deterioration of Charge Extraction. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 35018-35029.	4.0	62
2002	Surface treatment via Li-bis-(trifluoromethanesulfonyl) imide to eliminate the hysteresis and enhance the efficiency of inverted perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2017, 5, 10280-10287.	2.7	15
2003	Identification of the physical origin behind disorder, heterogeneity, and reconstruction and their correlation with the photoluminescence lifetime in hybrid perovskite thin films. <i>Journal of Materials Chemistry A</i> , 2017, 5, 21002-21015.	5.2	10
2004	A carrier transport model in the high-resistance state of lead-methylamine iodide-based resistive memory devices. <i>AIP Advances</i> , 2017, 7, 085207.	0.6	5
2005	Quantum confinement effect of two-dimensional all-inorganic halide perovskites. <i>Science China Materials</i> , 2017, 60, 811-818.	3.5	38
2006	Simplified Architecture of a Fully Printable Perovskite Solar Cell Using a Thick Zirconia Layer. <i>Energy Technology</i> , 2017, 5, 1866-1872.	1.8	31
2007	High-temperature synthesis in nonpolar solvent for $\text{CsPbBr}_3$ and $\text{CH}_3\text{NH}_3\text{PbBr}_3$ perovskite nanocrystals with high-efficient luminescence. <i>Wuhan University Journal of Natural Sciences</i> , 2017, 22, 429-434.	0.2	4
2008	Hybrid Organic–Inorganic Perovskite Photodetectors. <i>Small</i> , 2017, 13, 1702107.	5.2	334
2009	A Review on Organic–Inorganic Halide Perovskite Photodetectors: Device Engineering and Fundamental Physics. <i>Advanced Materials</i> , 2017, 29, 1605242.	11.1	590
2010	Hybrid perovskite by mixing formamidinium and methylammonium lead iodides for high-performance planar solar cells with efficiency of 19.41%. <i>Solar Energy</i> , 2017, 157, 853-859.	2.9	31
2011	Two Regimes of Carrier Diffusion in Vapor-Deposited Lead-Halide Perovskites. <i>Journal of Physical Chemistry C</i> , 2017, 121, 21600-21609.	1.5	33
2012	Solution-processable antimony-based light-absorbing materials beyond lead halide perovskites. <i>Journal of Materials Chemistry A</i> , 2017, 5, 20843-20850.	5.2	169

#	ARTICLE	IF	CITATIONS
2013	Perovskites beyond photovoltaics: field emission from morphology-tailored nanostructured methylammonium lead triiodide. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 26708-26717.	1.3	10
2014	Tunable hysteresis effect for perovskite solar cells. <i>Energy and Environmental Science</i> , 2017, 10, 2383-2391.	15.6	188
2015	Stability Issues of Inorganic/Organic Hybrid Lead Perovskite Solar Cells. <i>Series on Chemistry, Energy and the Environment</i> , 2017, , 147-178.	0.3	1
2016	Time-Resolved Photoconductivity Measurements on Organometal Halide Perovskites. <i>Series on Chemistry, Energy and the Environment</i> , 2017, , 179-232.	0.3	1
2017	Improved efficiency of perovskite photovoltaics based on Ca-doped methylammonium lead halide. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2017, 80, 695-700.	2.7	22
2018	A benzobis(thiadiazole)-based small molecule as a solution-processing electron extraction material in planar perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2017, 5, 10777-10784.	2.7	25
2019	Tracking the maximum power point of hysteretic perovskite solar cells using a predictive algorithm. <i>Journal of Materials Chemistry C</i> , 2017, 5, 10152-10157.	2.7	18
2020	Dipole Order in Halide Perovskites: Polarization and Rashba Band Splittings. <i>Journal of Physical Chemistry C</i> , 2017, 121, 23045-23054.	1.5	56
2021	Three-dimensional titanium oxide nanoarrays for perovskite photovoltaics: surface engineering for cascade charge extraction and beneficial surface passivation. <i>Sustainable Energy and Fuels</i> , 2017, 1, 1960-1967.	2.5	13
2022	Effect of calcination environments and plasma treatment on structural, optical and electrical properties of FTO transparent thin films. <i>AIP Advances</i> , 2017, 7, 075101.	0.6	4
2023	Fast Drying Boosted Performance Improvement of Low-Temperature Paintable Carbon-Based Perovskite Solar Cell. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 9758-9765.	3.2	35
2024	Slow Electron-Hole Recombination in Lead Iodide Perovskites Does Not Require a Molecular Dipole. <i>ACS Energy Letters</i> , 2017, 2, 2239-2244.	8.8	93
2025	Spiro-Phenylpyrazole/Fluorene as Hole-Transporting Material for Perovskite Solar Cells. <i>Scientific Reports</i> , 2017, 7, 7859.	1.6	28
2026	Effect of Formamidinium/Cesium Substitution and $\text{PbI}_2$ on the Long-Term Stability of Triple-Cation Perovskites. <i>ChemSusChem</i> , 2017, 10, 3804-3809.	3.6	28
2027	Water-resistance of macromolecules adsorbed on $\text{CH}_3\text{NH}_3\text{PbI}_3$ surfaces: A first-principles study. <i>Chemical Physics Letters</i> , 2017, 686, 203-211.	1.2	7
2028	Enhanced optical absorption via cation doping hybrid lead iodine perovskites. <i>Scientific Reports</i> , 2017, 7, 7843.	1.6	61
2029	Optimizing thienothiophene chain lengths of D-A-D hole transport materials in perovskite solar cells for improving energy levels and hole mobility. <i>Journal of Materials Chemistry C</i> , 2017, 5, 10055-10060.	2.7	37
2030	Nucleation and Crystallization Control via Polyurethane to Enhance the Bendability of Perovskite Solar Cells with Excellent Device Performance. <i>Advanced Functional Materials</i> , 2017, 27, 1703061.	7.8	175

#	ARTICLE	IF	CITATIONS
2031	Spray-cast multilayer perovskite solar cells with an active-area of 1.5â€‰cm <sup>2</sup> . Scientific Reports, 2017, 7, 7962.	1.6	69
2032	Single-Crystal Thin Films of Cesium Lead Bromide Perovskite Epitaxially Grown on Metal Oxide Perovskite (SrTiO <sub>3</sub> ). Journal of the American Chemical Society, 2017, 139, 13525-13532.	6.6	209
2033	Current progress and challenges in engineering viable artificial leaf for solar water splitting. Journal of Science: Advanced Materials and Devices, 2017, 2, 399-417.	1.5	26
2034	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
2035	Highly efficient air-stable/hysteresis-free flexible inverted-type planar perovskite and organic solar cells employing a small molecular organic hole transporting material. Nano Energy, 2017, 41, 10-17.	8.2	59
2036	Solvent-Mediated Intragranular-Coarsening of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Thin Films toward High-Performance Perovskite Photovoltaics. ACS Applied Materials & Interfaces, 2017, 9, 31959-31967.	4.0	23
2037	Selective Stabilization and Photophysical Properties of Metastable Perovskite Polymorphs of CsPbI <sub>3</sub> in Thin Films. Chemistry of Materials, 2017, 29, 8385-8394.	3.2	170
2038	Engineered Directional Charge Flow in Mixed Two-Dimensional Perovskites Enabled by Facile Cation-Exchange. Journal of Physical Chemistry C, 2017, 121, 21281-21289.	1.5	38
2039	Electroabsorption Spectroscopy Studies of (C <sub>4</sub> H <sub>9</sub> NH <sub>3</sub> ) <sub>2</sub> PbI <sub>4</sub> Organicâ€“Inorganic Hybrid Perovskite Multiple Quantum Wells. Journal of Physical Chemistry Letters, 2017, 8, 4557-4564.	2.1	48
2040	A solvent- and vacuum-free route to large-area perovskite films for efficient solar modules. Nature, 2017, 550, 92-95.	13.7	618
2041	Asymmetrical Photodetection Response of Methylammonium Lead Bromide Perovskite Single Crystal. Crystal Research and Technology, 2017, 52, 1700115.	0.6	15
2042	Multiphoton Absorption Coefficients of Organicâ€“Inorganic Lead Halide Perovskites CH <sub>3</sub> NH <sub>3</sub> PbX <sub>3</sub> (X = Cl, Br, I) Single Crystals. Chemistry of Materials, 2017, 29, 6876-6882.	3.2	86
2043	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
2044	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
2045	Enhanced Moisture Stability of Cesiumâ€“Containing Compositional Perovskites by a Feasible Interfacial Engineering. Advanced Materials Interfaces, 2017, 4, 1700598.	1.9	65
2046	A Hybrid Perovskite Solar Cell Modified With Copper Indium Sulfide Nanocrystals to Enhance Hole Transport and Moisture Stability. Solar Rrl, 2017, 1, 1700078.	3.1	19
2047	Unraveling the High Open Circuit Voltage and High Performance of Integrated Perovskite/Organic Bulk-Heterojunction Solar Cells. Nano Letters, 2017, 17, 5140-5147.	4.5	78
2048	DMF as an Additive in a Two-Step Spin-Coating Method for 20% Conversion Efficiency in Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 26937-26947.	4.0	75



#	ARTICLE	IF	CITATIONS
2049	Solution synthesis and phase control of inorganic perovskites for high-performance optoelectronic devices. <i>Nanoscale</i> , 2017, 9, 11841-11845.	2.8	75
2050	High Quality Hybrid Perovskite Semiconductor Thin Films with Remarkably Enhanced Luminescence and Defect Suppression via Quaternary Alkyl Ammonium Salt Based Treatment. <i>Advanced Materials Interfaces</i> , 2017, 4, 1700562.	1.9	32
2051	In situ recycle of $\text{PbI}_2$ as a step towards sustainable perovskite solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2017, 25, 1022-1033.	4.4	42
2052	$\text{TiO}_2/\text{RbPbI}_3$ halide perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2017, 172, 44-54.	3.0	53
2053	Recent advances in interfacial engineering of perovskite solar cells. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 373002.	1.3	129
2054	Dopant-Free Hole-Transporting Materials for Stable and Efficient Perovskite Solar Cells. <i>Advanced Materials</i> , 2017, 29, 1606555.	11.1	171
2055	All Inorganic Cesium Lead Iodide Perovskite Nanowires with Stabilized Cubic Phase at Room Temperature and Nanowire Array-Based Photodetectors. <i>Nano Letters</i> , 2017, 17, 4951-4957.	4.5	210
2056	Impact of Interfacial Layers in Perovskite Solar Cells. <i>ChemSusChem</i> , 2017, 10, 3687-3704.	3.6	191
2057	Extra long electron-hole diffusion lengths in $\text{CH}_3\text{NH}_3\text{PbI}_3\text{Cl}_x$ perovskite single crystals. <i>Journal of Materials Chemistry C</i> , 2017, 5, 8431-8435.	2.7	91
2058	Two dimethoxyphenylamine-substituted carbazole derivatives as hole-transporting materials for efficient inorganic-organic hybrid perovskite solar cells. <i>Dyes and Pigments</i> , 2017, 146, 589-595.	2.0	24
2059	Synthesis of Cesium Lead Halide Perovskite Quantum Dots. <i>Journal of Chemical Education</i> , 2017, 94, 1150-1156.	1.1	51
2060	Addition of Lithium Iodide into Precursor Solution for Enhancing the Photovoltaic Performance of Perovskite Solar Cells. <i>Energy Technology</i> , 2017, 5, 1814-1819.	1.8	4
2061	Highly stable and flexible photodetector arrays based on low dimensional $\text{CsPbBr}_3$ microcrystals and on-paper pencil-drawn electrodes. <i>Journal of Materials Chemistry C</i> , 2017, 5, 7441-7445.	2.7	51
2062	Tuning Charge Carrier Types, Superior Mobility and Absorption in Lead-free Perovskite $\text{CH}_3\text{NH}_3\text{GeI}_3$ : Theoretical Study. <i>Electrochimica Acta</i> , 2017, 247, 891-898.	2.6	56
2063	Investigation of high performance $\text{TiO}_2$ nanorod array perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 15970-15980.	5.2	64
2064	Modeling and simulation of band-gap profiling with planar heterojunction of hole-transporting layer-free perovskite solar cells. <i>Materials Research Express</i> , 2017, 4, 075505.	0.8	7
2065	Monovalent Cation Doping of $\text{CH}_3\text{NH}_3\text{PbI}_3$ for Efficient Perovskite Solar Cells. <i>Journal of Visualized Experiments</i> , 2017, , .	0.2	20
2066	Enhancing the Performance of Perovskite Solar Cells by Hybridizing $\text{SnS}$ Quantum Dots with $\text{CH}_3\text{NH}_3\text{PbI}_3$ . <i>Small</i> , 2017, 13, 1700953.	5.2	73

#	ARTICLE	IF	CITATIONS
2067	Low-Temperature Soft-Cover Deposition of Uniform Large-Scale Perovskite Films for High-Performance Solar Cells. <i>Advanced Materials</i> , 2017, 29, 1701440.	11.1	74
2068	Highly Efficient Perovskite Perovskite Tandem Solar Cells Reaching 80% of the Theoretical Limit in Photovoltage. <i>Advanced Materials</i> , 2017, 29, 1702140.	11.1	278
2069	Mixed-Organic Cation Tin Iodide for Lead-Free Perovskite Solar Cells with an Efficiency of 8.12%. <i>Advanced Science</i> , 2017, 4, 1700204.	5.6	404
2070	Metal Oxides as Efficient Charge Transporters in Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2017, 7, 1602803.	10.2	147
2071	Dimensional Engineering of a Graded 3D-2D Halide Perovskite Interface Enables Ultrahigh $V_{oc}$ Enhanced Stability in the p-i-n Photovoltaics. <i>Advanced Energy Materials</i> , 2017, 7, 1701038.	10.2	319
2072	Quinoidal 2,2',6,6'-Tetraphenyl- $\pi$ -Dipyranylidene as a Dopant-Free Hole-Transport Material for Stable and Cost-Effective Perovskite Solar Cells. <i>Energy Technology</i> , 2017, 5, 1852-1858.	1.8	16
2073	High Crystallization of Perovskite Film by a Fast Electric Current Annealing Process. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 26915-26920.	4.0	11
2074	Thermodynamically self-organized hole transport layers for high-efficiency inverted-planar perovskite solar cells. <i>Nanoscale</i> , 2017, 9, 12677-12683.	2.8	18
2075	Cradle-to-Grave Life Cycle Assessment of Solid-State Perovskite Solar Cells. , 2017, , .		2
2076	Efficient and Stable Inverted Planar Perovskite Solar Cells Employing CuI as Hole-Transporting Layer Prepared by Solid-Gas Transformation. <i>Energy Technology</i> , 2017, 5, 1836-1843.	1.8	94
2077	Bulk and interface recombination in planar lead halide perovskite solar cells: A Drift-Diffusion study. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2017, 94, 118-122.	1.3	23
2078	Stabilizing and scaling up carbon-based perovskite solar cells. <i>Journal of Materials Research</i> , 2017, 32, 3011-3020.	1.2	30
2079	Enhanced planar heterojunction perovskite solar cell performance and stability using PDDA polyelectrolyte capping agent. <i>Solar Energy Materials and Solar Cells</i> , 2017, 172, 133-139.	3.0	22
2080	Origin of Hysteresis in $\text{CH}_3\text{NH}_3\text{PbI}_3$ Perovskite Thin Films. <i>Advanced Functional Materials</i> , 2017, 27, 1701924.	7.8	86
2081	One-Step Solution-Processed Formamidinium Lead Tribromide Formation for Better Reproducible Planar Perovskite Solar Cells. <i>Energy Technology</i> , 2017, 5, 1807-1813.	1.8	10
2082	Charge Injection, Carriers Recombination and HOMO Energy Level Relationship in Perovskite Solar Cells. <i>Scientific Reports</i> , 2017, 7, 6101.	1.6	93
2083	Dual-Function Au@Y <sub>2</sub> O <sub>3</sub> :Eu <sup>3+</sup> Smart Film for Enhanced Power Conversion Efficiency and Long-Term Stability of Perovskite Solar Cells. <i>Scientific Reports</i> , 2017, 7, 6849.	1.6	35
2084	Photoluminescent-dielectric duple switch in a perovskite-type high-temperature phase transition compound: $[(\text{CH}_3)_3\text{PCH}_2\text{OCH}_3][\text{PbBr}_3]$ . <i>Dalton Transactions</i> , 2017, 46, 9528-9534.	1.6	15

#	ARTICLE	IF	CITATIONS
2085	Energy transfer within small molecule/conjugated polymer blends enhances photovoltaic efficiency. <i>Journal of Materials Chemistry A</i> , 2017, 5, 18053-18063.	5.2	51
2086	Enhanced charge collection and stability in planar perovskite solar cells based on a cobalt( $\text{III}$ )-complex additive. <i>RSC Advances</i> , 2017, 7, 37654-37658.	1.7	9
2087	Insights into charge carrier dynamics in organo-metal halide perovskites: from neat films to solar cells. <i>Chemical Society Reviews</i> , 2017, 46, 5714-5729.	18.7	197
2088	Superior stability for perovskite solar cells with 20% efficiency using vacuum co-evaporation. <i>Nanoscale</i> , 2017, 9, 12316-12323.	2.8	169
2089	Solvent-induced crystallization for hybrid perovskite thin-film photodetector with high-performance and low working voltage. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 375101.	1.3	25
2090	Large enhanced conversion efficiency of perovskite solar cells by CsBr doping. <i>Journal of Materials Science</i> , 2017, 52, 13203-13211.	1.7	5
2091	Improvement of $\text{CH}_3\text{NH}_3\text{PbI}_3$ thin film using the additive 1,8-diiodooctane for planar heterojunction perovskite cells. <i>Physica B: Condensed Matter</i> , 2017, 522, 43-47.	1.3	10
2092	Dielectric relaxation of $\text{CH}_3\text{NH}_3\text{PbI}_3$ thin film. <i>Thin Solid Films</i> , 2017, 638, 277-281.	0.8	23
2093	$\text{CsPb}_2\text{Br}_5$ Single Crystals: Synthesis and Characterization. <i>ChemSusChem</i> , 2017, 10, 3746-3749.	3.6	130
2094	Potassium doped methylammonium lead iodide ( $\text{MAPbI}_3$ ) thin films as a potential absorber for perovskite solar cells; structural, morphological, electronic and optoelectric properties. <i>Physica B: Condensed Matter</i> , 2017, 522, 57-65.	1.3	30
2095	Direct Observation of Ultrafast Hole Injection from Lead Halide Perovskite by Differential Transient Transmission Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 3902-3907.	2.1	32
2096	Bromine substitution improves excited-state dynamics in mesoporous mixed halide perovskite films. <i>Nanoscale</i> , 2017, 9, 12005-12013.	2.8	21
2097	Bromination-induced stability enhancement with a multivalley optical response signature in guanidinium $[\text{C}(\text{NH}_2)_3]^+$ -based hybrid perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 18561-18568.	5.2	8
2098	Sodium bromide additive improved film morphology and performance in perovskite light-emitting diodes. <i>Applied Physics Letters</i> , 2017, 111, .	1.5	19
2099	Solvent-assisted crystallization via a delayed-annealing approach for highly efficient hybrid mesoscopic/planar perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2017, 172, 270-276.	3.0	14
2100	$\text{CsPbBr}_3$ Perovskite Quantum Dot Vertical Cavity Lasers with Low Threshold and High Stability. <i>ACS Photonics</i> , 2017, 4, 2281-2289.	3.2	243
2101	Laser-Patterning Engineering for Perovskite Solar Modules With 95% Aperture Ratio. <i>IEEE Journal of Photovoltaics</i> , 2017, 7, 1674-1680.	1.5	116
2102	Advances in Small Perovskite-Based Lasers. <i>Small Methods</i> , 2017, 1, 1700163.	4.6	268

#	ARTICLE	IF	CITATIONS
2103	Efficient and highly light stable planar perovskite solar cells with graphene quantum dots doped PCBM electron transport layer. <i>Nano Energy</i> , 2017, 40, 345-351.	8.2	101
2104	Amorphous polymer with $\text{C}_6\text{O}$ to improve the performance of perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2017, 5, 9037-9043.	2.7	45
2105	Surface-related properties of perovskite $\text{CH}_3\text{NH}_3\text{PbI}_3$ thin films by aerosol-assisted chemical vapour deposition. <i>Journal of Materials Chemistry C</i> , 2017, 5, 8366-8370.	2.7	16
2106	A Bifunctional Lewis Base Additive for Microscopic Homogeneity in Perovskite Solar Cells. <i>CheM</i> , 2017, 3, 290-302.	5.8	335
2107	High efficiency quasi 2D lead bromide perovskite solar cells using various barrier molecules. <i>Sustainable Energy and Fuels</i> , 2017, 1, 1935-1943.	2.5	96
2108	Stable high efficiency two-dimensional perovskite solar cells via cesium doping. <i>Energy and Environmental Science</i> , 2017, 10, 2095-2102.	15.6	588
2109	Shallow trapping vs. deep polarons in a hybrid lead halide perovskite, $\text{CH}_3\text{NH}_3\text{PbI}_3$ . <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 27184-27190.	1.3	18
2110	Recombination at high carrier density in methylammonium lead iodide studied using time-resolved microwave conductivity. <i>Journal of Applied Physics</i> , 2017, 122, .	1.1	27
2111	Large-scale Synthesis of Freestanding Layer-structured $\text{PbI}_2$ and $\text{MAPbI}_3$ Nanosheets for High-performance Photodetection. <i>Advanced Materials</i> , 2017, 29, 1702759.	11.1	111
2112	Large polarons in lead halide perovskites. <i>Science Advances</i> , 2017, 3, e1701217.	4.7	515
2113	Interfaces in Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2017, 7, 1700623.	10.2	276
2114	Tetrathiafulvalene derivative as a new hole-transporting material for highly efficient perovskite solar cell. <i>Dyes and Pigments</i> , 2017, 147, 113-119.	2.0	35
2115	Ultrasensitive broadband phototransistors based on perovskite/organic-semiconductor vertical heterojunctions. <i>Light: Science and Applications</i> , 2017, 6, e17023-e17023.	7.7	272
2116	Ultrafast Electron Dynamics in Solar Energy Conversion. <i>Chemical Reviews</i> , 2017, 117, 10940-11024.	23.0	266
2117	Influence of $\pi$ -bridge conjugation on the electrochemical properties within hole transporting materials for perovskite solar cells. <i>Nanoscale</i> , 2017, 9, 12916-12924.	2.8	34
2118	Simultaneously enhanced $J_{\text{sc}}$ and FF by employing two solution-processed interfacial layers for inverted planar perovskite solar cells. <i>RSC Advances</i> , 2017, 7, 39523-39529.	1.7	13
2119	A multi-functional iodoplumbate-based hybrid crystal: 1-propyl-4-aminopyridinium triiodoplumbate. <i>RSC Advances</i> , 2017, 7, 23234-23237.	1.7	2
2120	Impact of Postsynthetic Surface Modification on Photoluminescence Intermittency in Formamidinium Lead Bromide Perovskite Nanocrystals. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 6041-6047.	2.1	67

#	ARTICLE	IF	CITATIONS
2121	Spatially inhomogeneous photoluminescence-voltage hysteresis in planar heterojunction perovskite-based solar cells. <i>Applied Physics Letters</i> , 2017, 111, 223901.	1.5	4
2122	Ultrafast Exciton Dynamics in Shape-Controlled Methylammonium Lead Bromide Perovskite Nanostructures: Effect of Quantum Confinement on Charge Carrier Recombination. <i>Journal of Physical Chemistry C</i> , 2017, 121, 28556-28565.	1.5	19
2123	Inverted Planar Perovskite Solar Cells with a High Fill Factor and Negligible Hysteresis by the Dual Effect of NaCl-Doped PEDOT:PSS. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 43902-43909.	4.0	149
2124	Large guanidinium cation mixed with methylammonium in lead iodide perovskites for 19% efficient solar cells. <i>Nature Energy</i> , 2017, 2, 972-979.	19.8	445
2125	Temperature-dependent electronic properties of inorganic-organic hybrid halide perovskite (CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> ) single crystal. <i>Applied Physics Letters</i> , 2017, 111, .	1.5	10
2126	Zero-dimensional methylammonium iodo bismuthate solar cells and synergistic interactions with silicon nanocrystals. <i>Nanoscale</i> , 2017, 9, 18759-18771.	2.8	25
2127	Transparent perovskite light-emitting diodes by employing organic-inorganic multilayer transparent top electrodes. <i>Applied Physics Letters</i> , 2017, 111, 213301.	1.5	6
2128	Molecular “Flower” as the High-Mobility Hole-Transport Material for Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 43855-43860.	4.0	31
2129	Ultrafast optical snapshots of hybrid perovskites reveal the origin of multiband electronic transitions. <i>Physical Review B</i> , 2017, 96, .	1.1	13
2130	Donor–Acceptor-Type S <sub>N</sub> -Heteroacene-Based Hole-Transporting Materials for Efficient Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 44423-44428.	4.0	31
2131	Highly stable perovskite solar cells with all-inorganic selective contacts from microwave-synthesized oxide nanoparticles. <i>Journal of Materials Chemistry A</i> , 2017, 5, 25485-25493.	5.2	41
2132	Theoretical Study on Rotational Controllability of Organic Cations in Organic–Inorganic Hybrid Perovskites: Hydrogen Bonds and Halogen Substitution. <i>Journal of Physical Chemistry C</i> , 2017, 121, 26188-26195.	1.5	19
2133	Inorganic Lattice Fluctuation Induces Charge Separation in Lead Iodide Perovskites: Theoretical Insights. <i>Journal of Physical Chemistry C</i> , 2017, 121, 26648-26654.	1.5	10
2134	Low-frequency optical phonon modes and carrier mobility in the halide perovskite CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> using terahertz time-domain spectroscopy. <i>Applied Physics Letters</i> , 2017, 111, .	1.5	54
2135	Segregation of Native Defects to the Grain Boundaries in Methylammonium Lead Iodide Perovskite. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 5935-5942.	2.1	56
2136	Photoluminescence, optical gain, and lasing threshold in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> methylammonium lead-halide perovskites obtained by <i>ab initio</i> calculations. <i>Journal of Materials Chemistry C</i> , 2017, 5, 12758-12768.	2.7	5
2137	Unique Trapped Dimer State of the Photogenerated Hole in Hybrid Orthorhombic CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite: Identification, Origin, and Implications. <i>Nano Letters</i> , 2017, 17, 7724-7730.	4.5	19
2138	Effect of Rubidium Incorporation on the Structural, Electrical, and Photovoltaic Properties of Methylammonium Lead Iodide-Based Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 41898-41905.	4.0	51

#	ARTICLE	IF	CITATIONS
2139	Millisecond-pulsed photonically-annealed tin oxide electron transport layers for efficient perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 24110-24115.	5.2	41
2140	Enhancing moisture-tolerance and photovoltaic performances of FAPbI <sub>3</sub> by bismuth incorporation. <i>Journal of Materials Chemistry A</i> , 2017, 5, 25258-25265.	5.2	50
2141	First-Principles Study of Electron Injection and Defects at the TiO <sub>2</sub> /CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Interface of Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 5840-5847.	2.1	31
2142	Highly Efficient Porphyrin-Based OPV/Perovskite Hybrid Solar Cells with Extended Photoresponse and High Fill Factor. <i>Advanced Materials</i> , 2017, 29, 1703980.	11.1	176
2143	Unraveling the Light-Induced Degradation Mechanisms of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Films. <i>Advanced Electronic Materials</i> , 2017, 3, 1700158.	2.6	130
2144	Additive-Enhanced Crystallization of Solution Process for Planar Perovskite Solar Cells with Efficiency Exceeding 19%. <i>Chemistry - A European Journal</i> , 2017, 23, 18140-18145.	1.7	33
2145	Transfer Matrix Formalism-Based Analytical Modeling and Performance Evaluation of Perovskite Solar Cells. <i>IEEE Transactions on Electron Devices</i> , 2017, 64, 5034-5041.	1.6	16
2146	Two-Photon Optical Properties in Individual Organic-Inorganic Perovskite Microplates. <i>Advanced Optical Materials</i> , 2017, 5, 1700809.	3.6	33
2147	Carrier diffusion in thin-film CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite measured using four-wave mixing. <i>Applied Physics Letters</i> , 2017, 111, .	1.5	29
2148	Self-Catalyzed Vapor-Liquid-Solid Growth of Lead Halide Nanowires and Conversion to Hybrid Perovskites. <i>Nano Letters</i> , 2017, 17, 7561-7568.	4.5	37
2149	Interplay between Exciton and Free Carriers in Organolead Perovskite Films. <i>Scientific Reports</i> , 2017, 7, 14760.	1.6	7
2150	Elucidating the Methylammonium (MA) Conformation in MAPbBr <sub>3</sub> Perovskite with Application in Solar Cells. <i>Inorganic Chemistry</i> , 2017, 56, 14214-14219.	1.9	64
2151	Mechanical and Optical Properties of Cs <sub>4</sub> BX <sub>6</sub> (B = Pb, Sn; X = Cl, Br, I) Zero-Dimension Perovskites. <i>Journal of Physical Chemistry C</i> , 2017, 121, 27053-27058.	1.5	61
2152	Promises and challenges of perovskite solar cells. <i>Science</i> , 2017, 358, 739-744.	6.0	1,510
2153	Predictive Modeling of Ion Migration Induced Degradation in Perovskite Solar Cells. <i>ACS Nano</i> , 2017, 11, 11505-11512.	7.3	63
2154	Hot carrier cooling mechanisms in halide perovskites. <i>Nature Communications</i> , 2017, 8, 1300.	5.8	347
2155	Lead free double perovskite oxides Ln <sub>2</sub> NiMnO <sub>6</sub> (Ln = La, Eu, Dy, Lu), a new promising material for photovoltaic application. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2017, 226, 10-17.	1.7	82
2156	Application of luminescence downshifting materials for enhanced stability of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> (1-x)Cl <sub>x</sub> perovskite photovoltaic devices. <i>Organic Electronics</i> , 2017, 49, 129-134.	1.4	25



#	ARTICLE	IF	CITATIONS
2157	Defect-induced local variation of crystal phase transition temperature in metal-halide perovskites. Nature Communications, 2017, 8, 34.	5.8	91
2158	Replacement of Biphenyl by Bipyridine Enabling Powerful Hole Transport Materials for Efficient Perovskite Solar Cells. ChemSusChem, 2017, 10, 3833-3838.	3.6	54
2159	Tuning the Fermi Level of TiO <sub>2</sub> Electron Transport Layer through Europium Doping for Highly Efficient Perovskite Solar Cells. Energy Technology, 2017, 5, 1820-1826.	1.8	42
2160	Carbon materials for enhancing charge transport in the advancements of perovskite solar cells. Journal of Power Sources, 2017, 361, 259-275.	4.0	66
2161	Improved performance of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> based photodetector with a MoO <sub>3</sub> interface layer. Organic Electronics, 2017, 49, 355-359.	1.4	21
2162	Effects of deposition methods and processing techniques on band gap, interband electronic transitions, and optical absorption in perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> films. Applied Physics Letters, 2017, 111, .	1.5	10
2163	Fluorine-substituted benzothiadiazole-based hole transport materials for highly efficient planar perovskite solar cells with a FF exceeding 80%. Chemical Communications, 2017, 53, 8719-8722.	2.2	94
2164	Perovskite photodetectors prepared by flash evaporation printing. RSC Advances, 2017, 7, 34795-34800.	1.7	8
2165	Strategies for Improving Efficiency and Stability of Perovskite Solar Cells. MRS Advances, 2017, 2, 3051-3060.	0.5	3
2166	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
2167	Perovskite light-emitting devices with a metal-insulator-semiconductor structure and carrier tunnelling. Journal of Materials Chemistry C, 2017, 5, 7715-7719.	2.7	17
2168	Intrinsic and interfacial kinetics of perovskite solar cells under photo and bias-induced degradation and recovery. Journal of Materials Chemistry C, 2017, 5, 7799-7805.	2.7	34
2169	Power output and carrier dynamics studies of perovskite solar cells under working conditions. Physical Chemistry Chemical Physics, 2017, 19, 19922-19927.	1.3	4
2170	Profiling Light Absorption Enhancement in Two-Dimensional Photonic-Structured Perovskite Solar Cells. IEEE Journal of Photovoltaics, 2017, 7, 1324-1328.	1.5	16
2171	Mechanisms of Lithium Intercalation and Conversion Processes in Organic-Inorganic Halide Perovskites. ACS Energy Letters, 2017, 2, 1818-1824.	8.8	111
2172	Perovskite solar cells – The stars of photovoltaic industry. , 2017, , .		0
2173	Progress on Perovskite Materials and Solar Cells with Mixed Cations and Halide Anions. ACS Applied Materials & Interfaces, 2017, 9, 30197-30246.	4.0	453
2174	Progress in organic-inorganic hybrid halide perovskite single crystal: growth techniques and applications. Science China Materials, 2017, 60, 1063-1078.	3.5	60

#	ARTICLE	IF	CITATIONS
2175	Rashba Effect in a Single Colloidal CsPbBr <sub>3</sub> Perovskite Nanocrystal Detected by Magneto-Optical Measurements. Nano Letters, 2017, 17, 5020-5026.	4.5	180
2176	Novel Perovskite Solar Cell Architecture Featuring Efficient Light Capture and Ultrafast Carrier Extraction. ACS Applied Materials & Interfaces, 2017, 9, 23624-23634.	4.0	8
2177	A high-performance photodetector based on an inorganic perovskite/ZnO heterostructure. Journal of Materials Chemistry C, 2017, 5, 6115-6122.	2.7	107
2178	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
2179	High Stability and Ultralow Threshold Amplified Spontaneous Emission from Formamidinium Lead Halide Perovskite Films. Journal of Physical Chemistry C, 2017, 121, 15318-15325.	1.5	50
2180	PbI <sub>2</sub> platelets for inverted planar organolead Halide Perovskite solar cells via ultrasonic spray deposition. Semiconductor Science and Technology, 2017, 32, 074003.	1.0	18
2181	Peculiarities of the optical properties of organometallic perovskites with variable content of iodine and bromine. Technical Physics Letters, 2017, 43, 484-486.	0.2	3
2182	Benzoyl Peroxide as an Efficient Dopant for Spiro-OMeTAD in Perovskite Solar Cells. ChemSusChem, 2017, 10, 3098-3104.	3.6	37
2183	Room-Temperature Coherent Optical Phonon in 2D Electronic Spectra of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite as a Possible Cooling Bottleneck. Journal of Physical Chemistry Letters, 2017, 8, 3211-3215.	2.1	73
2184	Flash-evaporation printing methodology for perovskite thin films. NPG Asia Materials, 2017, 9, e395-e395.	3.8	17
2185	Quantifying ultrafast charge carrier injection from methylammonium lead iodide into the hole-transport material H101 and mesoporous TiO <sub>2</sub> using Vis-NIR transient absorption. Physical Chemistry Chemical Physics, 2017, 19, 17952-17959.	1.3	5
2186	On the efficiency limit of ZnO/CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> /CuI perovskite solar cells. Physical Chemistry Chemical Physics, 2017, 19, 19916-19921.	1.3	12
2187	Role of the $A$ -site cation in determining the properties of the hybrid perovskite $\text{CH}_3\text{NH}_3\text{PbI}_3$ .	1.1	10
2188	Two-Dimensional Non-Layered Materials: Synthesis, Properties and Applications. Advanced Functional Materials, 2017, 27, 1603254.	7.8	161
2189	Efficient Indium-Doped TiO <sub>x</sub> Electron Transport Layers for High-Performance Perovskite Solar Cells and Perovskite-Silicon Tandems. Advanced Energy Materials, 2017, 7, 1601768.	10.2	167
2190	Conducting Polymers as Anode Buffer Materials in Organic and Perovskite Optoelectronics. Advanced Optical Materials, 2017, 5, 1600512.	3.6	63
2191	Bi <sup>3+</sup> -doped CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> : Red-shifting absorption edge and longer charge carrier lifetime. Journal of Alloys and Compounds, 2017, 695, 555-560.	2.8	39
2192	Enhanced electron extraction using SnO <sub>2</sub> for high-efficiency planar-structure HC(NH <sub>2</sub> ) <sub>2</sub> PbI <sub>3</sub> -based perovskite solar cells. Nature Energy, 2017, 2, .	19.8	1,633

#	ARTICLE	IF	CITATIONS
2193	Growth of centimeter-sized [(CH <sub>3</sub> ) <sub>2</sub> NH <sub>2</sub> ][Mn(HCOO) <sub>3</sub> ] hybrid formate perovskite single crystals and Raman evidence of pressure-induced phase transitions. <i>New Journal of Chemistry</i> , 2017, 41, 151-159.	1.4	31
2194	Effects of polysilane-doped spiro-OMeTAD hole transport layers on photovoltaic properties. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2017, 214, 1600591.	0.8	13
2195	Physics-based modeling and performance analysis of dual junction perovskite/silicon tandem solar cells. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2017, 214, 1600306.	0.8	3
2196	Chemical vapor deposition growth of single-crystalline cesium lead halide microplatelets and heterostructures for optoelectronic applications. <i>Nano Research</i> , 2017, 10, 1223-1233.	5.8	96
2197	Improved performance and thermal stability of perovskite solar cells prepared via a modified sequential deposition process. <i>Organic Electronics</i> , 2017, 41, 266-273.	1.4	21
2198	Effect of guanidinium on mesoscopic perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 73-78.	5.2	146
2199	Light Illumination Induced Photoluminescence Enhancement and Quenching in Lead Halide Perovskite. <i>Solar Rrl</i> , 2017, 1, 1600001.	3.1	109
2200	CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> crystal orientation and photovoltaic performance of planar heterojunction perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2017, 160, 77-84.	3.0	39
2201	Organic Cations Might Not Be Essential to the Remarkable Properties of Band Edge Carriers in Lead Halide Perovskites. <i>Advanced Materials</i> , 2017, 29, 1603072.	11.1	166
2202	Catalytic role of H <sub>2</sub> O in degradation of inorganic-organic perovskite (CH <sub>3</sub> ) <sub>2</sub> NH <sub>2</sub> Tj ETQq1 1 0,784314 rgBT /Overle	2.2	83
2203	Nanoscale Strategies for Light Harvesting. <i>Chemical Reviews</i> , 2017, 117, 712-757.	23.0	444
2204	Understanding individual defects in CdTe thin-film solar cells via STEM: From atomic structure to electrical activity. <i>Materials Science in Semiconductor Processing</i> , 2017, 65, 64-76.	1.9	36
2205	The Influence of Structural Configuration on Charge Accumulation, Transport, Recombination, and Hysteresis in Perovskite Solar Cells. <i>Energy Technology</i> , 2017, 5, 442-451.	1.8	15
2206	High-quality inorganic-organic perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> single crystals for photo-detector applications. <i>Journal of Materials Science</i> , 2017, 52, 276-284.	1.7	61
2207	Efficiency enhancement of hole-conductor-free perovskite solar cell based on ZnO nanostructure by Al doping in ZnO. <i>Journal of Alloys and Compounds</i> , 2017, 692, 492-502.	2.8	33
2208	Low temperature processed ZnO thin film as electron transport layer for efficient perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2017, 159, 251-264.	3.0	106
2209	Growth and interfacial structure of methylammonium lead iodide thin films on Au(111). <i>Surface Science</i> , 2017, 656, 17-23.	0.8	24
2210	Dynamic electrical behavior of halide perovskite based solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2017, 159, 197-203.	3.0	37

#	ARTICLE	IF	CITATIONS
2211	Numerical analysis of a hysteresis model in perovskite solar cells. <i>Computational Materials Science</i> , 2017, 126, 22-28.	1.4	13
2212	Synthesis, structural characterization and photoluminescent properties of copper(I) coordination polymers with extended C $\pi$ -H $\pi$ and C $\pi$ - $\pi$ interactions. <i>Inorganica Chimica Acta</i> , 2017, 455, 1-8.	1.2	9
2213	Interplay of Cation Ordering and Ferroelectricity in Perovskite Tin Iodides: Designing a Polar Halide Perovskite for Photovoltaic Applications. <i>Inorganic Chemistry</i> , 2017, 56, 26-32.	1.9	37
2214	Beyond methylammonium lead iodide: prospects for the emergent field of ns <sup>2</sup> -containing solar absorbers. <i>Chemical Communications</i> , 2017, 53, 20-44.	2.2	357
2215	Stability of Perovskite Solar Cells: A Prospective on the Substitution of the A <sup>+</sup> -Cation and X <sup>-</sup> -Anion. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 1190-1212.	7.2	473
2216	Quantitative Doping of Chlorine in Formamidinium Lead Trihalide (FAPbI <sub>3</sub> <sub>x</sub> Cl <sub>1-x</sub> ) for Planar Heterojunction Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2017, 7, 1601297.	10.2	106
2217	High-efficiency humidity-stable planar perovskite solar cells based on atomic layer architecture. <i>Energy and Environmental Science</i> , 2017, 10, 91-100.	15.6	231
2218	Improvement of photovoltaic performance of perovskite solar cells with a ZnO/Zn <sub>2</sub> SnO <sub>4</sub> composite compact layer. <i>Solar Energy Materials and Solar Cells</i> , 2017, 159, 143-150.	3.0	31
2219	Low-temperature easy-processed carbon nanotube contact for high-performance metal- and hole-transporting layer-free perovskite solar cells. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2017, 332, 265-272.	2.0	25
2220	Stable $\pm/\bar{\Gamma}$ phase junction of formamidinium lead iodide perovskites for enhanced near-infrared emission. <i>Chemical Science</i> , 2017, 8, 800-805.	3.7	199
2221	Carbon-doped titanium dioxide nanocrystals for highly efficient dye-sensitized solar cells. <i>Catalysis Today</i> , 2017, 281, 636-641.	2.2	24
2222	The Influence of Physical Properties of ZnO Films on the Efficiency of Planar ZnO/Perovskite/P3HT Solar Cell. <i>Journal of the American Ceramic Society</i> , 2017, 100, 176-184.	1.9	22
2223	Photoluminescence Study of the Photoinduced Phase Separation in Mixed-Halide Hybrid Perovskite CH <sub>3</sub> NH <sub>3</sub> Pb(BrxI <sub>1-x</sub> ) <sub>3</sub> Crystals Synthesized via a Solvothermal Method. <i>Scientific Reports</i> , 2017, 7, 17695.	1.6	18
2224	Importance of Pbl <sub>2</sub> morphology in two-step deposition of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> for high-performance perovskite solar cells. <i>Chinese Physics B</i> , 2017, 26, 128801.	0.7	12
2225	Solution Processed Hybrid Organic-Inorganic CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Material and Optical Properties. <i>Materials Today: Proceedings</i> , 2017, 4, 12661-12665.	0.9	10
2226	Recent advances of flexible hybrid perovskite solar cells. <i>Journal of the Korean Physical Society</i> , 2017, 71, 593-607.	0.3	16
2227	Charge separation and carrier dynamics in donor-acceptor heterojunction photovoltaic systems. <i>Structural Dynamics</i> , 2017, 4, 061503.	0.9	13
2228	Effective methods for improving device performances of P-I-N perovskite solar cells. , 2017, , .		0

#	ARTICLE	IF	CITATIONS
2229	Effect of Carrier Transport in NiO on the Photovoltaic Properties of Lead Iodide Perovskite Solar Cells. <i>Electrochemistry</i> , 2017, 85, 231-235.	0.6	19
2230	Critical analysis of stability and performance of organometal halide perovskite solar cells via various fabrication method (Review). <i>EPJ Web of Conferences</i> , 2017, 162, 01043.	0.1	0
2231	Solvent annealing process for wide bandgap perovskite solar cells. , 2017, , .		0
2232	Free Carrier Emergence and Onset of Electron-Phonon Coupling in Methylammonium Lead Halide Perovskite Films. <i>Journal of the American Chemical Society</i> , 2017, 139, 18262-18270.	6.6	78
2233	Grain and Grain Boundary Geometrical Shape Considerations on Sodium and Potassium Diffusion Through Molybdenum Films. , 2017, , .		0
2234	High Efficiency Perovskite Solar Cells by a Modified Low-Temperature Solution Process Inter-Diffusion Method. , 2017, , .		0
2235	Parameters affecting morphologies and efficiencies of mesoporous perovskite solar cells. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017, 220, 012023.	0.3	0
2236	Investigation of Structural and Electronic Properties of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Stabilized by Varying Concentrations of Poly(Methyl Methacrylate) (PMMA). <i>Coatings</i> , 2017, 7, 115.	1.2	8
2237	One-Dimensional Electron Transport Layers for Perovskite Solar Cells. <i>Nanomaterials</i> , 2017, 7, 95.	1.9	41
2238	Are E-W trackers a better option for future investments in PV sector-A detailed Techno-Commercial Study. , 2017, , .		0
2239	The Effect of Post-Baking Temperature and Thickness of ZnO Electron Transport Layers for Efficient Planar Heterojunction Organometal-Trihalide Perovskite Solar Cells. <i>Coatings</i> , 2017, 7, 215.	1.2	6
2240	Effect of Annealing Process on CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3-x</sub> Cl <sub>x</sub> Film Morphology of Planar Heterojunction Perovskite Solar Cells with Optimal Compact TiO <sub>2</sub> Layer. <i>International Journal of Photoenergy</i> , 2017, 2017, 1-9.	1.4	5
2241	Improving the Morphology of the Perovskite Absorber Layer in Hybrid Organic/Inorganic Halide Perovskite MAPbI <sub>3</sub> Solar Cells. <i>Journal of Solar Energy</i> , 2017, 2017, 1-9.	0.8	7
2242	A PCBM-Modified TiO <sub>2</sub> Blocking Layer towards Efficient Perovskite Solar Cells. <i>International Journal of Photoenergy</i> , 2017, 2017, 1-9.	1.4	20
2243	Perovskite as Light Harvester: Prospects, Efficiency, Pitfalls and Roadmap. , 0, , .		1
2244	An optimized photolithography recipe for Cu(In <sub>1-x</sub> Gax)(S <sub>y</sub> Se <sub>1-y</sub> ) <sub>2</sub> (CIGSSe) solar cells. , 2017, , .		0
2245	Recent Research Progress on Lead-free or Less-lead Perovskite Solar Cells. <i>International Journal of Electrochemical Science</i> , 2017, , 4915-4927.	0.5	2
2246	F-doped TiO <sub>2</sub> Compact Film for High-Efficient Perovskite Solar Cells. <i>International Journal of Electrochemical Science</i> , 2017, 12, 1064-1074.	0.5	15

#	ARTICLE	IF	CITATIONS
2247	Recent Progresses in Perovskite Solar Cells. , 2017, , .		3
2248	Electron Spin Resonance Investigations on Perovskite Solar Cell Materials Deposited on Glass Substrate. MRS Advances, 2018, 3, 1831-1836.	0.5	1
2249	Lewis Base Passivation of Hybrid Halide Perovskites Slows Electron-Hole Recombination: Time-Domain Ab Initio Analysis. Journal of Physical Chemistry Letters, 2018, 9, 1164-1171.	2.1	90
2250	Tin oxide as an emerging electron transport medium in perovskite solar cells. Solar Energy Materials and Solar Cells, 2018, 179, 102-117.	3.0	43
2251	Yttrium-doped TiO <sub>2</sub> nanorod arrays and application in perovskite solar cells for enhanced photocurrent density. Thin Solid Films, 2018, 651, 117-123.	0.8	17
2252	A first-principles prediction on the "healing effect" of graphene preventing carrier trapping near the surface of metal halide perovskites. Chemical Science, 2018, 9, 3341-3353.	3.7	19
2253	Progress in fullerene-based hybrid perovskite solar cells. Journal of Materials Chemistry C, 2018, 6, 2635-2651.	2.7	114
2254	Erbium-Doped Fiber Laser Mode-Locked by Halide Perovskite via Evanescent Field Interaction. IEEE Photonics Technology Letters, 2018, 30, 577-580.	1.3	23
2255	Bandgap Engineering of Stable Lead-Free Oxide Double Perovskites for Photovoltaics. Advanced Materials, 2018, 30, e1705901.	11.1	57
2256	Organic/Inorganic Metal Halide Perovskite Optoelectronic Devices beyond Solar Cells. Advanced Science, 2018, 5, 1700780.	5.6	144
2257	Oxide Hole Transport Materials in Inverted Planar Perovskite Solar Cells. , 2018, , 117-158.		2
2258	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
2259	First principles investigation of half-metallicity and spin gapless semiconductor in CH <sub>3</sub> NH <sub>3</sub> Cr x Pb <sup>1-x</sup> I <sub>3</sub> mixed perovskites. Applied Physics A: Materials Science and Processing, 2018, 124, 1.	1.1	7
2260	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
2261	Competition between Metallic and Vacancy Defect Conductive Filaments in a CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> -Based Memory Device. Journal of Physical Chemistry C, 2018, 122, 6431-6436.	1.5	115
2262	Synthesis of ultrathin two-dimensional organic-inorganic hybrid perovskite nanosheets for polymer field-effect transistors. Journal of Materials Chemistry C, 2018, 6, 3945-3950.	2.7	36
2263	Graphene and its derivatives for solar cells application. Nano Energy, 2018, 47, 51-65.	8.2	284
2264	High-gain broadband organolead trihalide perovskite photodetector based on a bipolar heterojunction phototransistor. Organic Electronics, 2018, 57, 7-13.	1.4	10



#	ARTICLE	IF	CITATIONS
2265	Slot die coated planar perovskite solar cells via blowing and heating assisted one step deposition. <i>Solar Energy Materials and Solar Cells</i> , 2018, 179, 80-86.	3.0	104
2266	Molecular engineering of the organometallic perovskites/HTMs in the PSCs: Photovoltaic behavior and energy conversion. <i>Solar Energy Materials and Solar Cells</i> , 2018, 180, 46-58.	3.0	14
2267	Recent Advances in Halide-Based Perovskite Crystals and Their Optoelectronic Applications. <i>Crystal Growth and Design</i> , 2018, 18, 2645-2664.	1.4	75
2268	Recent Progress on the Long-Term Stability of Perovskite Solar Cells. <i>Advanced Science</i> , 2018, 5, 1700387.	5.6	348
2269	Strategies for high performance perovskite/crystalline silicon four-terminal tandem solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2018, 179, 36-44.	3.0	31
2270	Evaporation-Induced Self-Assembly of Semi-Crystalline PbI <sub>2</sub> (DMSO) Complex Films as a Facile Route to Reproducible and Efficient Planar p-i-n Perovskite Solar Cells. <i>MRS Advances</i> , 2018, 3, 1807-1817.	0.5	2
2271	Growth of Compact CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Thin Films Governed by the Crystallization in PbI <sub>2</sub> Matrix for Efficient Planar Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 8649-8658.	4.0	17
2272	Mixed halide hybrid perovskites: a paradigm shift in photovoltaics. <i>Journal of Materials Chemistry A</i> , 2018, 6, 5507-5537.	5.2	104
2273	Enhanced Performance of Hole-Conductor-Free Perovskite Solar Cells by Utilization of Core/Shell-Structured I <sup>2</sup> -NaYF <sub>4</sub> :Yb <sup>3+</sup> ,Er <sup>3+</sup> @SiO <sub>2</sub> Nanoparticles in Ambient Air. <i>IEEE Journal of Photovoltaics</i> , 2018, 8, 132-136.	1.5	23
2274	Rubidium Doping for Enhanced Performance of Highly Efficient Formamidinium-Based Perovskite Light-Emitting Diodes. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 9849-9857.	4.0	58
2275	Improved performance of perovskite photodetectors based on a solution-processed CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> /SnO <sub>2</sub> heterojunction. <i>Organic Electronics</i> , 2018, 57, 206-210.	1.4	31
2276	Intrinsic Instability of the Hybrid Halide Perovskite Semiconductor CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> . <i>Chinese Physics Letters</i> , 2018, 35, 036104.	1.3	154
2277	Enhanced performance of perovskite solar cells via anti-solvent nonfullerene Lewis base IT-4F induced trap-passivation. <i>Journal of Materials Chemistry A</i> , 2018, 6, 5919-5925.	5.2	127
2279	Low-Temperature Combustion Synthesis of a Spinel NiCo <sub>2</sub> O <sub>4</sub> Hole Transport Layer for Perovskite Photovoltaics. <i>Advanced Science</i> , 2018, 5, 1701029.	5.6	78
2280	Adsorption of molecular additive onto lead halide perovskite surfaces: A computational study on Lewis base thiophene additive passivation. <i>Applied Surface Science</i> , 2018, 443, 176-183.	3.1	43
2281	Quantitative analysis of the transient photoluminescence of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> /PC <sub>61</sub> BM heterojunctions by numerical simulations. <i>Sustainable Energy and Fuels</i> , 2018, 2, 1027-1034.	2.5	103
2282	Evolution of organometal halide solar cells. <i>Journal of Photochemistry and Photobiology C: Photochemistry Reviews</i> , 2018, 35, 74-107.	5.6	32
2283	Characterising degradation of perovskite solar cells through in-situ and operando electron microscopy. <i>Nano Energy</i> , 2018, 47, 243-256.	8.2	67

#	ARTICLE	IF	CITATIONS
2284	Ultrafast zero-bias photocurrent and terahertz emission in hybrid perovskites. <i>Communications Physics</i> , 2018, 1, .	2.0	32
2285	High transport and excellent optical property of a two-dimensional single-layered hybrid perovskite (C <sub>4</sub> H <sub>9</sub> NH <sub>3</sub> ) <sub>2</sub> PbBr <sub>4</sub> : a theoretical study. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 13241-13248.	1.3	17
2286	Synergic solvating-out crystallization with subsequent time-delay thermal annealing of PbI <sub>2</sub> precursor in mesostructured perovskite solar cells. <i>Materials Research Express</i> , 2018, 5, 066404.	0.8	4
2287	Investigating Recombination and Charge Carrier Dynamics in a One-Dimensional Nanopillared Perovskite Absorber. <i>ACS Nano</i> , 2018, 12, 4233-4245.	7.3	44
2288	Influence of hole transport material/metal contact interface on perovskite solar cells. <i>Nanotechnology</i> , 2018, 29, 255201.	1.3	13
2289	Single-crystalline perovskite wafers with a Cr blocking layer for broad and stable light detection in a harsh environment. <i>RSC Advances</i> , 2018, 8, 14848-14853.	1.7	9
2290	Optimizing the efficiency of perovskite solar cells by a sub-nanometer compact titanium oxide electron transport layer. <i>Nano Energy</i> , 2018, 49, 230-236.	8.2	15
2291	Defects in metal triiodide perovskite materials towards high-performance solar cells: origin, impact, characterization, and engineering. <i>Chemical Society Reviews</i> , 2018, 47, 4581-4610.	18.7	455
2292	Boosting efficiency of planar heterojunction perovskite solar cells by a low temperature TiCl <sub>4</sub> treatment. <i>Journal of Advanced Dielectrics</i> , 2018, 08, 1850009.	1.5	6
2293	Investigation on Organic Molecule Additive for Moisture Stability and Defect Passivation via Physisorption in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Based Perovskite. <i>ACS Applied Energy Materials</i> , 2018, 1, 1870-1877.	2.5	37
2294	Environmental-Friendly Urea Additive Induced Large Perovskite Grains for High Performance Inverted Solar Cells. <i>Solar Rrl</i> , 2018, 2, 1800054.	3.1	51
2295	Recent progress in lead-free perovskite (-like) solar cells. <i>Materials Today Energy</i> , 2018, 8, 157-165.	2.5	60
2296	Rubidium as an Alternative Cation for Efficient Perovskite Light-Emitting Diodes. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 16852-16860.	4.0	36
2297	Planar Perovskite Solar Cells with High Open-Circuit Voltage Containing a Supramolecular Iron Complex as Hole Transport Material Dopant. <i>ChemPhysChem</i> , 2018, 19, 1363-1370.	1.0	17
2298	Structure-Dependent Photochromic Iodoargentate Hybrids Based on Photolytic Mechanism. <i>ChemistrySelect</i> , 2018, 3, 4217-4221.	0.7	6
2299	Recent progress in 2D/quasi-2D layered metal halide perovskites for solar cells. <i>Journal of Materials Chemistry A</i> , 2018, 6, 11063-11077.	5.2	183
2300	In Situ Investigation of the Growth of Methylammonium Lead Halide (MAPbI <sub>3</sub> -xBr <sub>x</sub> ) Perovskite from Microdroplets. <i>Crystal Growth and Design</i> , 2018, 18, 3458-3464.	1.4	8
2301	Layer-dependent transport and optoelectronic property in two-dimensional perovskite: (PEA) <sub>2</sub> PbI <sub>4</sub> . <i>Nanoscale</i> , 2018, 10, 8677-8688.	2.8	169

#	ARTICLE	IF	CITATIONS
2302	Tuning the emission spectrum of highly stable cesium lead halide perovskite nanocrystals through poly(lactic acid)-assisted anion-exchange reactions. <i>Journal of Materials Chemistry C</i> , 2018, 6, 5375-5383.	2.7	62
2303	Remarkable long-term stability of nanoconfined metal halide perovskite crystals against degradation and polymorph transitions. <i>Nanoscale</i> , 2018, 10, 8320-8328.	2.8	14
2304	Experimental and Theoretical Infrared Signatures of REMO <sub>3</sub> (RE = La, Pr, Nd, Sm, and M =) Tj ETQq0 0.0,rgBT /Overlock 10	1.5	8
2305	Slot-Die Coated Perovskite Films Using Mixed Lead Precursors for Highly Reproducible and Large-Area Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 16133-16139.	4.0	92
2306	Annealing effect of E-beam evaporated TiO <sub>2</sub> films and their performance in perovskite solar cells. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2018, 360, 109-116.	2.0	23
2307	Balancing Charge Carrier Transport in a Quantum Dot P-N Junction toward Hysteresis-Free High-Performance Solar Cells. <i>ACS Energy Letters</i> , 2018, 3, 1036-1043.	8.8	37
2308	A solution-processed pillar[5]arene-based small molecule cathode buffer layer for efficient planar perovskite solar cells. <i>Nanoscale</i> , 2018, 10, 8088-8098.	2.8	20
2309	Photovoltaic performances of mono- and mixed-halide structures for perovskite solar cell: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2018, 90, 248-274.	8.2	50
2310	How the Connectivity of Methoxy Substituents Influences the Photovoltaic Properties of Dissymmetric Core Materials: A Theoretical Study on FDT. <i>Journal of Physical Chemistry C</i> , 2018, 122, 8804-8813.	1.5	11
2311	Facile Sol-Gel-Derived Craterlike Dual-Functioning TiO <sub>2</sub> Electron Transport Layer for High-Efficiency Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 14649-14658.	4.0	18
2312	Formamidinium Lead Bromide (FAPbBr <sub>3</sub> ) Perovskite Microcrystals for Sensitive and Fast Photodetectors. <i>Nano-Micro Letters</i> , 2018, 10, 43.	14.4	77
2313	Low-pressure assisted solution synthesis of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> -Cl perovskite solar cells. <i>Ceramics International</i> , 2018, 44, 11603-11609.	2.3	10
2314	Engineered optical and electrical performance of rf-sputtered undoped nickel oxide thin films for inverted perovskite solar cells. <i>Scientific Reports</i> , 2018, 8, 5590.	1.6	47
2315	Efficient planar perovskite solar cells based on low-cost spin-coated ultrathin Nb <sub>2</sub> O <sub>5</sub> films. <i>Solar Energy</i> , 2018, 166, 187-194.	2.9	26
2316	Stable perovskite solar cells using thiazolo [5,4-d]thiazole-core containing hole transporting material. <i>Nano Energy</i> , 2018, 49, 372-379.	8.2	35
2317	Synergistic effect of anions and cations in additives for highly efficient and stable perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2018, 6, 9264-9270.	5.2	58
2318	Interfacial Passivation of the p-Doped Hole-Transporting Layer Using General Insulating Polymers for High-Performance Inverted Perovskite Solar Cells. <i>Small</i> , 2018, 14, e1704007.	5.2	105
2319	Chelate-Pb Intermediate Engineering for High-Efficiency Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 14744-14750.	4.0	15

#	ARTICLE	IF	CITATIONS
2320	Hot Biexciton Effect on Optical Gain in CsPbI <sub>3</sub> Perovskite Nanocrystals. Journal of Physical Chemistry Letters, 2018, 9, 2222-2228.	2.1	67
2321	Photoelectrode for water splitting: Materials, fabrication and characterization. Science China Materials, 2018, 61, 806-821.	3.5	44
2322	Surfaces modification of MAPbI <sub>3</sub> films with hydrophobic I <sup>2</sup> -NaYF <sub>4</sub> :Yb,Er up-conversion ultrathin layers for improving the performance of perovskite solar cells. Applied Surface Science, 2018, 448, 145-153.	3.1	21
2323	Bluish-white-light-emitting diodes based on two-dimensional lead halide perovskite (C <sub>6</sub> H <sub>5</sub> C <sub>2</sub> H <sub>4</sub> NH <sub>3</sub> ) <sub>2</sub> PbCl <sub>2</sub> Br <sub>2</sub> . Applied Physics Letters, 2018, 112, .	1.5	50
2324	Copper iodide-PEDOT:PSS double hole transport layers for improved efficiency and stability in perovskite solar cells. Journal of Photochemistry and Photobiology A: Chemistry, 2018, 357, 36-40.	2.0	40
2325	Dynamic study of the light soaking effect on perovskite solar cells by in-situ photoluminescence microscopy. Nano Energy, 2018, 46, 356-364.	8.2	67
2326	Homeopathic Perovskite Solar Cells: Effect of Humidity during Fabrication on the Performance and Stability of the Device. Journal of Physical Chemistry C, 2018, 122, 5341-5348.	1.5	43
2327	Cadmium sulfide as an efficient electron transport material for inverted planar perovskite solar cells. Chemical Communications, 2018, 54, 3170-3173.	2.2	41
2328	A high stability, hole-conductor-free mixed organic cation perovskite solar cells based on carbon counter electrode. Electrochimica Acta, 2018, 266, 78-85.	2.6	15
2329	One-step roll-to-roll air processed high efficiency perovskite solar cells. Nano Energy, 2018, 46, 185-192.	8.2	271
2330	Highly flexible and scalable photo-rechargeable power unit based on symmetrical nanotube arrays. Nano Energy, 2018, 46, 168-175.	8.2	44
2331	Pseudohalogen-Based 2D Perovskite: A More Complex Thermal Degradation Mechanism Than 3D Perovskite. Inorganic Chemistry, 2018, 57, 2045-2050.	1.9	15
2332	Visualization and Studies of Ion-Diffusion Kinetics in Cesium Lead Bromide Perovskite Nanowires. Nano Letters, 2018, 18, 1807-1813.	4.5	136
2333	Synthetic Control over Quantum Well Width Distribution and Carrier Migration in Low-Dimensional Perovskite Photovoltaics. Journal of the American Chemical Society, 2018, 140, 2890-2896.	6.6	288
2334	Mixed Valence Perovskite Cs <sub>2</sub> Au <sub>2</sub> I <sub>6</sub> : A Potential Material for Thin-Film Pb-Free Photovoltaic Cells with Ultrahigh Efficiency. Advanced Materials, 2018, 30, e1707001.	11.1	79
2335	Sol-gel-processed yttrium-doped NiO as hole transport layer in inverted perovskite solar cells for enhanced performance. Applied Surface Science, 2018, 441, 258-264.	3.1	106
2336	Preparation of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> thin films for solar cells via Vapor Transfer Method. Journal of Energy Chemistry, 2018, 27, 1386-1389.	7.1	9
2337	Enhancing thermoelectric performance of the CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> polycrystalline thin films by using the excited state on photoexcitation. Organic Electronics, 2018, 55, 90-96.	1.4	24

#	ARTICLE	IF	CITATIONS
2338	Efficient and stable planar heterojunction perovskite solar cells fabricated under ambient conditions with high humidity. <i>Organic Electronics</i> , 2018, 55, 140-145.	1.4	39
2339	Morphology and Optoelectronic Variations Underlying the Nature of the Electron Transport Layer in Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2018, 1, 602-615.	2.5	25
2340	Photocharge accumulation and recombination in perovskite solar cells regarding device performance and stability. <i>Applied Physics Letters</i> , 2018, 112, 053904.	1.5	20
2341	Stable and Efficient Organo-Metal Halide Hybrid Perovskite Solar Cells via Conjugated Lewis Base Polymer Induced Trap Passivation and Charge Extraction. <i>Advanced Materials</i> , 2018, 30, e1706126.	11.1	241
2342	Solvent-modulated reaction between mesoporous PbI <sub>2</sub> film and CH <sub>3</sub> NH <sub>3</sub> I for enhancement of photovoltaic performances of perovskite solar cells. <i>Electrochimica Acta</i> , 2018, 266, 118-129.	2.6	17
2343	Grain Boundary Engineering of Halide Perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Solar Cells with Photochemically Active Additives. <i>Journal of Physical Chemistry C</i> , 2018, 122, 4817-4821.	1.5	31
2344	Fast Voltage Decay in Perovskite Solar Cells Caused by Depolarization of Perovskite Layer. <i>Journal of Physical Chemistry C</i> , 2018, 122, 4822-4827.	1.5	30
2345	Effect of Bromine Substitution on the Ion Migration and Optical Absorption in MAPbI <sub>3</sub> Perovskite Solar Cells: The First-Principles Study. <i>ACS Applied Energy Materials</i> , 2018, 1, 1374-1380.	2.5	46
2346	Facile surface modification of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> films leading to simultaneously improved efficiency and stability of inverted perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2018, 6, 6255-6264.	5.2	34
2347	Largely enhanced <i>V<sub>OC</sub></i> and stability in perovskite solar cells with modified energy match by coupled 2D interlayers. <i>Journal of Materials Chemistry A</i> , 2018, 6, 4860-4867.	5.2	61
2348	CH <sub>3</sub> NH <sub>3</sub> Pb <sub>1-x</sub> Mg <sub>x</sub> I <sub>3</sub> perovskites as environmentally friendly photovoltaic materials. <i>AIP Advances</i> , 2018, 8, 015218.	0.6	16
2350	Covalent organic nanosheets for effective charge transport layers in planar-type perovskite solar cells. <i>Nanoscale</i> , 2018, 10, 4708-4717.	2.8	31
2351	Improved Performance of Printable Perovskite Solar Cells with Bifunctional Conjugated Organic Molecule. <i>Advanced Materials</i> , 2018, 30, 1705786.	11.1	209
2352	Influence of coating steps of perovskite on low-temperature amorphous compact TiO <sub>x</sub> upon the morphology, crystallinity, and photovoltaic property correlation in planar perovskite solar cells. <i>Japanese Journal of Applied Physics</i> , 2018, 57, 03EJ06.	0.8	8
2353	Low-dimensional halide perovskites: review and issues. <i>Journal of Materials Chemistry C</i> , 2018, 6, 2189-2209.	2.7	165
2354	Interplay Between Extra Charge Injection and Lattice Evolution in VO <sub>2</sub> /CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Heterostructure. <i>Physica Status Solidi - Rapid Research Letters</i> , 2018, 12, 1700416.	1.2	3
2355	High-Quality CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Films Obtained via a Pressure-Assisted Space-Confined Solvent-Engineering Strategy for Ultrasensitive Photodetectors. <i>Nano Letters</i> , 2018, 18, 1213-1220.	4.5	35
2356	High-efficiency bulk heterojunction perovskite solar cell fabricated by one-step solution process using single solvent: synthesis and characterization of material and film formation mechanism. <i>Journal of Materials Chemistry A</i> , 2018, 6, 4179-4188.	5.2	31

#	ARTICLE	IF	CITATIONS
2357	Variation in the Photocurrent Response Due to Different Emissive States in Methylammonium Lead Bromide Perovskites. <i>Journal of Physical Chemistry C</i> , 2018, 122, 3818-3823.	1.5	11
2358	Incredible PCE enhancement induced by damaged perovskite layers: deeply understanding the working principle of additives in bulk heterojunction perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2018, 6, 4365-4373.	5.2	16
2359	Near-Band-Edge Optical Responses of $\text{CH}_3\text{NH}_3\text{PbI}_3$ Single Crystals: Photon Recycling of Excitonic Luminescence. <i>Physical Review Letters</i> , 2018, 120, 057404.	2.9	79
2360	Unraveling surface and bulk trap states in lead halide perovskite solar cells using impedance spectroscopy. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 095501.	1.3	21
2361	Long-lived hot-carrier light emission and large blue shift in formamidinium tin triiodide perovskites. <i>Nature Communications</i> , 2018, 9, 243.	5.8	188
2362	Sequentially Vapor-Grown Hybrid Perovskite for Planar Heterojunction Solar Cells. <i>Nanoscale Research Letters</i> , 2018, 13, 9.	3.1	18
2363	Planar perovskite solar cells employing copper(I) thiocyanate/ $\text{N,N}'$ -di(1-naphthyl)- $\text{N,N}'$ -diphenyl-(1,1'-biphenyl)-4,4'-diamine bilayer structure as hole transport layers. <i>Japanese Journal of Applied Physics</i> , 2018, 57, 02CE07.	1.5	2
2364	Inorganic Perovskite Solar Cells: A Rapidly Growing Field. <i>Solar Rrl</i> , 2018, 2, 1700188.	3.1	193
2365	Green perovskite light emitting diodes based on the ITO/Al <sub>2</sub> O <sub>3</sub> /CsPbBr <sub>3</sub> heterojunction structure. <i>Optical Materials</i> , 2018, 77, 25-29.	1.7	16
2366	Limitations of Cs <sub>3</sub> Bi <sub>2</sub> I <sub>9</sub> as Lead-Free Photovoltaic Absorber Materials. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 35000-35007.	4.0	133
2367	Charge-Carrier Dynamics and Crystalline Texture of Layered Ruddlesden-Popper Hybrid Lead Iodide Perovskite Thin Films. <i>ACS Energy Letters</i> , 2018, 3, 380-386.	8.8	97
2368	Electrodeposition of organic-inorganic tri-halide perovskites solar cell. <i>Journal of Power Sources</i> , 2018, 378, 717-731.	4.0	36
2369	Predicted Lead-Free Perovskites for Solar Cells. <i>Chemistry of Materials</i> , 2018, 30, 718-728.	3.2	102
2370	Practical Efficiency Limit of Methylammonium Lead Iodide Perovskite (CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> ) Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 426-434.	2.1	68
2371	Interfacial engineering <i>via</i> inserting functionalized water-soluble fullerene derivative interlayers for enhancing the performance of perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2018, 6, 3435-3443.	5.2	30
2372	One-Step Inkjet Printed Perovskite in Air for Efficient Light Harvesting. <i>Solar Rrl</i> , 2018, 2, 1700217.	3.1	90
2373	Ultrafast selective extraction of hot holes from cesium lead iodide perovskite films. <i>Journal of Energy Chemistry</i> , 2018, 27, 1170-1174.	7.1	23
2374	Influence of chromium hyperdoping on the electronic structure of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite: a first-principles insight. <i>Scientific Reports</i> , 2018, 8, 2511.	1.6	13



#	ARTICLE	IF	CITATIONS
2375	Characterization of the influences of morphology on the intrinsic properties of perovskite films by temperature-dependent and time-resolved spectroscopies. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 6575-6581.	1.3	11
2376	Differences in photoinduced optical transients in perovskite absorbers for solar cells. <i>RSC Advances</i> , 2018, 8, 6479-6487.	1.7	6
2377	Stability and charge separation of different CH <sub>3</sub> NH <sub>3</sub> SnI <sub>3</sub> /TiO <sub>2</sub> interface: A first-principles study. <i>Applied Surface Science</i> , 2018, 441, 394-400.	3.1	18
2378	Boosting efficiency of hole conductor-free perovskite solar cells by incorporating p-type NiO nanoparticles into carbon electrodes. <i>Solar Energy Materials and Solar Cells</i> , 2018, 178, 164-169.	3.0	62
2379	An Efficient Amphiphilic <sup>+</sup> Type Triphenylamine <sup>+</sup> Based Organic Hole Transport Material for High <sup>+</sup> Performance and Ambient <sup>+</sup> Stable Dopant <sup>+</sup> Free Perovskite and Organic Solar Cells. <i>Chemistry - A European Journal</i> , 2018, 24, 6426-6431.	1.7	10
2380	Fabrication of Mesoporous Titania Nanoparticles with Controlled Porosity and Connectivity for Studying the Photovoltaic Properties in Perovskite Solar Cells. <i>ChemNanoMat</i> , 2018, 4, 394-400.	1.5	9
2381	Optical Characteristics and Operational Principles of Hybrid Perovskite Solar Cells. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2018, 215, 1700730.	0.8	48
2382	Enhanced Thermal Stability in Perovskite Solar Cells by Assembling 2D/3D Stacking Structures. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 654-658.	2.1	447
2383	Pb-Activated Amine-Assisted Photocatalytic Hydrogen Evolution Reaction on Organic <sup>+</sup> Inorganic Perovskites. <i>Journal of the American Chemical Society</i> , 2018, 140, 1994-1997.	6.6	59
2384	Fullerene derivative with a branched alkyl chain exhibits enhanced charge extraction and stability in inverted planar perovskite solar cells. <i>New Journal of Chemistry</i> , 2018, 42, 2896-2902.	1.4	43
2385	Highly efficient and stable inverted perovskite solar cell employing PEDOT:GO composite layer as a hole transport layer. <i>Scientific Reports</i> , 2018, 8, 1070.	1.6	144
2386	How Methylammonium Cations and Chlorine Dopants Heal Defects in Lead Iodide Perovskites. <i>Advanced Energy Materials</i> , 2018, 8, 1702754.	10.2	86
2387	Low <sup>+</sup> Temperature Solution <sup>+</sup> Processed CuCrO <sub>2</sub> Hole <sup>+</sup> Transporting Layer for Efficient and Photostable Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2018, 8, 1702762.	10.2	137
2388	Terahertz Emission from Hybrid Perovskites Driven by Ultrafast Charge Separation and Strong Electron <sup>+</sup> Phonon Coupling. <i>Advanced Materials</i> , 2018, 30, 1704737.	11.1	86
2389	Screening of point defects in methylammonium lead halides: a Monte Carlo study. <i>Journal of Materials Chemistry C</i> , 2018, 6, 1487-1494.	2.7	6
2390	A Universal Strategy to Utilize Polymeric Semiconductors for Perovskite Solar Cells with Enhanced Efficiency and Longevity. <i>Advanced Functional Materials</i> , 2018, 28, 1706377.	7.8	134
2391	Lead Halide Perovskite Based Microdisk Lasers for On <sup>+</sup> Chip Integrated Photonic Circuits. <i>Advanced Optical Materials</i> , 2018, 6, 1701266.	3.6	48
2392	Simultaneous Improvement in Efficiency and Stability of Low <sup>+</sup> Temperature <sup>+</sup> Processed Perovskite Solar Cells by Interfacial Control. <i>Advanced Energy Materials</i> , 2018, 8, 1702934.	10.2	84

#	ARTICLE	IF	CITATIONS
2393	Organic Cation Substitution in Hybrid Perovskite $\text{CH}_3\text{NH}_3\text{PbI}_3$ with Hydroxylammonium ( $\text{NH}_3\text{OH}^+$ ): A First-Principles Study. <i>Journal of Physical Chemistry C</i> , 2018, 122, 3548-3557.	1.5	13
2394	Influence of Rutile-TiO <sub>2</sub> nanorod arrays on Pb-free $(\text{CH}_3\text{NH}_3)_3\text{Bi}_2\text{I}_9$ -based hybrid perovskite solar cells fabricated through two-step sequential solution process. <i>Journal of Alloys and Compounds</i> , 2018, 738, 422-431.	2.8	23
2395	The stable perovskite solar cell prepared by rapidly annealing perovskite film with water additive in ambient air. <i>Solar Energy Materials and Solar Cells</i> , 2018, 176, 280-287.	3.0	22
2396	Hexamethylenetetramine-mediated growth of grain-boundary-passivation $\text{CH}_3\text{NH}_3\text{PbI}_3$ for highly reproducible and stable perovskite solar cells. <i>Journal of Power Sources</i> , 2018, 377, 103-109.	4.0	30
2397	Giant Two-Photon Absorption in Mixed Halide Perovskite $\text{CH}_3\text{NH}_3\text{Pb}_{0.75}\text{Sn}_{0.25}\text{I}_3$ Thin Films and Application to Photodetection at Optical Communication Wavelengths. <i>Advanced Optical Materials</i> , 2018, 6, 1700819.	3.6	44
2398	Formation and Diffusion of Metal Impurities in Perovskite Solar Cell Material $\text{CH}_3\text{NH}_3\text{PbI}_3$ : Implications on Solar Cell Degradation and Choice of Electrode. <i>Advanced Science</i> , 2018, 5, 1700662.	5.6	130
2399	Electron-Phonon Coupling and Polaron Mobility in Hybrid Perovskites from First Principles. <i>Journal of Physical Chemistry C</i> , 2018, 122, 1361-1366.	1.5	29
2400	Controllable Crystal Film Growth via Appropriate Substrate-Preheating Treatment for Perovskite Solar Cells Using Mixed Lead Sources. <i>IEEE Journal of Photovoltaics</i> , 2018, 8, 162-170.	1.5	6
2401	Low temperature processed ternary oxide as an electron transport layer for efficient and stable perovskite solar cells. <i>Electrochimica Acta</i> , 2018, 261, 474-481.	2.6	23
2402	Solution-processed $\text{Zn}_2\text{SnO}_4$ electron transporting layer for efficient planar perovskite solar cells. <i>Materials Today Energy</i> , 2018, 7, 260-266.	2.5	30
2403	High permeable microporous structured carbon counter electrode assisted by polystyrene sphere for fully printable perovskite solar cells. <i>Solid State Communications</i> , 2018, 271, 71-75.	0.9	16
2404	Passivated Perovskite Crystallization via $\text{g-C}_3\text{N}_4$ for High-Performance Solar Cells. <i>Advanced Functional Materials</i> , 2018, 28, 1705875.	7.8	208
2405	Influence of the Nature of A Cation on Dynamics of Charge Transfer Processes in Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2018, 28, 1706073.	7.8	58
2406	Low-Dimensional Perovskites: From Synthesis to Stability in Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2018, 8, 1702073.	10.2	74
2407	Oriented Grains with Preferred Low-Angle Grain Boundaries in Halide Perovskite Films by Pressure-Induced Crystallization. <i>Advanced Energy Materials</i> , 2018, 8, 1702369.	10.2	74
2408	Role of Lead Vacancies for Optoelectronic Properties of Lead-Halide Perovskites. <i>Journal of Physical Chemistry C</i> , 2018, 122, 5216-5226.	1.5	20
2409	Correlational study of halogen tuning effect in hybrid perovskite single crystals with Raman scattering, X-ray diffraction, and absorption spectroscopy. <i>Journal of Alloys and Compounds</i> , 2018, 738, 239-245.	2.8	22
2410	Molecular engineering of conjugated polymers for efficient hole transport and defect passivation in perovskite solar cells. <i>Nano Energy</i> , 2018, 45, 28-36.	8.2	241

#	ARTICLE	IF	CITATIONS
2411	Roles of Polymer Layer in Enhanced Photovoltaic Performance of Perovskite Solar Cells via Interface Engineering. <i>Advanced Materials Interfaces</i> , 2018, 5, 1701256.	1.9	60
2412	A Facile Low Temperature Fabrication of High Performance CsPbI <sub>2</sub> Br All-Inorganic Perovskite Solar Cells. <i>Solar Rrl</i> , 2018, 2, 1700180.	3.1	139
2413	Enhancing efficiency of planar structure perovskite solar cells using Sn-doped TiO <sub>2</sub> as electron transport layer at low temperature. <i>Electrochimica Acta</i> , 2018, 261, 227-235.	2.6	74
2414	Elucidating the Roles of TiCl <sub>4</sub> and PCBM Fullerene Treatment on TiO <sub>2</sub> Electron Transporting Layer for Highly Efficient Planar Perovskite Solar Cells. <i>Journal of Physical Chemistry C</i> , 2018, 122, 1044-1053.	1.5	57
2415	Direct Observation of Ultrafast Exciton Dissociation in Lead Iodide Perovskite by 2D Electronic Spectroscopy. <i>ACS Photonics</i> , 2018, 5, 852-860.	3.2	57
2416	Spinel Co <sub>3</sub> O <sub>4</sub> nanomaterials for efficient and stable large area carbon-based printed perovskite solar cells. <i>Nanoscale</i> , 2018, 10, 2341-2350.	2.8	106
2417	Morphology control towards bright and stable inorganic halide perovskite light-emitting diodes. <i>Journal of Materials Chemistry C</i> , 2018, 6, 1573-1578.	2.7	33
2418	Thermal Stability of Mixed Cation Metal Halide Perovskites in Air. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 5485-5491.	4.0	123
2419	Crystal orientation-dependent optoelectronic properties of MAPbCl <sub>3</sub> single crystals. <i>Journal of Materials Chemistry C</i> , 2018, 6, 1579-1586.	2.7	78
2420	High-Performance CsPbX <sub>3</sub> Perovskite Quantum-Dot Light-Emitting Devices via Solid-State Ligand Exchange. <i>ACS Applied Nano Materials</i> , 2018, 1, 488-496.	2.4	102
2421	Influence of [6,6]-Phenyl-C61-butyric Acid Methyl Ester doping on Au/CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> /Au metal-semiconductor-metal (MSM) photoelectric detectors. <i>Materials Letters</i> , 2018, 217, 139-142.	1.3	2
2422	Efficient perovskite/organic integrated solar cells with extended photoresponse to 930 nm and enhanced near-infrared external quantum efficiency of over 50%. <i>Nanoscale</i> , 2018, 10, 3245-3253.	2.8	33
2423	Cations substitution tuning phase stability in hybrid perovskite single crystals by strain relaxation. <i>RSC Advances</i> , 2018, 8, 2900-2905.	1.7	52
2424	TiO <sub>2</sub> Phase Junction Electron Transport Layer Boosts Efficiency of Planar Perovskite Solar Cells. <i>Advanced Science</i> , 2018, 5, 1700614.	5.6	67
2425	High Quality Perovskite Crystals for Efficient Film Photodetectors Induced by Hydrolytic Insulating Oxide Substrates. <i>Advanced Functional Materials</i> , 2018, 28, 1705220.	7.8	34
2426	Performance enhancement of perovskite solar cells using NH <sub>4</sub> I additive in a solution processing method. <i>Solar Energy</i> , 2018, 162, 8-13.	2.9	11
2427	Ultrafast Imaging of Carrier Cooling in Metal Halide Perovskite Thin Films. <i>Nano Letters</i> , 2018, 18, 1044-1048.	4.5	33
2428	Self-Organized Superlattice and Phase Coexistence inside Thin Film Organometal Halide Perovskite. <i>Advanced Materials</i> , 2018, 30, 1705230.	11.1	79

#	ARTICLE	IF	CITATIONS
2429	Excitations Partition into Two Distinct Populations in Bulk Perovskites. <i>Advanced Optical Materials</i> , 2018, 6, 1700975.	3.6	8
2430	Band Engineering via Sn <sup>2+</sup> -doping of Zinc Oxide Electron Transport Materials for Perovskite Solar Cells. <i>ChemistrySelect</i> , 2018, 3, 363-367.	0.7	9
2431	Fabry-Pérot Oscillation and Room Temperature Lasing in Perovskite Cube-Corner Pyramid Cavities. <i>Small</i> , 2018, 14, 1703136.	5.2	61
2432	Pyridine-Modulated Mn Ion Emission Properties of $\text{CH}_{10}\text{H}_{12}\text{N}_2\text{MnBr}_4$ and $\text{CH}_5\text{H}_6\text{NMnBr}_3$ Single Crystals. <i>Journal of Physical Chemistry C</i> , 2018, 122, 3130-3137.	1.5	88
2433	Efficiency enhancement of perovskite solar cells using structural and morphological improvement of $\text{CH}_3\text{NH}_3\text{PbI}_3$ absorber layers. <i>Materials Research Express</i> , 2018, 5, 016412.	0.8	20
2434	Highly Efficient Perovskite Solar Modules by Scalable Fabrication and Interconnection Optimization. <i>ACS Energy Letters</i> , 2018, 3, 322-328.	8.8	143
2435	Grain Size Modulation and Interfacial Engineering of $\text{CH}_3\text{NH}_3\text{PbBr}_3$ Emitter Films through Incorporation of Tetraethylammonium Bromide. <i>ChemPhysChem</i> , 2018, 19, 1075-1080.	1.0	13
2436	New-generation integrated devices based on dye-sensitized and perovskite solar cells. <i>Energy and Environmental Science</i> , 2018, 11, 476-526.	15.6	364
2437	Controlled synthesis of brightly fluorescent $\text{CH}_3\text{NH}_3\text{PbBr}_3$ perovskite nanocrystals employing $\text{Pb}(\text{C}_{17}\text{H}_{33}\text{COO})_2$ as the sole lead source. <i>RSC Advances</i> , 2018, 8, 1132-1139.	1.7	6
2438	Construction of Perovskite Solar Cells Using Inorganic Hole-Extracting Components. <i>ACS Omega</i> , 2018, 3, 46-54.	1.6	21
2439	A strategic review on processing routes towards highly efficient perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2018, 6, 2406-2431.	5.2	179
2440	Theoretical insight into the carrier mobility anisotropy of organic-inorganic perovskite $\text{CH}_3\text{NH}_3\text{PbI}_3$ . <i>Journal of Electroanalytical Chemistry</i> , 2018, 810, 11-17.	1.9	16
2441	Improving electron transport in the hybrid perovskite solar cells using $\text{CaMnO}_3$ -based buffer layer. <i>Nano Energy</i> , 2018, 45, 287-297.	8.2	19
2442	Unique Optical Properties of Methylammonium Lead Iodide Nanocrystals Below the Bulk Tetragonal-Orthorhombic Phase Transition. <i>Nano Letters</i> , 2018, 18, 846-852.	4.5	38
2443	High-Performance Photodetectors Based on Solution-Processed Epitaxial Grown Hybrid Halide Perovskites. <i>Nano Letters</i> , 2018, 18, 994-1000.	4.5	105
2444	Progress in hole-transporting materials for perovskite solar cells. <i>Journal of Energy Chemistry</i> , 2018, 27, 650-672.	7.1	90
2445	Alternative Perovskites for Photovoltaics. <i>Advanced Energy Materials</i> , 2018, 8, 1703120.	10.2	85
2446	Tuning Molecular Interactions for Highly Reproducible and Efficient Formamidinium Perovskite Solar Cells via Adduct Approach. <i>Journal of the American Chemical Society</i> , 2018, 140, 6317-6324.	6.6	338

#	ARTICLE	IF	CITATIONS
2447	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
2448	Hydrogen evolution with CsPbBr <sub>3</sub> perovskite nanocrystals under visible light in solution. Materials Today Communications, 2018, 16, 90-96.	0.9	30
2449	From Ultrafast to Ultraslow: Charge-Carrier Dynamics of Perovskite Solar Cells. Joule, 2018, 2, 879-901.	11.7	190
2450	<i>In situ</i> and real-time ToF-SIMS analysis of light-induced chemical changes in perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> . Chemical Communications, 2018, 54, 5434-5437.	2.2	19
2451	In <sup>3+</sup> -doped BiVO <sub>4</sub> photoanodes with passivated surface states for photoelectrochemical water oxidation. Journal of Materials Chemistry A, 2018, 6, 10456-10465.	5.2	83
2452	Electronic structures and chemical states of methylammonium lead triiodide thin films and the impact of annealing and moisture exposure. Journal of Applied Physics, 2018, 123, .	1.1	16
2453	Reflectivity Effects on Pump-Probe Spectra of Lead Halide Perovskites: Comparing Thin Films versus Nanocrystals. ACS Nano, 2018, 12, 5719-5725.	7.3	35
2454	Pressure-induced strong ferroelectric polarization in tetra-phase perovskite CsPbBr <sub>3</sub> . Physical Chemistry Chemical Physics, 2018, 20, 14718-14724.	1.3	71
2455	Imprinting Chirality onto the Electronic States of Colloidal Perovskite Nanoplatelets. Advanced Materials, 2018, 30, e1800097.	11.1	84
2456	Enhanced Photoresponsive Properties of Perovskite Films on Metal Oxide LaAlO <sub>3</sub> Substrates. Journal of Physical Chemistry C, 2018, 122, 10495-10500.	1.5	12
2457	Photovoltaic-targeted photoluminescence lifetime engineering in bright type-II alloy quantum dots. Solar Energy, 2018, 169, 75-83.	2.9	2
2458	Synthesis and characterization of thiophene-mediated hole transport materials for perovskite solar cells. Synthetic Metals, 2018, 241, 54-68.	2.1	8
2459	Impact of interlayer application on band bending for improved electron extraction for efficient flexible perovskite mini-modules. Nano Energy, 2018, 49, 300-307.	8.2	32
2460	Enhancing photovoltaic performance of perovskite solar cells with silica nanosphere antireflection coatings. Solar Energy, 2018, 169, 128-135.	2.9	51
2461	A Versatile Thin-Film Deposition Method for Multidimensional Semiconducting Bismuth Halides. Chemistry of Materials, 2018, 30, 3538-3544.	3.2	52
2462	Perovskite-quantum dots interface: Deciphering its ultrafast charge carrier dynamics. Nano Energy, 2018, 49, 471-480.	8.2	23
2463	Imaging Carrier Diffusion in Perovskites with a Diffractive Optic-Based Transient Absorption Microscope. Journal of Physical Chemistry C, 2018, 122, 10650-10656.	1.5	31
2464	Excitonic Effects in Methylammonium Lead Halide Perovskites. Journal of Physical Chemistry Letters, 2018, 9, 2595-2603.	2.1	107

#	ARTICLE	IF	CITATIONS
2465	High performance planar p-i-n perovskite solar cells based on a thin Alq <sub>3</sub> cathode buffer layer. RSC Advances, 2018, 8, 15961-15966.	1.7	16
2466	Synthesis and Characterization of Methylammonium Lead Iodide Perovskite and its Application in Planar Hetero-junction Devices. Semiconductor Science and Technology, 2018, 33, 065012.	1.0	28
2467	Long Electron-Hole Diffusion Length in High-Quality Lead-Free Double Perovskite Films. Advanced Materials, 2018, 30, e1706246.	11.1	242
2468	High-Performance Planar Perovskite Solar Cells Using Low Temperature, Solution-Combustion-Based Nickel Oxide Hole Transporting Layer with Efficiency Exceeding 20%. Advanced Energy Materials, 2018, 8, 1703432.	10.2	279
2469	Improving the Performance of a Perovskite Solar Cell by Adjusting the Dispersant for Titanium Dioxide. Energy Technology, 2018, 6, 677-682.	1.8	2
2470	Secondary crystal growth for efficient planar perovskite solar cells in ambient atmosphere. Organic Electronics, 2018, 58, 119-125.	1.4	3
2471	Extended Absorption Window and Improved Stability of Cesium-Based Triple-Cation Perovskite Solar Cells Passivated with Perfluorinated Organics. ACS Energy Letters, 2018, 3, 1068-1076.	8.8	44
2472	Enhancement of photoresponse property of perovskite solar cell by aluminium chloride (AlCl <sub>3</sub> ). Semiconductor Science and Technology, 2018, 33, 055002.	1.0	6
2473	Surface Rutilization of Anatase TiO <sub>2</sub> for Efficient Electron Extraction and Stable Pmax Output of Perovskite Solar Cells. Chem, 2018, 4, 911-923.	5.8	28
2474	Enormously improved CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> film surface for environmentally stable planar perovskite solar cells with PCE exceeding 19.9%. Nano Energy, 2018, 48, 10-19.	8.2	61
2475	Computational Study of Structural and Electronic Properties of Lead-Free CsMI <sub>3</sub> Perovskites (M = Ge, Sn, Pb, Mg, Ca, Sr, and Ba). Journal of Physical Chemistry C, 2018, 122, 7838-7848.	1.5	62
2476	Ultrafast Terahertz Probes of Charge Transfer and Recombination Pathway of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskites. Chinese Physics Letters, 2018, 35, 028401.	1.3	5
2477	Highly Efficient and Stable Solar Cells with 2D MA <sub>3</sub> Bi <sub>2</sub> I <sub>9</sub> /3D MAPbI <sub>3</sub> Heterostructured Perovskites. Advanced Energy Materials, 2018, 8, 1703620.	10.2	94
2478	Diameter engineering on TiO <sub>2</sub> nanorod arrays for improved hole-conductor-free perovskite solar cells. Solar Energy, 2018, 166, 42-49.	2.9	16
2479	Controllable Preparation of Rutile TiO <sub>2</sub> Nanorod Array for Enhanced Photovoltaic Performance of Perovskite Solar Cells. ACS Applied Energy Materials, 2018, 1, 1649-1657.	2.5	26
2480	High-Sensitivity Light Detection via Gate Tuning of Organometallic Perovskite/PCBM Bulk Heterojunctions on Ferroelectric Pb <sub>0.92</sub> La <sub>0.08</sub> Zr <sub>0.52</sub> Ti <sub>0.48</sub> O <sub>3</sub> Gated Graphene Field Effect Transistors. ACS Applied Materials & Interfaces, 2018, 10, 12824-12830.	4.0	20
2481	Micropatterned 2D Hybrid Perovskite Thin Films with Enhanced Photoluminescence Lifetimes. ACS Applied Materials & Interfaces, 2018, 10, 12878-12885.	4.0	38
2482	SKPM study on organic-inorganic perovskite materials. AIP Advances, 2018, 8, .	0.6	9



#	ARTICLE	IF	CITATIONS
2483	Dendrimer ligands-capped CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> perovskite nanocrystals with delayed halide exchange and record stability against both moisture and water. <i>Nanotechnology</i> , 2018, 29, 235603.	1.3	8
2484	Scalable fabrication of perovskite solar cells. <i>Nature Reviews Materials</i> , 2018, 3, .	23.3	764
2485	Ca <sub>2</sub> : a more effective passivator of perovskite films than PbI <sub>2</sub> for high efficiency and long-term stability of perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2018, 6, 7903-7912.	5.2	69
2486	Colloidal synthesis of monolayer-thick formamidinium lead bromide perovskite nanosheets with a lateral size of micrometers. <i>Chemical Communications</i> , 2018, 54, 4021-4024.	2.2	14
2487	First-Principles Modeling of Bismuth Doping in the MAPb <sub>3</sub> Perovskite. <i>Journal of Physical Chemistry C</i> , 2018, 122, 14107-14112.	1.5	64
2488	A Multifunctional Bis-Adduct Fullerene for Efficient Printable Mesoscopic Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 10835-10841.	4.0	28
2489	Effect of Fullerene Passivation on the Charging and Discharging Behavior of Perovskite Solar Cells: Reduction of Bound Charges and Ion Accumulation. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 11722-11731.	4.0	24
2490	Identification of high-temperature exciton states and their phase-dependent trapping behaviour in lead halide perovskites. <i>Energy and Environmental Science</i> , 2018, 11, 1460-1469.	15.6	61
2491	Optical properties of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> single crystal. <i>Journal of Luminescence</i> , 2018, 199, 160-164.	1.5	1
2492	Correlation of ETL in perovskite light-emitting diodes and the ultra-long rise time in time-resolved electroluminescence. <i>Materials Science in Semiconductor Processing</i> , 2018, 80, 131-136.	1.9	2
2493	A novel ball milling technique for room temperature processing of TiO <sub>2</sub> nanoparticles employed as the electron transport layer in perovskite solar cells and modules. <i>Journal of Materials Chemistry A</i> , 2018, 6, 7114-7122.	5.2	35
2494	A universal top-down approach toward thickness-controllable perovskite single-crystalline thin films. <i>Journal of Materials Chemistry C</i> , 2018, 6, 4464-4470.	2.7	49
2495	Excess iodine as the interface recombination center limiting the open-circuit voltage of CuI-based perovskite planar solar cell. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 8838-8846.	1.1	9
2496	Photorefractive Effect in Organic-Inorganic Hybrid Perovskites and Its Application to Optical Phase Shifter. <i>Advanced Optical Materials</i> , 2018, 6, 1701366.	3.6	38
2497	Fullerene-Based Materials as Hole-Transporting/Electron-Blocking Layers: Applications in Perovskite Solar Cells. <i>Chemistry - A European Journal</i> , 2018, 24, 8524-8529.	1.7	25
2498	Alloy-Controlled Work Function for Enhanced Charge Extraction in All-Inorganic CsPbBr <sub>3</sub> Perovskite Solar Cells. <i>ChemSusChem</i> , 2018, 11, 1432-1437.	3.6	62
2499	Perovskite Solar Absorbers: Materials by Design. <i>Small Methods</i> , 2018, 2, 1700316.	4.6	95
2500	Excellent microwave absorption of lead halide perovskites with high stability. <i>Journal of Materials Chemistry C</i> , 2018, 6, 4201-4207.	2.7	28

#	ARTICLE	IF	CITATIONS
2501	Hansen theory applied to the identification of nonhazardous solvents for hybrid perovskite thin-films processing. <i>Polyhedron</i> , 2018, 147, 9-14.	1.0	13
2502	Boosting efficiency and stability of perovskite solar cells with nickel phthalocyanine as a low-cost hole transporting layer material. <i>Journal of Materials Science and Technology</i> , 2018, 34, 1474-1480.	5.6	45
2503	Enhancing Moisture and Water Resistance in Perovskite Solar Cells by Encapsulation with Ultrathin Plasma Polymers. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 11587-11594.	4.0	125
2504	First-principles investigation of the Lewis acid-base adduct formation at the methylammonium lead iodide surface. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 11183-11195.	1.3	9
2505	Employing surfactant-assisted hydrothermal synthesis to control CuGaO <sub>2</sub> nanoparticle formation and improved carrier selectivity of perovskite solar cells. <i>Materials Today Energy</i> , 2018, 8, 57-64.	2.5	35
2506	Nature of Photoinduced Quenching Traps in Methylammonium Lead Triiodide Perovskite Revealed by Reversible Photoluminescence Decline. <i>ACS Photonics</i> , 2018, 5, 2034-2043.	3.2	42
2507	Fabrication of mixed perovskite organic cation thin films via controllable cation exchange. <i>Chinese Physics B</i> , 2018, 27, 024208.	0.7	6
2508	Direct or Indirect Bandgap in Hybrid Lead Halide Perovskites?. <i>Advanced Optical Materials</i> , 2018, 6, 1701254.	3.6	54
2509	Thermodynamically Self-Healing 1D-3D Hybrid Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2018, 8, 1703421.	10.2	158
2510	Influence of Charge Transport Layers on Open-Circuit Voltage and Hysteresis in Perovskite Solar Cells. <i>Joule</i> , 2018, 2, 788-798.	11.7	187
2511	Improvement efficiency of perovskite solar cells by hybrid electrospray and vapor-assisted solution technology. <i>Organic Electronics</i> , 2018, 57, 221-225.	1.4	7
2512	Ultrafast Charge Transfer in Perovskite Nanowire/2D Transition Metal Dichalcogenide Heterostructures. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 1655-1662.	2.1	75
2513	Synthesis and optical properties of ordered-vacancy perovskite cesium bismuth halide nanocrystals. <i>Chemical Communications</i> , 2018, 54, 3640-3643.	2.2	58
2514	Highly $\pi$ -extended copolymer as additive-free hole-transport material for perovskite solar cells. <i>Nano Research</i> , 2018, 11, 185-194.	5.8	24
2515	Recent progress in perovskite solar cells. <i>Renewable and Sustainable Energy Reviews</i> , 2018, 81, 2812-2822.	8.2	153
2516	Simulation study on improving efficiencies of perovskite solar cell: Introducing nano textures on it. <i>Optics Communications</i> , 2018, 410, 117-122.	1.0	24
2517	UNDERSTANDING THE EFFECT OF DEPRESSOR ON THE TiO <sub>2</sub> COMPACT LAYER FOR THE PHOTOCURRENT PERFORMANCE OF PEROVSKITE SOLAR CELLS. <i>Surface Review and Letters</i> , 2018, 25, 1950019.	0.5	0
2518	Confined-solution process for high-quality CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> single crystals with controllable morphologies. <i>Nano Research</i> , 2018, 11, 3306-3312.	5.8	12

#	ARTICLE	IF	CITATIONS
2519	Printable carbon-based hole-conductor-free mesoscopic perovskite solar cells: From lab to market. <i>Materials Today Energy</i> , 2018, 7, 221-231.	2.5	47
2520	Interpretation and evolution of open-circuit voltage, recombination, ideality factor and subgap defect states during reversible light-soaking and irreversible degradation of perovskite solar cells. <i>Energy and Environmental Science</i> , 2018, 11, 151-165.	15.6	586
2521	Recent Advances in Spiro-MeOTAD Hole Transport Material and Its Applications in Organic-Inorganic Halide Perovskite Solar Cells. <i>Advanced Materials Interfaces</i> , 2018, 5, 1700623.	1.9	316
2522	Role of organic cations on hybrid halide perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> surfaces. <i>Journal of Solid State Chemistry</i> , 2018, 258, 488-494.	1.4	10
2523	High-performance colorful semitransparent perovskite solar cells with phase-compensated microcavities. <i>Nano Research</i> , 2018, 11, 2553-2561.	5.8	41
2524	Inorganic-organic halide perovskites for new photovoltaic technology. <i>National Science Review</i> , 2018, 5, 559-576.	4.6	49
2525	Improving the moisture stability of perovskite solar cells by using PMMA/P3HT based hole-transport layers. <i>Materials Chemistry Frontiers</i> , 2018, 2, 81-89.	3.2	43
2526	Novel CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> /polyimide composites with enhanced film-forming and electrical conductive properties. <i>High Performance Polymers</i> , 2018, 30, 847-855.	0.8	1
2527	Effect of doping of NaI monovalent cation halide on the structural, morphological, optical and optoelectronic properties of MAPbI <sub>3</sub> perovskite. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 205-210.	1.1	29
2528	ZnO/ZnS core-shell composites for low-temperature-processed perovskite solar cells. <i>Journal of Energy Chemistry</i> , 2018, 27, 1461-1467.	7.1	26
2529	Extrinsic Movable Ions in MAPbI <sub>3</sub> Modulate Energy Band Alignment in Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2018, 8, 1701981.	10.2	62
2530	Effect of Rb doping on modulating grain shape and semiconductor properties of MAPbI <sub>3</sub> perovskite layer. <i>Materials Letters</i> , 2018, 211, 328-330.	1.3	24
2531	Recent theoretical progress in the development of perovskite photovoltaic materials. <i>Journal of Energy Chemistry</i> , 2018, 27, 637-649.	7.1	48
2532	Improving the stability of inverted perovskite solar cells under ambient conditions with graphene-based inorganic charge transporting layers. <i>Carbon</i> , 2018, 126, 208-214.	5.4	51
2533	The Electrical and Optical Properties of Organometal Halide Perovskites Relevant to Optoelectronic Performance. <i>Advanced Materials</i> , 2018, 30, 1700764.	11.1	141
2534	Fabrication and characterization of next generation nano-structured organo-lead halide-based perovskite solar cell. <i>Ionics</i> , 2018, 24, 1227-1233.	1.2	12
2535	Biosupramolecular bacteriochlorin aggregates as hole-transporters for perovskite solar cells. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2018, 353, 639-644.	2.0	18
2536	Stabilizing the Efficiency Beyond 20% with a Mixed Cation Perovskite Solar Cell Fabricated in Ambient Air under Controlled Humidity. <i>Advanced Energy Materials</i> , 2018, 8, 1700677.	10.2	459

#	ARTICLE	IF	CITATIONS
2537	Self-Assembly Atomic Stacking Transport Layer of 2D Layered Titania for Perovskite Solar Cells with Extended UV Stability. <i>Advanced Energy Materials</i> , 2018, 8, 1701722.	10.2	46
2538	Prediction on electronic structure of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> /Fe <sub>3</sub> O <sub>4</sub> interfaces. <i>Solid State Communications</i> , 2018, 269, 90-95.	0.9	3
2539	V2O5 -PEDOT: PSS bilayer as hole transport layer for highly efficient and stable perovskite solar cells. <i>Organic Electronics</i> , 2018, 53, 66-73.	1.4	63
2540	Integrated perovskite solar capacitors with high energy conversion efficiency and fast photo-charging rate. <i>Journal of Materials Chemistry A</i> , 2018, 6, 2047-2052.	5.2	85
2541	The architecture of the electron transport layer for a perovskite solar cell. <i>Journal of Materials Chemistry C</i> , 2018, 6, 682-712.	2.7	172
2542	An overview of engineered porous material for energy applications: a mini-review. <i>Ionics</i> , 2018, 24, 1-17.	1.2	61
2543	Organic semiconductor crystals. <i>Chemical Society Reviews</i> , 2018, 47, 422-500.	18.7	623
2544	Toward High Uniformity of Photoresponse Broadband Hybrid Organic-Inorganic Photodiode Based on PVP-Modified Perovskite. <i>Advanced Optical Materials</i> , 2018, 6, 1700509.	3.6	19
2545	High performance of mixed halide perovskite solar cells: Role of halogen atom and plasmonic nanoparticles on the ideal current density of cell. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2018, 97, 282-289.	1.3	23
2546	Immobilization of Molecular Catalysts for Enhanced Redox Catalysis. <i>ChemCatChem</i> , 2018, 10, 1686-1702.	1.8	35
2547	Air-stable all inorganic green perovskite light emitting diodes based on ZnO/CsPbBr <sub>3</sub> /NiO heterojunction structure. <i>Ceramics International</i> , 2018, 44, 4685-4688.	2.3	47
2548	Enhancing Ferroelectric Dipole Ordering in Organic-Inorganic Hybrid Perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> : Strain and Doping Engineering. <i>Journal of Physical Chemistry C</i> , 2018, 122, 177-184.	1.5	35
2549	Metal ions diffusion at heterojunction chromium Oxide/CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> interface on the stability of perovskite solar cells. <i>Surfaces and Interfaces</i> , 2018, 10, 93-99.	1.5	31
2550	The merit of perovskite's dimensionality; can this replace the 3D halide perovskite?. <i>Energy and Environmental Science</i> , 2018, 11, 234-242.	15.6	196
2551	High performance planar perovskite solar cells based on CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3-x</sub> (SCN) <sub>x</sub> perovskite film and SnO <sub>2</sub> electron transport layer prepared in ambient air with 70% humidity. <i>Electrochimica Acta</i> , 2018, 260, 468-476.	2.6	27
2552	Effects of Cyclic Tetrapyrrole Rings of Aggregate-Forming Chlorophyll Derivatives as Hole-Transporting Materials on Performance of Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2018, 1, 9-16.	2.5	27
2553	Exploration of Crystallization Kinetics in Quasi Two-Dimensional Perovskite and High Performance Solar Cells. <i>Journal of the American Chemical Society</i> , 2018, 140, 459-465.	6.6	327
2554	Formic acid: an accelerator and quality promoter for nonseeded growth of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> single crystals. <i>Chemical Communications</i> , 2018, 54, 1049-1052.	2.2	21

#	ARTICLE	IF	CITATIONS
2555	Room-Temperature-Operated Ultrasensitive Broadband Photodetectors by Perovskite Incorporated with Conjugated Polymer and Single-Wall Carbon Nanotubes. <i>Advanced Functional Materials</i> , 2018, 28, 1705541.	7.8	69
2556	Enhanced electrical properties of Li-doped NiO x hole extraction layer in n type perovskite solar cells. <i>Current Applied Physics</i> , 2018, 18, S55-S59.	1.1	27
2557	Effect of rubrene:P3HT bilayer on photovoltaic performance of perovskite solar cells with electrodeposited ZnO nanorods. <i>Journal of Energy Chemistry</i> , 2018, 27, 455-462.	7.1	32
2558	High-efficiency perovskite solar cells based on MAI(PbI <sub>2</sub> ) <sub>1-x</sub> (FeCl <sub>2</sub> ) <sub>x</sub> absorber layers. <i>Solar Energy</i> , 2018, 159, 786-793.	2.9	23
2559	Dynamical Rashba Band Splitting in Hybrid Perovskites Modeled by Local Electric Fields. <i>Journal of Physical Chemistry C</i> , 2018, 122, 124-132.	1.5	8
2560	The mixing effect of organic cations on the structural, electronic and optical properties of FA <sub>x</sub> MA <sub>1-x</sub> PbI <sub>3</sub> perovskites. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 941-950.	1.3	24
2561	Facile fabrication of perovskite layers with large grains through a solvent exchange approach. <i>Inorganic Chemistry Frontiers</i> , 2018, 5, 348-353.	3.0	34
2562	Hybrid Perovskite-Based Position-Sensitive Detectors. <i>Advanced Electronic Materials</i> , 2018, 4, 1700362.	2.6	14
2563	Fullerene-Based Materials for Photovoltaic Applications: Toward Efficient, Hysteresis-Free, and Stable Perovskite Solar Cells. <i>Advanced Electronic Materials</i> , 2018, 4, 1700435.	2.6	101
2564	Quantifying Efficiency Loss of Perovskite Solar Cells by a Modified Detailed Balance Model. <i>Advanced Energy Materials</i> , 2018, 8, 1701586.	10.2	82
2565	Inorganic Hole-Transporting Materials for Perovskite Solar Cells. <i>Small Methods</i> , 2018, 2, 1700280.	4.6	141
2566	Photophysical Model for Non-Exponential Relaxation Dynamics in Hybrid Perovskite Semiconductors. <i>Journal of Physical Chemistry C</i> , 2018, 122, 1119-1124.	1.5	15
2567	Enhanced charge carrier mobility and lifetime suppress hysteresis and improve efficiency in planar perovskite solar cells. <i>Energy and Environmental Science</i> , 2018, 11, 78-86.	15.6	246
2568	Frontiers, opportunities, and challenges in perovskite solar cells: A critical review. <i>Journal of Photochemistry and Photobiology C: Photochemistry Reviews</i> , 2018, 35, 1-24.	5.6	329
2569	Effect of tantalum doping in a TiO <sub>2</sub> compact layer on the performance of planar spiro-OMeTAD free perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2018, 6, 1037-1047.	5.2	86
2570	Cation engineering on lead iodide perovskites for stable and high-performance photovoltaic applications. <i>Journal of Energy Chemistry</i> , 2018, 27, 1017-1039.	7.1	37
2571	Improving the performance of arylamine-based hole transporting materials in perovskite solar cells: Extending I <sup>-</sup> -conjugation length or increasing the number of side groups?. <i>Journal of Energy Chemistry</i> , 2018, 27, 1409-1414.	7.1	13
2572	Uniform, high crystalline, (100) crystal orientated perovskite films without PbI <sub>2</sub> residue by controlling the nanostructure of PbI <sub>2</sub> . <i>Organic Electronics</i> , 2018, 53, 26-34.	1.4	14

#	ARTICLE	IF	CITATIONS
2573	Perovskite Solar Cells with ZnO Electron-Transporting Materials. <i>Advanced Materials</i> , 2018, 30, 1703737.	11.1	319
2574	Anisotropic optoelectronic performances on (112) and (100) lattice plane of perovskite MAPbI <sub>3</sub> single crystal. <i>Materials Chemistry and Physics</i> , 2018, 204, 222-227.	2.0	31
2575	Breathing bands due to molecular order in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> . <i>Computational Materials Science</i> , 2018, 142, 361-371.	1.4	14
2576	Graphdiyne-modified cross-linkable fullerene as an efficient electron-transporting layer in organometal halide perovskite solar cells. <i>Nano Energy</i> , 2018, 43, 47-54.	8.2	126
2577	Interactions between molecules and perovskites in halide perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2018, 175, 1-19.	3.0	66
2578	Highly oriented two-dimensional formamidinium lead iodide perovskites with a small bandgap of 1.51 eV. <i>Materials Chemistry Frontiers</i> , 2018, 2, 121-128.	3.2	95
2579	Spectroscopic and first principles investigation on 4-[(4-pyridinylmethylene)amino]-benzoic acid bearing pyridyl and carboxyl anchoring groups. <i>Journal of Molecular Structure</i> , 2018, 1155, 389-393.	1.8	5
2580	Microstructural and optical properties of HC(NH <sub>2</sub> ) <sub>2</sub> PbI <sub>3</sub> thin films prepared by single source thermal evaporation. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 2267-2274.	1.1	6
2581	Lead-Free Hybrid Perovskite Absorbers for Viable Application: Can We Eat the Cake and Have It too?. <i>Advanced Science</i> , 2018, 5, 1700331.	5.6	233
2582	High-quality perovskite MAPbI <sub>3</sub> single crystals for broad-spectrum and rapid response integrate photodetector. <i>Journal of Energy Chemistry</i> , 2018, 27, 722-727.	7.1	76
2583	Nonlinear Optical Crystal Rb <sub>4</sub> Sn <sub>3</sub> Cl <sub>2</sub> Br <sub>8</sub> : Synthesis, Structure, and Characterization. <i>Crystal Growth and Design</i> , 2018, 18, 380-385.	1.4	22
2584	New insight into the ultra-long lifetime of excitons in organic-inorganic perovskite: Reverse intersystem crossing. <i>Journal of Energy Chemistry</i> , 2018, 27, 1496-1500.	7.1	11
2585	Prolonging the lifetime of ultralong organic phosphorescence through dihydrogen bonding. <i>Journal of Materials Chemistry C</i> , 2018, 6, 226-233.	2.7	92
2586	Theoretical investigations on crystal crosslinking in perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2018, 6, 234-241.	2.7	14
2587	Recent Progress in Single-Crystalline Perovskite Research Including Crystal Preparation, Property Evaluation, and Applications. <i>Advanced Science</i> , 2018, 5, 1700471.	5.6	223
2588	Structure-performance relationship on the asymmetric methoxy substituents of spiro-OMeTAD for perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2018, 176, 318-323.	3.0	18
2589	Deciphering perovskite crystal growth in interdiffusion protocol for planar heterojunction photovoltaic devices. <i>Organic Electronics</i> , 2018, 53, 88-95.	1.4	2
2590	Recent progress on perovskite materials in photovoltaic and water splitting applications. <i>Materials Today Energy</i> , 2018, 7, 246-259.	2.5	84



#	ARTICLE	IF	CITATIONS
2591	Pressure-induced phase transformation of CsPbI <sub>3</sub> by X-ray diffraction and Raman spectroscopy. <i>Phase Transitions</i> , 2018, 91, 38-47.	0.6	61
2592	The role of grain boundaries in perovskite solar cells. <i>Materials Today Energy</i> , 2018, 7, 149-160.	2.5	209
2594	Growth and characteristics of perovskite CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> crystal for optoelectronic applications. <i>Ferroelectrics</i> , 2018, 533, 72-81.	0.3	1
2595	Fabrication of fully non-vacuum processed perovskite solar cells using an inorganic CuSCN hole-transporting material and carbon-back contact. <i>Sustainable Energy and Fuels</i> , 2018, 2, 2778-2787.	2.5	27
2596	Halobismuthates with halopyridinium cations: appearance or non-appearance of unusual colouring. <i>CrystEngComm</i> , 2018, 20, 7766-7772.	1.3	50
2597	Photo-induced dual passivation <i>via</i> Usanovich acid-base on surface defects of methylammonium lead triiodide perovskite. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 28068-28074.	1.3	5
2598	Synergic effects of upconversion nanoparticles NaYbF <sub>4</sub> :Ho <sup>3+</sup> and ZrO <sub>2</sub> enhanced the efficiency in hole-conductor-free perovskite solar cells. <i>Nanoscale</i> , 2018, 10, 22003-22011.	2.8	35
2599	A highly stable and efficient carbon electrode-based perovskite solar cell achieved <i>via</i> interfacial growth of 2D PEA <sub>2</sub> PbI <sub>4</sub> perovskite. <i>Journal of Materials Chemistry A</i> , 2018, 6, 24560-24568.	5.2	76
2600	Colloidal synthesis of lead-free all-inorganic cesium bismuth bromide perovskite nanoplatelets. <i>CrystEngComm</i> , 2018, 20, 7473-7478.	1.3	44
2601	Tuning optical/electrical properties of 2D/3D perovskite by the inclusion of aromatic cation. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 30189-30199.	1.3	22
2602	Recent advances in one-dimensional halide perovskites for optoelectronic applications. <i>Nanoscale</i> , 2018, 10, 20963-20989.	2.8	44
2603	Alleviate the J-V hysteresis of carbon-based perovskite solar cells via introducing additional methylammonium chloride into MAPbI <sub>3</sub> precursor. <i>RSC Advances</i> , 2018, 8, 35157-35161.	1.7	19
2605	Quantitative fraction analysis of coexisting phases in a polycrystalline CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite. <i>Applied Physics Express</i> , 2018, 11, 101401.	1.1	5
2607	Structural geometry of the layered perovskite-type (CH <sub>3</sub> CH <sub>2</sub> CH <sub>2</sub> NH <sub>3</sub> ) <sub>2</sub> CuCl <sub>4</sub> single crystal near phase transition temperatures. <i>AIP Advances</i> , 2018, 8, 105324.	0.6	4
2608	Functional materials, device architecture, and flexibility of perovskite solar cell. <i>Emergent Materials</i> , 2018, 1, 133-154.	3.2	128
2609	First-Principles Insight into the Degradation Mechanism of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite: Light-Induced Defect Formation and Water Dissociation. <i>Journal of Physical Chemistry C</i> , 2018, 122, 27340-27349.	1.5	28
2610	Defect-Stabilized Triplet State Excitons: Toward Ultralong Organic Room-Temperature Phosphorescence. <i>Advanced Functional Materials</i> , 2018, 28, 1804961.	7.8	70
2611	TiO <sub>2</sub> /SnO <sub>2</sub> Nanocomposites as Electron Transporting Layer for Efficiency Enhancement in Planar CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> -Based Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2018, 1, 6936-6944.	2.5	18

#	ARTICLE	IF	CITATIONS
2612	Direct synthesis of high-quality perovskite nanocrystals on a flexible substrate and deterministic transfer. <i>Science Bulletin</i> , 2018, 63, 1576-1582.	4.3	10
2613	Highly bright and stable all-inorganic perovskite light-emitting diodes with methoxypolyethylene glycols modified CsPbBr <sub>3</sub> emission layer. <i>Applied Physics Letters</i> , 2018, 113, .	1.5	26
2614	An Additive of Sulfonic Lithium Salt for High-Performance Perovskite Solar Cells. <i>ChemistrySelect</i> , 2018, 3, 12320-12324.	0.7	8
2615	Stable Sn/Pb-Based Perovskite Solar Cells with a Coherent 2D/3D Interface. <i>IScience</i> , 2018, 9, 337-346.	1.9	82
2616	Thiazole-Induced Surface Passivation and Recrystallization of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Films for Perovskite Solar Cells with Ultrahigh Fill Factors. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 42436-42443.	4.0	49
2617	Organic-Inorganic FAPbBr <sub>3</sub> Perovskite Quantum Dots as a Quantum Light Source: Single-Photon Emission and Blinking Behaviors. <i>ACS Photonics</i> , 2018, 5, 4937-4943.	3.2	34
2618	Recent Advances in Memristive Materials for Artificial Synapses. <i>Advanced Materials Technologies</i> , 2018, 3, 1800457.	3.0	161
2619	Communicating Two States in Perovskite Revealed by Time-Resolved Photoluminescence Spectroscopy. <i>Scientific Reports</i> , 2018, 8, 16482.	1.6	18
2620	Anomalous Scaling Exponents in the Capacitance-Voltage Characteristics of Perovskite Thin Film Devices. <i>Journal of Physical Chemistry C</i> , 2018, 122, 27935-27940.	1.5	10
2621	New Helicene-Type Hole-Transporting Molecules for High-Performance and Durable Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 41439-41449.	4.0	43
2622	Organic-Inorganic Hybrid Perovskite Solar Cells. <i>Springer Series in Optical Sciences</i> , 2018, , 463-507.	0.5	2
2624	Effect of Roughness on Ellipsometry Analysis. <i>Springer Series in Optical Sciences</i> , 2018, , 155-172.	0.5	4
2625	Light Management Enhancement for Four-Terminal Perovskite-Silicon Tandem Solar Cells: The Impact of the Optical Properties and Thickness of the Spacer Layer between Sub-Cells. <i>Materials</i> , 2018, 11, 2570.	1.3	16
2626	Recent research process on perovskite photodetectors: A review for photodetector materials, physics, and applications. <i>Chinese Physics B</i> , 2018, 27, 127806.	0.7	27
2627	Ruddlesden-Popper Perovskite for Stable Solar Cells. <i>Energy and Environmental Materials</i> , 2018, 1, 221-231.	7.3	85
2628	Thin-film solar cells exceeding 22% solar cell efficiency: An overview on CdTe-, Cu(In,Ga)Se <sub>2</sub> - and perovskite-based materials. <i>Applied Physics Reviews</i> , 2018, 5, .	5.5	175
2629	Dual interfacial modification engineering with p-type NiO nanocrystals for preparing efficient planar perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2018, 6, 13034-13042.	2.7	37
2630	A star-shaped carbazole-based hole-transporting material with triphenylamine side arms for perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2018, 6, 12912-12918.	2.7	80

#	ARTICLE	IF	CITATIONS
2631	Gold Nanoparticles-embedded MAPbI <sub>3</sub> Perovskite Thin Films. Journal of the Korean Physical Society, 2018, 73, 1725-1728.	0.3	5
2633	Highly Efficient and Stable Inverted Perovskite Solar Cell Obtained via Treatment by Semiconducting Chemical Additive. Advanced Materials, 2019, 31, e1805554.	11.1	134
2634	First-Principles Study of Aziridinium Lead Iodide Perovskite for Photovoltaics. ChemPhysChem, 2019, 20, 602-607.	1.0	8
2640	Ultrafast THz photophysics of solvent engineered triple-cation halide perovskites. Journal of Applied Physics, 2018, 124, .	1.1	4
2641	Indium Zinc Oxide Electron Transport Layer for High-Performance Planar Perovskite Solar Cells. Journal of Physical Chemistry C, 2018, 122, 28491-28496.	1.5	10
2642	Materials toward the Upscaling of Perovskite Solar Cells: Progress, Challenges, and Strategies. Advanced Functional Materials, 2018, 28, 1803753.	7.8	145
2643	Effects of Electron-Phonon Coupling on Electronic Properties of Methylammonium Lead Iodide Perovskites. Journal of Physical Chemistry Letters, 2018, 9, 7090-7097.	2.1	44
2644	Major Impediment to Highly Efficient, Stable and Low-Cost Perovskite Solar Cells. Metals, 2018, 8, 964.	1.0	26
2645	The Role of Surface Recombination on the Performance of Perovskite Solar Cells: Effect of Morphology and Crystalline Phase of TiO <sub>2</sub> Contact. Advanced Materials Interfaces, 2018, 5, 1801076.	1.9	30
2646	Efficient Visible-Near-Infrared Hybrid Perovskite:PbS Quantum Dot Photodetectors Fabricated Using an Antisolvent Additive Solution Process. Advanced Optical Materials, 2018, 6, 1800979.	3.6	46
2647	Recent advances in high-performance semitransparent perovskite solar cells. Current Opinion in Electrochemistry, 2018, 11, 114-121.	2.5	9
2648	Interfacial Charge Transfer between Excited CsPbBr <sub>3</sub> Nanocrystals and TiO <sub>2</sub> : Charge Injection versus Photodegradation. Journal of Physical Chemistry Letters, 2018, 9, 5962-5969.	2.1	47
2649	Direct Observation of Perovskite Photodetector Performance Enhancement by Atomically Thin Interface Engineering. ACS Applied Materials & Interfaces, 2018, 10, 36493-36504.	4.0	25
2650	Surface potential mapping and n-type conductivity in organic-inorganic lead iodide crystals. CrystEngComm, 2018, 20, 6551-6556.	1.3	8
2651	Recent Advances in Synthesis and Properties of Hybrid Halide Perovskites for Photovoltaics. Nano-Micro Letters, 2018, 10, 68.	14.4	50
2652	Dynamic Disorder Dominates Delocalization, Transport, and Recombination in Halide Perovskites. Chem, 2018, 4, 2826-2843.	5.8	104
2653	MoS <sub>2</sub> Quantum Dot/Graphene Hybrids for Advanced Interface Engineering of a CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Solar Cell with an Efficiency of over 20%. ACS Nano, 2018, 12, 10736-10754.	7.3	201
2654	All-inorganic Cs <sub>2</sub> CuX <sub>4</sub> (X = Cl, Br, and Br/I) perovskite quantum dots with blue-green luminescence. Chemical Communications, 2018, 54, 11638-11641.	2.2	99

#	ARTICLE	IF	CITATIONS
2655	Highly efficient flexible solar cells based on a room-temperature processed inorganic perovskite. <i>Journal of Materials Chemistry A</i> , 2018, 6, 20365-20373.	5.2	34
2656	Perovskite Thin Film Consisting with One-Dimensional Nanowires. <i>Materials</i> , 2018, 11, 1759.	1.3	13
2657	Nature of the Electronic and Optical Excitations of Ruddlesden-Popper Hybrid Organic-Inorganic Perovskites: The Role of the Many-Body Interactions. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 5891-5896.	2.1	51
2658	Efficient and Stable Perovskite Solar Cells Using Low-Cost Aniline-Based Enamine Hole-Transporting Materials. <i>Advanced Materials</i> , 2018, 30, e1803735.	11.1	68
2659	Origin of Improved Photoelectrochemical Water Splitting in Mixed Perovskite Oxides. <i>Advanced Energy Materials</i> , 2018, 8, 1801972.	10.2	22
2660	Benzothiazole-Based Hole-Transporting Material for Efficient Perovskite Solar Cells. <i>Asian Journal of Organic Chemistry</i> , 2018, 7, 2497-2503.	1.3	8
2661	High-Quality Sequentially Vapor-Deposited Cs <sub>2</sub> AgBiBr <sub>6</sub> Thin Films for Lead-Free Perovskite Solar Cells. <i>Solar Rrl</i> , 2018, 2, 1800217.	3.1	138
2662	Halide Perovskite Quantum Dots for Light-Emitting Diodes: Properties, Synthesis, Applications, and Outlooks. <i>Advanced Electronic Materials</i> , 2018, 4, 1800335.	2.6	50
2663	Recovering MAPbI <sub>3</sub> -Based Perovskite Films From Water-Caused Permanent Degradations by Dipping in MAI Solution. <i>IEEE Journal of Photovoltaics</i> , 2018, 8, 1692-1700.	1.5	2
2664	The N, N-Dimethylformamide Annealing for Enhanced Performance of Perovskite Solar Cells Fabricated in Ambient Air. <i>Nano</i> , 2018, 13, 1850102.	0.5	0
2665	High performance perovskite solar cells fabricated from porous PbI <sub>2</sub> -xBr <sub>x</sub> prepared with mixture solvent pore generation treatment. <i>Electrochimica Acta</i> , 2018, 292, 399-406.	2.6	6
2666	Highly Efficient Perovskite Solar Cells with Ba(OH) <sub>2</sub> Interface Modification of Mesoporous TiO <sub>2</sub> Electron Transport Layer. <i>ACS Applied Energy Materials</i> , 2018, 1, 5847-5852.	2.5	12
2667	Attaining High Photovoltaic Efficiency and Stability with Multidimensional Perovskites. <i>ChemSusChem</i> , 2018, 11, 4193-4202.	3.6	16
2668	Several Orders of Magnitude Difference in Charge-Transfer Kinetics Induced by Localized Trapped Charges on Mixed-Halide Perovskites. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 37057-37066.	4.0	5
2669	Piezo-phototronic Effect Enhanced Photodetector Based on CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Single Crystals. <i>ACS Nano</i> , 2018, 12, 10501-10508.	7.3	67
2670	Photoelectric performance and stability comparison of MAPbI <sub>3</sub> and FAPbI <sub>3</sub> perovskite solar cells. <i>Solar Energy</i> , 2018, 174, 933-939.	2.9	27
2671	Carrier cascade: Enabling high performance perovskite light-emitting diodes (PeLEDs). <i>Current Opinion in Electrochemistry</i> , 2018, 11, 91-97.	2.5	8
2672	Optical properties of photovoltaic materials: Organic-inorganic mixed halide perovskites CH <sub>3</sub> NH <sub>3</sub> Pb(I <sub>1</sub> -yX <sub>y</sub> ) <sub>3</sub> (X = Cl, Br). <i>Computational and Theoretical Chemistry</i> , 2018, 1144, 1-8.	1.1	12

#	ARTICLE	IF	CITATIONS
2673	Slow Diffusion and Long Lifetime in Metal Halide Perovskites for Photovoltaics. Journal of Physical Chemistry C, 2018, 122, 24570-24577.	1.5	22
2674	Metallic tin substitution of organic lead perovskite films for efficient solar cells. Journal of Materials Chemistry A, 2018, 6, 20224-20232.	5.2	24
2675	Incorporation of Cesium Ions into MA <sub>1-x</sub> Cs <sub>x</sub> Pb <sub>3</sub> Single Crystals: Crystal Growth, Enhancement of Stability, and Optoelectronic Properties. Journal of Physical Chemistry Letters, 2018, 9, 5833-5839.	2.1	19
2676	Efficient Photo- and Electroluminescence by Trap States Passivation in Vacuum-Deposited Hybrid Perovskite Thin Films. ACS Applied Materials & Interfaces, 2018, 10, 36187-36193.	4.0	23
2677	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
2678	C60-assisted crystal engineering for perovskite solar cells with enhanced efficiency and stability. Organic Electronics, 2018, 63, 276-282.	1.4	15
2679	Steady-state microwave conductivity reveals mobility-lifetime product in methylammonium lead iodide. Applied Physics Letters, 2018, 113, 153902.	1.5	9
2680	Time-Domain ab Initio Analysis Rationalizes the Unusual Temperature Dependence of Charge Carrier Relaxation in Lead Halide Perovskite. ACS Energy Letters, 2018, 3, 2713-2720.	8.8	68
2681	Simulation of Inverted Perovskite Solar Cells. , 2018, , .		5
2682	Solution-processed Sr-doped NiOx as hole transport layer for efficient and stable perovskite solar cells. Solar Energy, 2018, 174, 1133-1141.	2.9	75
2683	Control of Charge Recombination in Perovskites by Oxidation State of Halide Vacancy. Journal of the American Chemical Society, 2018, 140, 15753-15763.	6.6	129
2684	Stable and Efficient 3D-2D Perovskite-Perovskite Planar Heterojunction Solar Cell without Organic Hole Transport Layer. Joule, 2018, 2, 2706-2721.	11.7	124
2685	Impact of iodine antisite (IPb) defects on the electronic properties of the (110) CH3NH3PbI3 surface. Journal of Chemical Physics, 2018, 149, 164704.	1.2	17
2686	Phase Pure 2D Perovskite for High-Performance 2D-3D Heterostructured Perovskite Solar Cells. Advanced Materials, 2018, 30, e1805323.	11.1	244
2687	MoS2 incorporated hybrid hole transport layer for high performance and stable perovskite solar cells. Synthetic Metals, 2018, 246, 195-203.	2.1	49
2688	Ultrafast Interfacial Charge Transfer of Cesium Lead Halide Perovskite Films CsPbX <sub>3</sub> (X = I, Br) / Organic Semiconductors. ACS Applied Materials & Interfaces, 2018, 10, 36187-36193.	1.5	24
2689	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
2690	Excitation Density Dependent Photoluminescence Quenching and Charge Transfer Efficiencies in Hybrid Perovskite/Organic Semiconductor Bilayers. Advanced Energy Materials, 2018, 8, 1802474.	10.2	59

#	ARTICLE	IF	CITATIONS
2691	Rotationally Free and Rigid Sublattices of the Single Crystal Perovskite $\text{CH}_3\text{NH}_3\text{PbBr}_3$ (001): The Case of the Lattice Polar Liquid. <i>Journal of Physical Chemistry C</i> , 2018, 122, 25506-25514.	1.5	8
2692	Ambipolar solution-processed $\text{CH}_3\text{NH}_3\text{PbBr}_3$ perovskite phototransistors with ultra-thin $\text{Al}_2\text{O}_3$ protective layer. , 2018, , .		0
2693	Superior Stability and Efficiency Over 20% Perovskite Solar Cells Achieved by a Novel Molecularly Engineered Rutinâ€“AgNPs/Thiophene Copolymer. <i>Advanced Science</i> , 2018, 5, 1800568.	5.6	48
2694	The synergistic effect of dimethyl sulfoxide vapor treatment and C60 electron transporting layer towards enhancing current collection in mixed-ion inverted perovskite solar cells. <i>Journal of Power Sources</i> , 2018, 405, 70-79.	4.0	14
2695	Comprehensive understanding of heat-induced degradation of triple-cation mixed halide perovskite for a robust solar cell. <i>Nano Energy</i> , 2018, 54, 218-226.	8.2	72
2696	High-Performance Fused Ring Electron Acceptorâ€“Perovskite Hybrid. <i>Journal of the American Chemical Society</i> , 2018, 140, 14938-14944.	6.6	71
2697	Ultrafast Broadband Charge Collection from Clean Graphene/ $\text{CH}_3\text{NH}_3\text{PbI}_3$ Interface. <i>Journal of the American Chemical Society</i> , 2018, 140, 14952-14957.	6.6	29
2698	Long-Term Durability of Bromide-Incorporated Perovskite Solar Cells via a Modified Vapor-Assisted Solution Process. <i>ACS Applied Energy Materials</i> , 2018, 1, 6018-6026.	2.5	17
2699	Highly Efficient Phenoxazine Core Unit Based Hole Transport Materials for Hysteresis-Free Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 36608-36614.	4.0	41
2700	Significant Stability Enhancement of Perovskite Solar Cells by Facile Adhesive Encapsulation. <i>Journal of Physical Chemistry C</i> , 2018, 122, 25260-25267.	1.5	31
2701	CsBr-Induced Stable $\text{CsPbI}_3$ ( $\text{PbI}_2$ &lt; i>x</i> &lt; i>1) Perovskite Films at Low Temperature for Highly Efficient Planar Heterojunction Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 38183-38192.	4.0	63
2702	Significantly Enhanced Emission Stability of $\text{CsPbBr}_3$ Nanocrystals via Chemically Induced Fusion Growth for Optoelectronic Devices. <i>ACS Applied Nano Materials</i> , 2018, 1, 6091-6098.	2.4	42
2703	Direct Observation of the Tunneling Phenomenon in Organometal Halide Perovskite Solar Cells and Its Influence on Hysteresis. <i>ACS Energy Letters</i> , 2018, 3, 2743-2749.	8.8	17
2704	Ionotronic Halide Perovskite Driftâ€“Diffusive Synapses for Lowâ€“Power Neuromorphic Computation. <i>Advanced Materials</i> , 2018, 30, e1805454.	11.1	146
2705	Control of ï€“ï€“ Stacking of Dithienopyrrole-Based, Hole-Transporting Materials via Lateral Substituents for High-Efficiency Perovskite Solar Cells. <i>ACS Photonics</i> , 2018, 5, 4694-4701.	3.2	21
2706	New Tin(II) Fluoride Derivative as a Precursor for Enhancing the Efficiency of Inverted Planar Tin/Lead Perovskite Solar Cells. <i>Journal of Physical Chemistry C</i> , 2018, 122, 27284-27291.	1.5	26
2707	Highly efficient MoOx-free semitransparent perovskite cell for 4â€“T tandem application improving the efficiency of commercially-available Al-BSF silicon. <i>Scientific Reports</i> , 2018, 8, 16139.	1.6	30
2708	Room-Temperature Continuous-Wave Operation of Organometal Halide Perovskite Lasers. <i>ACS Nano</i> , 2018, 12, 10968-10976.	7.3	140



#	ARTICLE	IF	CITATIONS
2709	Novel Physical Vapor Deposition Approach to Hybrid Perovskites: Growth of MAPbI <sub>3</sub> Thin Films by RF-Magnetron Sputtering. <i>Scientific Reports</i> , 2018, 8, 15388.	1.6	30
2710	A Universal Double-Side Passivation for High Open-Circuit Voltage in Perovskite Solar Cells: Role of Carbonyl Groups in Poly(methyl methacrylate). <i>Advanced Energy Materials</i> , 2018, 8, 1801208.	10.2	387
2711	Sequentially Fluorinated PTAA Polymers for Enhancing $V_{OC}$ of High-Performance Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2018, 8, 1801668.	10.2	151
2712	Atomic-layer-deposited ultra-thin VO <sub>x</sub> film as a hole transport layer for perovskite solar cells. <i>Semiconductor Science and Technology</i> , 2018, 33, 115016.	1.0	22
2713	Interfacial Sulfur Functionalization Anchoring SnO <sub>2</sub> and CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> for Enhanced Stability and Trap Passivation in Perovskite Solar Cells. <i>ChemSusChem</i> , 2018, 11, 3941-3948.	3.6	58
2714	Synthesis and dielectric characterisation of triiodide perovskite methylammonium lead iodide for energy applications. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 18693-18698.	1.1	2
2715	Carrier Dynamics Engineering for High-Performance Electron-Transport-Layer-free Perovskite Photovoltaics. <i>CheM</i> , 2018, 4, 2405-2417.	5.8	57
2716	Novel efficient C60-based inverted perovskite solar cells with negligible hysteresis. <i>Electrochimica Acta</i> , 2018, 288, 115-125.	2.6	40
2717	Pressures Tuning the Band Gap of Organic-Inorganic Trihalide Perovskites (MAPbBr <sub>3</sub> ): A First-Principles Study. <i>Journal of Electronic Materials</i> , 2018, 47, 7204-7211.	1.0	12
2718	Ultra-stable 2D layered methylammonium cadmium trihalide perovskite photoelectrodes. <i>Journal of Materials Chemistry C</i> , 2018, 6, 11552-11560.	2.7	20
2719	Recent progress in iron oxide based photoanodes for solar water splitting. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 473002.	1.3	44
2720	Recent advances of low-dimensional materials in lasing applications. <i>FlatChem</i> , 2018, 10, 22-38.	2.8	14
2721	Highly Efficient, Solution-Processed CsPbI <sub>2</sub> Br Planar Heterojunction Perovskite Solar Cells via Flash Annealing. <i>ACS Photonics</i> , 2018, 5, 4104-4110.	3.2	64
2722	An all-inorganic lead halide perovskite-based photocathode for stable water reduction. <i>Chemical Communications</i> , 2018, 54, 11459-11462.	2.2	61
2723	Improvements in printable mesoscopic perovskite solar cells <i>via</i> thinner spacer layers. <i>Sustainable Energy and Fuels</i> , 2018, 2, 2412-2418.	2.5	21
2724	Millimeter-Scale Nonlocal Photo-Sensing Based on Single-Crystal Perovskite Photodetector. <i>IScience</i> , 2018, 7, 110-119.	1.9	14
2725	Using Bulk-like Nanocrystals To Probe Intrinsic Optical Gain Characteristics of Inorganic Lead Halide Perovskites. <i>ACS Nano</i> , 2018, 12, 10178-10188.	7.3	56
2726	Challenges for commercializing perovskite solar cells. <i>Science</i> , 2018, 361, .	6.0	1,327

#	ARTICLE	IF	CITATIONS
2727	Influence of solvent additive on the chemical and electronic environment of wide bandgap perovskite thin films. <i>Journal of Materials Chemistry C</i> , 2018, 6, 12052-12061.	2.7	31
2728	Efficiency Enhancement of Perovskite Solar Cells with Plasmonic Nanoparticles: A Simulation Study. <i>Materials</i> , 2018, 11, 1626.	1.3	27
2729	First-principles study on CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> materials for perovskite solar cells. <i>Physica B: Condensed Matter</i> , 2018, 550, 347-353.	1.3	1
2730	Investigation of Interface Effect on the Performance of CH <sub>3</sub> NH <sub>3</sub> PbCl <sub>3</sub> /ZnO UV Photodetectors. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 34744-34750.	4.0	40
2731	Chemical Dopant Engineering in Hole Transport Layers for Efficient Perovskite Solar Cells: Insight into the Interfacial Recombination. <i>ACS Nano</i> , 2018, 12, 10452-10462.	7.3	78
2732	Highly Efficient Infrared Light-Converting Perovskite Solar Cells: Direct Electron Injection from NaYF <sub>4</sub> :Yb <sup>3+</sup> , Er <sup>3+</sup> to the TiO <sub>2</sub> . <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 14004-14009.	3.2	12
2733	Spiro-linked organic small molecules as hole-transport materials for perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2018, 6, 18750-18765.	5.2	87
2734	Can we use <i>time-resolved</i> measurements to get <i>steady-state</i> transport data for halide perovskites?. <i>Journal of Applied Physics</i> , 2018, 124, .	1.1	39
2735	Two-dimensional optical excitations in the mixed-valence Cs <sub>2</sub> Au <sub>2</sub> I <sub>6</sub> fully inorganic double perovskite. <i>Journal of Materials Chemistry C</i> , 2018, 6, 10197-10201.	2.7	32
2736	Ultrathin Flexible Devices Enabled by Solution-Processed Quantum Dots. , 2018, , .		0
2739	All- <i>inorganic</i> CsPbBr <sub>3</sub> Nanowire Based Plasmonic Lasers. <i>Advanced Optical Materials</i> , 2018, 6, 1800674.	3.6	107
2741	Precursor effects on methylamine gas-induced CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> films for stable carbon-based perovskite solar cells. <i>Solar Energy</i> , 2018, 174, 139-148.	2.9	16
2742	Excitation Wavelength Dependent Interfacial Charge Transfer Dynamics in a CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Film. <i>Journal of Photopolymer Science and Technology</i> = [Fotoporima Konwakai Shi], 2018, 31, 633-642.	0.1	10
2743	Efficiency Exceeding 20% in Perovskite Solar Cells with Side- <i>Chain Liquid Crystalline Polymer</i> - <i>Doped Perovskite Absorbers</i> . <i>Advanced Energy Materials</i> , 2018, 8, 1801637.	10.2	48
2744	Crystalline-Size Dependence of Dual Emission Peak on Hybrid Organic Lead-Iodide Perovskite Films at Low Temperatures. <i>Journal of Physical Chemistry C</i> , 2018, 122, 22717-22727.	1.5	7
2745	Compositional and orientational control in metal halide perovskites of reduced dimensionality. <i>Nature Materials</i> , 2018, 17, 900-907.	13.3	351
2746	Improvement of energy gap prediction for hybrid perovskite materials by first-principle calculation. <i>AIP Conference Proceedings</i> , 2018, , .	0.3	2
2747	Two-Dimensional Halide Perovskites for Emerging New- Generation Photodetectors. , 0, , .		3

#	ARTICLE	IF	CITATIONS
2748	Perovskite Solar Cells: The Challenging Issues for Stable Power Conversion Efficiency. , 2018, , .		3
2749	Real-time In Situ Observation of Microstructural Change in Organometal Halide Perovskite Induced by Thermal Degradation. <i>Advanced Functional Materials</i> , 2018, 28, 1804039.	7.8	45
2750	Variations in the Composition of the Phases Lead to the Differences in the Optoelectronic Properties of MAPbBr <sub>3</sub> Thin Films and Crystals. <i>Journal of Physical Chemistry C</i> , 2018, 122, 21817-21823.	1.5	15
2751	PIN Diodes Array Made of Perovskite Single Crystal for X-ray Imaging. <i>Physica Status Solidi - Rapid Research Letters</i> , 2018, 12, 1800380.	1.2	63
2752	Interface Engineering in n-i-p Metal Halide Perovskite Solar Cells. <i>Solar Rrl</i> , 2018, 2, 1800177.	3.1	53
2753	Two-Dimensional Ruddlesden-Popper Perovskite with Nanorod-like Morphology for Solar Cells with Efficiency Exceeding 15%. <i>Journal of the American Chemical Society</i> , 2018, 140, 11639-11646.	6.6	397
2754	A facile route to grain morphology controllable perovskite thin films towards highly efficient perovskite solar cells. <i>Nano Energy</i> , 2018, 53, 405-414.	8.2	60
2755	Suppressing the negative effect of UV light on perovskite solar cells via photon management. <i>Solar Energy</i> , 2018, 173, 1216-1224.	2.9	17
2756	Boosting the performance and stability of quasi-two-dimensional tin-based perovskite solar cells using the formamidinium thiocyanate additive. <i>Journal of Materials Chemistry A</i> , 2018, 6, 18173-18182.	5.2	149
2757	Tuning spontaneous polarization and optical absorption by intercalating SrCl <sub>2</sub> layers in organic-inorganic halide perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> thin films. <i>Journal of Materials Chemistry A</i> , 2018, 6, 17800-17806.	5.2	6
2758	Investigation on Charge Carrier Recombination of Hybrid Organic-Inorganic Perovskites Doped with Aggregation-Induced Emission Luminogen under High Photon Flux Excitation. <i>Advanced Optical Materials</i> , 2018, 6, 1800221.	3.6	7
2759	Spectroscopic Limited Practical Efficiency (SLPE) model for organometal halide perovskites solar cells evaluation. <i>Organic Electronics</i> , 2018, 59, 389-398.	1.4	6
2760	17.46% efficient and highly stable carbon-based planar perovskite solar cells employing Ni-doped rutile TiO <sub>2</sub> as electron transport layer. <i>Nano Energy</i> , 2018, 50, 201-211.	8.2	148
2761	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. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 15890-15900.	1.3	14
2762	Caesium for Perovskite Solar Cells: An Overview. <i>Chemistry - A European Journal</i> , 2018, 24, 12183-12205.	1.7	138
2763	Lead-free, air-stable ultrathin Cs <sub>3</sub> Bi <sub>2</sub> I <sub>9</sub> perovskite nanosheets for solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2018, 184, 15-21.	3.0	179
2764	Low temperature, solution-processed perovskite solar cells and modules with an aperture area efficiency of 11%. <i>Solar Energy Materials and Solar Cells</i> , 2018, 185, 136-144.	3.0	49
2765	Thermal-evaporated selenium as a hole-transporting material for planar perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2018, 185, 130-135.	3.0	22

#	ARTICLE	IF	CITATIONS
2766	Nb-Doping TiO <sub>2</sub> Electron Transporting Layer for Efficient Perovskite Solar Cells. ACS Applied Energy Materials, 2018, 1, 2576-2581.	2.5	26
2767	Plasmon-enhanced perovskite solar cells using ultra-thin LiF spacer isolating AgAl and Au composite nanoparticles from metal electrode. Organic Electronics, 2018, 59, 272-278.	1.4	15
2768	Large-Scale Compositional and Electronic Inhomogeneities in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskites and Their Effect on Device Performance. ACS Applied Energy Materials, 2018, 1, 2410-2416.	2.5	26
2769	Ultrafast Imaging of Carrier Transport across Grain Boundaries in Hybrid Perovskite Thin Films. ACS Energy Letters, 2018, 3, 1402-1408.	8.8	55
2770	Picosecond Random Lasing Based on Three-Photon Absorption in Organometallic Halide CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> Perovskite Thin Films. ACS Photonics, 2018, 5, 2951-2959.	3.2	45
2771	Synthesis and optical properties of lead-free cesium germanium halide perovskite quantum rods. RSC Advances, 2018, 8, 18396-18399.	1.7	126
2772	A <sup>+</sup> -Site Cation in Inorganic A <sub>3</sub> Sb <sub>2</sub> I <sub>9</sub> Perovskite Influences Structural Dimensionality, Exciton Binding Energy, and Solar Cell Performance. Chemistry of Materials, 2018, 30, 3734-3742.	3.2	134
2773	Recent progressive efforts in perovskite solar cells toward commercialization. Journal of Materials Chemistry A, 2018, 6, 12215-12236.	5.2	56
2774	D <sup>+</sup> -Typed Hole Transport Materials for Efficient Perovskite Solar Cells: Tuning Photovoltaic Properties via the Acceptor Group. ACS Applied Materials & Interfaces, 2018, 10, 19697-19703.	4.0	101
2775	Computational Study of Ternary Devices: Stable, Low-Cost, and Efficient Planar Perovskite Solar Cells. Nano-Micro Letters, 2018, 10, 51.	14.4	53
2776	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
2777	The electronic properties of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite surfaces tuned by inverted polarities of pyridine and ethylamine. Journal of Materials Chemistry C, 2018, 6, 6733-6738.	2.7	3
2778	Stable Formamidinium <sup>+</sup> -Based Perovskite Solar Cells via In Situ Grain Encapsulation. Advanced Energy Materials, 2018, 8, 1800232.	10.2	78
2779	Improving the stability and performance of perovskite solar cells <i>via</i> off-the-shelf post-device ligand treatment. Energy and Environmental Science, 2018, 11, 2253-2262.	15.6	181
2780	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
2781	Effect of the vapor diffusion and improved light harvesting for Perovskite-Cu <sub>2</sub> ZnSnS <sub>4</sub> hybridized solar cells. Organic Electronics, 2018, 59, 190-195.	1.4	2
2782	Monolayer methylammonium lead iodide films deposited on Au(111). Surface Science, 2018, 675, 78-82.	0.8	5
2783	Improved Stability of Interfacial Energy-Level Alignment in Inverted Planar Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 18964-18973.	4.0	22

#	ARTICLE	IF	CITATIONS
2784	Unraveling luminescence mechanisms in zero-dimensional halide perovskites. <i>Journal of Materials Chemistry C</i> , 2018, 6, 6398-6405.	2.7	168
2785	Precision excimer laser annealed Ga-doped ZnO electron transport layers for perovskite solar cells. <i>RSC Advances</i> , 2018, 8, 17694-17701.	1.7	12
2786	An Overview of Hybrid Organic-Inorganic Metal Halide Perovskite Solar Cells. , 2018, , 233-254.		19
2787	Efficient Photon Recycling and Radiation Trapping in Cesium Lead Halide Perovskite Waveguides. <i>ACS Energy Letters</i> , 2018, 3, 1492-1498.	8.8	70
2788	Hot-Hole Cooling Controls the Initial Ultrafast Relaxation in Methylammonium Lead Iodide Perovskite. <i>Scientific Reports</i> , 2018, 8, 8115.	1.6	32
2789	Fullerene derivative as an additive for highly efficient printable mesoscopic perovskite solar cells. <i>Organic Electronics</i> , 2018, 62, 653-659.	1.4	10
2790	Employing Pentacene To Balance the Charge Transport in Inverted Organic Solar Cells. <i>Journal of Physical Chemistry C</i> , 2018, 122, 17110-17117.	1.5	6
2791	Doping and Switchable Photovoltaic Effect in Lead-Free Perovskites Enabled by Metal Cation Transmutation. <i>Advanced Materials</i> , 2018, 30, e1802080.	11.1	30
2792	Low-Temperature-Processed CdS as the Electron Selective Layer in an Organometal Halide Perovskite Photovoltaic Device. <i>Particle and Particle Systems Characterization</i> , 2018, 35, 1800137.	1.2	4
2793	Research Direction toward Theoretical Efficiency in Perovskite Solar Cells. <i>ACS Photonics</i> , 2018, 5, 2970-2977.	3.2	129
2794	Ionic liquid modified SnO <sub>2</sub> nanocrystals as a robust electron transporting layer for efficient planar perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2018, 6, 22086-22095.	5.2	66
2795	Semiconducting Metal Oxides for High Performance Perovskite Solar Cells. , 2018, , 241-265.		4
2796	Breakthroughs in NiOx-HTMs towards stable, low-cost and efficient perovskite solar cells. <i>Nano Energy</i> , 2018, 51, 408-424.	8.2	145
2797	Low-Temperature Atomic Layer Deposition of Metal Oxide Layers for Perovskite Solar Cells with High Efficiency and Stability under Harsh Environmental Conditions. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 23928-23937.	4.0	84
2798	Stable high-performance perovskite solar cells based on inorganic electron transporting bi-layers. <i>Nanotechnology</i> , 2018, 29, 385401.	1.3	12
2799	Current perspectives in engineering of viable hybrid photocathodes for solar hydrogen generation. <i>Advances in Natural Sciences: Nanoscience and Nanotechnology</i> , 2018, 9, 023001.	0.7	5
2800	Efficient recycling of trapped energies for dual-emission in Mn-doped perovskite nanocrystals. <i>Nano Energy</i> , 2018, 51, 704-710.	8.2	54
2801	Recent Progress in the Solution-Based Sequential Deposition of Planar Perovskite Solar Cells. <i>Crystal Growth and Design</i> , 2018, 18, 4790-4806.	1.4	12

#	ARTICLE	IF	CITATIONS
2802	Role of Additives on the Performance of CsPbI <sub>3</sub> Solar Cells. <i>Journal of Physical Chemistry C</i> , 2018, 122, 15903-15910.	1.5	23
2803	Dedoping of Lead Halide Perovskites Incorporating Monovalent Cations. <i>ACS Nano</i> , 2018, 12, 7301-7311.	7.3	101
2804	Perovskite-Based Solar Cells: Materials, Methods, and Future Perspectives. <i>Journal of Nanomaterials</i> , 2018, 2018, 1-15.	1.5	224
2805	Evolution of Perovskite Solar Cells. , 2018, , 43-88.		18
2806	The computational probing of carrier transport in MAPbI <sub>3-x</sub> Cl <sub>x</sub> . <i>Computational and Theoretical Chemistry</i> , 2018, 1138, 135-139.	1.1	2
2807	Memory properties of (110) preferring oriented CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite film prepared using PbS-buffered three-step growth method. <i>Thin Solid Films</i> , 2018, 660, 320-327.	0.8	7
2808	Computational modeling of the photovoltaic activities in EABX <sub>3</sub> (EA <sup>-</sup> =ethylammonium, B <sup>-</sup> =Pb, Sn, Ge). <i>Tj ETQq0 0,0 rgBT /Ov</i>	1.4	14
2809	Halide Perovskites for Selective Ultraviolet-Harvesting Transparent Photovoltaics. <i>Joule</i> , 2018, 2, 1827-1837.	11.7	80
2810	High-efficiency hole-conductor-free rutile TiO <sub>2</sub> -Nanorod/CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> heterojunction solar cells with commercial carbon ink as counter-electrode. <i>Solar Energy</i> , 2018, 170, 1087-1094.	2.9	3
2811	Direct formation of I <sup>-</sup> ions in organic cation solution for efficient perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2018, 185, 111-116.	3.0	32
2812	Performance improvement of perovskite solar cells through enhanced hole extraction: The role of iodide concentration gradient. <i>Solar Energy Materials and Solar Cells</i> , 2018, 185, 117-123.	3.0	176
2813	Theoretical and Experimental Investigation of Mixed Pb <sup>2+</sup> In Halide Perovskites. <i>Journal of Physical Chemistry C</i> , 2018, 122, 15945-15953.	1.5	19
2814	Designing Efficient Energy Funneling Kinetics in Ruddlesden-Popper Perovskites for High-Performance Light-Emitting Diodes. <i>Advanced Materials</i> , 2018, 30, e1800818.	11.1	85
2815	High Current Density and Low Hysteresis Effect of Planar Perovskite Solar Cells via PCBM-doping and Interfacial Improvement. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 29954-29964.	4.0	35
2816	All-Inorganic Bismuth Halide Perovskite-Like Materials A <sub>3</sub> Bi <sub>2</sub> I <sub>9</sub> and A <sub>3</sub> Bi <sub>1.8</sub> Na <sub>0.2</sub> I <sub>8.6</sub> (A = Rb and Cs) for Low-Voltage Switching Resistive Memory. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 29741-29749.	4.0	88
2817	Formamidinium-based planar heterojunction perovskite solar cells with alkali carbonate-doped zinc oxide layer. <i>RSC Advances</i> , 2018, 8, 24110-24115.	1.7	10
2818	Atomic Layer Deposited Electron Transport Layers in Efficient Organometallic Halide Perovskite Devices. <i>MRS Advances</i> , 2018, 3, 3075-3084.	0.5	8
2819	Charge-Transporting Materials for Perovskite Solar Cells. <i>Advances in Inorganic Chemistry</i> , 2018, , 185-246.	0.4	8



#	ARTICLE	IF	CITATIONS
2820	Fast chemical vapor-solid reaction for synthesizing organometal halide perovskite array thin films for photodetector applications. <i>Journal of Alloys and Compounds</i> , 2018, 766, 933-940.	2.8	5
2821	Ultrahigh open-circuit voltage for high performance mixed-cation perovskite solar cells using acetate anions. <i>Journal of Materials Chemistry A</i> , 2018, 6, 14387-14391.	5.2	18
2822	Graphene Oxide/Perovskite Interfaces For Photovoltaics. <i>Journal of Physical Chemistry C</i> , 2018, 122, 16715-16726.	1.5	22
2823	Activation Energy of Organic Cation Rotation in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> and CD <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> : Quasi-Elastic Neutron Scattering Measurements and First-Principles Analysis Including Nuclear Quantum Effects. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 3969-3977.	2.1	34
2824	Ionic Additive Engineering Toward High-Efficiency Perovskite Solar Cells with Reduced Grain Boundaries and Trap Density. <i>Advanced Functional Materials</i> , 2018, 28, 1801985.	7.8	130
2825	Precisely Controlling the Grain Sizes with an Ammonium Hypophosphite Additive for High-Performance Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2018, 28, 1802320.	7.8	65
2826	High-performance pseudo-halide perovskite nanowire networks for stable and fast-response photodetector. <i>Nano Energy</i> , 2018, 51, 324-332.	8.2	53
2827	Novel p-dopant toward highly efficient and stable perovskite solar cells. <i>Energy and Environmental Science</i> , 2018, 11, 2985-2992.	15.6	216
2828	Study of the Crystallization of Metal Halide Perovskites Containing Additives via Differential Scanning Calorimetry. <i>Journal of Electronic Materials</i> , 2018, 47, 6319-6327.	1.0	2
2829	Molecular design enabled reduction of interface trap density affords highly efficient and stable perovskite solar cells with over 83% fill factor. <i>Nano Energy</i> , 2018, 52, 300-306.	8.2	112
2830	Graphene, Transition Metal Dichalcogenides, and Perovskite Photodetectors. , 0, , .		5
2831	Bulk heterojunction polymer solar cell and perovskite solar cell: Concepts, materials, current status, and opto-electronic properties. <i>Solar Energy</i> , 2018, 173, 407-424.	2.9	56
2832	2D perovskite stabilized phase-pure formamidinium perovskite solar cells. <i>Nature Communications</i> , 2018, 9, 3021.	5.8	575
2833	Temperature dependent two-photon photoluminescence of CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> : structural phase and exciton to free carrier transition. <i>Optical Materials Express</i> , 2018, 8, 511.	1.6	26
2834	A Facile Preparative Route of Nanoscale Perovskites over Mesoporous Metal Oxide Films and Their Applications to Photosensitizers and Light Emitters. <i>Advanced Functional Materials</i> , 2018, 28, 1803801.	7.8	17
2835	Dithiafulvenyl-Naphthalenediimide-based Small Molecules as efficient Non-Fullerene Electron Transport Layer for Inverted Perovskite Solar Cells. <i>Asian Journal of Organic Chemistry</i> , 2018, 7, 2294-2301.	1.3	21
2836	In Silico Optimization of Organic-Inorganic Hybrid Perovskites for Photocatalytic Hydrogen Evolution Reaction in Acidic Solution. <i>Journal of Physical Chemistry C</i> , 2018, 122, 20918-20922.	1.5	6
2837	Controllable Synthesis of 2D Perovskite on Different Substrates and Its Application as Photodetector. <i>Nanomaterials</i> , 2018, 8, 591.	1.9	20

#	ARTICLE	IF	CITATIONS
2838	Unraveling Photostability of Mixed Cation Perovskite Films in Extreme Environment. <i>Advanced Optical Materials</i> , 2018, 6, 1800262.	3.6	58
2839	Inverted CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite solar cells based on solution-processed V <sub>2</sub> O <sub>5</sub> film combined with P3CT salt as hole transport layer. <i>Materials Today Energy</i> , 2018, 9, 487-495.	2.5	27
2840	Alanine induced structure reconstruction of PEDOT:PSS films in perovskite solar cells. <i>Organic Electronics</i> , 2018, 62, 468-473.	1.4	8
2841	Ultrafast Ionizing Radiation Detection by p-n Junctions Made with Single Crystals of Solution-Processed Perovskite. <i>Advanced Electronic Materials</i> , 2018, 4, 1800237.	2.6	29
2842	Ab initio study of the moisture stability of lead iodine perovskites. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 355501.	0.7	10
2843	A C <sub>60</sub> Modification Layer Using a Scalable Deposition Technology for Efficient Printable Mesoscopic Perovskite Solar Cells. <i>Solar Rrl</i> , 2018, 2, 1800174.	3.1	19
2844	Organic Inorganic Hybrid Perovskite Materials and Devices. , 2018, , 282-291.		0
2845	Electron Transport Materials in Perovskite Solar Cells. <i>Small Methods</i> , 2018, 2, 1800082.	4.6	136
2846	The critical role of metal oxide electron transport layer for perovskite solar cell. <i>Applied Nanoscience (Switzerland)</i> , 2018, 8, 1515-1522.	1.6	9
2847	Synergistic combination of semiconductor quantum dots and organic-inorganic halide perovskites for hybrid solar cells. <i>Coordination Chemistry Reviews</i> , 2018, 374, 279-313.	9.5	51
2848	Rational Design of Halide Double Perovskites for Optoelectronic Applications. <i>Joule</i> , 2018, 2, 1662-1673.	11.7	297
2849	A novel approach to ambient energy (thermoelectric, piezoelectric and solar-TPS) harvesting: Realization of a single structured TPS-fusion energy device using MAPbI <sub>3</sub> . <i>Nano Energy</i> , 2018, 52, 11-21.	8.2	32
2850	Widely used hardly known. An insight into electric and dynamic properties of formamidinium iodide. <i>RSC Advances</i> , 2018, 8, 26506-26516.	1.7	9
2851	9.13%-Efficiency and stable inorganic CsPbBr <sub>3</sub> solar cells. Lead-free CsSnBr <sub>3</sub> -xlx quantum dots promote charge extraction. <i>Journal of Power Sources</i> , 2018, 399, 76-82.	4.0	105
2852	All that glitters is not gold: Recent progress of alternative counter electrodes for perovskite solar cells. <i>Nano Energy</i> , 2018, 52, 211-238.	8.2	85
2853	Surface Modification of Methylamine Lead Halide Perovskite with Aliphatic Amine Hydroiodide. <i>Langmuir</i> , 2018, 34, 9507-9515.	1.6	6
2854	Photo-induced thiol coupling and C-H activation using nanocrystalline lead-halide perovskite catalysts. <i>Catalysis Science and Technology</i> , 2018, 8, 4257-4263.	2.1	106
2855	Modified solvent bathing method for forming high quality perovskite films. <i>Thin Solid Films</i> , 2018, 661, 60-64.	0.8	6

#	ARTICLE	IF	CITATIONS
2856	Additive-assisted one-step formed perovskite/hole conducting materials graded heterojunction for efficient perovskite solar cells. <i>Journal of Colloid and Interface Science</i> , 2018, 532, 182-189.	5.0	17
2857	Enhanced efficiency and stability of fully air-processed TiO <sub>2</sub> nanorods array based perovskite solar cell using commercial available CuSCN and carbon. <i>Solar Energy</i> , 2018, 173, 7-16.	2.9	22
2858	Site spectroscopy probing of Eu <sup>3+</sup> incorporated into novel LiY Sr ZrO <sub>3</sub> +Î± host matrix. <i>Current Applied Physics</i> , 2018, 18, 1359-1367.	1.1	10
2859	Progress in tailoring perovskite based solar cells through compositional engineering: Materials properties, photovoltaic performance and critical issues. <i>Materials Today Energy</i> , 2018, 9, 440-486.	2.5	58
2860	Highly reproducible perovskite solar cells via controlling the morphologies of the perovskite thin films by the solution-processed two-step method. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 16426-16436.	1.1	8
2861	Simultaneous enhancement in charge separation and onset potential for water oxidation in a BiVO <sub>4</sub> photoanode by W <sup>5+</sup> Ti codoping. <i>Journal of Materials Chemistry A</i> , 2018, 6, 16965-16974.	5.2	27
2862	Optimisation of high efficiency tin halide perovskite solar cells using SCAPS-1D. <i>International Journal of Simulation and Process Modelling</i> , 2018, 13, 221.	0.1	33
2863	Fabrication and characterization of TiO <sub>2</sub> nanotubes sensitized with PbS quantum dotsâ€“CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> heterostructures as photoanodes with liquid electrolyte. <i>Materials Letters</i> , 2018, 229, 357-359.	1.3	1
2864	Numerical simulations of perovskite thin-film solar cells using a CdS hole blocking layer. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2018, 36, .	0.6	32
2865	Analysing the Prospects of Perovskite Solar Cells within the Purview of Recent Scientific Advancements. <i>Crystals</i> , 2018, 8, 242.	1.0	13
2866	Observation of Hybrid MAPbBr <sub>3</sub> Perovskite Bulk Crystals Grown by Repeated Crystallizations. <i>Crystals</i> , 2018, 8, 260.	1.0	9
2867	Identifying an Optimum Perovskite Solar Cell Structure by Kinetic Analysis: Planar, Mesoporous Based, or Extremely Thin Absorber Structure. <i>ACS Applied Energy Materials</i> , 2018, 1, 3722-3732.	2.5	36
2869	Facilely Synthesized spiro[fluoreneâ€“9,9â€“phenanthreneâ€“10â€“2â€“one] in Donorâ€“Acceptorâ€“Donor Holeâ€“Transporting Materials for Perovskite Solar Cells. <i>ChemSusChem</i> , 2018, 11, 3225-3233.	3.6	47
2870	Two-dimensional organic-inorganic hybrid perovskite: from material properties to device applications. <i>Science China Materials</i> , 2018, 61, 1257-1277.	3.5	84
2871	Atomic Layer Deposited TiO <sub>2</sub> â€“IrO <sub>x</sub> Alloy as a Hole Transport Material for Perovskite Solar Cells. <i>Advanced Materials Interfaces</i> , 2018, 5, 1800191.	1.9	15
2872	Crystallization, Properties, and Challenges of Lowâ€“Bandgap Snâ€“Pb Binary Perovskites. <i>Solar Rrl</i> , 2018, 2, 1800146.	3.1	43
2873	Optical bandgap energy of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite studied by photoconductivity and reflectance spectroscopy. <i>Science China Technological Sciences</i> , 2018, 61, 886-892.	2.0	17
2874	Zinc as a New Dopant for NiO<sub><i>x</i></sub>-Based Planar Perovskite Solar Cells with Stable Efficiency near 20%. <i>ACS Applied Energy Materials</i> , 2018, 1, 3947-3954.	2.5	87

#	ARTICLE	IF	CITATIONS
2875	Long Carrier Lifetimes in Pbl <sub>2</sub> -Rich Perovskites Rationalized by Ab Initio Nonadiabatic Molecular Dynamics. ACS Energy Letters, 2018, 3, 1868-1874.	8.8	54
2876	A fluorene-terminated hole-transporting material for highly efficient and stable perovskite solar cells. Nature Energy, 2018, 3, 682-689.	19.8	1,856
2877	Contributions of the lead-bromine weighted bands to the occupied density of states of the hybrid tri-bromide perovskites. Applied Physics Letters, 2018, 113, 022101.	1.5	6
2878	Preparation and Characteristics of MAPbBr <sub>3</sub> Perovskite Quantum Dots on NiOx Film and Application for High Transparent Solar Cells. Micromachines, 2018, 9, 205.	1.4	16
2879	Improved Performance of Perovskite Light-Emitting Diodes by Quantum Confinement Effect in Perovskite Nanocrystals. Nanomaterials, 2018, 8, 459.	1.9	9
2880	Unraveling the Microscopic Origin of Triplet Lasing from Organic Solids. Journal of Physical Chemistry Letters, 2018, 9, 4314-4318.	2.1	9
2881	Famatinite Cu <sub>3</sub> SbS <sub>4</sub> nanocrystals as hole transporting material for efficient perovskite solar cells. Journal of Materials Chemistry C, 2018, 6, 7989-7993.	2.7	20
2882	Probing the structure-property-composition relationship in organic-inorganic tri-halide perovskites. Physical Chemistry Chemical Physics, 2018, 20, 20489-20496.	1.3	2
2883	Spatial-temporal spectroscopy characterizations and electronic structure of methylammonium perovskites. MRS Communications, 2018, 8, 961-969.	0.8	10
2884	High-Efficiency Planar Hybrid Perovskite Solar Cells Using Indium Sulfide as Electron Transport Layer. ACS Applied Energy Materials, 2018, 1, 4050-4056.	2.5	30
2885	Towards large-area perovskite solar cells: the influence of compact and mesoporous TiO <sub>2</sub> electron transport layers. Materials Research Express, 2018, 5, 085506.	0.8	14
2886	1D Hexagonal HC(NH <sub>2</sub> ) <sub>2</sub> Pbl <sub>3</sub> for Multilevel Resistive Switching Nonvolatile Memory. Advanced Electronic Materials, 2018, 4, 1800190.	2.6	70
2887	Can SHG Measurements Determine the Polarity of Hybrid Lead Halide Perovskites?. ACS Energy Letters, 2018, 3, 1887-1891.	8.8	22
2888	Generation of Coherent Optical Phonons in Methylammonium Lead Iodide Thin Films. Journal of Physical Chemistry C, 2018, 122, 17035-17041.	1.5	13
2889	Interface Engineering of Graphene/CH <sub>3</sub> NH <sub>3</sub> Pbl <sub>3</sub> Heterostructure for Novel p-n Structural Perovskites Solar Cells. Journal of Physical Chemistry C, 2018, 122, 17228-17237.	1.5	22
2890	Enhanced Planar Perovskite Solar Cell Performance via Contact Passivation of TiO <sub>2</sub> /Perovskite Interface with NaCl Doping Approach. ACS Applied Energy Materials, 2018, 1, 3826-3834.	2.5	68
2891	Record Efficiency Stable Flexible Perovskite Solar Cell Using Effective Additive Assistant Strategy. Advanced Materials, 2018, 30, e1801418.	11.1	377
2892	Mutual Composition Transformations Among 2D/3D Organolead Halide Perovskites and Mechanisms Behind. Solar Rrl, 2018, 2, 1800125.	3.1	17

#	ARTICLE	IF	CITATIONS
2893	Perovskite Single-Crystal Microarrays for Efficient Photovoltaic Devices. <i>Chemistry of Materials</i> , 2018, 30, 4590-4596.	3.2	33
2894	The Role of Surface Defects in Photoluminescence and Decay Dynamics of High-Quality Perovskite MAPbI <sub>3</sub> Single Crystals. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 4221-4226.	2.1	54
2895	Facile Deposition of Nb <sub>2</sub> O <sub>5</sub> Thin Film as an Electron-Transporting Layer for Highly Efficient Perovskite Solar Cells. <i>ACS Applied Nano Materials</i> , 2018, 1, 4101-4109.	2.4	33
2896	Single-crystalline layered metal-halide perovskite nanowires for ultrasensitive photodetectors. <i>Nature Electronics</i> , 2018, 1, 404-410.	13.1	351
2897	Multiscale model for disordered hybrid perovskites: The concept of organic cation pair modes. <i>Physical Review B</i> , 2018, 98, .	1.1	15
2898	Perovskite Solar Cells: Optoelectronic Simulation and Optimization. <i>Solar Rrl</i> , 2018, 2, 1800126.	3.1	39
2899	Review on the Application of SnO <sub>2</sub> in Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2018, 28, 1802757.	7.8	448
2900	Tuning the Amount of Oxygen Vacancies in Sputter-Deposited SnO <sub>x</sub> films for Enhancing the Performance of Perovskite Solar Cells. <i>ChemSusChem</i> , 2018, 11, 3096-3103.	3.6	38
2901	Patterned Perovskites for Optoelectronic Applications. <i>Small Methods</i> , 2018, 2, 1800110.	4.6	67
2902	Double-edged sword effects of cation rotation and additive passivation on perovskite solar cell performance: an ab initio investigation. <i>Solar Energy Materials and Solar Cells</i> , 2018, 186, 349-355.	3.0	29
2903	Modified Sequential Deposition Route through Localized-Liquid-Liquid-Diffusion for Improved Perovskite Multi-Crystalline Thin Films with Micrometer-Scaled Grains for Solar Cells. <i>Nanomaterials</i> , 2018, 8, 416.	1.9	8
2904	Erbium (III) tris(8-hydroxyquinoline) doped zinc oxide interfacial layer for improved performance of polymer solar cells. <i>Organic Electronics</i> , 2018, 62, 65-71.	1.4	14
2905	All low-temperature processed carbon-based planar heterojunction perovskite solar cells employing Mg-doped rutile TiO <sub>2</sub> as electron transport layer. <i>Electrochimica Acta</i> , 2018, 283, 1115-1124.	2.6	46
2906	Interstitial Occupancy by Extrinsic Alkali Cations in Perovskites and Its Impact on Ion Migration. <i>Advanced Materials</i> , 2018, 30, e1707350.	11.1	233
2907	Recent Advance in Solution-Processed Organic Interlayers for High-Performance Planar Perovskite Solar Cells. <i>Advanced Science</i> , 2018, 5, 1800159.	5.6	84
2908	Aligned and Graded Type-II Ruddlesden-Popper Perovskite Films for Efficient Solar Cells. <i>Advanced Energy Materials</i> , 2018, 8, 1800185.	10.2	247
2909	Toward Industrial-Scale Production of Perovskite Solar Cells: Screen Printing, Slot-Die Coating, and Emerging Techniques. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 2707-2713.	2.1	124
2910	Top Illuminated Hysteresis-Free Perovskite Solar Cells Incorporating Microcavity Structures on Metal Electrodes: A Combined Experimental and Theoretical Approach. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 17973-17984.	4.0	31

#	ARTICLE	IF	CITATIONS
2911	Toward charge extraction in all-inorganic perovskite solar cells by interfacial engineering. <i>Journal of Materials Chemistry A</i> , 2018, 6, 21999-22004.	5.2	65
2912	Structural, optical and morphological studies of Cd <sup>2+</sup> doping in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite semiconductor at Pb <sup>2+</sup> site for photovoltaic applications. <i>AIP Conference Proceedings</i> , 2018, , .	0.3	0
2913	1D Organic-Inorganic Hybrid Perovskite Micro/Nanocrystals: Fabrication, Assembly, and Optoelectronic Applications. <i>Small Methods</i> , 2018, 2, 1700340.	4.6	27
2914	A Strategy for Architecture Design of Crystalline Perovskite Light-Emitting Diodes with High Performance. <i>Advanced Materials</i> , 2018, 30, e1800251.	11.1	148
2915	Boosting the Film Quality by Simultaneously Pre-wetting the Pb <sub>2</sub> Film and Ostwald Ripening the MAPb <sub>3</sub> Film with DMSO Addition into MAI Solution. <i>ChemistrySelect</i> , 2018, 3, 4951-4958.	0.7	0
2916	Calcium doped MAPbI <sub>3</sub> with better energy state alignment in perovskite solar cells. <i>Applied Physics Letters</i> , 2018, 112, .	1.5	36
2917	Characterization of novel nitrogen-less derived 2D hybrid perovskite of C <sub>6</sub> H <sub>8</sub> N <sub>2</sub> PbBr <sub>3</sub> as a light-harvesting material for perovskite solar cell application. <i>Materials Letters</i> , 2018, 227, 62-65.	1.3	5
2918	Design of cyclopentadithiophene-based small organic molecules as hole selective layers for perovskite solar cells. <i>Sustainable Energy and Fuels</i> , 2018, 2, 2179-2186.	2.5	16
2919	Light-absorption enhancement design of ultrathin perovskite solar cells with conformal structure. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 245101.	1.3	2
2920	Highly Stable All-inorganic Perovskite Solar Cells Processed at Low Temperature. <i>Solar Rrl</i> , 2018, 2, 1800075.	3.1	73
2921	CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> and HC(NH <sub>2</sub> ) <sub>2</sub> PbI <sub>3</sub> Powders Synthesized from Low-Grade PbI <sub>2</sub> : Single Precursor for High-Efficiency Perovskite Solar Cells. <i>ChemSusChem</i> , 2018, 11, 1813-1823.	3.6	61
2922	Wide-Bandgap Perovskite Solar Cells With Large Open-Circuit Voltage of 1653 mV Through Interfacial Engineering. <i>Solar Rrl</i> , 2018, 2, 1800083.	3.1	67
2923	Reducing Surface Recombination by a Poly(4-vinylpyridine) Interlayer in Perovskite Solar Cells with High Open-Circuit Voltage and Efficiency. <i>ACS Omega</i> , 2018, 3, 5038-5043.	1.6	38
2924	Inversion symmetry and bulk Rashba effect in methylammonium lead iodide perovskite single crystals. <i>Nature Communications</i> , 2018, 9, 1829.	5.8	189
2925	Mechanism suppressing charge recombination at iodine defects in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> by polaron formation. <i>Journal of Materials Chemistry A</i> , 2018, 6, 16863-16867.	5.2	26
2926	Influence of organic cations on intrinsic properties of lead iodide perovskite solar cells. <i>Organic Electronics</i> , 2018, 62, 269-276.	1.4	10
2927	Influence of anti-solvents on CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> films surface morphology for fabricating efficient and stable inverted planar perovskite solar cells. <i>Thin Solid Films</i> , 2018, 663, 105-115.	0.8	11
2928	Efficient solar cells with enhanced humidity and heat stability based on benzylammonium-caesium-formamidinium mixed-dimensional perovskites. <i>Journal of Materials Chemistry A</i> , 2018, 6, 18067-18074.	5.2	24



#	ARTICLE	IF	CITATIONS
2929	Enhanced Electrical Property of Compact TiO <sub>2</sub> Layer via Platinum Doping for High-Performance Perovskite Solar Cells. <i>Solar Rrl</i> , 2018, 2, 1800149.	3.1	26
2930	High efficiency planar-type perovskite solar cells with negligible hysteresis using EDTA-complexed SnO <sub>2</sub> . <i>Nature Communications</i> , 2018, 9, 3239.	5.8	1,017
2931	Structural effects on optoelectronic properties of halide perovskites. <i>Chemical Society Reviews</i> , 2018, 47, 7045-7077.	18.7	108
2932	Picosecond Capture of Photoexcited Electrons Improves Photovoltaic Conversion in MAPbI <sub>3</sub> :C <sub>70</sub> -Doped Planar and Mesoporous Solar Cells. <i>Advanced Materials</i> , 2018, 30, e1801496.	11.1	17
2933	Efficient Perovskite Solar Cells Fabricated Through CsCl-Enhanced PbI <sub>2</sub> Precursor via Sequential Deposition. <i>Advanced Materials</i> , 2018, 30, e1803095.	11.1	109
2934	Oxygen management in carbon electrode for high-performance printable perovskite solar cells. <i>Nano Energy</i> , 2018, 53, 160-167.	8.2	83
2935	Bromine Doping as an Efficient Strategy to Reduce the Interfacial Defects in Hybrid Two-Dimensional/Three-Dimensional Stacking Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 31755-31764.	4.0	65
2936	Nonlinear optical properties of lead halide perovskites. , 2018, , .		0
2937	Bulk Heterojunction-Assisted Grain Growth for Controllable and Highly Crystalline Perovskite Films. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 31366-31373.	4.0	17
2938	Slow Response of Carrier Dynamics in Perovskite Interface upon Illumination. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 31452-31461.	4.0	47
2939	Investigation Au Nanoparticles Fabrication and Efficiency of the TiO <sub>2</sub> /Au NPs Mesoporous Perovskite Solar Cells. , 2018, , .		0
2940	Pathways Towards High-Stable, Low-Cost and Efficient Perovskite Solar Cells. , 0, , .		3
2941	Surface polarization and recombination in organic-inorganic hybrid perovskite solar cells based on photo- and electrically induced negative capacitance studies. <i>Organic Electronics</i> , 2018, 62, 203-208.	1.4	28
2942	Defects engineering for high-performance perovskite solar cells. <i>Npj Flexible Electronics</i> , 2018, 2, .	5.1	334
2943	Low-Temperature Plasma-Assisted Atomic-Layer-Deposited SnO <sub>2</sub> as an Electron Transport Layer in Planar Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 30367-30378.	4.0	88
2944	Spin-Orbit Interactions Greatly Accelerate Nonradiative Dynamics in Lead Halide Perovskites. <i>ACS Energy Letters</i> , 2018, 3, 2159-2166.	8.8	114
2945	Low defects, large area and high stability of all-inorganic lead halide perovskite CsPbBr <sub>3</sub> thin films with micron-grains via heat-spraying process for self-driven photodetector. <i>RSC Advances</i> , 2018, 8, 29089-29095.	1.7	21
2946	A Feasible and Effective Post-Treatment Method for High-Quality CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Films and High-Efficiency Perovskite Solar Cells. <i>Crystals</i> , 2018, 8, 44.	1.0	13

#	ARTICLE	IF	CITATIONS
2947	Crystallization of Methylammonium Lead Halide Perovskites by Optical Trapping. <i>Angewandte Chemie</i> , 2018, 130, 13612-13616.	1.6	11
2948	A Combined Theoretical and Experimental Study of $\text{CH}_3\text{NH}_3\text{PbI}_3$ Containing AVAI Films Prepared via an Intramolecular Exchange Process. <i>Journal of Physical Chemistry C</i> , 2018, 122, 19705-19711.	1.5	2
2949	Crystallization of Methylammonium Lead Halide Perovskites by Optical Trapping. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 13424-13428.	7.2	25
2950	Insights about the Absence of Rb Cation from the 3D Perovskite Lattice: Effect on the Structural, Morphological, and Photophysical Properties and Photovoltaic Performance. <i>Small</i> , 2018, 14, e1802033.	5.2	24
2951	High Resolution Mapping of Two-Photon Excited Photocurrent in Perovskite Microplate Photodetector. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 5017-5022.	2.1	35
2952	Enhanced Photovoltaic Performance of Perovskite Solar Cells by Tuning Alkaline Earth Metal-Doped Perovskite-Structured Absorber and Metal-Doped $\text{TiO}_2$ Hole Blocking Layer. <i>ACS Applied Energy Materials</i> , 2018, 1, 4849-4859.	2.5	13
2953	Visualization and Investigation of Charge Transport in Mixed-Halide Perovskite via Laterally Structured Photovoltaic Devices. <i>Advanced Functional Materials</i> , 2018, 28, 1804067.	7.8	27
2954	Ultrafast Charge Dynamics in Mixed Cation $\text{CH}_3\text{NH}_3\text{PbI}_2\text{Br}$ Mixed Halide Perovskite Thin Films. <i>ChemPhysChem</i> , 2018, 19, 3010-3017.	1.0	10
2955	High-performance organic-inorganic hybrid perovskite thin-film field-effect transistors. <i>Applied Physics A: Materials Science and Processing</i> , 2018, 124, 1.	1.1	17
2956	Ultrafast Intraband Spectroscopy of Hot-Carrier Cooling in Lead-Halide Perovskites. <i>ACS Energy Letters</i> , 2018, 3, 2199-2205.	8.8	119
2957	Role of an external electric field on hybrid halide perovskite $\text{CH}_3\text{NH}_3\text{PbI}_3$ band gaps. <i>Scientific Reports</i> , 2018, 8, 12492.	1.6	15
2958	High-performance metal oxide-free inverted perovskite solar cells using poly(bis(4-phenyl)(2,4,6-trimethylphenyl)amine) as the hole transport layer. <i>Journal of Materials Chemistry C</i> , 2018, 6, 6975-6981.	2.7	51
2959	Spontaneous Self-Assembly of Perovskite Nanocrystals into Electronically Coupled Supercrystals: Toward Filling the Green Gap. <i>Advanced Materials</i> , 2018, 30, e1801117.	11.1	163
2960	Heteroatom Effect on Star-Shaped Hole-Transporting Materials for Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2018, 28, 1801734.	7.8	62
2961	Polystyrene with a methoxytriphenylamine-conjugated-thiophene moiety side-chain as a dopant-free hole-transporting material for perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2018, 6, 13123-13132.	5.2	29
2962	Back-contact perovskite solar cells with honeycomb-like charge collecting electrodes. <i>Nano Energy</i> , 2018, 50, 710-716.	8.2	44
2963	Enhanced Performance of Planar Perovskite Solar Cell by Graphene Quantum Dot Modification. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 8631-8640.	3.2	76
2964	Surface properties of lead-free halide double perovskites: Possible visible-light photo-catalysts for water splitting. <i>Applied Physics Letters</i> , 2018, 112, .	1.5	46

#	ARTICLE	IF	CITATIONS
2965	Low-temperature sintered SnO <sub>2</sub> electron transport layer for efficient planar perovskite solar cells. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 13138-13147.	1.1	12
2966	Carboxylic ester-terminated fulleropyrrolidine as an efficient electron transport material for inverted perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2018, 6, 6982-6987.	2.7	19
2967	Growth and characterization of metal halide perovskite crystals: Benzyltributyl ammonium tetrachloro manganate(II) monohydrate. <i>AIP Conference Proceedings</i> , 2018, , .	0.3	0
2968	High-Performance Low-Voltage-Driven Phototransistors through CsPbBr <sub>3</sub> 2D Crystal van der Waals Heterojunctions. <i>Advanced Optical Materials</i> , 2018, 6, 1800152.	3.6	41
2969	Nanoscale excitonic photovoltaic mechanism in ferroelectric BiFeO <sub>3</sub> thin films. <i>APL Materials</i> , 2018, 6, .	2.2	12
2970	Pentacene as a hole transport material for high performance planar perovskite solar cells. <i>Current Applied Physics</i> , 2018, 18, 1095-1100.	1.1	13
2971	Porphyrim Dimer as Hole-Transporting Layers for High-Efficiency and Stable Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2018, 3, 1620-1626.	8.8	62
2972	Flexible and Stretchable Perovskite Solar Cells: Device Design and Development Methods. <i>Small Methods</i> , 2018, 2, 1800031.	4.6	71
2973	A review on morphology engineering for highly efficient and stable hybrid perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2018, 6, 12842-12875.	5.2	168
2974	Photophysical Properties and Improved Stability of Organic-Inorganic Perovskite by Surface Passivation. <i>Journal of Physical Chemistry C</i> , 2018, 122, 15799-15818.	1.5	70
2975	Integration of a functionalized graphene nano-network into a planar perovskite absorber for high-efficiency large-area solar cells. <i>Materials Horizons</i> , 2018, 5, 868-873.	6.4	25
2976	Interfacial-Field-Induced Increase of the Structural Phase Transition Temperature in Organic-Inorganic Perovskite Crystals Coated with ZnO Nanoshell. <i>Advanced Materials Interfaces</i> , 2018, 5, 1800301.	1.9	6
2977	Low-Temperature Processable Charge Transporting Materials for the Flexible Perovskite Solar Cells. <i>Electronic Materials Letters</i> , 2018, 14, 657-668.	1.0	17
2978	Colloidal Nanocrystals as a Platform for Rapid Screening of Charge Trap Passivating Molecules for Metal Halide Perovskite Thin Films. <i>Chemistry of Materials</i> , 2018, 30, 4515-4526.	3.2	19
2979	Efficient and UV-stable perovskite solar cells enabled by side chain-engineered polymeric hole-transporting layers. <i>Journal of Materials Chemistry A</i> , 2018, 6, 12999-13004.	5.2	43
2980	A newly developed lithium cobalt oxide super hydrophilic film for large area, thermally stable and highly efficient inverted perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2018, 6, 13751-13760.	5.2	26
2981	Solution-Processable Near-Infrared-Responsive Composite of Perovskite Nanowires and Photon-Upconversion Nanoparticles. <i>Advanced Functional Materials</i> , 2018, 28, 1801782.	7.8	40
2982	Dynamic Impact of Electrode Materials on Interface of Single-Crystalline Methylammonium Lead Bromide Perovskite. <i>Advanced Materials Interfaces</i> , 2018, 5, 1800476.	1.9	31

#	ARTICLE	IF	CITATIONS
2983	Nanocrystalline Pyrite for Photovoltaic Applications. <i>ChemistrySelect</i> , 2018, 3, 6488-6524.	0.7	25
2984	Multi-Color Excitonic Emissions in Chemical Dip-Coated Organolead Mixed-Halide Perovskite. <i>ChemistrySelect</i> , 2018, 3, 6525-6530.	0.7	3
2985	Efficiency and stability enhancement of perovskite solar cells by introducing CsPbI <sub>3</sub> quantum dots as an interface engineering layer. <i>NPG Asia Materials</i> , 2018, 10, 552-561.	3.8	115
2986	Ultrathin CsPbX <sub>3</sub> Nanowire Arrays with Strong Emission Anisotropy. <i>Advanced Materials</i> , 2018, 30, e1801805.	11.1	135
2987	Methodologies toward Efficient and Stable Cesium Lead Halide Perovskite-Based Solar Cells. <i>Advanced Science</i> , 2018, 5, 1800509.	5.6	53
2988	Effect of boron and nitrogen doping on carrier relaxation dynamics of graphene quantum dots. <i>Materials Research Express</i> , 2018, 5, 065034.	0.8	11
2989	High isotropic dispiro structure hole transporting materials for planar perovskite solar cells. <i>Journal of Energy Chemistry</i> , 2019, 32, 152-158.	7.1	7
2990	Unconventional solution-phase epitaxial growth of organic-inorganic hybrid perovskite nanocrystals on metal sulfide nanosheets. <i>Science China Materials</i> , 2019, 62, 43-53.	3.5	20
2991	Tailored CsPbX <sub>3</sub> Nanorods for Electron-Emission Nanodevices. <i>ACS Applied Nano Materials</i> , 2019, 2, 5942-5951.	2.4	24
2992	Unveiling the Role of Conjugate Bridge in Triphenylamine Hole-Transporting Materials for Inverted and Direct Perovskite Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2019, 9, 1280-1289.	1.5	6
2993	Improved FTO/NiO <sub>x</sub> Interfaces for Inverted Planar Triple-Cation Perovskite Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2019, 9, 1302-1308.	1.5	10
2994	Chiral Perovskites: Promising Materials toward Next-Generation Optoelectronics. <i>Small</i> , 2019, 15, e1902237.	5.2	137
2995	Co-harvesting Light and Mechanical Energy Based on Dynamic Metal/Perovskite Schottky Junction. <i>Matter</i> , 2019, 1, 639-649.	5.0	77
2996	Efficiency simulations on perovskite solar cells only using experimentally determined reflectance and transmittance data. <i>Solar Energy Materials and Solar Cells</i> , 2019, 201, 110039.	3.0	6
2997	Enhanced Performance and Stability of Planar Perovskite Solar Cells by Interfacial Engineering using Fluorinated Aliphatic Amines. <i>ACS Applied Energy Materials</i> , 2019, 2, 6230-6236.	2.5	18
2998	Unveiling the structures and electronic properties of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> interfaces with TiO <sub>2</sub> , ZnO, and SnO <sub>2</sub> : a first-principles study. <i>Journal of Materials Science</i> , 2019, 54, 13594-13608.	1.7	5
2999	Low temperature combustion synthesized indium oxide electron transport layer for high performance and stable perovskite solar cells. <i>Journal of Power Sources</i> , 2019, 438, 226981.	4.0	22
3000	The distinctive phase stability and defect physics in CsPb <sub>2</sub> Br perovskite. <i>Journal of Materials Chemistry A</i> , 2019, 7, 20201-20207.	5.2	64

#	ARTICLE	IF	CITATIONS
3001	Optimizing electron-rich arylamine derivatives in thiophene-fused derivatives as ĩ€ bridge-based hole transporting materials for perovskite solar cells. RSC Advances, 2019, 9, 24733-24741.	1.7	12
3002	In-situ Interfacial Passivation for Stable Perovskite Solar Cells. Frontiers in Materials, 2019, 6, .	1.2	8
3003	Perovskite-based lasers. , 2019, , 41-74.		5
3004	Synergistic effect of guanidine thiocyanate additive and dimethyl sulfoxide post-treatment towards efficient and stable perovskite solar cell. Thin Solid Films, 2019, 689, 137495.	0.8	1
3005	Toward Highly Reproducible, Efficient, and Stable Perovskite Solar Cells via Interface Engineering with CoO Nanoplates. ACS Applied Materials & Interfaces, 2019, 11, 32159-32168.	4.0	41
3006	Multifunctional Chemical Linker Imidazoleacetic Acid Hydrochloride for 21% Efficient and Stable Planar Perovskite Solar Cells. Advanced Materials, 2019, 31, e1902902.	11.1	366
3007	Surface engineering towards highly efficient perovskite light-emitting diodes. Nano Energy, 2019, 65, 104029.	8.2	26
3008	Tuning the morphology of the active layer of organic solar cells by spin 1/2 radicals. New Journal of Chemistry, 2019, 43, 13998-14008.	1.4	4
3009	Detection of Rashba spin splitting in 2D organic-inorganic perovskite via precessional carrier spin relaxation. APL Materials, 2019, 7, 081116.	2.2	46
3010	Charge Transfer and Diffusion at the Perovskite/PCBM Interface Probed by Transient Absorption and Reflection. Journal of Physical Chemistry C, 2019, 123, 22095-22103.	1.5	26
3011	Stable Lead-Free (CH <sub>3</sub> NH <sub>3</sub> ) <sub>3</sub> Bi <sub>2</sub> I <sub>9</sub> Perovskite for Photocatalytic Hydrogen Generation. ACS Sustainable Chemistry and Engineering, 2019, 7, 15080-15085.	3.2	93
3012	High-Speed Vapor Transport Deposition of Perovskite Thin Films. ACS Applied Materials & Interfaces, 2019, 11, 32928-32936.	4.0	24
3013	Giant Electric Bias-Induced Tunability of Photoluminescence and Photoresistance in Hybrid Perovskite Films on Ferroelectric Substrates. Advanced Optical Materials, 2019, 7, 1901092.	3.6	8
3014	Fundamental Thermoelectric Properties in Organic Heterojunctions from Molecular to Thin-Film and Hybrid Designs. Advanced Electronic Materials, 2019, 5, 1800877.	2.6	5
3015	Organic-inorganic hybrid perovskites based on methylamine lead halide solar cell. Solar Energy, 2019, 189, 421-425.	2.9	32
3016	Ion-migration and carrier-recombination inhibition by the cation-ĩ€ interaction in planar perovskite solar cells. Organic Electronics, 2019, 75, 105387.	1.4	17
3017	Molecular dynamics of hybrid halide perovskite (CH <sub>3</sub> NH <sub>3</sub> ) <sub>2</sub> CuX <sub>4</sub> (X = Br and Cl) determined by nuclear magnetic resonance relaxation processes. Solid State Sciences, 2019, 96, 105955.	1.5	2
3018	Microstructural investigation of a compact TiO <sub>2</sub> layer for improvement of perovskite solar cells. Applied Physics Letters, 2019, 115, 053902.	1.5	1

#	ARTICLE	IF	CITATIONS
3019	Rational Design of Dopant-Free Coplanar Defect Hole-Transporting Materials for High-Performance Perovskite Solar Cells with Fill Factor Exceeding 80%. <i>Advanced Energy Materials</i> , 2019, 9, 1901268.	10.2	77
3020	Ultrafast Carrier Dynamics and Terahertz Photoconductivity of Mixed-Cation and Lead Mixed-Halide Hybrid Perovskites. <i>Chinese Physics Letters</i> , 2019, 36, 028401.	1.3	2
3022	High-quality NiO thin film by low-temperature spray combustion method for perovskite solar cells. <i>Journal of Alloys and Compounds</i> , 2019, 810, 151970.	2.8	36
3023	Polaron-Mediated Slow Carrier Cooling in a Type-1 3D/0D CsPbBr <sub>3</sub> @Cs <sub>4</sub> PbBr <sub>6</sub> Core-Shell Perovskite System. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 5302-5311.	2.1	66
3024	Sputtering of TiO <sub>2</sub> for High-Efficiency Perovskite and 23.1% Perovskite/Silicon 4-Terminal Tandem Solar Cells. <i>ACS Applied Energy Materials</i> , 2019, 2, 6263-6268.	2.5	19
3025	Defect passivation by alcohol-soluble small molecules for efficient planar perovskite solar cells with high open-circuit voltage. <i>Journal of Materials Chemistry A</i> , 2019, 7, 21140-21148.	5.2	58
3026	First principles study of structural, electronic and optical properties of Cs-doped HC(NH <sub>2</sub> ) <sub>2</sub> PbI <sub>3</sub> for photovoltaic applications. <i>AIP Conference Proceedings</i> , 2019, , .	0.3	1
3027	Unexpected Outstanding Room Temperature Spin Transport Verified in Organic-Inorganic Hybrid Perovskite Film. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 4422-4428.	2.1	20
3028	Impurity Tracking Enables Enhanced Control and Reproducibility of Hybrid Perovskite Vapor Deposition. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 28851-28857.	4.0	38
3029	Identification of defects and defect energy distribution in the perovskite layer of MAPb <sub>3</sub> Cl <sub>x</sub> perovskite solar cell. <i>Materials Research Express</i> , 2019, 6, 105510.	0.8	4
3030	Electronic Properties and Photovoltaic Functionality of Zn-Doped Orthorhombic CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> : A GGA+vdW Study. <i>Journal of Electronic Materials</i> , 2019, 48, 6327-6334.	1.0	2
3031	Cesium Oleate Passivation for Stable Perovskite Photovoltaics. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 27882-27889.	4.0	12
3032	Influence of titanium dioxide surface activation on the performance of mesoscopic perovskite solar cells. <i>Thin Solid Films</i> , 2019, 686, 137418.	0.8	4
3033	Electromodulation and Transient Absorption Spectroscopy Suggest Conduction Band Electron Lifetime, Electron Trapping Parameters, and CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Solar Cell Fill Factor Are Correlated. <i>Journal of Physical Chemistry C</i> , 2019, 123, 18160-18170.	1.5	9
3034	Influence of Thiazole-Modified Carbon Nitride Nanosheets with Feasible Electronic Properties on Inverted Perovskite Solar Cells. <i>Journal of the American Chemical Society</i> , 2019, 141, 12322-12328.	6.6	61
3035	The effect of the magnitude and direction of the dipoles of organic cations on the electronic structure of hybrid halide perovskites. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 16564-16572.	1.3	22
3036	High-Efficiency Perovskite Solar Cell Based on Sequential Doping of PTAA. <i>IEEE Journal of Photovoltaics</i> , 2019, 9, 1025-1030.	1.5	13
3037	Effective electron extraction from active layer for enhanced photodetection of photoconductive type detector with structure of Au/CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> /Au. <i>Organic Electronics</i> , 2019, 74, 197-203.	1.4	6



#	ARTICLE	IF	CITATIONS
3038	Ultrafast Carrier Dynamics of Dual Emissions from the Orthorhombic Phase in Methylammonium Lead Iodide Perovskites Revealed by Two-Dimensional Coherent Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 4625-4631.	2.1	9
3039	Side-Chain Polymers as Dopant-Free Hole-Transporting Materials for Perovskite Solar Cells—The Impact of Substituents' Positions in Carbazole on Device Performance. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 26928-26937.	4.0	36
3040	Enhancement of Stability of Inverted Flexible Perovskite Solar Cells by Employing Graphene-Quantum-Dots Hole Transport Layer and Graphene Transparent Electrode Codoped with Gold Nanoparticles and Bis(trifluoromethanesulfonyl)amide. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 13178-13185.	3.2	29
3041	Effect of interlayer spacing in layered perovskites on resistive switching memory. <i>Nanoscale</i> , 2019, 11, 14330-14338.	2.8	39
3042	Mechanistic Insight into Surface Defect Control in Perovskite Nanocrystals: Ligands Terminate the Valence Transition from $Pb^{2+}$ to Metallic $Pb^0$ . <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 4222-4228.	2.1	51
3043	Review on clean recovery of discarded/spent lead-acid battery and trends of recycled products. <i>Journal of Power Sources</i> , 2019, 436, 226853.	4.0	75
3044	Recent progress in fundamental understanding of halide perovskite semiconductors. <i>Progress in Materials Science</i> , 2019, 106, 100580.	16.0	95
3045	Modified photoelectric properties of $CH_3NH_3PbI_3$ via surface passivation induced by argon ions bombardment. <i>Thin Solid Films</i> , 2019, 685, 360-365.	0.8	3
3046	Understanding the enhancement of responsivity in perovskite/organic semiconductor bilayer-structured photodetectors. <i>Organic Electronics</i> , 2019, 75, 105372.	1.4	12
3047	Phonon-Assisted Trapping and Re-excitation of Free Carriers and Excitons in Lead Halide Perovskites. <i>Journal of Physical Chemistry C</i> , 2019, 123, 19429-19436.	1.5	5
3048	Overcoming the Electroluminescence Efficiency Limitations in Quantum-Dot Light-Emitting Diodes. <i>Advanced Optical Materials</i> , 2019, 7, 1900695.	3.6	26
3049	Enhanced Electrons Extraction of Lithium-Doped $SnO_2$ Nanoparticles for Efficient Planar Perovskite Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2019, 9, 1273-1279.	1.5	10
3050	Elegant Molecular Iodine/Antisolvent Solution Engineering To Tune the Fermi Level of Perovskite $CH_3NH_3PbI_3$ . <i>ACS Applied Energy Materials</i> , 2019, 2, 5753-5758.	2.5	7
3051	Carbon Nanotube-Perovskite Composites for Ultrasensitive Broadband Photodiodes. <i>ACS Applied Nano Materials</i> , 2019, 2, 4974-4982.	2.4	18
3052	Potential Substitutes for Replacement of Lead in Perovskite Solar Cells: A Review. <i>Global Challenges</i> , 2019, 3, 1900050.	1.8	115
3053	Abnormal absorption onset shift of $CH_3NH_3PbI_3$ film by adding $PbBr_2$ into its precursor and its effect on photovoltaic performance. <i>Journal of Power Sources</i> , 2019, 437, 226914.	4.0	8
3054	Ascorbic Acid-Assisted Stabilization of $\delta$ -Phase $CsPbI_3$ Perovskite for Efficient and Stable Photovoltaic Devices. <i>Solar Rrl</i> , 2019, 3, 1900287.	3.1	25
3055	Monitoring Electron-Phonon Interactions in Lead Halide Perovskites Using Time-Resolved THz Spectroscopy. <i>ACS Nano</i> , 2019, 13, 8826-8835.	7.3	52

#	ARTICLE	IF	CITATIONS
3056	Ultrafast carrier dynamics in high-performance $\Gamma$ -bis-PCBM doped organic-inorganic hybrid perovskite solar cell. <i>Organic Electronics</i> , 2019, 75, 105384.	1.4	4
3057	<i>N</i> -Methyl-2-pyrrolidone as an excellent coordinative additive with a wide operating range for fabricating high-quality perovskite films. <i>Inorganic Chemistry Frontiers</i> , 2019, 6, 2458-2463.	3.0	26
3058	Effect of interfacial recombination, bulk recombination and carrier mobility on the hysteresis behaviors of perovskite solar cells: a drift-diffusion simulation study. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 17836-17845.	1.3	37
3059	MAPbI <sub>3</sub> Incorporated with Carboxyl Group Chelated Titania for Planar Perovskite Solar Cells in Low-Temperature Process. <i>Nanomaterials</i> , 2019, 9, 908.	1.9	10
3060	Lead halide perovskites for photocatalytic organic synthesis. <i>Nature Communications</i> , 2019, 10, 2843.	5.8	263
3061	Enhanced stability of the optical responses from all-inorganic perovskite nanocrystals embedded in a synthetic opal matrix. <i>Nanotechnology</i> , 2019, 30, 405206.	1.3	10
3062	Îœethylammonium Chloride: A Key Additive for Highly Efficient, Stable, and Upâ€Scalable Perovskite Solar Cells. <i>Energy and Environmental Materials</i> , 2019, 2, 79-92.	7.3	79
3063	Recent Progress in Highâ€efficiency Planarâ€structure Perovskite Solar Cells. <i>Energy and Environmental Materials</i> , 2019, 2, 93-106.	7.3	45
3064	Modulation of Ni <sup>3+</sup> and crystallization of dopant-free NiOx hole transporting layer for efficient p-i-n perovskite solar cells. <i>Electrochimica Acta</i> , 2019, 319, 41-48.	2.6	22
3065	Optimisation of annealing temperature for low temperature processed inverted structure Caesium Formamidinium Lead Triiodide perovskite solar cells. <i>Materials Science in Semiconductor Processing</i> , 2019, 102, 104580.	1.9	17
3066	Unraveling photoexcitation dynamics at â€dots-in-a-perovskiteâ€heterojunctions from first-principles. <i>Journal of Materials Chemistry A</i> , 2019, 7, 18012-18019.	5.2	12
3067	Solvent Engineering for Intermediates Phase, All-Ambient-Air-Processed in Organicâ€Inorganic Hybrid Perovskite Solar Cells. <i>Nanomaterials</i> , 2019, 9, 915.	1.9	9
3068	Additional Organicâ€Solventâ€Rinsing Process to Enhance Perovskite Photovoltaic Performance. <i>Advanced Electronic Materials</i> , 2019, 5, 1900244.	2.6	10
3069	Vitrification Transformation of Poly(Ethylene Oxide) Activating Interface Passivation for Highâ€Efficiency Perovskite Solar Cells. <i>Solar Rrl</i> , 2019, 3, 1900134.	3.1	43
3070	Application of a Tetraâ€TPDâ€Type Holeâ€Transporting Material Fused by a TrÃ¶ger's Base Core in Perovskite Solar Cells. <i>Solar Rrl</i> , 2019, 3, 1900224.	3.1	4
3071	High Power UV-Light Irradiation as a New Method for Defect Passivation in Degraded Perovskite Solar Cells to Recover and Enhance the Performance. <i>Scientific Reports</i> , 2019, 9, 9448.	1.6	21
3072	Lowâ€Dimensional Perovskites with Diammonium and Monoammonium Alternant Cations for Highâ€Performance Photovoltaics. <i>Advanced Materials</i> , 2019, 31, e1901966.	11.1	96
3073	Solutionâ€Processed Perovskite Microdisk for Coherent Light Emission. <i>Advanced Optical Materials</i> , 2019, 7, 1900678.	3.6	12

#	ARTICLE	IF	CITATIONS
3074	Crystalline Clear or Not: Beneficial and Harmful Effects of Water in Perovskite Solar Cells. ChemPhysChem, 2019, 20, 2587-2599.	1.0	22
3075	Semiconductor Quantum Dots: An Emerging Candidate for CO <sub>2</sub> Photoreduction. Advanced Materials, 2019, 31, e1900709.	11.1	316
3076	Quantum Dots Supply Bulk- and Surface-Passivation Agents for Efficient and Stable Perovskite Solar Cells. Joule, 2019, 3, 1963-1976.	11.7	222
3077	Imaging and Mapping Characterization Tools for Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1900444.	10.2	44
3078	Anti-Stokes Ultraviolet Luminescence and Exciton Detrapping in the Two-Dimensional Perovskite (C <sub>6</sub> H <sub>5</sub> C <sub>2</sub> H <sub>4</sub> NH <sub>3</sub> ) <sub>2</sub> PbCl <sub>4</sub> . Journal of Physical Chemistry Letters, 2019, 10, 4095-4102.		32
3079	Improving the performance of lead acetate-based perovskite solar cells <i>via</i> solvent vapor annealing. CrystEngComm, 2019, 21, 4753-4762.	1.3	12
3080	A High Efficient FEMD-Based Data Hiding Algorithm. Journal of Physics: Conference Series, 2019, 1335, 012014.	0.3	0
3081	Tuning Hot Carrier Cooling Dynamics by Dielectric Confinement in Two-Dimensional Hybrid Perovskite Crystals. ACS Nano, 2019, 13, 12621-12629.	7.3	96
3082	Fine Structural Details Matter: A Lesson from Seven-Layered 2D Hybrid Perovskites. Chem, 2019, 5, 2513-2514.	5.8	1
3083	Solution-Processed Laminated Perovskite Layers for High-Performance Solar Cells. Advanced Functional Materials, 2019, 29, 1903330.	7.8	10
3084	Ruddlesden-Popper Perovskites: Synthesis and Optical Properties for Optoelectronic Applications. Advanced Science, 2019, 6, 1900941.	5.6	112
3085	Facet-Dependent On-Surface Reactions in the Growth of CdSe Nanoplatelets. Angewandte Chemie, 2019, 131, 17928-17934.	1.6	1
3086	Goethite Quantum Dots as Multifunctional Additives for Highly Efficient and Stable Perovskite Solar Cells. Small, 2019, 15, e1904372.	5.2	32
3087	Understanding Molecular Adsorption on CuSCN Surfaces toward Perovskite Solar Cell Applications. Journal of Physical Chemistry C, 2019, 123, 26785-26793.	1.5	13
3088	Inverted Perovskite Solar Cells Based on Small Molecular Hole Transport Material C <sub>8</sub> -Diocetylbenzothienobenzothiophene. Chinese Journal of Chemistry, 2019, 37, 1239-1244.	2.6	12
3089	Rare earth ions doped NiO hole transport layer for efficient and stable inverted perovskite solar cells. Journal of Power Sources, 2019, 444, 227267.	4.0	41
3090	Sequentially vacuum evaporated high-quality CsPbBr <sub>3</sub> films for efficient carbon-based planar heterojunction perovskite solar cells. Journal of Power Sources, 2019, 443, 227269.	4.0	35
3091	Nanostructured Perovskite Solar Cells. Nanomaterials, 2019, 9, 1481.	1.9	19

#	ARTICLE	IF	CITATIONS
3092	Large-Area Organic-Free Perovskite Solar Cells with High Thermal Stability. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 6382-6388.	2.1	46
3093	Oxidation states in perovskite layers formed using various deposition techniques. <i>Journal of Renewable and Sustainable Energy</i> , 2019, 11, .	0.8	3
3094	Ternary diagrams of the phase, optical bandgap energy and photoluminescence of mixed-halide perovskites. <i>Acta Materialia</i> , 2019, 181, 460-469.	3.8	14
3095	Size-Dependent Biexciton Spectrum in CsPbBr <sub>3</sub> Perovskite Nanocrystals. <i>ACS Energy Letters</i> , 2019, 4, 2639-2645.	8.8	53
3096	High-performance g-C <sub>3</sub> N <sub>4</sub> added carbon-based perovskite solar cells insulated by Al <sub>2</sub> O <sub>3</sub> layer. <i>Solar Energy</i> , 2019, 193, 859-865.	2.9	36
3097	Electronic structure of MAPbI <sub>3</sub> and MAPbCl <sub>3</sub> : importance of band alignment. <i>Scientific Reports</i> , 2019, 9, 15159.	1.6	52
3098	Theoretical study on order-disorder phase transition of CH <sub>3</sub> NH <sub>3</sub> PbCl <sub>3</sub> . <i>Chinese Physics B</i> , 2019, 28, 116105.	0.7	0
3099	Engineering Halide Perovskite Crystals through Precursor Chemistry. <i>Small</i> , 2019, 15, e1903613.	5.2	82
3100	Dimensionally Engineered Perovskite Heterostructure for Photovoltaic and Optoelectronic Applications. <i>Advanced Energy Materials</i> , 2019, 9, 1902470.	10.2	40
3101	Morphology control of organic halide perovskites by adding BiFeO <sub>3</sub> nanostructures for efficient solar cell. <i>Scientific Reports</i> , 2019, 9, 15441.	1.6	13
3102	Insights into Fullerene Passivation of SnO <sub>2</sub> Electron Transport Layers in Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2019, 29, 1905883.	7.8	124
3103	Low-Cost and Highly Efficient Carbon-Based Perovskite Solar Cells Exhibiting Excellent Long-Term Operational and UV Stability. <i>Small</i> , 2019, 15, e1904746.	5.2	83
3104	The effect of phase purification on photovoltaic performance of perovskite solar cells. <i>Applied Physics Letters</i> , 2019, 115, 192105.	1.5	4
3105	Study on the Property of Electron-Transport Layer in the Doped Formamidinium Lead Iodide Perovskite Based on DFT. <i>ACS Omega</i> , 2019, 4, 20024-20035.	1.6	17
3106	Halogen Engineering for Operationally Stable Perovskite Solar Cells via Sequential Deposition. <i>Advanced Energy Materials</i> , 2019, 9, 1902239.	10.2	41
3107	Origination of Anomalous Current Fluctuation in Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2019, 2, 8138-8144.	2.5	3
3108	Carrier-resolved photo-Hall effect. <i>Nature</i> , 2019, 575, 151-155.	13.7	66
3109	First-principles calculation of stability, electronic and optical properties of PCBM-adsorbed MAPbI <sub>3</sub> surface. <i>Materials Research Express</i> , 2019, 6, 116219.	0.8	5

#	ARTICLE	IF	CITATIONS
3110	2D Ca <sub>3</sub> Sn <sub>2</sub> S <sub>7</sub> Chalcogenide Perovskite: A Graphene-Like Semiconductor with Direct Bandgap 0.5 eV and Ultrahigh Carrier Mobility $6.7 \times 10^4$ cm <sup>2</sup> V <sup>-1</sup> s <sup>-1</sup> . Advanced Materials, 2019, 31, e1905643.	11.1	28
3111	Toward Phase Stability: Dionâ€“Jacobson Layered Perovskite for Solar Cells. ACS Energy Letters, 2019, 4, 2960-2974.	8.8	124
3112	Surface Treatment on Nickel Oxide to Enhance the Efficiency of Inverted Perovskite Solar Cells. International Journal of Photoenergy, 2019, 2019, 1-7.	1.4	4
3113	Defect-Engineering-Enabled High-Efficiency All-Inorganic Perovskite Solar Cells. Advanced Materials, 2019, 31, e1903448.	11.1	143
3114	Performance evaluation and material parameter perspective of eco-friendly highly efficient CsSnGeI <sub>3</sub> perovskite solar cell. Superlattices and Microstructures, 2019, 135, 106273.	1.4	70
3115	High-Energy Optical Transitions and Optical Constants of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Measured by Spectroscopic Ellipsometry and Spectrophotometry. Journal of Physical Chemistry C, 2019, 123, 28795-28801.	1.5	9
3116	Asymmetric Strain-Introduced Interface Effect on the Electronic and Optical Properties of the CsPbI <sub>3</sub> /SnS van der Waals Heterostructure. Advanced Materials Interfaces, 2019, 6, 1901330.	1.9	20
3117	Inorganic CuFeO <sub>2</sub> Delafossite Nanoparticles as Effective Hole Transport Materials for Highly Efficient and Long-Term Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 45142-45149.	4.0	53
3118	Imaging Excited State Dynamics in Layered 2D Perovskites with Transient Absorption Microscopy. Journal of Physical Chemistry A, 2019, 123, 11012-11021.	1.1	21
3119	Equalization scheme with misalignment estimation based on multi-layer perceptrons for holographic data storage systems. Japanese Journal of Applied Physics, 2019, 58, SKKD02.	0.8	1
3120	Highly efficient perovskite solar cell utilizing a solution-processable tetrabenzoporphyrin hole transport material with p-type dopants. Applied Physics Express, 2019, 12, 112009.	1.1	2
3121	Enhanced Incorporation of Guanidinium in Formamidinium-Based Perovskites for Efficient and Stable Photovoltaics: The Role of Cs and Br. Advanced Functional Materials, 2019, 29, 1905739.	7.8	41
3122	Pressure-Dependent Mechanical and Thermal Properties of Lead-Free Halide Double Perovskite Cs <sub>2</sub> AgB <sub>6</sub> X <sub>6</sub> (B = In, Bi; X = Cl, Br, I). Advanced Theory and Simulations, 2019, 2, 1900164.	1.3	15
3123	Optical-Dielectric Duple Bistable Switches: Photoluminescence of Reversible Phase Transition Molecular Material. Chemistry - an Asian Journal, 2019, 14, 3863-3867.	1.7	6
3124	Carbon-based perovskite solar cells: From single-junction to modules. , 2019, 1, 109-123.		61
3125	Solvent and Spinning Speed Effects on CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Films Deposited by Spin Coating. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1900340.	0.8	2
3126	P&#116; Synthesis of CsPbBr <sub>3</sub> Nanorods with Tuneable Optical Anisotropy for Optoelectronic Applications. Digest of Technical Papers SID International Symposium, 2019, 50, 949-952.	0.1	0
3127	Morphology control of the perovskite thin films via the surface modification of nickel oxide nanoparticles layer using a bidentate chelating ligand 2,2'-Bipyridine. Synthetic Metals, 2019, 258, 116197.	2.1	8

#	ARTICLE	IF	CITATIONS
3128	Carrier Extraction from Perovskite to Polymeric Charge Transport Layers Probed by Ultrafast Transient Absorption Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 6921-6928.	2.1	19
3129	The Role of Thickness Control and Interface Modification in Assembling Efficient Planar Perovskite Solar Cells. <i>Molecules</i> , 2019, 24, 3466.	1.7	14
3130	Crystal structure, vibrational spectroscopy and optical properties of a one-dimensional organic-inorganic hybrid perovskite of $[\text{NH}_3\text{CH}_2\text{CH}(\text{NH}_3)\text{CH}_2]_5\text{BiCl}_5$ . <i>Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials</i> , 2019, 75, 880-886.	0.5	43
3131	Halogenated Methylammonium Based 3D Halide Perovskites. <i>Advanced Materials</i> , 2019, 31, e1903830.	11.1	40
3132	3D Nanoprinting of Perovskites. <i>Advanced Materials</i> , 2019, 31, e1904073.	11.1	64
3133	Highly Sensitive, Fast Response Perovskite Photodetectors Demonstrated in Weak Light Detection Circuit and Visible Light Communication System. <i>Small</i> , 2019, 15, e1903599.	5.2	101
3134	Studies on $\text{CH}_3\text{NH}_3\text{PbI}_3$ prepared by low-cost wet chemical technique. <i>Applied Physics A: Materials Science and Processing</i> , 2019, 125, 1.	1.1	10
3135	Defect Engineering of Grain Boundaries in Lead-Free Halide Double Perovskites for Better Optoelectronic Performance. <i>Advanced Functional Materials</i> , 2019, 29, 1805870.	7.8	30
3136	Mechanistic Insights into Photochemical Reactions on $\text{CH}_3\text{NH}_3\text{PbBr}_3$ Perovskite Nanoparticles from Single-Particle Photoluminescence Spectroscopy. <i>ChemNanoMat</i> , 2019, 5, 340-345.	1.5	5
3137	Hydrogen bond enables highly efficient and stable two-dimensional perovskite solar cells based on 4-pyridine-ethylamine. <i>Organic Electronics</i> , 2019, 67, 122-127.	1.4	22
3138	Structural, elastic, electronic and optical properties of lead-free halide double perovskite $\text{Cs}_2\text{AgBiX}_6$ (X = Cl, Br, and I). <i>Materials Research Express</i> , 2019, 6, 115517.	0.8	31
3139	Drying Dynamics of Solution-Processed Perovskite Thin-Film Photovoltaics: In Situ Characterization, Modeling, and Process Control. <i>Advanced Energy Materials</i> , 2019, 9, 1901581.	10.2	42
3140	High-Quality Ruddlesden-Popper Perovskite Films Based on In Situ Formed Organic Spacer Cations. <i>Advanced Materials</i> , 2019, 31, e1904243.	11.1	35
3141	A facile method to fabricate high-quality perovskite nanocrystals based on single crystal powder. <i>Nano Research</i> , 2019, 12, 2640-2645.	5.8	12
3142	A facile way to improve the efficiency of perovskite/silicon four-terminal tandem solar cell based on the optimization of long-wavelength spectral response. <i>AIP Conference Proceedings</i> , 2019, , .	0.3	1
3143	Enhanced efficiency and thermal stability of mesoscopic perovskite solar cells by adding PC70BM acceptor. <i>Solar Energy Materials and Solar Cells</i> , 2019, 202, 110130.	3.0	23
3144	Novel approaches and scalability prospects of copper based hole transporting materials for planar perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2019, 7, 13680-13708.	2.7	50
3145	Database-driven high-throughput study of coating materials for hybrid perovskites. <i>New Journal of Physics</i> , 2019, 21, 083018.	1.2	6



#	ARTICLE	IF	CITATIONS
3146	The Effect of Decomposed PbI <sub>2</sub> on Microscopic Mechanisms of Scattering in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Films. <i>Nanoscale Research Letters</i> , 2019, 14, 208.	3.1	33
3147	NaSbSe <sub>2</sub> as a promising light-absorber semiconductor in solar cells: First-principles insights. <i>APL Materials</i> , 2019, 7, 081122.	2.2	11
3148	Morphological and opto-electrical studies of newly decorated nano organo-lead halide-based perovskite photovoltaics. <i>Journal of Sol-Gel Science and Technology</i> , 2019, 92, 548-553.	1.1	1
3149	Efficient perovskite solar cells fabricated by manganese cations incorporated in hybrid perovskites. <i>Journal of Materials Chemistry C</i> , 2019, 7, 11943-11952.	2.7	46
3150	Nanoscale hybrid multidimensional perovskites with alternating cations for high performance photovoltaic. <i>Nano Energy</i> , 2019, 65, 104050.	8.2	44
3151	Long-Term Stabilization of Two-Dimensional Perovskites by Encapsulation with Hexagonal Boron Nitride. <i>Nanomaterials</i> , 2019, 9, 1120.	1.9	31
3152	Precursor Engineering for a Large-Area Perovskite Solar Cell with >19% Efficiency. <i>ACS Energy Letters</i> , 2019, 4, 2393-2401.	8.8	127
3153	Recent Progress on Metal Chalcogenide Semiconductor Tetrapod-Shaped Colloidal Nanocrystals and their Applications in Optoelectronics. <i>Chemistry of Materials</i> , 2019, 31, 9216-9242.	3.2	51
3154	Long-term stable perovskite solar cells with room temperature processed metal oxide carrier transporters. <i>Journal of Materials Chemistry A</i> , 2019, 7, 21085-21095.	5.2	16
3155	PbS quantum dots as additives in methylammonium halide perovskite solar cells: the effect of quantum dot capping. <i>Nanoscale Advances</i> , 2019, 1, 4109-4118.	2.2	32
3156	Highly efficient planar perovskite solar cells <i>via</i> acid-assisted surface passivation. <i>Journal of Materials Chemistry A</i> , 2019, 7, 22323-22331.	5.2	34
3157	Perovskite Pattern Formation by Chemical Vapor Deposition Using Photolithographically Defined Templates. <i>Chemistry of Materials</i> , 2019, 31, 8212-8221.	3.2	48
3158	Ionic selective contact controls the charge accumulation for efficient and intrinsic stable planar homo-junction perovskite solar cells. <i>Nano Energy</i> , 2019, 66, 104098.	8.2	31
3159	Electron trapping and extraction kinetics on carrier diffusion in metal halide perovskite thin films. <i>Journal of Materials Chemistry A</i> , 2019, 7, 25838-25844.	5.2	8
3160	Monocrystalline perovskite wafers/thin films for photovoltaic and transistor applications. <i>Journal of Materials Chemistry A</i> , 2019, 7, 24661-24690.	5.2	27
3161	Solution-Processed Ultrahigh Detectivity Photodetectors by Hybrid Perovskite Incorporated with Heterovalent Neodymium Cations. <i>ACS Omega</i> , 2019, 4, 15873-15878.	1.6	13
3162	Control of aggregation and dissolution of small molecule hole transport layers <i>via</i> a doping strategy for highly efficient perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2019, 7, 11932-11942.	2.7	8
3163	Low-temperature preparation of crystallized graphite nanofibers for high performance perovskite solar cells. <i>Solar Energy</i> , 2019, 193, 205-211.	2.9	5

#	ARTICLE	IF	CITATIONS
3164	Enhanced Performance and Stability in DNA-Perovskite Heterostructure-Based Solar Cells. ACS Energy Letters, 2019, 4, 2646-2655.	8.8	45
3165	Effect of tantalum doping on SnO <sub>2</sub> electron transport layer via low temperature process for perovskite solar cells. Applied Physics Letters, 2019, 115, .	1.5	41
3166	Temperature-Dependent Thermal Decomposition Pathway of Organic-Inorganic Halide Perovskite Materials. Chemistry of Materials, 2019, 31, 8515-8522.	3.2	83
3167	4-(Aminoethyl)pyridine as a Bifunctional Spacer Cation for Efficient and Stable 2D Ruddlesden-Popper Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 37804-37811.	4.0	36
3168	Alternative Electron Transport Layer Based on Al-Doped ZnO and SnO <sub>2</sub> for Perovskite Solar Cells: Impact on Microstructure and Stability. ACS Applied Energy Materials, 2019, 2, 7183-7195.	2.5	34
3169	Facile RbBr interface modification improves perovskite solar cell efficiency. Materials Today Chemistry, 2019, 14, 100179.	1.7	18
3170	Perovskite Solar Fibers: Current Status, Issues and Challenges. Advanced Fiber Materials, 2019, 1, 101-125.	7.9	42
3171	Probing and Manipulating Carrier Interlayer Diffusion in van der Waals Multilayer by Constructing Type-I Heterostructure. Nano Letters, 2019, 19, 7217-7225.	4.5	42
3172	Highly stable enhanced near-infrared amplified spontaneous emission in solution-processed perovskite films by employing polymer and gold nanorods. Nanoscale, 2019, 11, 1959-1967.	2.8	28
3173	Energy level-modulated non-fullerene small molecule acceptors for improved $V_{OC}$ and efficiency of inverted perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 3336-3343.	5.2	29
3174	Versatile Defect Passivation Methods for Metal Halide Perovskite Materials and their Application to Light-Emitting Devices. Advanced Materials, 2019, 31, e1805244.	11.1	92
3175	High-performance room-temperature NO <sub>2</sub> sensors based on CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> semiconducting films: Effect of surface capping by alkyl chain on sensor performance. Journal of Physics and Chemistry of Solids, 2019, 129, 270-276.	1.9	24
3176	Novel optoelectronic rotors based on orthorhombic CsPb(Br/I) <sub>3</sub> nanorods. Nanoscale, 2019, 11, 3117-3122.	2.8	14
3177	Unveiling lasing mechanism in CsPbBr <sub>3</sub> microsphere cavities. Nanoscale, 2019, 11, 3145-3153.	2.8	71
3178	Influence of mixed organic cations on the structural and optical properties of lead tri-iodide perovskites. Nanoscale, 2019, 11, 5215-5221.	2.8	11
3179	Self-powered behavior based on the light-induced self-poling effect in perovskite-based transport layer-free photodetectors. Journal of Materials Chemistry C, 2019, 7, 609-616.	2.7	29
3180	Photo-oxidative degradation of methylammonium lead iodide perovskite: mechanism and protection. Journal of Materials Chemistry A, 2019, 7, 2275-2282.	5.2	105
3181	Simultaneously Enhanced Efficiency and Stability of Perovskite Solar Cells with TiO <sub>2</sub> @CdS Core-Shell Nanorods Electron Transport Layer. Advanced Materials Interfaces, 2019, 6, 1801976.	1.9	13

#	ARTICLE	IF	CITATIONS
3182	Cation-Dependent Hot Carrier Cooling in Halide Perovskite Nanocrystals. <i>Journal of the American Chemical Society</i> , 2019, 141, 3532-3540.	6.6	205
3183	Thermally evaporated two-dimensional SnS as an efficient and stable electron collection interlayer for inverted planar perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 4759-4765.	5.2	20
3184	Bifacial Passivation of Organic Hole Transport Interlayer for NiO <sub>x</sub> -Based p-i-n Perovskite Solar Cells. <i>Advanced Science</i> , 2019, 6, 1802163.	5.6	92
3185	High-Performance All-Inorganic CsPbCl <sub>3</sub> Perovskite Nanocrystal Photodetectors with Superior Stability. <i>ACS Nano</i> , 2019, 13, 1772-1783.	7.3	105
3186	Excitonic Properties of Low-Band-Gap Lead-Tin Halide Perovskites. <i>ACS Energy Letters</i> , 2019, 4, 615-621.	8.8	51
3187	Indirect tail states formation by thermal-induced polar fluctuations in halide perovskites. <i>Nature Communications</i> , 2019, 10, 484.	5.8	88
3188	Reduced graphene oxide-induced crystallization of CuPc interfacial layer for high performance of perovskite photodetectors. <i>RSC Advances</i> , 2019, 9, 3800-3808.	1.7	14
3189	Improving the Performances of Perovskite Solar Cells via Modification of Electron Transport Layer. <i>Polymers</i> , 2019, 11, 147.	2.0	31
3190	High performance printable perovskite solar cells based on Cs <sub>0.1</sub> FA <sub>0.9</sub> PbI <sub>3</sub> in mesoporous scaffolds. <i>Journal of Power Sources</i> , 2019, 415, 105-111.	4.0	34
3191	Fully Ambient Air Processed Perovskite Solar Cell Based on Co(Co,Cr) <sub>2</sub> O <sub>4</sub> /TiO <sub>2</sub> p-n Heterojunction Array in Photoanode. <i>Journal of Physical Chemistry C</i> , 2019, 123, 4044-4055.	1.5	5
3192	Perovskite-polymer composite cross-linker approach for highly-stable and efficient perovskite solar cells. <i>Nature Communications</i> , 2019, 10, 520.	5.8	405
3193	Flexible quintuple cation perovskite solar cells with high efficiency. <i>Journal of Materials Chemistry A</i> , 2019, 7, 4960-4970.	5.2	93
3194	Orientation Regulation of Tin-Based Reduced-Dimensional Perovskites for Highly Efficient and Stable Photovoltaics. <i>Advanced Functional Materials</i> , 2019, 29, 1807696.	7.8	136
3195	A low-temperature carbon electrode with good perovskite compatibility and high flexibility in carbon based perovskite solar cells. <i>Chemical Communications</i> , 2019, 55, 2765-2768.	2.2	40
3196	Recent Progress of Flexible Perovskite Solar Cells. <i>Physica Status Solidi - Rapid Research Letters</i> , 2019, 13, 1800566.	1.2	36
3197	Graphene-Induced Improvements of Perovskite Solar Cell Stability: Effects on Hot-Carriers. <i>Nano Letters</i> , 2019, 19, 684-691.	4.5	72
3198	ASbF <sub>3</sub> Cl (A = Rb, Cs): Structural Evolution from Centrosymmetry to Noncentrosymmetry. <i>Crystal Growth and Design</i> , 2019, 19, 1874-1879.	1.4	8
3199	Functional polymers for growth and stabilization of CsPbBr <sub>3</sub> perovskite nanoparticles. <i>Chemical Communications</i> , 2019, 55, 1833-1836.	2.2	32

#	ARTICLE	IF	CITATIONS
3200	Enhancing charge transport in an organic photoactive layer <i>via</i> vertical component engineering for efficient perovskite/organic integrated solar cells. <i>Nanoscale</i> , 2019, 11, 4035-4043.	2.8	22
3201	Zwitterions for Organic/Perovskite Solar Cells, Light-Emitting Devices, and Lithium Ion Batteries: Recent Progress and Perspectives. <i>Advanced Energy Materials</i> , 2019, 9, 1803354.	10.2	68
3202	Ultrafast Spectrally Resolved Photoinduced Complex Refractive Index Changes in CsPbBr <sub>3</sub> Perovskites. <i>ACS Photonics</i> , 2019, 6, 345-350.	3.2	27
3203	Cation influence on carrier dynamics in perovskite solar cells. <i>Nano Energy</i> , 2019, 58, 604-611.	8.2	75
3204	17.78% efficient low-temperature carbon-based planar perovskite solar cells using Zn-doped SnO <sub>2</sub> electron transport layer. <i>Applied Surface Science</i> , 2019, 478, 417-425.	3.1	84
3205	Sol-gel processed niobium oxide thin-film for a scaffold layer in perovskite solar cells. <i>Thin Solid Films</i> , 2019, 674, 7-11.	0.8	3
3206	Infrared-pump electronic-probe of methylammonium lead iodide reveals electronically decoupled organic and inorganic sublattices. <i>Nature Communications</i> , 2019, 10, 482.	5.8	25
3207	Effective lifetimes of minority carriers in time-resolved photocurrent and photoluminescence of a doped semiconductor: Modelling of a GaInP solar cell. <i>Solar Energy Materials and Solar Cells</i> , 2019, 193, 292-297.	3.0	8
3208	Critical roles of potassium in charge-carrier balance and diffusion induced defect passivation for efficient inverted perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 5666-5676.	5.2	62
3209	Efficient Photodoping of Graphene in Perovskite-Graphene Heterostructure. <i>Advanced Electronic Materials</i> , 2019, 5, 1800940.	2.6	8
3210	N-i-p-type perovskite solar cells employing n-type graphene transparent conductive electrodes. <i>Journal of Alloys and Compounds</i> , 2019, 786, 614-620.	2.8	21
3211	Methoxy groups on bifuorenylidene-based hole transporting materials result in highly efficient and stable dopant-free inverted perovskite solar cells. <i>Solar Energy</i> , 2019, 179, 371-379.	2.9	18
3212	Efficient and Stable Perovskite Solar Cell with High Open-Circuit Voltage by Dimensional Interface Modification. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 9149-9155.	4.0	54
3213	Metal halide perovskite nanostructures for optoelectronic applications and the study of physical properties. <i>Nature Reviews Materials</i> , 2019, 4, 169-188.	23.3	598
3214	Hybrid organic nanocrystal/carbon nanotube film electrodes for air- and photo-stable perovskite photovoltaics. <i>Nanoscale</i> , 2019, 11, 3733-3740.	2.8	14
3215	Bifacial stamping for high efficiency perovskite solar cells. <i>Energy and Environmental Science</i> , 2019, 12, 308-321.	15.6	91
3216	Tunable hysteresis behaviour related to trap filling dependence of surface barrier in an individual CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> micro/nanowire. <i>Nanoscale</i> , 2019, 11, 3360-3369.	2.8	23
3217	Dual-source evaporation of silver bismuth iodide films for planar junction solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 2095-2105.	5.2	63

#	ARTICLE	IF	CITATIONS
3218	Simultaneous enhancement in performance and UV-light stability of organic-inorganic perovskite solar cells using a samarium-based down conversion material. <i>Journal of Materials Chemistry A</i> , 2019, 7, 322-329.	5.2	42
3219	Multifunctional asymmetrical molecules for high-performance perovskite and organic solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 2412-2420.	5.2	14
3220	Improved photovoltaic performance of perovskite solar cells by utilizing down-conversion NaYF <sub>4</sub> :Eu <sup>3+</sup> nanophosphors. <i>Journal of Materials Chemistry C</i> , 2019, 7, 937-942.	2.7	40
3221	A new 2D high-pressure phase of PdSe <sub>2</sub> with high-mobility transport anisotropy for photovoltaic applications. <i>Journal of Materials Chemistry C</i> , 2019, 7, 2096-2105.	2.7	70
3222	Titanate hollow nanospheres as electron-transport layer in mesoscopic perovskite solar cell with enhanced performance. <i>Journal of Materials Chemistry C</i> , 2019, 7, 1948-1954.	2.7	24
3223	Optimizing solution-processed C60 electron transport layer in planar perovskite solar cells by interfacial modification with solid-state ionic-liquids. <i>Journal of Solid State Chemistry</i> , 2019, 276, 302-308.	1.4	26
3224	Nanostructured texturing of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite thin film on flexible substrate for photodetector application. <i>Organic Electronics</i> , 2019, 71, 284-289.	1.4	26
3225	Band-edges of bismuth-based ternary halide perovskites (A <sub>3</sub> Bi <sub>2</sub> I <sub>9</sub> ) through scanning tunneling spectroscopy vis-à-vis impact of defects in limiting the performance of solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2019, 200, 109941.	3.0	18
3226	Perovskite film-wire transformation: Preparation, characterization and device application. <i>Superlattices and Microstructures</i> , 2019, 130, 569-577.	1.4	2
3227	Unraveling the Electronic Properties of Lead Halide Perovskites with Surface Photovoltage in Photoemission Studies. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 21578-21583.	4.0	44
3228	Solution-processed bathocuproine cathode buffer layer towards efficient planar heterojunction perovskite solar cells. <i>Semiconductor Science and Technology</i> , 2019, 34, 075023.	1.0	4
3229	Influence of Electrical Traps on the Current Density Degradation of Inverted Perovskite Solar Cells. <i>Materials</i> , 2019, 12, 1644.	1.3	16
3230	Nitrogen-Dopant-Induced Organic-Inorganic Hybrid Perovskite Crystal Growth on Carbon Nanotubes. <i>Advanced Functional Materials</i> , 2019, 29, 1902489.	7.8	18
3231	Efficient Planar Perovskite Solar Cells via a Sputtered Cathode. <i>Solar Rrl</i> , 2019, 3, 1900209.	3.1	14
3232	Lead-Free Tin-Based Perovskite Solar Cells: Strategies Toward High Performance. <i>Solar Rrl</i> , 2019, 3, 1900213.	3.1	44
3233	Amphiphilic Fullerenes Employed to Improve the Quality of Perovskite Films and the Stability of Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 24782-24788.	4.0	55
3234	Transient Sub-Band-Gap States at Grain Boundaries of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Act as Fast Temperature Relaxation Centers. <i>ACS Energy Letters</i> , 2019, 4, 1741-1747.	8.8	33
3235	Structurally Stabilizing and Environment Friendly Triggers: Double-Metallic Lead-Free Perovskites. <i>Solar Rrl</i> , 2019, 3, 1900148.	3.1	36

#	ARTICLE	IF	CITATIONS
3236	Triplet Sensitization by Lead Halide Perovskite Thin Films for Efficient Solid-State Photon Upconversion at Subsolar Fluxes. <i>Matter</i> , 2019, 1, 705-719.	5.0	84
3237	Room-Temperature Cavity Polaritons with 3D Hybrid Perovskite: Toward Large-Surface Polaritonic Devices. <i>ACS Photonics</i> , 2019, 6, 1804-1811.	3.2	30
3238	Electrochemical Hole Injection Selectively Expels Iodide from Mixed Halide Perovskite Films. <i>Journal of the American Chemical Society</i> , 2019, 141, 10812-10820.	6.6	104
3239	Boosting the external quantum efficiency in perovskite light-emitting diodes by an exciton retrieving layer. <i>Journal of Materials Chemistry C</i> , 2019, 7, 8705-8711.	2.7	6
3240	BaZrSe <sub>3</sub> : <i>Ab initio</i> study of anion substitution for bandgap tuning in a chalcogenide material. <i>Journal of Applied Physics</i> , 2019, 125, .	1.1	10
3241	Perovskite solar cells. , 2019, , 417-446.		9
3242	Integrated advantages from perovskite photovoltaic cell and 2D MoTe <sub>2</sub> transistor towards self-power energy harvesting and photosensing. <i>Nano Energy</i> , 2019, 63, 103833.	8.2	19
3243	Lead-Free Perovskites: Metals Substitution towards Environmentally Benign Solar Cell Fabrication. <i>ChemSusChem</i> , 2019, 12, 4116-4139.	3.6	36
3244	Recent progress concerning inorganic hole transport layers for efficient perovskite solar cells. <i>Applied Physics A: Materials Science and Processing</i> , 2019, 125, 1.	1.1	48
3245	Understanding substitution effects on dye structures and optoelectronic properties of molecular halide perovskite Cs <sub>4</sub> MX <sub>6</sub> (M=Pb, Sn, Ge; X= Br, I, Cl). <i>Journal of Molecular Graphics and Modelling</i> , 2019, 91, 172-179.	1.3	7
3246	Efficient NiO <i>x</i> Hole Transporting Layer Obtained by the Oxidation of Metal Nickel Film for Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2019, 2, 4700-4707.	2.5	37
3247	Low Hysteresis Perovskite Solar Cells Using an Electron-Beam Evaporated WO <sub>3</sub> <i>x</i> Thin Film as the Electron Transport Layer. <i>ACS Applied Energy Materials</i> , 2019, 2, 5456-5464.	2.5	58
3248	Fabrication and Morphological Characterization of High-Efficiency Blade-Coated Perovskite Solar Modules. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 25195-25204.	4.0	53
3249	Stable Dynamics Performance and High Efficiency of ABX <sub>3</sub> <i>x</i> Type Super-Alkali Perovskites First Obtained by Introducing H <sub>5</sub> O <sub>2</sub> Cation. <i>Advanced Energy Materials</i> , 2019, 9, 1900664.	10.2	113
3250	Carbon Dots, Unconventional Preparation Strategies, and Applications Beyond Photoluminescence. <i>Small</i> , 2019, 15, e1901803.	5.2	113
3251	In Situ 2D Perovskite Formation and the Impact of the 2D/3D Structures on Performance and Stability of Perovskite Solar Cells. <i>Solar Rrl</i> , 2019, 3, 1900199.	3.1	30
3252	β-Ga <sub>2</sub> O <sub>3</sub> Nanocrystals Electron-Transporting Layer for High-Performance Perovskite Solar Cells. <i>Solar Rrl</i> , 2019, 3, 1900201.	3.1	13
3253	Effects of precursor composition on morphology and microstructure of hybrid organic-inorganic perovskite solar cells. <i>Journal of Materials Science</i> , 2019, 54, 12758-12766.	1.7	1



#	ARTICLE	IF	CITATIONS
3254	Cooling, Scattering, and Recombination—The Role of the Material Quality for the Physics of Tin Halide Perovskites. <i>Advanced Functional Materials</i> , 2019, 29, 1902963.	7.8	40
3255	Theoretical investigation of the structural and electronic properties of Al-decorated TiO <sub>2</sub> /perovskite interfaces. <i>Applied Surface Science</i> , 2019, 492, 369-373.	3.1	4
3256	Dopant-free Spiro-OMeTAD as hole transporting layer for stable and efficient perovskite solar cells. <i>Organic Electronics</i> , 2019, 74, 7-12.	1.4	22
3257	Inexpensive Hole-Transporting Materials Derived from Tröger's Base Afford Efficient and Stable Perovskite Solar Cells. <i>Angewandte Chemie</i> , 2019, 131, 11388.	1.6	5
3258	Perovskite solar cell towards lower toxicity: a theoretical study of physical lead reduction strategy. <i>Science Bulletin</i> , 2019, 64, 1255-1261.	4.3	54
3259	Micron-Size Two-Dimensional Methylammonium Lead Halide Perovskites. <i>ACS Nano</i> , 2019, 13, 6955-6962.	7.3	14
3260	New Spiro-Phenylpyrazole/Dibenzosuberene Derivatives as Hole-Transporting Material for Perovskite Solar Cells. <i>Solar Rrl</i> , 2019, 3, 1900143.	3.1	6
3261	Role of Water in Suppressing Recombination Pathways in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 25474-25482.	4.0	33
3262	Chemical Vapor Transport Deposition of Stable Cubic CsPbI <sub>3</sub> Optical Films on the Porous Alumina Substrate. <i>MRS Advances</i> , 2019, 4, 1973-1979.	0.5	0
3263	A systematic approach to ZnO nanoparticle-assisted electron transport bilayer for high efficiency and stable perovskite solar cells. <i>Journal of Alloys and Compounds</i> , 2019, 801, 277-284.	2.8	29
3264	Origin of Extended UV Stability of 2D Atomic Layer Titania-Based Perovskite Solar Cells Unveiled by Ultrafast Spectroscopy. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 21473-21480.	4.0	11
3265	Quantum Dots for Hybrid Energy Harvesting: From Integration to Piezo-Phototronics. <i>Israel Journal of Chemistry</i> , 2019, 59, 747-761.	1.0	3
3266	Role of Compositional Tuning on Thermoelectric Parameters of Hybrid Halide Perovskites. <i>Journal of Physical Chemistry C</i> , 2019, 123, 14928-14933.	1.5	37
3267	Soldering Grain Boundaries Yields Inverted Perovskite Solar Cells with Enhanced Open-Circuit Voltages. <i>Advanced Materials Interfaces</i> , 2019, 6, 1900474.	1.9	17
3268	Inexpensive Hole-Transporting Materials Derived from Tröger's Base Afford Efficient and Stable Perovskite Solar Cells. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 11266-11272.	7.2	37
3269	Methods and strategies for achieving high-performance carbon-based perovskite solar cells without hole transport materials. <i>Journal of Materials Chemistry A</i> , 2019, 7, 15476-15490.	5.2	85
3270	Optical Characterization of Cesium Lead Bromide Perovskites. <i>Crystals</i> , 2019, 9, 280.	1.0	21
3271	Improving the Stability and Monodispersity of Layered Cesium Lead Iodide Perovskite Thin Films by Tuning Crystallization Dynamics. <i>Chemistry of Materials</i> , 2019, 31, 4990-4998.	3.2	19

#	ARTICLE	IF	CITATIONS
3272	Effect of heterocyclic spacer on property of hole-transporting materials with silafluorene core for perovskite solar cells. <i>Computational and Theoretical Chemistry</i> , 2019, 1161, 10-17.	1.1	18
3273	Impact of 9-(4-methoxyphenyl) Carbazole and Benzodithiophene Cores on Performance and Stability for Perovskite Solar Cells Based on Dopant-Free Hole-Transporting Materials. <i>Solar Rrl</i> , 2019, 3, 1900202.	3.1	28
3274	First-principles investigations of electronic and optical properties in the MoS <sub>2</sub> /CsPbBr <sub>3</sub> heterostructure. <i>Journal of Physics and Chemistry of Solids</i> , 2019, 135, 109060.	1.9	39
3275	Preparation of Ethyl Cellulose Composite Film with Down Conversion Luminescence Properties by Doping Perovskite Quantum Dots. <i>ChemistrySelect</i> , 2019, 4, 6516-6523.	0.7	10
3276	Promoted performance of carbon based perovskite solar cells by environmentally friendly additives of CH <sub>3</sub> COONH <sub>4</sub> and Zn(CH <sub>3</sub> COO) <sub>2</sub> . <i>Journal of Alloys and Compounds</i> , 2019, 802, 694-703.	2.8	17
3277	Stabilizer-assisted growth of formamndinium-based perovskites for highly efficient and stable planar solar cells with over 22% efficiency. <i>Nano Energy</i> , 2019, 63, 103835.	8.2	51
3278	Performance enhancement of hole-transport material free perovskite solar cells with TiO <sub>2</sub> nanorods modified with SiO <sub>2</sub> /NaYF <sub>4</sub> :Yb,Er@SiO <sub>2</sub> for upconversion and charge recombination suppression. <i>Organic Electronics</i> , 2019, 73, 152-158.	1.4	15
3279	Hydrophobic perovskites based on an alkylamine compound for high efficiency solar cells with improved environmental stability. <i>Journal of Materials Chemistry A</i> , 2019, 7, 14689-14704.	5.2	19
3280	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. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 11576-11587.	1.1	8
3281	A SrGeO <sub>3</sub> inorganic electron-transporting layer for high-performance perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 14559-14564.	5.2	9
3282	To Greatly Reduce Defects via Photoannealing for High-Quality Perovskite Films. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 20943-20948.	4.0	14
3283	High Responsivity and Response Speed Single-Layer Mixed-Cation Lead Mixed-Halide Perovskite Photodetectors Based on Nanogap Electrodes Manufactured on Large-Area Rigid and Flexible Substrates. <i>Advanced Functional Materials</i> , 2019, 29, 1901371.	7.8	39
3284	Perovskite Grains Embraced in a Soft Fullerene Network Make Highly Efficient Flexible Solar Cells with Superior Mechanical Stability. <i>Advanced Materials</i> , 2019, 31, e1901519.	11.1	123
3285	Multicolor Semiconductor Lasers. <i>Advanced Optical Materials</i> , 2019, 7, 1900071.	3.6	28
3286	Oriented and Uniform Distribution of Dionâ€“Jacobson Phase Perovskites Controlled by Quantum Well Barrier Thickness. <i>Solar Rrl</i> , 2019, 3, 1900090.	3.1	102
3287	Recent Progress in Organic Electron Transport Materials in Inverted Perovskite Solar Cells. <i>Small</i> , 2019, 15, e1900854.	5.2	205
3288	Compositionally Screened Eutectic Catalytic Coatings on Halide Perovskite Photocathodes for Photoassisted Selective CO <sub>2</sub> Reduction. <i>ACS Energy Letters</i> , 2019, 4, 1279-1286.	8.8	56
3289	Ion induced passivation of grain boundaries in perovskite solar cells. <i>Journal of Applied Physics</i> , 2019, 125, .	1.1	13

#	ARTICLE	IF	CITATIONS
3290	Structural and photovoltaic properties of perovskite solar cells with addition of ammonium iodide. AIP Conference Proceedings, 2019, , .	0.3	3
3291	Disappeared deep charge-states transition levels in the p-type intrinsic CsSnCl <sub>3</sub> perovskite. Applied Physics Letters, 2019, 114, .	1.5	26
3292	Dual-sized TiO <sub>2</sub> nanoparticles as scaffold layers in carbon-based mesoscopic perovskite solar cells with enhanced performance. Journal of Power Sources, 2019, 430, 12-19.	4.0	16
3293	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
3294	Properties of Excitons and Photogenerated Charge Carriers in Metal Halide Perovskites. Advanced Materials, 2019, 31, e1806671.	11.1	134
3295	The facile modification of PEDOT:PSS buffer layer by polyethyleneglycol and their effects on inverted perovskite solar cell. Solar Energy, 2019, 186, 398-403.	2.9	22
3296	Plasmonic-Enhanced Light Harvesting and Perovskite Solar Cell Performance Using Au Biometric Dimers with Broadband Structural Darkness. Solar Rrl, 2019, 3, 1900138.	3.1	34
3297	Compositional, Processing, and Interfacial Engineering of Nanocrystal- and Quantum-Dot-Based Perovskite Solar Cells. Chemistry of Materials, 2019, 31, 6387-6411.	3.2	82
3298	High performance and stable perovskite solar cells using vanadic oxide as a dopant for spiro-OMeTAD. Journal of Materials Chemistry A, 2019, 7, 13256-13264.	5.2	81
3299	Microstructural Study of Two-Dimensional Organic-Inorganic Hybrid Perovskite Nanosheet Degradation under Illumination. Nanomaterials, 2019, 9, 722.	1.9	16
3300	Gradient Sn-Doped Heteroepitaxial Film of Faceted Rutile TiO <sub>2</sub> as an Electron Selective Layer for Efficient Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 19638-19646.	4.0	32
3301	Strong thickness-dependent quantum confinement in all-inorganic perovskite Cs <sub>2</sub> PbCl <sub>4</sub> with a Ruddlesden-Popper structure. Journal of Materials Chemistry C, 2019, 7, 7433-7441.	2.7	62
3302	High-Quality Single-Mode Lasers Based on Zero-Dimensional Cesium Lead Halide Perovskites. Solar Rrl, 2019, 3, 1900127.	3.1	20
3303	Charge Trap Formation and Passivation in Methylammonium Lead Tribromide. Journal of Physical Chemistry C, 2019, 123, 13812-13817.	1.5	9
3304	Unique characteristics of 2D Ruddlesden-Popper (2DRP) perovskite for future photovoltaic application. Journal of Materials Chemistry A, 2019, 7, 13860-13872.	5.2	84
3305	Improvement of perovskite crystallinity by omnidirectional heat transfer via radiative thermal annealing. RSC Advances, 2019, 9, 14868-14875.	1.7	6
3306	Star-shaped molecule with planar triazine core and perylene diimide branches as an n-type additive for bulk-heterojunction perovskite solar cells. Dyes and Pigments, 2019, 170, 107562.	2.0	18
3307	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
3308	Dual-functional light-emitting perovskite solar cells enabled by soft-covered annealing process. <i>Nano Energy</i> , 2019, 61, 251-258.	8.2	14
3309	Pressure-Induced Optical Band Gap Transition in Methylammonium Lead Halide Perovskites. <i>Journal of Physical Chemistry C</i> , 2019, 123, 12423-12428.	1.5	13
3310	Modifying morphology and defects of low-dimensional, semi-transparent perovskite thin films via solvent type. <i>RSC Advances</i> , 2019, 9, 12047-12054.	1.7	15
3311	Band Tunable Microcavity Perovskite Artificial Human Photoreceptors. <i>Advanced Materials</i> , 2019, 31, e1900231.	11.1	52
3312	<i>In situ</i> investigation of light soaking in organolead halide perovskite films. <i>APL Materials</i> , 2019, 7, .	2.2	23
3313	Stable Two-Photon Pumped Amplified Spontaneous Emission from Millimeter-Sized CsPbBr <sub>3</sub> Single Crystals. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 2357-2362.	2.1	43
3314	Flexible Organometal-Halide Perovskite Lasers for Speckle Reduction in Imaging Projection. <i>ACS Nano</i> , 2019, 13, 5421-5429.	7.3	84
3315	Efficient light harvesting with a nanostructured organic electron-transporting layer in perovskite solar cells. <i>Nanoscale</i> , 2019, 11, 9281-9286.	2.8	9
3316	Charge injection and trapping at perovskite interfaces with organic hole transporting materials of different ionization energies. <i>APL Materials</i> , 2019, 7, .	2.2	20
3317	Simple, Robust, and Going More Efficient: Recent Advance on Electron Transport Layer-Free Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2019, 9, 1900248.	10.2	62
3318	Flat Is Boring in Perovskite Light Detectors. <i>CheM</i> , 2019, 5, 748-749.	5.8	0
3319	High-performance inverted planar perovskite solar cells using a pristine fullerene mixture as an electron-transport layer. <i>Journal of Materials Chemistry C</i> , 2019, 7, 6956-6963.	2.7	29
3320	Semiconducting carbon nanotubes as crystal growth templates and grain bridges in perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 12987-12992.	5.2	57
3321	The investigation of inverted p-i-n planar perovskite solar cells based on FASnI <sub>3</sub> films. <i>Solar Energy Materials and Solar Cells</i> , 2019, 199, 75-82.	3.0	43
3322	Tunable Emission Properties of Manganese Chloride Small Single Crystals by Pyridine Incorporation. <i>ACS Omega</i> , 2019, 4, 8039-8045.	1.6	43
3323	Synthesis of copper(II)-imidazole complex modified sandwich-type polyoxometalates for enhancing the power conversion efficiency in dye-sensitized solar cells. <i>Dyes and Pigments</i> , 2019, 168, 151-159.	2.0	10
3324	Recent Progress in Metal Halide Perovskite Micro- and Nanolasers. <i>Advanced Optical Materials</i> , 2019, 7, 1900080.	3.6	95
3325	Organic bulk-heterojunction injected perovskite films for highly efficient solar cells. <i>Journal of Materials Chemistry C</i> , 2019, 7, 6391-6397.	2.7	9

#	ARTICLE	IF	CITATIONS
3326	A Novel Phototransistor Device with Dual Active Layers Compositod of CsPbBr <sub>3</sub> and ZnO Quantum Dots. <i>Materials</i> , 2019, 12, 1215.	1.3	12
3327	White-Light Emission from the Structural Distortion Induced by Control of Halide Composition of Two-Dimensional Perovskites ((C <sub>6</sub> H <sub>5</sub> ) <sub>2</sub> CH <sub>2</sub> NH <sub>3</sub> ) <sub>2</sub> PbBr <sub>4</sub> . <i>Inorganic Chemistry</i> , 2019, 58, 6748-6757.	1.9	43
3328	Conjugated Polymer-Assisted Grain Boundary Passivation for Efficient Inverted Planar Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2019, 29, 1808855.	7.8	133
3329	Enhanced hole extraction by NiO nanoparticles in carbon-based perovskite solar cells. <i>Electrochimica Acta</i> , 2019, 312, 100-108.	2.6	29
3330	One-step methylammonium lead bromide films: Effect of annealing treatment. <i>Journal of Molecular Structure</i> , 2019, 1192, 1-6.	1.8	17
3331	High performance perovskite solar cells based on $\hat{I}^2$ -NaYF <sub>4</sub> :Yb <sup>3+</sup> /Er <sup>3+</sup> /Sc <sup>3+</sup> @NaYF <sub>4</sub> core-shell upconversion nanoparticles. <i>Journal of Power Sources</i> , 2019, 426, 178-187.	4.0	65
3332	Sealing the domain boundaries and defects passivation by Poly(acrylic acid) for scalable blading of efficient perovskite solar cells. <i>Journal of Power Sources</i> , 2019, 426, 188-196.	4.0	29
3333	Stable Efficiency Exceeding 20.6% for Inverted Perovskite Solar Cells through Polymer-Optimized PCBM Electron-Transport Layers. <i>Nano Letters</i> , 2019, 19, 3313-3320.	4.5	181
3334	A facile method to evaluate the influence of trap densities on perovskite solar cell performance. <i>Journal of Materials Chemistry C</i> , 2019, 7, 5646-5651.	2.7	32
3335	Reverse-Graded 2D Ruddlesden-Popper Perovskites for Efficient Air-Stable Solar Cells. <i>Advanced Energy Materials</i> , 2019, 9, 1900612.	10.2	69
3336	Perovskite Solar Cells Processed by Solution Nanotechnology. , 2019, , 119-174.		0
3337	Bulk- and Nanocrystalline-Halide Perovskite Light-Emitting Diodes. , 2019, , 305-341.		3
3338	Electronic Structure of Nonionic Surfactant-Modified PEDOT:PSS and Its Application in Perovskite Solar Cells with Reduced Interface Recombination. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 17028-17034.	4.0	30
3339	Role of graphene ordered modifiers in regulating the organic halide perovskite devices. <i>Optical Materials</i> , 2019, 92, 81-86.	1.7	10
3340	Two Heteromorphic Crystals of Antimony-Based Hybrids Showing Tunable Optical Band Gaps and Distinct Photoelectric Responses. <i>Inorganic Chemistry</i> , 2019, 58, 6544-6549.	1.9	17
3341	One-Step Vapor-Phase Synthesis and Quantum-Confined Exciton in Single-Crystal Platelets of Hybrid Halide Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 2363-2371.	2.1	25
3342	The Influence of Dipole Moments Induced by Organic Molecules and Domain Structures on the Properties of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite. <i>Advanced Theory and Simulations</i> , 2019, 2, 1900041.	1.3	5
3343	Simultaneously enhanced performance and stability of inverted perovskite solar cells via a rational design of hole transport layer. <i>Organic Electronics</i> , 2019, 73, 69-75.	1.4	9

#	ARTICLE	IF	CITATIONS
3344	Red-Shifted Photoluminescence from Crystal Edges Due to Carrier Redistribution and Reabsorption in Lead Triiodide Perovskites. <i>Journal of Physical Chemistry C</i> , 2019, 123, 12521-12526.	1.5	23
3345	MAPbBr <sub>3</sub> perovskite solar cells <i>via</i> a two-step deposition process. <i>RSC Advances</i> , 2019, 9, 12906-12912.	1.7	51
3346	Double electron transport layers for efficient and stable organic-inorganic hybrid perovskite solar cells. <i>Organic Electronics</i> , 2019, 70, 292-299.	1.4	20
3347	Hybrid Charge-Transfer Semiconductors: (C <sub>7</sub> H <sub>7</sub> )SbI <sub>4</sub> , (C <sub>7</sub> H <sub>7</sub> )BiI <sub>4</sub> , and Their Halide Congeners. <i>Inorganic Chemistry</i> , 2019, 58, 5818-5826.	1.9	37
3348	In situ Investigation of Water Interaction with Lead-Free All Inorganic Perovskite (Cs <sub>2</sub> SnI <sub>x</sub> Cl <sub>6-x</sub> ). <i>Journal of Physical Chemistry C</i> , 2019, 123, 9575-9581.	1.5	23
3349	Triplet-Sensitization by Lead Halide Perovskite Thin Films for Near-Infrared-to-Visible Upconversion. <i>ACS Energy Letters</i> , 2019, 4, 888-895.	8.8	117
3350	How far does the defect tolerance of lead-halide perovskites range? The example of Bi impurities introducing efficient recombination centers. <i>Journal of Materials Chemistry A</i> , 2019, 7, 23838-23853.	5.2	57
3351	Highly Crystalline Perovskite-Based Photovoltaics via Two-Dimensional Liquid Cage Annealing Strategy. <i>Journal of the American Chemical Society</i> , 2019, 141, 5808-5814.	6.6	29
3352	Refractive Index Dispersion of Organic-Inorganic Hybrid Halide Perovskite CH <sub>3</sub> NH <sub>3</sub> PbX <sub>3</sub> (X=Cl, Br, I) Single Crystals. <i>Crystal Research and Technology</i> , 2019, 54, 1900011.	0.6	31
3353	Improved photovoltaic performance of triple-cation mixed-halide perovskite solar cells with binary trivalent metals incorporated into the titanium dioxide electron transport layer. <i>Journal of Materials Chemistry C</i> , 2019, 7, 5028-5036.	2.7	36
3354	Material patterning on substrates by manipulation of fluidic behavior. <i>National Science Review</i> , 2019, 6, 758-766.	4.6	11
3355	Doping-Enhanced Visible-Light Absorption of CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> by the Bi <sup>3+</sup> -Induced Impurity Band without Sacrificing a Band gap. <i>Journal of Physical Chemistry C</i> , 2019, 123, 8578-8587.	1.5	18
3356	Performance enhancement of perovskite solar cells <i>via</i> material quality improvement assisted by MAI/IPA solution post-treatment. <i>Dalton Transactions</i> , 2019, 48, 5292-5298.	1.6	8
3357	Superoxide/Peroxide Chemistry Extends Charge Carriers' Lifetime but Undermines Chemical Stability of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Exposed to Oxygen: Time-Domain <i>ab Initio</i> Analysis. <i>Journal of the American Chemical Society</i> , 2019, 141, 5798-5807.	6.6	102
3358	3D hybrid perovskite solid solutions: a facile approach for deposition of nanoparticles and thin films <i>via</i> B-site substitution. <i>New Journal of Chemistry</i> , 2019, 43, 5448-5454.	1.4	5
3359	Highly efficient and stable 2D-3D perovskite solar cells fabricated by interfacial modification. <i>Nanotechnology</i> , 2019, 30, 275202.	1.3	40
3360	Uncovering the Mechanism Behind the Improved Stability of 2D Organic-Inorganic Hybrid Perovskites. <i>Small</i> , 2019, 15, e1900462.	5.2	27
3361	Highly flexible, robust, stable and high efficiency perovskite solar cells enabled by van der Waals epitaxy on mica substrate. <i>Nano Energy</i> , 2019, 60, 476-484.	8.2	66



#	ARTICLE	IF	CITATIONS
3362	Pulsed Laser Deposition of CsPbBr <sub>3</sub> Films for Application in Perovskite Solar Cells. ACS Applied Energy Materials, 2019, 2, 2305-2312.	2.5	46
3363	Efficient Defect Passivation for Perovskite Solar Cells by Controlling the Electron Density Distribution of Donor-Acceptor Molecules. Advanced Energy Materials, 2019, 9, 1803766.	10.2	280
3364	Investigation of Rbx(MA)1-xPbI3 (x=0, 0.1, 0.3, 0.5, 0.75, 1) perovskites as a potential source of P- and N-type materials for PN-junction solar cell. Applied Physics A: Materials Science and Processing, 2019, 125, 1.	1.1	6
3365	Stable and scalable 3D-2D planar heterojunction perovskite solar cells via vapor deposition. Nano Energy, 2019, 59, 619-625.	8.2	88
3366	Vibrational Probe of the Structural Origins of Slow Recombination in Halide Perovskites. Journal of Physical Chemistry C, 2019, 123, 7061-7073.	1.5	29
3367	Ionic-to-electronic current amplification in hybrid perovskite solar cells: ionically gated transistor-interface circuit model explains hysteresis and impedance of mixed conducting devices. Energy and Environmental Science, 2019, 12, 1296-1308.	15.6	146
3368	Preparation, Thermal, and Physical Properties of Perovskite-Type (C3H7NH3)2CdCl4 Crystals. Crystals, 2019, 9, 108.	1.0	2
3369	High-performance inverted planar perovskite solar cells based on solution-processed rubidium-doped nickel oxide hole-transporting layer. Organic Electronics, 2019, 69, 34-41.	1.4	24
3370	Point defect-reduced colloidal SnO2 electron transport layers for stable and almost hysteresis-free perovskite solar cells. RSC Advances, 2019, 9, 7334-7337.	1.7	10
3371	Electronic and Thermal Properties of Graphene and Recent Advances in Graphene Based Electronics Applications. Nanomaterials, 2019, 9, 374.	1.9	238
3372	Enhanced UV-C Detection of Perovskite Photodetector Arrays via Inorganic CsPbBr <sub>3</sub> Quantum Dot Down-Conversion Layer. Advanced Optical Materials, 2019, 7, 1801812.	3.6	55
3373	Synthesis of Colloidal Halide Perovskite Quantum Dots/Nanocrystals: Progresses and Advances. Israel Journal of Chemistry, 2019, 59, 649-660.	1.0	25
3374	Bifacial Contact Junction Engineering for High-Performance Perovskite Solar Cells with Efficiency Exceeding 21%. Small, 2019, 15, 1900606.	5.2	15
3375	Highly stable semi-transparent MAPbI3 perovskite solar cells with operational output for 4000 h. Solar Energy Materials and Solar Cells, 2019, 195, 323-329.	3.0	84
3376	Understanding How Ambiance Affects the Performance of Hole-Conductor-Free Perovskite Solar Cells from a Chemical Perspective. ACS Applied Energy Materials, 2019, 2, 2387-2391.	2.5	5
3377	Effects of Illumination Direction on the Surface Potential of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Films Probed by Kelvin Probe Force Microscopy. ACS Applied Materials & Interfaces, 2019, 11, 14044-14050.	4.0	34
3378	Photodriven Dipole Reordering: Key to Carrier Separation in Metalorganic Halide Perovskites. ACS Nano, 2019, 13, 4402-4409.	7.3	38
3379	Suppressing defect states in CsPbBr <sub>3</sub> perovskite <i>via</i> magnesium substitution for efficient all-inorganic light-emitting diodes. Nanoscale Horizons, 2019, 4, 924-932.	4.1	34

#	ARTICLE	IF	CITATIONS
3380	Controllable switching properties in an individual CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> micro/nanowire-based transistor for gate voltage and illumination dual-driving non-volatile memory. <i>Journal of Materials Chemistry C</i> , 2019, 7, 4259-4266.	2.7	18
3381	Sequential Deposition of High-Quality Photovoltaic Perovskite Layers via Scalable Printing Methods. <i>Advanced Functional Materials</i> , 2019, 29, 1900964.	7.8	69
3382	Origin and Suppression of the Graded Phase Distribution in Ruddlesden-Popper Perovskite Films for Photovoltaic Application. <i>Solar Rrl</i> , 2019, 3, 1800357.	3.1	27
3383	Ultrastable Lead-Free Double Perovskite Photodetectors with Imaging Capability. <i>Advanced Materials Interfaces</i> , 2019, 6, 1900188.	1.9	62
3384	Density of bulk trap states of hybrid lead halide perovskite single crystals: temperature modulated space-charge-limited-currents. <i>Scientific Reports</i> , 2019, 9, 3332.	1.6	51
3385	Enhanced efficacy of defect passivation and charge extraction for efficient perovskite photovoltaics with a small open circuit voltage loss. <i>Journal of Materials Chemistry A</i> , 2019, 7, 9025-9033.	5.2	71
3386	Recent advances in nanomaterial-based electrochemical and optical sensing platforms for microRNA assays. <i>Analyst, The</i> , 2019, 144, 2849-2866.	1.7	72
3387	Simultaneously boost diffusion length and stability of perovskite for high performance solar cells. <i>Nano Energy</i> , 2019, 59, 721-729.	8.2	33
3388	Fast Charge Diffusion in MAPb(I <sub>x</sub> Br <sub>x</sub> ) <sub>3</sub> Films for High-Efficiency Solar Cells Revealed by Ultrafast Time-Resolved Reflectivity. <i>Journal of Physical Chemistry A</i> , 2019, 123, 2674-2678.	1.1	6
3389	Formation of DY center as n-type limiting defects in octahedral semiconductors: the case of Bi-doped hybrid halide perovskites. <i>Journal of Materials Chemistry C</i> , 2019, 7, 4230-4234.	2.7	41
3390	Current progress in interfacial engineering of carbon-based perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 8690-8699.	5.2	84
3391	Tunable Ferroelectricity in Ruddlesden-Popper Halide Perovskites. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 13523-13532.	4.0	32
3392	Tracking Transformative Transitions: From CsPbBr <sub>3</sub> Nanocrystals to Bulk Perovskite Films. , 2019, 1, 8-13.		35
3393	TiO <sub>2</sub> Nanoparticles/Nanotubes for Efficient Light Harvesting in Perovskite Solar Cells. <i>Nanomaterials</i> , 2019, 9, 326.	1.9	39
3394	Theoretical Prediction of Chiral 3D Hybrid Organic-Inorganic Perovskites. <i>Advanced Materials</i> , 2019, 31, e1807628.	11.1	64
3395	Performance enhancement of AgBi <sub>2</sub> I <sub>7</sub> solar cells by modulating a solvent-mediated adduct and tuning remnant BiI <sub>3</sub> in one-step crystallization. <i>Chemical Communications</i> , 2019, 55, 4031-4034.	2.2	54
3396	Scalable fabrication of high-quality crystalline and stable FAPbI <sub>3</sub> thin films by combining doctor-blade coating and the cation exchange reaction. <i>Nanoscale</i> , 2019, 11, 5989-5997.	2.8	20
3397	Organolead halide perovskite-based metal-oxide-semiconductor structure photodetectors achieving ultrahigh detectivity. <i>Solar Energy</i> , 2019, 183, 226-233.	2.9	14

#	ARTICLE	IF	CITATIONS
3398	Molecular Engineering of Simple Carbazole-Triphenylamine Hole Transporting Materials by Replacing Benzene with Pyridine Unit for Perovskite Solar Cells. <i>Solar Rrl</i> , 2019, 3, 1800337.	3.1	48
3399	Materials Discovery of Stable and Nontoxic Halide Perovskite Materials for High-Efficiency Solar Cells. <i>Advanced Functional Materials</i> , 2019, 29, 1804354.	7.8	61
3400	Quantitative optical assessment of photonic and electronic properties in halide perovskite. <i>Nature Communications</i> , 2019, 10, 1586.	5.8	40
3401	Rapid Growth of Halide Perovskite Single Crystals: From Methods to Optimization Control. <i>Chinese Journal of Chemistry</i> , 2019, 37, 616-629.	2.6	24
3402	Multi-dimensional anatase TiO <sub>2</sub> materials: Synthesis and their application as efficient charge transporter in perovskite solar cells. <i>Solar Energy</i> , 2019, 184, 323-330.	2.9	35
3403	Reversible Dimensionality Tuning of Hybrid Perovskites with Humidity: Visualization and Application to Stable Solar Cells. <i>Chemistry of Materials</i> , 2019, 31, 3111-3117.	3.2	35
3404	Ultrafast carrier dynamics of metal halide perovskite nanocrystals and perovskite-composites. <i>Nanoscale</i> , 2019, 11, 9796-9818.	2.8	76
3405	Impedance analysis of perovskite solar cells: a case study. <i>Journal of Materials Chemistry A</i> , 2019, 7, 12191-12200.	5.2	109
3406	Two-dimensional polythiophene homopolymer as promising hole transport material for high-performance perovskite solar cells. <i>Journal of Power Sources</i> , 2019, 426, 55-60.	4.0	19
3407	Morphology, optical and photoelectric properties of CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> single crystal. <i>Physica B: Condensed Matter</i> , 2019, 571, 307-311.	1.3	8
3408	Tin(IV)-Tolerant Vapor-Phase Growth and Photophysical Properties of Aligned Cesium Tin Halide Perovskite (CsSnX <sub>3</sub> ; X = Br, I) Nanowires. <i>ACS Energy Letters</i> , 2019, 4, 1045-1052.	8.8	84
3409	Pushing the limit of Cs incorporation into FAPbBr <sub>3</sub> perovskite to enhance solar cells performances. <i>APL Materials</i> , 2019, 7, .	2.2	33
3410	Efficient air-stable perovskite solar cells with a (FAI) <sub>0.46</sub> (MAI) <sub>0.40</sub> (MABr) <sub>0.14</sub> (PbI) <sub>2</sub> <sub>0.86</sub> (PbBr) <sub>2</sub> <sub>0.16</sub> active layer fabricated via a vacuum flash-assisted method under RH > 50%. <i>RSC Advances</i> , 2019, 9, 10148-10154.	1.7	16
3411	Yb- and Mn-Doped Lead-Free Double Perovskite Cs <sub>2</sub> AgBiX <sub>6</sub> (X = Cl <sup>+</sup> , Tl <sup>+</sup> ) T <sub>1</sub> ETQ <sub>1</sub> 1 0.784314 190	4.8	190
3412	Low-Cost CuIn <sub>1-x</sub> GaxSe <sub>2</sub> Ultra-Thin Hole-Transporting Material Layer for Perovskite/CIGSe Heterojunction Solar Cells. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 719.	1.3	7
3413	In situ deposition of black $\delta$ -FAPbI <sub>3</sub> films by vacuum flash evaporation for solar cells. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 8381-8389.	1.1	6
3414	Hole transport materials doped to absorber film for improving the performance of the perovskite solar cells. <i>Materials Science in Semiconductor Processing</i> , 2019, 98, 113-120.	1.9	7
3415	Oxide Analogs of Halide Perovskites and the New Semiconductor Ba <sub>2</sub> AgIO <sub>6</sub> . <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 1722-1728.	2.1	36

#	ARTICLE	IF	CITATIONS
3416	Bis[di(4-methoxyphenyl)amino]carbazole-capped indacenodithiophenes as hole transport materials for highly efficient perovskite solar cells: the pronounced positioning effect of a donor group on the cell performance. <i>Journal of Materials Chemistry A</i> , 2019, 7, 10200-10205.	5.2	30
3417	Pinhole-free TiO <sub>2</sub> /Ag(O)/ZnO configuration for flexible perovskite solar cells with ultralow optoelectrical loss. <i>RSC Advances</i> , 2019, 9, 9160-9170.	1.7	25
3418	Room-Temperature Molten Salt for Facile Fabrication of Efficient and Stable Perovskite Solar Cells in Ambient Air. <i>CheM</i> , 2019, 5, 995-1006.	5.8	245
3419	The Dominant Energy Transport Pathway in Halide Perovskites: Photon Recycling or Carrier Diffusion?. <i>Advanced Energy Materials</i> , 2019, 9, 1900185.	10.2	85
3420	Flash Surface Treatment of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Films Using 248-nm KrF Excimer Laser Enhances the Performance of Perovskite Solar Cells. <i>Solar Rrl</i> , 2019, 3, 1900020.	3.1	5
3421	Controlled pH of PEDOT:PSS for Reproducible Efficiency in Inverted Perovskite Solar Cells: Independent of Active Area and Humidity. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 8245-8254.	3.2	23
3422	A high performance perovskite CH <sub>3</sub> NH <sub>3</sub> PbCl <sub>3</sub> single crystal photodetector: benefiting from an evolutionary preparation process. <i>Journal of Materials Chemistry C</i> , 2019, 7, 5442-5450.	2.7	39
3423	Moisture assisted CsPbBr <sub>3</sub> film growth for high-efficiency, all-inorganic solar cells prepared by a multiple sequential vacuum deposition method. <i>Materials Science in Semiconductor Processing</i> , 2019, 98, 39-43.	1.9	42
3424	On the modeling of dispersive transient photocurrent response of organic solar cells. <i>Organic Electronics</i> , 2019, 70, 42-47.	1.4	16
3425	Structure, optical and electrical properties of CH <sub>3</sub> NH <sub>3</sub> SnI <sub>3</sub> single crystal. <i>Physica B: Condensed Matter</i> , 2019, 563, 107-112.	1.3	21
3426	Strain-Mediated Phase Stabilization: A New Strategy for Ultrastable CsPbI <sub>3</sub> Perovskite by Nanoconfined Growth. <i>Small</i> , 2019, 15, e1900219.	5.2	74
3427	Ultrahigh energy density CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite based supercapacitor with fast discharge. <i>Electrochimica Acta</i> , 2019, 307, 334-340.	2.6	27
3428	Metal halide perovskite photodetectors: Material features and device engineering. <i>Chinese Physics B</i> , 2019, 28, 018502.	0.7	18
3429	Bulk and surface recombination properties in thin film semiconductors with different surface treatments from time-resolved photoluminescence measurements. <i>Scientific Reports</i> , 2019, 9, 5385.	1.6	65
3431	Ethanol stabilized precursors for highly reproducible printable mesoscopic perovskite solar cells. <i>Journal of Power Sources</i> , 2019, 424, 261-267.	4.0	21
3432	Perovskite solar cells free of hole transport layer. <i>Journal of Sol-Gel Science and Technology</i> , 2019, 90, 443-449.	1.1	5
3433	Nanophotonic enhancement and improved electron extraction in perovskite solar cells using near-horizontally aligned TiO <sub>2</sub> nanorods. <i>Journal of Power Sources</i> , 2019, 417, 176-187.	4.0	17
3434	High-Performance Inverted Perovskite Solar Cells Using Doped Poly(triarylamine) as the Hole Transport Layer. <i>ACS Applied Energy Materials</i> , 2019, 2, 1932-1942.	2.5	52

#	ARTICLE	IF	CITATIONS
3435	Superwettability-Based Interfacial Chemical Reactions. <i>Advanced Materials</i> , 2019, 31, e1800718.	11.1	128
3436	Interface and Defect Engineering for Metal Halide Perovskite Optoelectronic Devices. <i>Advanced Materials</i> , 2019, 31, e1803515.	11.1	315
3437	From Lead Halide Perovskites to Lead-Free Metal Halide Perovskites and Perovskite Derivatives. <i>Advanced Materials</i> , 2019, 31, e1803792.	11.1	621
3438	Perovskite Photovoltaics: The Significant Role of Ligands in Film Formation, Passivation, and Stability. <i>Advanced Materials</i> , 2019, 31, e1805702.	11.1	192
3439	Fundamental Understanding of Photocurrent Hysteresis in Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2019, 9, 1803017.	10.2	224
3440	Enhanced Crystallization and Optimized Morphology of Perovskites Through Doping an Indium-Based Metal-Organic Assembly: Achieving Significant Solar Cell Efficiency Enhancements. <i>Energy Technology</i> , 2019, 7, 1900027.	1.8	8
3441	Fullerene Polymer Complex Inducing Dipole Electric Field for Stable Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2019, 29, 1804419.	7.8	42
3442	Bismuth Doping-Induced Stable Seebeck Effect Based on $\text{MAPbI}_3$ Polycrystalline Thin Films. <i>Advanced Functional Materials</i> , 2019, 29, 1900615.	7.8	42
3443	Chlorobenzene: A Processing Solvent Enabling the Fabrication of Perovskite Solar Cells with Consecutive Double Perovskite and Perovskite/Organic Semiconductor Bulk Heterojunction Layers. <i>Solar Rrl</i> , 2019, 3, 1800325.	3.1	6
3444	Microconcave $\text{MAPbBr}_3$ Single Crystal for High-Performance Photodetector. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 786-792.	2.1	41
3445	Hot carrier solar cells and the potential of perovskites for breaking the Shockley-Queisser limit. <i>Journal of Materials Chemistry C</i> , 2019, 7, 2471-2486.	2.7	124
3446	High luminescence color gradient by physical mixing of two perovskite nanocrystals. <i>New Journal of Chemistry</i> , 2019, 43, 4116-4122.	1.4	11
3447	Facile fabrication of highly efficient ETL-free perovskite solar cells with 20% efficiency by defect passivation and interface engineering. <i>Chemical Communications</i> , 2019, 55, 2777-2780.	2.2	61
3448	Comprehensive understanding of $\text{TiCl}_4$ treatment on the compact $\text{TiO}_2$ layer in planar perovskite solar cells with efficiencies over 20%. <i>Journal of Alloys and Compounds</i> , 2019, 787, 1082-1088.	2.8	29
3449	Surface grain boundary passivation via mixed antisolvent and PC61BM assistant for stable perovskite solar cells. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 3511-3520.	1.1	8
3450	Understanding the Impact of Bismuth Heterovalent Doping on the Structural and Photophysical Properties of $\text{CH}_3\text{NH}_3\text{PbBr}_3$ Halide Perovskite Crystals with Near-IR Photoluminescence. <i>Chemistry - A European Journal</i> , 2019, 25, 5480-5488.	1.7	42
3451	21.7% efficiency achieved in planar $\text{p-p}$ perovskite solar cells via interface engineering with water-soluble 2D $\text{TiS}_2$ . <i>Journal of Materials Chemistry A</i> , 2019, 7, 6213-6219.	5.2	87
3452	Surface composition of $\text{MAPb}(\text{I}_x\text{Br}_{1-x})_3$ (0 $\leq x \leq 1$ ) organic-inorganic mixed-halide perovskites. <i>Applied Surface Science</i> , 2019, 479, 311-317.	3.1	8

#	ARTICLE	IF	CITATIONS
3453	Synthesis and Characterization of Multiple-Cation Rb(MAFA)PbI <sub>3</sub> Perovskite Single Crystals. Scientific Reports, 2019, 9, 2022.	1.6	18
3454	Photonic-structured TiO <sub>2</sub> for high-efficiency, flexible and stable Perovskite solar cells. Nano Energy, 2019, 59, 91-101.	8.2	100
3455	Low temperature solution processable TiO <sub>2</sub> nano-sol for electron transporting layer of flexible perovskite solar cells. Solar Energy Materials and Solar Cells, 2019, 194, 1-6.	3.0	30
3456	Improved Efficiency of Perovskite Solar Cells by the Interfacial Modification of the Active Layer. Nanomaterials, 2019, 9, 204.	1.9	12
3457	Photonics and optoelectronics using nano-structured hybrid perovskite media and their optical cavities. Physics Reports, 2019, 795, 1-51.	10.3	303
3458	Effect of intermediate phases on the optical properties of PbI <sub>2</sub> -rich CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> organic-inorganic hybrid perovskite. Physical Chemistry Chemical Physics, 2019, 21, 5253-5261.	1.3	14
3459	Donuts and Spin Vortices at the Fermi Surfaces of Hybrid Lead-Iodide CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskites. Journal of Physical Chemistry C, 2019, 123, 6753-6762.	1.5	3
3460	Potential Applications of Halide Double Perovskite Cs <sub>2</sub> AgInX <sub>6</sub> (X = Cl, Br) in Flexible Optoelectronics: Unusual Effects of Uniaxial Strains. Journal of Physical Chemistry Letters, 2019, 10, 1120-1125.	2.1	44
3461	Temperature dependent geometry in perovskite microcrystals for whispering gallery and Fabry-Pérot mode lasing. Journal of Materials Chemistry C, 2019, 7, 4102-4108.	2.7	18
3462	Solution-phase, template-free synthesis of PbI <sub>2</sub> and MAPbI <sub>3</sub> nano/microtubes for high-sensitivity photodetectors. Nanoscale, 2019, 11, 5188-5196.	2.8	24
3463	Controlled synthesis and photostability of blue emitting Cs <sub>3</sub> Bi <sub>2</sub> Br <sub>9</sub> perovskite nanocrystals by employing weak polar solvents at room temperature. Journal of Materials Chemistry C, 2019, 7, 3688-3695.	2.7	50
3464	Schottky/p-n Cascade Heterojunction Constructed by Intentional n-type Doping Perovskite Toward Efficient Electron Layer-Free Perovskite Solar Cells. Solar Rrl, 2019, 3, 1800274.	3.1	43
3465	The Positive Function of Incorporation of Small Molecules into Perovskite Materials for High-Efficient Stable Solar Cells. Solar Rrl, 2019, 3, 1800327.	3.1	16
3466	Lead-Free Halide Double Perovskite Materials: A New Superstar Toward Green and Stable Optoelectronic Applications. Nano-Micro Letters, 2019, 11, 16.	14.4	238
3467	Toward development of high-performance perovskite solar cells based on CH <sub>3</sub> NH <sub>3</sub> GeI <sub>3</sub> using computational approach. Solar Energy, 2019, 182, 237-244.	2.9	191
3468	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
3469	Slow Hot-Carrier Cooling in Halide Perovskites: Prospects for Hot-Carrier Solar Cells. Advanced Materials, 2019, 31, e1802486.	11.1	191
3470	Tailoring Electronic Properties of SnO <sub>2</sub> Quantum Dots via Aluminum Addition for High-Efficiency Perovskite Solar Cells. Solar Rrl, 2019, 3, 1900041.	3.1	26



#	ARTICLE	IF	CITATIONS
3471	Cu-doped nickel oxide interface layer with nanoscale thickness for efficient and highly stable printable carbon-based perovskite solar cell. <i>Solar Energy</i> , 2019, 182, 225-236.	2.9	58
3472	Halide Perovskite Photovoltaics: Background, Status, and Future Prospects. <i>Chemical Reviews</i> , 2019, 119, 3036-3103.	23.0	2,009
3473	Halide Perovskites: Is It All about the Interfaces?. <i>Chemical Reviews</i> , 2019, 119, 3349-3417.	23.0	404
3474	Unveiling the operation mechanism of layered perovskite solar cells. <i>Nature Communications</i> , 2019, 10, 1008.	5.8	216
3475	The multiple effects of polyaniline additive to improve the efficiency and stability of perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2019, 7, 4441-4448.	2.7	47
3476	Efficient and carbon-based hole transport layer-free CsPb <sub>2</sub> Br planar perovskite solar cells using PMMA modification. <i>Journal of Materials Chemistry C</i> , 2019, 7, 3852-3861.	2.7	102
3477	Temporal and spatial pinhole constraints in small-molecule hole transport layers for stable and efficient perovskite photovoltaics. <i>Journal of Materials Chemistry A</i> , 2019, 7, 7338-7346.	5.2	41
3478	Photoinduced Lattice Symmetry Enhancement in Mixed Hybrid Perovskites and Its Beneficial Effect on the Recombination Behavior. <i>Advanced Optical Materials</i> , 2019, 7, 1801512.	3.6	26
3479	Achieving Organic Metal Halide Perovskite into a Conventional Photoelectrode: Outstanding Stability in Aqueous Solution and High-Efficient Photoelectrochemical Water Splitting. <i>ACS Applied Energy Materials</i> , 2019, 2, 1969-1976.	2.5	42
3480	Deciphering the degradation mechanism of the lead-free all inorganic perovskite Cs <sub>2</sub> SnI <sub>6</sub> . <i>Npj Materials Degradation</i> , 2019, 3, .	2.6	25
3481	Temperature-Dependent Evolution of Raman Spectra of Methylammonium Lead Halide Perovskites, CH <sub>3</sub> NH <sub>3</sub> PbX <sub>3</sub> (X = I, Br). <i>Molecules</i> , 2019, 24, 626.	1.7	74
3482	Formation of Surface Defects Dominates Ion Migration in Lead-Halide Perovskites. <i>ACS Energy Letters</i> , 2019, 4, 779-785.	8.8	219
3483	Influence of A-site cations on the open-circuit voltage of efficient perovskite solar cells: a case of rubidium and guanidinium additives. <i>Journal of Materials Chemistry A</i> , 2019, 7, 8218-8225.	5.2	43
3484	Understanding the Impact of Cu-In-Ga-S Nanoparticles Compactness on Holes Transfer of Perovskite Solar Cells. <i>Nanomaterials</i> , 2019, 9, 286.	1.9	9
3485	Charge Transfer Dynamics of Phase-Segregated Halide Perovskites: CH <sub>3</sub> NH <sub>3</sub> PbCl <sub>3</sub> and CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> or (C <sub>4</sub> H <sub>9</sub> NH <sub>3</sub> ) <sub>2</sub> (CH <sub>3</sub> NH <sub>3</sub> ) <sub>2</sub> (CH <sub>3</sub> NH <sub>3</sub> ) <sub>2</sub> PbI <sub>3</sub> Mixtures. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 9583-9593.	4.0	14
3486	Tailoring vertical phase distribution of quasi-two-dimensional perovskite films via surface modification of hole-transporting layer. <i>Nature Communications</i> , 2019, 10, 878.	5.8	115
3487	Pyrrrolidinium lead iodide from crystallography: a new perovskite with low bandgap and good water resistance. <i>Chemical Communications</i> , 2019, 55, 3251-3253.	2.2	37
3488	Improved performance of planar perovskite devices via inclusion of ammonium acid iodide (AAI) derivatives using a two step inter-diffusion process. <i>Journal of Materials Chemistry C</i> , 2019, 7, 3447-3451.	2.7	8

#	ARTICLE	IF	CITATIONS
3489	Surface modification <i>via</i> self-assembling large cations for improved performance and modulated hysteresis of perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 6793-6800.	5.2	48
3490	Improved Charge Extraction Beyond Diffusion Length by Layer-by-Layer Multistacking Intercalation of Graphene Layers inside Quantum Dots Films. <i>Advanced Materials</i> , 2019, 31, e1807894.	11.1	21
3491	Hybrid perovskites for device applications. , 2019, , 211-256.		13
3492	Enhance the performance of ZnO-based perovskite solar cells under ambient conditions. <i>Optical Materials</i> , 2019, 89, 375-381.	1.7	9
3493	Role of Ionic Charge Accumulation in Perovskite Solar Cell: Carrier Transfer in Bulk and Extraction at Interface. <i>Journal of Physical Chemistry C</i> , 2019, 123, 5312-5320.	1.5	6
3494	Enhancement of open circuit voltage for CuSCN-based perovskite solar cells by controlling the perovskite/CuSCN interface with functional molecules. <i>Journal of Materials Chemistry A</i> , 2019, 7, 6028-6037.	5.2	49
3495	Bi-functional additive engineering for high-performance perovskite solar cells with reduced trap density. <i>Journal of Materials Chemistry A</i> , 2019, 7, 6450-6458.	5.2	143
3496	Efficient and Stable Chemical Passivation on Perovskite Surface via Bidentate Anchoring. <i>Advanced Energy Materials</i> , 2019, 9, 1803573.	10.2	232
3497	Highly Efficient Perovskite Solar Cells Processed Under Ambient Conditions Using In Situ Substrate-Heating-Assisted Deposition. <i>Solar Rrl</i> , 2019, 3, 1800318.	3.1	37
3498	Strategies for Modifying TiO <sub>2</sub> Based Electron Transport Layers to Boost Perovskite Solar Cells. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 4586-4618.	3.2	83
3499	Doping and Photon Induced Defect Healing of Hybrid Perovskite Thin Films: An Approach Towards Efficient Light Emitting Diodes. <i>ChemNanoMat</i> , 2019, 5, 666-673.	1.5	5
3500	Diaryl ketone-based hole-transporting materials for efficient perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2019, 7, 3226-3230.	2.7	19
3501	Crystal structure and optical properties of 1D-bi based organic-inorganic hybrid perovskite. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019, 610, 012063.	0.3	22
3502	Stability of Optical Responses from Lead-free Perovskite Films. <i>Optics and Spectroscopy (English)</i> Tj ETQq1 1 0.784314 rgBT /Overlo 0.2 5	0.2	5
3503	Comparative Study on Perovskite Solar Cells Using Inorganic Transport Layers. , 2019, , .		5
3504	CsPbI <sub>3</sub> Perovskite Nanoparticles: Room-Temperature Synthesis and Optical Study. <i>Russian Journal of Inorganic Chemistry</i> , 2019, 64, 1587-1591.	0.3	3
3506	Optimization of TiO <sub>2</sub> compact layer formed by atomic layer deposition for efficient perovskite solar cells. <i>Applied Physics Letters</i> , 2019, 115, 203902.	1.5	14
3507	Hot carrier extraction in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> unveiled by pump-push-probe spectroscopy. <i>Science Advances</i> , 2019, 5, eaax3620.	4.7	56

#	ARTICLE	IF	CITATIONS
3508	Plasmon enhanced up-conversion nanoparticles in perovskite solar cells for effective utilization of near infrared light. <i>Nanoscale</i> , 2019, 11, 22813-22819.	2.8	25
3509	Structural and electronic properties of multifunctional carbon composites of organometal halide perovskites. <i>Journal of Materials Chemistry A</i> , 2019, 7, 25020-25031.	5.2	8
3510	Time-Domain ab Initio Studies of Excited State Dynamics at Nanoscale Interfaces. <i>ACS Symposium Series</i> , 2019, , 101-136.	0.5	2
3511	Hot electron injection into semiconducting polymers in polymer based-perovskite solar cells and their fate. <i>Nanoscale</i> , 2019, 11, 23357-23365.	2.8	3
3512	Emerging alkali metal ion (Li <sup>+</sup> , Na <sup>+</sup> , K <sup>+</sup> and Rb <sup>+</sup> ) doped perovskite films for efficient solar cells: recent advances and prospects. <i>Journal of Materials Chemistry A</i> , 2019, 7, 24150-24163.	5.2	116
3513	Synergistic effect of charge separation and defect passivation using zinc porphyrin dye incorporation for efficient and stable perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 26334-26341.	5.2	44
3514	3D low toxicity Cu <sup>2+</sup> /Pb binary perovskite films and their photoluminescent/photovoltaic performance. <i>Journal of Materials Chemistry A</i> , 2019, 7, 27225-27235.	5.2	34
3515	High-Detectivity/-Speed Flexible and Self-Powered Graphene Quantum Dots/Perovskite Photodiodes. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 19961-19968.	3.2	16
3516	Absolute Quantification of Photo-/Electroluminescence Imaging for Solar Cells: Definition and Application to Organic and Perovskite Devices. <i>ACS Applied Electronic Materials</i> , 2019, 1, 2489-2501.	2.0	13
3517	Synthesis, Structural, Linear, and Nonlinear Optical Studies of Inorganic-Organic Hybrid Semiconductors (R <sub>2</sub> C <sub>6</sub> H <sub>4</sub> CHCH <sub>3</sub> NH <sub>3</sub> ) <sub>2</sub> PbI <sub>4</sub> , (R = CH <sub>3</sub> , Cl). <i>ACS Omega</i> , 2019, 4, 19565-19572.	1.6	11
3518	Optical Behaviors of a Microsized Single-Crystal MAPbI <sub>3</sub> Plate under High Pressure. <i>Journal of Physical Chemistry C</i> , 2019, 123, 30221-30227.	1.5	10
3519	Modeling of Charge Transfer in Mesoscopic Perovskite Solar Cells by Considering a Trapassisted Interface. , 2019, , .		1
3520	Stacking of Layered Halide Perovskite from Incorporating a Diammonium Cation into Three-Dimensional Perovskites. <i>Langmuir</i> , 2019, 35, 16444-16458.	1.6	5
3521	Regulating Vertical Domain Distribution in Ruddlesden-Popper Perovskites for Electroluminescence Devices. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 7949-7955.	2.1	5
3522	Sequential deposition method of TiO <sub>2</sub> /CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> films for solar cell application. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019, 659, 012083.	0.3	0
3523	Single-Source Vapor-Deposited Cs <sub>2</sub> AgBiBr <sub>6</sub> Thin Films for Lead-Free Perovskite Solar Cells. <i>Nanomaterials</i> , 2019, 9, 1760.	1.9	64
3524	Upconverted excitonic photoluminescence from a two-dimensional lead-halide perovskite. <i>Journal of Chemical Physics</i> , 2019, 151, 234709.	1.2	11
3525	High-performance and moisture-stable perovskite solar cells with a 2D modified layer <i>via</i> introducing a high dipole moment cation. <i>Journal of Materials Chemistry C</i> , 2019, 7, 15276-15284.	2.7	24

#	ARTICLE	IF	CITATIONS
3526	Coherent exciton-phonon coupling in perovskite semiconductor nanocrystals studied by two-dimensional electronic spectroscopy. <i>Applied Physics Letters</i> , 2019, 115, .	1.5	18
3527	Direct imaging of carrier diffusion length in organic-inorganic perovskites. <i>Applied Physics Letters</i> , 2019, 115, .	1.5	4
3528	Tetrahedral amorphous carbon prepared filter cathodic vacuum arc for hole transport layers in perovskite solar cells and quantum dots LEDs. <i>Science and Technology of Advanced Materials</i> , 2019, 20, 1118-1130.	2.8	5
3529	Carbon-based materials for stable, cheaper and large-scale processable perovskite solar cells. <i>Energy and Environmental Science</i> , 2019, 12, 3437-3472.	15.6	223
3530	Plasma-assisted atomic layer deposition of nickel oxide as hole transport layer for hybrid perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2019, 7, 12532-12543.	2.7	80
3531	Polystyrene enhanced crystallization of perovskites towards high performance solar cells. <i>Nanoscale Advances</i> , 2019, 1, 76-85.	2.2	15
3532	A $\text{KMnF}_3$ perovskite structure with improved stability, low bandgap and high transport properties. <i>Ceramics International</i> , 2019, 45, 64-68.	2.3	19
3533	Effect of annealing temperature on the characteristics of $\text{Pt}/\text{CH}_3\text{NH}_3\text{PbI}_3$ contact. <i>Journal of Crystal Growth</i> , 2019, 505, 10-14.	0.7	0
3534	Low temperature solution-derived $\text{TiO}_2$ - $\text{SnO}_2$ bilayered electron transport layer for high performance perovskite solar cells. <i>Applied Surface Science</i> , 2019, 464, 700-707.	3.1	48
3535	The Physics of Light Emission in Halide Perovskite Devices. <i>Advanced Materials</i> , 2019, 31, e1803336.	11.1	189
3536	Fluorescence spectroscopy-based study of balanced transport of charge carriers in hot-air-annealed perovskites. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2019, 207, 68-72.	2.0	2
3537	Highly efficient inverted perovskite solar cells mediated by electrodeposition-processed $\text{NiO}$ NPs hole-selective contact with different energy structure and surface property. <i>Applied Surface Science</i> , 2019, 463, 1107-1116.	3.1	18
3538	Review of current progress in inorganic hole-transport materials for perovskite solar cells. <i>Applied Materials Today</i> , 2019, 14, 175-200.	2.3	158
3539	$\text{N,N}$ -dimethylformamide vapor effect on microstructural and optical properties of $\text{CH}_3\text{NH}_3\text{PbI}_3$ film during solvent annealing. <i>Surface and Coatings Technology</i> , 2019, 359, 162-168.	2.2	11
3540	Enhancing the Performance of Inverted Perovskite Solar Cells via Grain Boundary Passivation with Carbon Quantum Dots. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 3044-3052.	4.0	147
3541	Rational chemical doping of metal halide perovskites. <i>Chemical Society Reviews</i> , 2019, 48, 517-539.	18.7	196
3542	An approach to optimize pre-annealing aging and anneal conditions to improve photovoltaic performance of perovskite solar cells. <i>Materials for Renewable and Sustainable Energy</i> , 2019, 8, 1.	1.5	11
3543	Reduced Defects of $\text{MAPbI}_3$ Thin Films Treated by FAI for High Performance Planar Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2019, 29, 1805810.	7.8	73

#	ARTICLE	IF	CITATIONS
3544	Exploring wide bandgap metal oxides for perovskite solar cells. <i>APL Materials</i> , 2019, 7, .	2.2	54
3545	Control of Crystal Growth toward Scalable Fabrication of Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2019, 29, 1807047.	7.8	111
3546	Strategies to Improve Luminescence Efficiency of Metal-Halide Perovskites and Light-Emitting Diodes. <i>Advanced Materials</i> , 2019, 31, e1804595.	11.1	102
3547	Fully Air-Processed Carbon-Based Efficient Hole Conductor Free Planar Heterojunction Perovskite Solar Cells With High Reproducibility and Stability. <i>Solar Rrl</i> , 2019, 3, 1800297.	3.1	20
3548	Enhancing the photovoltaic performance of perovskite solar cells by potassium ions doping. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 2057-2066.	1.1	10
3549	Two dimensional metal halide perovskites: Promising candidates for light-emitting diodes. <i>Journal of Energy Chemistry</i> , 2019, 37, 97-110.	7.1	52
3550	Recent advancements in and perspectives on flexible hybrid perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 888-900.	5.2	60
3551	Improved Moisture Stability of Perovskite Solar Cells with a Surface-Treated PCBM Layer. <i>Solar Rrl</i> , 2019, 3, 1800289.	3.1	20
3552	Cs/MAPbI <sub>3</sub> composite formation and its influence on optical properties. <i>Journal of Alloys and Compounds</i> , 2019, 783, 935-942.	2.8	15
3553	Improvement of resistive memory properties of poly(3,4-ethylenedioxythiophene):poly(styrenesulfonate)/CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> based device by potassium iodide additives. <i>Journal of Alloys and Compounds</i> , 2019, 783, 478-485.	2.8	16
3554	Efficient Planar Heterojunction FA <sub>1-x</sub> Cs <sub>x</sub> PbI <sub>3</sub> Perovskite Solar Cells with Suppressed Carrier Recombination and Enhanced Open Circuit Voltage via Anion-Exchange Process. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 4597-4606.	4.0	28
3555	Lead-Halide Perovskites for Photocatalytic $\alpha$ -Alkylation of Aldehydes. <i>Journal of the American Chemical Society</i> , 2019, 141, 733-738.	6.6	263
3556	Chemical Formation and Multiple Applications of Organic-Inorganic Hybrid Perovskite Materials. <i>Journal of the American Chemical Society</i> , 2019, 141, 1406-1414.	6.6	61
3557	Maze-Like Halide Perovskite Films for Efficient Electron Transport Layer-Free Perovskite Solar Cells. <i>Solar Rrl</i> , 2019, 3, 1800268.	3.1	49
3558	Metals doped cesium based all inorganic perovskite solar cells: Investigations on Structural, morphological and optical properties. <i>Solar Energy</i> , 2019, 179, 151-163.	2.9	27
3559	Mixed Dimensional 2D/3D Hybrid Perovskite Absorbers: The Future of Perovskite Solar Cells?. <i>Advanced Functional Materials</i> , 2019, 29, 1806482.	7.8	257
3560	Enhanced Photovoltaic Performance and Thermal Stability of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite through Lattice Symmetrization. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 740-746.	4.0	20
3561	Perovskite solar cells based on chlorophyll hole transporters: Dependence of aggregation and photovoltaic performance on aliphatic chains at C17-propionate residue. <i>Dyes and Pigments</i> , 2019, 162, 763-770.	2.0	18

#	ARTICLE	IF	CITATIONS
3562	P3HT/Phthalocyanine Nanocomposites as Efficient Hole-Transporting Materials for Perovskite Solar Cells. <i>Solar Rrl</i> , 2019, 3, 1800264.	3.1	47
3563	Application of combinative TiO <sub>2</sub> nanorods and nanoparticles layer as the electron transport film in highly efficient mixed halides perovskite solar cells. <i>Electrochimica Acta</i> , 2019, 297, 1071-1078.	2.6	12
3564	Chemical sintering reduced grain boundary defects for stable planar perovskite solar cells. <i>Nano Energy</i> , 2019, 56, 741-750.	8.2	65
3565	Management of Crystallization Kinetics for Efficient and Stable Low-Dimensional Ruddlesden-Popper (LDRP) Lead-Free Perovskite Solar Cells. <i>Advanced Science</i> , 2019, 6, 1800793.	5.6	97
3566	Critical role of chloride in organic ammonium spacer on the performance of Low-dimensional Ruddlesden-Popper perovskite solar cells. <i>Nano Energy</i> , 2019, 56, 373-381.	8.2	59
3567	Two-dimensional lead-free hybrid halide perovskite using superatom anions with tunable electronic properties. <i>Solar Energy Materials and Solar Cells</i> , 2019, 191, 33-38.	3.0	90
3568	Study on the Stability of Ammonium Iodide-Based Mixed-Dimensional Perovskite Solar Cells under Different Humidity. <i>Solar Rrl</i> , 2019, 3, 1800276.	3.1	12
3569	Metal Halide Perovskite Materials for Solar Cells with Long-Term Stability. <i>Advanced Energy Materials</i> , 2019, 9, 1802671.	10.2	97
3570	Development of hermetic glass frit encapsulation for perovskite solar cells. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 074005.	1.3	29
3571	CdSe tetrapod interfacial layer for improving electron extraction in planar heterojunction perovskite solar cells. <i>Nanotechnology</i> , 2019, 30, 065401.	1.3	6
3572	Physisorption of Oxygen in SnO <sub>2</sub> Nanoparticles for Perovskite Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2019, 9, 200-206.	1.5	12
3573	Two-dimensional perovskite materials: From synthesis to energy-related applications. <i>Materials Today Energy</i> , 2019, 11, 61-82.	2.5	133
3574	Phenanthrene-based hole transport material for efficient dopant-free perovskite solar cells. <i>Organic Electronics</i> , 2019, 65, 135-140.	1.4	18
3575	Interfacial Dynamics and Contact Passivation in Perovskite Solar Cells. <i>Advanced Electronic Materials</i> , 2019, 5, 1800500.	2.6	25
3576	Carrier Transfer Behaviors at Perovskite/Contact Layer Heterojunctions in Perovskite Solar Cells. <i>Advanced Materials Interfaces</i> , 2019, 6, 1801253.	1.9	27
3577	SnO <sub>2</sub> -based electron transporting layer materials for perovskite solar cells: A review of recent progress. <i>Journal of Energy Chemistry</i> , 2019, 35, 144-167.	7.1	129
3578	Enhancing perovskite quality and energy level alignment of TiO <sub>2</sub> nanorod arrays-based solar cells via interfacial modification. <i>Solar Energy Materials and Solar Cells</i> , 2019, 191, 183-189.	3.0	19
3579	2D photonic crystal nanodisk array as electron transport layer for highly efficient perovskite solar cells. <i>Nano Energy</i> , 2019, 56, 365-372.	8.2	39



#	ARTICLE	IF	CITATIONS
3580	All-Inorganic Perovskite Nanocrystals-Based Light Emitting Diodes and Solar Cells. <i>ChemNanoMat</i> , 2019, 5, 266-277.	1.5	18
3581	Dopamine-crosslinked TiO <sub>2</sub> /perovskite layer for efficient and photostable perovskite solar cells under full spectral continuous illumination. <i>Nano Energy</i> , 2019, 56, 733-740.	8.2	201
3582	Fully Air-Bladed High-Efficiency Perovskite Photovoltaics. <i>Joule</i> , 2019, 3, 402-416.	11.7	119
3583	High-Performance n-i-p-Type Perovskite Photodetectors Employing Graphene-Transparent Conductive Electrodes N-Type Doped with Amine Group Molecules. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 734-739.	3.2	21
3584	SnO <sub>2</sub> -rGO nanocomposite as an efficient electron transport layer for stable perovskite solar cells on AZO substrate. <i>Nanotechnology</i> , 2019, 30, 075202.	1.3	17
3585	Hydrophobic Metal Halide Perovskites for Visible-Light Photoredox C-C Bond Cleavage and Dehydrogenation Catalysis. <i>Angewandte Chemie</i> , 2019, 131, 3494-3498.	1.6	15
3586	Large exciton binding energy, high photoluminescence quantum yield and improved photostability of organo-metal halide hybrid perovskite quantum dots grown on a mesoporous titanium dioxide template. <i>Journal of Colloid and Interface Science</i> , 2019, 539, 619-633.	5.0	43
3587	Tuning charge transfer at the electron donor/acceptor assembly through vibration-induced aggregation of P3HT chains in solution. <i>Materials Chemistry and Physics</i> , 2019, 223, 576-582.	2.0	3
3588	Monolithic Perovskite/Silicon-Heterojunction Tandem Solar Cells with Open-Circuit Voltage of over 1.8 V. <i>ACS Applied Energy Materials</i> , 2019, 2, 243-249.	2.5	44
3589	Machine Learning for Understanding Compatibility of Organic-Inorganic Hybrid Perovskites with Post-Treatment Amines. <i>ACS Energy Letters</i> , 2019, 4, 397-404.	8.8	78
3590	High-efficiency perovskite solar cells based on self-assembly n-doped fullerene derivative with excellent thermal stability. <i>Journal of Power Sources</i> , 2019, 413, 459-466.	4.0	24
3591	On-Chip-Integrated Methylammonium Halide Perovskite Optical Sensors. <i>Advanced Optical Materials</i> , 2019, 7, 1801308.	3.6	15
3592	A fluorinated polythiophene hole-transport material for efficient and stable perovskite solar cells. <i>Dyes and Pigments</i> , 2019, 164, 1-6.	2.0	31
3593	Fe <sup>2+</sup> /Fe <sup>3+</sup> Doped into MAPbCl <sub>3</sub> Single Crystal: Impact on Crystal Growth and Optical and Photoelectronic Properties. <i>Journal of Physical Chemistry C</i> , 2019, 123, 1669-1676.	1.5	16
3594	Binary Solvent Engineering for High-Performance Two-Dimensional Perovskite Solar Cells. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 3487-3495.	3.2	90
3595	Predicted photovoltaic performance of lead-based hybrid perovskites under the influence of a mixed-cation approach: theoretical insights. <i>Journal of Materials Chemistry C</i> , 2019, 7, 371-379.	2.7	32
3596	Hydrophobic Metal Halide Perovskites for Visible-Light Photoredox C-C Bond Cleavage and Dehydrogenation Catalysis. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 3456-3460.	7.2	93
3597	Lewis acid-base adduct-type organic hole transport material for high performance and air-stable perovskite solar cells. <i>Nano Energy</i> , 2019, 58, 284-292.	8.2	40

#	ARTICLE	IF	CITATIONS
3598	Effect of perovskite film morphology on device performance of perovskite light-emitting diodes. <i>Nanoscale</i> , 2019, 11, 1505-1514.	2.8	32
3599	A Review: Thermal Stability of Methylammonium Lead Halide Based Perovskite Solar Cells. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 188.	1.3	173
3600	All-Inorganic Perovskite CsPbI <sub>2</sub> Br Through Co-evaporation for Planar Heterojunction Solar Cells. <i>Electronic Materials Letters</i> , 2019, 15, 56-60.	1.0	27
3601	Direct Observation of Charge Injection From CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> to Organic Semiconductors Monitored With Transient Absorption Spectroscopy. <i>Physica Status Solidi (B): Basic Research</i> , 2019, 256, 1800265.	0.7	8
3602	Recent advances and future perspectives on infrared nonlinear optical metal halides. <i>Coordination Chemistry Reviews</i> , 2019, 380, 83-102.	9.5	166
3603	Enhanced efficiency and ambient stability of planar heterojunction perovskite solar cells by using organic-inorganic double layer electron transporting material. <i>Electrochimica Acta</i> , 2019, 294, 337-344.	2.6	23
3604	Growth of monolithically grained CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> film by a uniform intermediate phase for high performance planar perovskite solar cells. <i>Journal of Alloys and Compounds</i> , 2019, 776, 250-258.	2.8	18
3605	Synthetic Approaches for Halide Perovskite Thin Films. <i>Chemical Reviews</i> , 2019, 119, 3193-3295.	23.0	454
3606	Influence of Sn/Ge Cation Exchange on Vacancy-Ordered Double Perovskite Cs <sub>2</sub> Sn(1-x)Ge <sub>x</sub> I <sub>6</sub> : A First-Principles Theoretical Study. <i>Physica Status Solidi (B): Basic Research</i> , 2019, 256, 1800427.	0.7	22
3607	Precursor solution temperature dependence of the optical constants, band gap and Urbach tail in organic-inorganic hybrid halide perovskite films. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 045103.	1.3	8
3608	Highly efficient inverted planar perovskite solar cells from TiO <sub>2</sub> nanoparticles modified interfaces between NiO hole transport layers and conductive glasses. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 529-536.	1.1	5
3609	Enhanced power conversion efficiency of perovskite solar cells based on mesoscopic Ag-doped TiO <sub>2</sub> electron transport layer. <i>Applied Surface Science</i> , 2019, 469, 18-26.	3.1	39
3610	Perovskite Methylammonium Lead Trihalide Heterostructures: Progress and Challenges. <i>IEEE Nanotechnology Magazine</i> , 2019, 18, 1-12.	1.1	64
3611	Perovskite Nanoparticles: Synthesis, Properties, and Novel Applications in Photovoltaics and LEDs. <i>Small Methods</i> , 2019, 3, 1800231.	4.6	77
3612	From scalable solution fabrication of perovskite films towards commercialization of solar cells. <i>Energy and Environmental Science</i> , 2019, 12, 518-549.	15.6	269
3613	Hexa-substituted benzene derivatives as hole transporting materials for efficient perovskite solar cells. <i>Dyes and Pigments</i> , 2019, 163, 267-273.	2.0	10
3614	Insights into the Femtosecond to Nanosecond Charge Carrier Kinetics in Perovskite Materials for Solar Cells. <i>Journal of Physical Chemistry C</i> , 2019, 123, 110-119.	1.5	14
3615	Graphene-Modified Tin Dioxide for Efficient Planar Perovskite Solar Cells with Enhanced Electron Extraction and Reduced Hysteresis. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 666-673.	4.0	66

#	ARTICLE	IF	CITATIONS
3616	Influence of hole transport material ionization energy on the performance of perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2019, 7, 523-527.	2.7	39
3617	Understanding Interactions between Lead Iodide Perovskite Surfaces and Lithium Polysulfide toward New-Generation Integrated Solar-Powered Lithium Battery: An ab Initio Investigation. <i>Journal of Physical Chemistry C</i> , 2019, 123, 82-90.	1.5	10
3618	Influence of Disorder and Anharmonic Fluctuations on the Dynamical Rashba Effect in Purely Inorganic Lead-Halide Perovskites. <i>Journal of Physical Chemistry C</i> , 2019, 123, 291-298.	1.5	32
3619	Dibenzoquinque thiophene- and Dibenzosexithiophene-Based Hole-Transporting Materials for Perovskite Solar Cells. <i>Chemistry of Materials</i> , 2019, 31, 6435-6442.	3.2	46
3620	Influence of the Iodide to Bromide Ratio on Crystallographic and Optoelectronic Properties of Rubidium Antimony Halide Perovskites. <i>ACS Applied Energy Materials</i> , 2019, 2, 539-547.	2.5	28
3621	Hydrophobic polythiophene hole-transport layers to address the moisture-induced decomposition problem of perovskite solar cells. <i>Canadian Journal of Chemistry</i> , 2019, 97, 435-441.	0.6	8
3622	Scalable Fabrication of Stable High Efficiency Perovskite Solar Cells and Modules Utilizing Room Temperature Sputtered SnO <sub>2</sub> Electron Transport Layer. <i>Advanced Functional Materials</i> , 2019, 29, 1806779.	7.8	118
3623	Rapid Crystallization for Efficient 2D Ruddlesden-Popper (2DRP) Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2019, 29, 1806831.	7.8	102
3624	Anion-dependent Hot Carrier Dynamics in Chalcogenide Perovskites SrSnX <sub>3</sub> (X = S, Se). <i>Journal of Physical Chemistry C</i> , 2019, 123, 29-35.	1.5	8
3625	Benzobis(thiadiazole)-based small molecules as efficient electron transporting materials in perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2019, 191, 437-443.	3.0	7
3626	Design and Color Flexibility for Inkjet-Printed Perovskite Photovoltaics. <i>ACS Applied Energy Materials</i> , 2019, 2, 764-769.	2.5	32
3627	20% Efficient Perovskite Solar Cells with 2D Electron Transporting Layer. <i>Advanced Functional Materials</i> , 2019, 29, 1805168.	7.8	67
3628	First principles study of structural, electronic and optical properties of Cs-doped CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> for photovoltaic applications. <i>Vacuum</i> , 2019, 160, 440-444.	1.6	18
3629	Effect of Crystal Grain Orientation on the Rate of Ionic Transport in Perovskite Polycrystalline Thin Films. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 2490-2499.	4.0	29
3630	Two-dimensional materials in perovskite solar cells. <i>Materials Today Energy</i> , 2019, 11, 128-158.	2.5	93
3631	A comparative study of planar and mesoporous perovskite solar cells with printable carbon electrodes. <i>Journal of Power Sources</i> , 2019, 412, 118-124.	4.0	41
3632	Photonic Organolead Halide Perovskite Artificial Synapse Capable of Accelerated Learning at Low Power Inspired by Dopamine-Facilitated Synaptic Activity. <i>Advanced Functional Materials</i> , 2019, 29, 1806646.	7.8	154
3633	Scalable Graphene-Organometal Halide Perovskite Heterostructure Fabricated by Dry Transfer. <i>Advanced Materials Interfaces</i> , 2019, 6, 1801419.	1.9	11

#	ARTICLE	IF	CITATIONS
3634	Semitransparent FAPbI <sub>3</sub> Perovskite Solar Cells Stable under Simultaneous Damp Heat (85 °C/85%) and 1 Sun Light Soaking. <i>Advanced Materials Technologies</i> , 2019, 4, 1800390.	3.0	22
3635	A Xanthoxanthene Centered Columnar Stacking Organic Semiconductor for Efficient, Photothermally Stable Perovskite Solar Cells. <i>Chemistry - A European Journal</i> , 2019, 25, 945-948.	1.7	21
3636	Microstructural evolution and optical dispersion of sputtered ZnO thin films at low annealing temperature. <i>Materials Research Express</i> , 2019, 6, 016420.	0.8	0
3637	High quality perovskite film solar cell using methanol as additive with 19.5% power conversion efficiency. <i>Electrochimica Acta</i> , 2019, 293, 356-363.	2.6	38
3638	Interface engineering with NiO nanocrystals for highly efficient and stable planar perovskite solar cells. <i>Electrochimica Acta</i> , 2019, 293, 211-219.	2.6	56
3639	DFT prediction of band gap in organic-inorganic metal halide perovskites: An exchange-correlation functional benchmark study. <i>Chemical Physics</i> , 2019, 516, 225-231.	0.9	62
3640	A modeled perovskite solar cell structure with a Cu <sub>2</sub> O hole-transporting layer enabling over 20% efficiency by low-cost low-temperature processing. <i>Journal of Physics and Chemistry of Solids</i> , 2019, 124, 205-211.	1.9	110
3641	Elucidating the dynamics of solvent engineering for perovskite solar cells. <i>Science China Materials</i> , 2019, 62, 161-172.	3.5	57
3642	Effects of Mn, Cl co-doping on the structure and photoluminescence properties of novel walnut-shape MAPb <sub>0.95</sub> Mn <sub>0.05</sub> I <sub>3-x</sub> Cl <sub>x</sub> films. <i>Ceramics International</i> , 2019, 45, 468-473.	2.3	4
3643	Stipulating Low Production Cost Solar Cells All Set to Retail $\leq$ 1. <i>Chemical Record</i> , 2019, 19, 661-674.	2.9	22
3644	Solution processed nano-ZnMgO interfacial layer for highly efficient inverted perovskite solar cells. <i>Journal of Energy Chemistry</i> , 2019, 28, 107-110.	7.1	12
3645	Spin-orbit enhanced carrier lifetimes in noncentrosymmetric semiconductors. <i>Journal of Physics and Chemistry of Solids</i> , 2019, 128, 225-230.	1.9	1
3646	Stable and efficient perovskite solar cells fabricated using aqueous lead nitrate precursor: Interpretation of the conversion mechanism and renovation of the sequential deposition. <i>Materials Today Energy</i> , 2019, 14, 100125.	2.5	15
3647	THE ROLE OF Br AS DOPANT ON THE STRUCTURAL AND CHARGE TRANSPORT PROPERTIES IN CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3-x</sub> Br <sub>x</sub> Cl <sub>y</sub> MIXED-HALIDE PEROVSKITE FOR HYBRID SOLAR CELLS. <i>Surface Review and Letters</i> , 2019, 26, 1850137.	0.5	0
3648	Improved perovskite solar cell efficiency by tuning the colloidal size and free ion concentration in precursor solution using formic acid additive. <i>Journal of Energy Chemistry</i> , 2020, 41, 43-51.	7.1	37
3649	Hybrid perovskite single crystal with extended absorption edge and environmental stability: Towards a simple and easy synthesis procedure. <i>Materials Chemistry and Physics</i> , 2020, 239, 122084.	2.0	9
3650	A low-temperature TiO <sub>2</sub> /SnO <sub>2</sub> electron transport layer for high-performance planar perovskite solar cells. <i>Science China Materials</i> , 2020, 63, 207-215.	3.5	31
3651	Enhanced efficiency and stability of perovskite solar cells by 2D perovskite vapor-assisted interface optimization. <i>Journal of Energy Chemistry</i> , 2020, 45, 103-109.	7.1	32

#	ARTICLE	IF	CITATIONS
3652	A Review on Additives for Halide Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2020, 10, 1902492.	10.2	240
3653	Trade-off between Exciton Dissociation and Carrier Recombination and Dielectric Properties in Y6-sensitized Nonfullerene Ternary Organic Solar Cells. <i>Energy Technology</i> , 2020, 8, 1900924.	1.8	32
3654	Interfacial Bridge Using a <i>cis</i> -Fulleropyrrolidine for Efficient Planar Perovskite Solar Cells with Enhanced Stability. <i>Small Methods</i> , 2020, 4, 1900476.	4.6	65
3655	Present Status and Research Prospects of Tin-based Perovskite Solar Cells. <i>Solar Rrl</i> , 2020, 4, 1900310.	3.1	60
3656	Triphenylamine dibenzofulvene-derived dopant-free hole transporting layer induces micrometer-sized perovskite grains for highly efficient near 20% for <i>p</i> - <i>in</i> perovskite solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2020, 28, 49-59.	4.4	24
3657	2D and Quasi-2D Halide Perovskites: Applications and Progress. <i>Physica Status Solidi - Rapid Research Letters</i> , 2020, 14, 1900435.	1.2	37
3658	Improve the quality of $\text{HC}(\text{NH}_2)_2\text{Pb}_{1-x}\text{Br}_3$ through iodine vacancy filling for stable mixed perovskite solar cells. <i>Chemical Engineering Journal</i> , 2020, 384, 123273.	6.6	25
3659	Synergistic interactions between N3 dye and perovskite $\text{CH}_3\text{NH}_3\text{PbI}_3$ for aqueous-based photoresponsiveness under visible light. <i>Dyes and Pigments</i> , 2020, 173, 107925.	2.0	9
3660	Structural and electronic features of Si/ $\text{CH}_3\text{NH}_3\text{PbI}_3$ interfaces with optoelectronic applicability: Insights from first-principles. <i>Nano Energy</i> , 2020, 67, 104166.	8.2	6
3661	Crystal face dependent charge carrier extraction in $\text{TiO}_2$ /perovskite heterojunctions. <i>Nano Energy</i> , 2020, 67, 104227.	8.2	19
3662	A series of porphyrins as interfacial materials for inverted perovskite solar cells. <i>Organic Electronics</i> , 2020, 77, 105522.	1.4	18
3663	Solution-processed and evaporated C60 interlayers for improved charge transport in perovskite photovoltaics. <i>Organic Electronics</i> , 2020, 77, 105526.	1.4	7
3664	Hybrid halobismuthates as prospective light-harvesting materials: Synthesis, crystal, optical properties and electronic structure. <i>Polyhedron</i> , 2020, 175, 114180.	1.0	9
3665	To Be Higher and Stronger Metal Oxide Electron Transport Materials for Perovskite Solar Cells. <i>Small</i> , 2020, 16, e1902579.	5.2	80
3666	Preparation and Characterization of $(\text{C}_6\text{H}_5\text{C}_2\text{H}_4\text{NH}_3)_2\text{PbX}_4$ Perovskite Materials. <i>Lecture Notes in Electrical Engineering</i> , 2020, , 208-215.	0.3	0
3667	Perovskite-based Phototransistors and Hybrid Photodetectors. <i>Advanced Functional Materials</i> , 2020, 30, 1903907.	7.8	225
3668	Free Carrier, Exciton, and Phonon Dynamics in Lead-halide Perovskites Studied with Ultrafast Terahertz Spectroscopy. <i>Advanced Optical Materials</i> , 2020, 8, 1900783.	3.6	39
3669	Efficient Perovskite Solar Cells with a Novel Aggregation-induced Emission Molecule as Hole-transport Material. <i>Solar Rrl</i> , 2020, 4, 1900189.	3.1	14

#	ARTICLE	IF	CITATIONS
3670	Interconnected SnO <sub>2</sub> Nanocrystals Electron Transport Layer for Highly Efficient Flexible Perovskite Solar Cells. Solar Rrl, 2020, 4, 1900229.	3.1	31
3672	Material and Interface Engineering for High-Performance Perovskite Solar Cells: A Personal Journey and Perspective. Chemical Record, 2020, 20, 209-229.	2.9	9
3673	The development of all-inorganic CsPbX <sub>3</sub> perovskite solar cells. Journal of Materials Science, 2020, 55, 464-479.	1.7	52
3674	Large Polaron Self-Trapped States in Three-Dimensional Metal-Halide Perovskites. , 2020, 2, 20-27.		33
3675	Enhancement in structural and optical properties of Cd doped hybrid organic-inorganic halide perovskite CH <sub>3</sub> NH <sub>3</sub> Pb <sub>1-x</sub> Cd <sub>x</sub> I <sub>3</sub> photo-absorber. Materials Chemistry and Physics, 2020, 241, 122387.	2.0	12
3676	Stability of all-inorganic perovskite solar cells. Nano Energy, 2020, 67, 104249.	8.2	153
3677	Circular formation flight control for unmanned aerial vehicles with directed network and external disturbance. IEEE/CAA Journal of Automatica Sinica, 2020, 7, 505-516.	8.5	53
3678	Long noncoding RNA (MEG3) in urinal exosomes functions as a biomarker for the diagnosis of Hunner-type interstitial cystitis (HIC). Journal of Cellular Biochemistry, 2020, 121, 1227-1237.	1.2	12
3679	P-type doping of rGO/NiO composite for carbon based perovskite solar cells. Materials Science in Semiconductor Processing, 2020, 107, 104798.	1.9	13
3680	Modeling nonadiabatic dynamics in condensed matter materials: some recent advances and applications. Journal of Physics Condensed Matter, 2020, 32, 073001.	0.7	45
3681	One-step P2 scribing of organometal halide perovskite solar cells by picosecond laser of visible wavelength. Applied Surface Science, 2020, 505, 144408.	3.1	8
3682	Enhanced Stability of Perovskite Solar Cells Incorporating Dopant-Free Crystalline Spiro-OMeTAD Layers by Vacuum Sublimation. Advanced Energy Materials, 2020, 10, 1901524.	10.2	30
3683	Morphology evolution and degradation of methylammonium lead iodide under accelerated electron beam with energy of 1.8 MeV. Chemical Physics, 2020, 529, 110573.	0.9	0
3684	Metal Halide Perovskites for Solar-to-Chemical Fuel Conversion. Advanced Energy Materials, 2020, 10, 1902433.	10.2	115
3685	1D Pyrrolidinium Lead Iodide for Efficient and Stable Perovskite Solar Cells. Energy Technology, 2020, 8, 1900918.	1.8	21
3686	Promising hole-transporting materials for perovskite solar cells: Modulation of the electron-deficient units in triphenylamine derivative-based molecules. International Journal of Quantum Chemistry, 2020, 120, e26070.	1.0	7
3687	Geological Exploration Using Integrated Geophysical Methods in Tunnel: A Case. Geotechnical and Geological Engineering, 2020, 38, 1111-1119.	0.8	6
3688	Fluorine-Substituted Benzotriazole Core Building Block-Based Highly Efficient Hole-Transporting Materials for Mesoporous Perovskite Solar Cells. Solar Rrl, 2020, 4, 1900362.	3.1	16



#	ARTICLE	IF	CITATIONS
3689	A study on the effects of mixed organic cations on the structure and properties in lead halide perovskites. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 3105-3111.	1.3	19
3690	Efficient and stable Ruddlesden-Popper perovskite solar cell with tailored interlayer molecular interaction. <i>Nature Photonics</i> , 2020, 14, 154-163.	15.6	443
3691	Air-processed and mixed-cation single crystal engineering-based perovskite films for efficient and air-stable perovskite solar cells. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 2167-2176.	1.1	11
3692	Effect of Precursor Solution Aging on the Thermoelectric Performance of CsSnI <sub>3</sub> Thin Film. <i>Journal of Electronic Materials</i> , 2020, 49, 2698-2703.	1.0	15
3693	Suppressing recombination in perovskite solar cells via surface engineering of TiO <sub>2</sub> ETL. <i>Solar Energy</i> , 2020, 197, 50-57.	2.9	53
3694	Stability of Lead and Tin Halide Perovskites: The Link between Defects and Degradation. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 574-585.	2.1	84
3695	Quantum mechanical molecular dynamics simulations of polaron formation in methylammonium lead iodide perovskite. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 97-106.	1.3	23
3696	Investigation of the Mn dopant-enhanced photoluminescence performance of lead-free Cs <sub>2</sub> Agl <sub>6</sub> double perovskite crystals. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 1815-1819.	1.3	25
3697	Band-bending induced passivation: high performance and stable perovskite solar cells using a perhydropoly(silazane) precursor. <i>Energy and Environmental Science</i> , 2020, 13, 1222-1230.	15.6	114
3698	Interface limited hole extraction from methylammonium lead iodide films. <i>Materials Horizons</i> , 2020, 7, 943-948.	6.4	9
3699	Computational prediction of structural, electronic, and optical properties and phase stability of double perovskites K <sub>2</sub> SnX <sub>6</sub> (X = I, Br, Cl). <i>RSC Advances</i> , 2020, 10, 201-209.	1.7	69
3700	Precise Tuning of the Thickness and Optical Properties of Highly Stable 2D Organometal Halide Perovskite Nanosheets through a Solvothermal Process and Their Applications as a White LED and a Fast Photodetector. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 6283-6297.	4.0	46
3701	Enhancing Perovskite Solar Cell Performance through Surface Engineering of Metal Oxide Electron-Transporting Layer. <i>Coatings</i> , 2020, 10, 46.	1.2	5
3702	The Rise of Textured Perovskite Morphology: Revolutionizing the Pathway toward High-Performance Optoelectronic Devices. <i>Advanced Energy Materials</i> , 2020, 10, 1902256.	10.2	34
3703	Influence of morphology on photoluminescence properties of methylammonium lead tribromide films. <i>Journal of Luminescence</i> , 2020, 220, 117033.	1.5	8
3704	High efficiency perovskite solar cells using nitrogen-doped graphene/ZnO nanorod composite as an electron transport layer. <i>Solar Energy</i> , 2020, 197, 78-83.	2.9	73
3705	Defects Healing in Two-Step Deposited Perovskite Solar Cells via Formamidinium Iodide Compensation. <i>ACS Applied Energy Materials</i> , 2020, 3, 3318-3327.	2.5	32
3706	Designing solar-cell absorber materials through computational high-throughput screening*. <i>Chinese Physics B</i> , 2020, 29, 028803.	0.7	6

#	ARTICLE	IF	CITATIONS
3707	Performance of WO <sub>3</sub> -Incorporated Carbon Electrodes for Ambient Mesoscopic Perovskite Solar Cells. ACS Omega, 2020, 5, 422-429.	1.6	44
3708	Optical Properties of Lead-Free Double Perovskites by Ab Initio Excited-State Methods. ACS Energy Letters, 2020, 5, 457-463.	8.8	64
3709	Charge transfer between lead halide perovskite nanocrystals and single-walled carbon nanotubes. Nanoscale Advances, 2020, 2, 808-813.	2.2	15
3710	Synthesis, post-synthetic modification and stability of a 2D styryl ammonium lead iodide hybrid material. Dalton Transactions, 2020, 49, 395-403.	1.6	1
3711	Highly efficient inverted hole-transport-layer-free perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 503-512.	5.2	43
3712	Elucidating the mechanisms underlying PCBM enhancement of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite solar cells using GIXRD and XAFS. Journal of Materials Chemistry A, 2020, 8, 3145-3153.	5.2	17
3713	A nanopillar-structured perovskite-based efficient semitransparent solar module for power-generating window applications. Journal of Materials Chemistry A, 2020, 8, 1457-1468.	5.2	39
3714	Advanced hermetic encapsulation of perovskite solar cells: the route to commercialization. Journal of Materials Chemistry A, 2020, 8, 2654-2662.	5.2	54
3715	Interface modification of sputtered NiO <sub>x</sub> as the hole-transporting layer for efficient inverted planar perovskite solar cells. Journal of Materials Chemistry C, 2020, 8, 1972-1980.	2.7	66
3716	A high performance UV-visible dual-band photodetector based on an inorganic Cs <sub>2</sub> SnI <sub>6</sub> perovskite/ZnO heterojunction structure. Journal of Materials Chemistry C, 2020, 8, 1819-1825.	2.7	29
3717	Improved Performance of Carbon Electrode Perovskite Solar Cells Using Urea Treatment in Two-Step Processing. ChemNanoMat, 2020, 6, 806-815.	1.5	9
3718	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
3719	Photon recycling in perovskite CH <sub>3</sub> NH <sub>3</sub> PbX <sub>3</sub> (X = I, Br, Cl) bulk single crystals and polycrystalline films. Journal of Luminescence, 2020, 220, 116987.	1.5	33
3720	Modeling of highly efficient and low cost CH <sub>3</sub> NH <sub>3</sub> Pb(1-xClx) <sub>3</sub> based perovskite solar cell by numerical simulation. Optical Materials, 2020, 100, 109631.	1.7	132
3721	Progress in CZTS as hole transport layer in perovskite solar cell. Solar Energy, 2020, 196, 399-408.	2.9	41
3722	Microtuning of the Wide-Bandgap Perovskite Lattice Plane for Efficient and Robust High-Voltage Planar Solar Cells Exceeding 1.5 V. ACS Applied Energy Materials, 2020, 3, 2331-2341.	2.5	12
3723	Photovoltaic Effect Related to Methylammonium Cation Orientation and Carrier Transport Properties in High-Performance Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 3563-3571.	4.0	9
3724	Light-Enhanced Spin Diffusion in Hybrid Perovskite Thin Films and Single Crystals. ACS Applied Materials & Interfaces, 2020, 12, 3205-3213.	4.0	17

#	ARTICLE	IF	CITATIONS
3725	Single Crystals: The Next Big Wave of Perovskite Optoelectronics. , 2020, 2, 184-214.		89
3726	Efficiency and Stability Enhancement of Fully Ambient Air Processed Perovskite Solar Cells Using TiO <sub>2</sub> Paste with Tunable Pore Structure. Advanced Materials Interfaces, 2020, 7, 1900939.	1.9	9
3727	Role of PC60BM in defect passivation and improving degradation behaviour in planar perovskite solar cells. Solar Energy Materials and Solar Cells, 2020, 207, 110335.	3.0	23
3728	Bionic Detectors Based on Low-Bandgap Inorganic Perovskite for Selective NIR Photon Detection and Imaging. Advanced Materials, 2020, 32, e1905362.	11.1	83
3729	Perovskite nanostructures: Leveraging quantum effects to challenge optoelectronic limits. Materials Today, 2020, 33, 122-140.	8.3	26
3731	New Strategies for Defect Passivation in High-Efficiency Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1903090.	10.2	237
3732	Highly stable and efficient planar perovskite solar cells using ternary metal oxide electron transport layers. Journal of Power Sources, 2020, 448, 227362.	4.0	23
3733	The Role of the Interfaces in Perovskite Solar Cells. Advanced Materials Interfaces, 2020, 7, 1901469.	1.9	239
3734	Comparative study of hybrid perovskite phototransistors based on CVD-grown and spin-coated MAPbI <sub>3</sub> . Journal of Alloys and Compounds, 2020, 815, 152404.	2.8	11
3735	Enhancing acid, base and UV light resistance of halide perovskite CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> quantum dots by encapsulation with ZrO <sub>2</sub> sol. Journal of Alloys and Compounds, 2020, 816, 152558.	2.8	14
3736	Realization of BaZrS <sub>3</sub> chalcogenide perovskite thin films for optoelectronics. Nano Energy, 2020, 68, 104317.	8.2	83
3737	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
3738	Consistently High <i>V<sub>oc</sub></i> Values in p-i-n Type Perovskite Solar Cells Using Ni <sup>3+</sup> -Doped NiO Nanomesh as the Hole Transporting Layer. ACS Applied Materials & Interfaces, 2020, 12, 11467-11478.	4.0	48
3739	Reconstructed transparent conductive layers of fluorine doped tin oxide for greatly weakened hysteresis and improved efficiency of perovskite solar cells. Chemical Communications, 2020, 56, 129-132.	2.2	5
3740	Fabrication of pyramidal (111) MAPbBr <sub>3</sub> film with low surface defect density using homogeneous quantum-dot seeds. Nanoscale, 2020, 12, 1366-1373.	2.8	4
3741	Hysteresis effects on carrier transport and photoresponse characteristics in hybrid perovskites. Journal of Materials Chemistry C, 2020, 8, 1962-1971.	2.7	13
3742	Highly efficient inverted perovskite solar cells incorporating P3CT-Rb as a hole transport layer to achieve a large open circuit voltage of 1.144 V. Nanoscale, 2020, 12, 3686-3691.	2.8	35
3743	Characterization of Perovskite Solar Cell with Fe <sup>3+</sup> Doped TiO <sub>2</sub> Layer. Journal of Nanoscience and Nanotechnology, 2020, 20, 552-556.	0.9	3

#	ARTICLE	IF	CITATIONS
3744	Trivalent Neodymium Additive Modulated MAPbBr <sub>3</sub> Perovskite Nucleation and Growth: Ultrawide Processing Window for One-Step Fabrication of Efficient Light-Emitting Perovskites. <i>Advanced Electronic Materials</i> , 2020, 6, 1901162.	2.6	9
3745	Low-Temperature Preparation of CsPbI <sub>2</sub> Br for Efficient and Stable Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2020, 3, 1076-1081.	2.5	13
3746	Passivating Detrimental DX Centers in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> for Reducing Nonradiative Recombination and Elongating Carrier Lifetime. <i>Advanced Materials</i> , 2020, 32, e1906115.	11.1	53
3747	Exploration of polymer-assisted crystallization kinetics in CsPbBr <sub>3</sub> all-inorganic solar cell. <i>Chemical Engineering Journal</i> , 2020, 392, 123805.	6.6	41
3748	Efficient Bifacial Passivation with Crosslinked Thioctic Acid for High-Performance Methylammonium Lead Iodide Perovskite Solar Cells. <i>Advanced Materials</i> , 2020, 32, e1905661.	11.1	127
3749	In Situ Defect Passivation with Silica Oligomer for Enhanced Performance and Stability of Perovskite Solar Cells. <i>Advanced Materials Interfaces</i> , 2020, 7, 1901716.	1.9	15
3750	A review on spectral converting nanomaterials as a photoanode layer in dye-sensitized solar cells with implementation in energy storage devices. <i>Energy Storage</i> , 2020, 2, e120.	2.3	14
3751	Electrical Methods to Elucidate Charge Transport in Hybrid Perovskites Thin Films and Devices. <i>Chemical Record</i> , 2020, 20, 452-465.	2.9	28
3752	Polarization-Dependent Photoluminescence of a Highly (100)-Oriented Perovskite Film. <i>ChemPhysChem</i> , 2020, 21, 204-211.	1.0	5
3753	Distinguish the Quenching and Degradation of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite by Simultaneous Absorption and Photoluminescence Measurements. <i>Journal of Physical Chemistry C</i> , 2020, 124, 1207-1213.	1.5	6
3754	Surface modification of TiO <sub>2</sub> layer with phosphonic acid monolayer in perovskite solar cells: Effect of chain length and terminal functional group. <i>Organic Electronics</i> , 2020, 78, 105583.	1.4	26
3755	Effect of atomic configuration on band gap behaviour in CH <sub>3</sub> NH <sub>3</sub> SnPb <sup>13</sup> perovskites. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2020, 384, 126173.	0.9	7
3756	Rashba Band Splitting in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> : An Insight from Spin-Polarized Scanning Tunneling Spectroscopy. <i>Nano Letters</i> , 2020, 20, 292-299.	4.5	18
3757	Rapid Characterization and Parameter Space Exploration of Perovskites Using an Automated Routine. <i>ACS Combinatorial Science</i> , 2020, 22, 6-17.	3.8	10
3758	Surface Termination-Dependent Nanotribological Properties of Single-Crystal MAPbBr <sub>3</sub> Surfaces. <i>Journal of Physical Chemistry C</i> , 2020, 124, 1484-1491.	1.5	15
3759	Exploring Red, Green, and Blue Light-Activated Degradation of Perovskite Films and Solar Cells for Near Space Applications. <i>Solar Rrl</i> , 2020, 4, 1900394.	3.1	11
3760	Visualizing the Impact of Light Soaking on Morphological Domains in an Operational Cesium Lead Halide Perovskite Solar Cell. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 136-143.	2.1	17
3761	Effect of absorber layer, hole transport layer thicknesses, and its doping density on the performance of perovskite solar cells by device simulation. <i>Solar Energy</i> , 2020, 196, 177-182.	2.9	193

#	ARTICLE	IF	CITATIONS
3762	Efficient colloidal quantum dot light-emitting diodes operating in the second near-infrared biological window. <i>Nature Photonics</i> , 2020, 14, 50-56.	15.6	72
3763	Stable Triple Cation Perovskite Precursor for Highly Efficient Perovskite Solar Cells Enabled by Interaction with 18C6 Stabilizer. <i>Advanced Functional Materials</i> , 2020, 30, 1908613.	7.8	65
3764	Polarons in Metal Halide Perovskites. <i>Advanced Energy Materials</i> , 2020, 10, 1902748.	10.2	84
3765	All-inorganic, hole-transporting-layer-free, carbon-based CsPbI <sub>3</sub> planar perovskite solar cells by a two-step temperature-control annealing process. <i>Materials Science in Semiconductor Processing</i> , 2020, 108, 104870.	1.9	21
3766	Facile donor (D)-π-D triphenylamine-based hole transporting materials with different π-linker for perovskite solar cells. <i>Solar Energy</i> , 2020, 195, 618-625.	2.9	28
3767	2D multilayered perovskites based on 4-chlorophenylethylamine for solar cell application. <i>Solar Energy</i> , 2020, 196, 1-9.	2.9	7
3768	Surface Modification for Improving the Photocatalytic Polymerization of 3,4-Ethylenedioxythiophene over Inorganic Lead Halide Perovskite Quantum Dots. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 451-460.	4.0	34
3769	Long-range ballistic propagation of carriers in methylammonium lead iodide perovskite thin films. <i>Nature Physics</i> , 2020, 16, 171-176.	6.5	94
3770	Recent Progress in Photonic Synapses for Neuromorphic Systems. <i>Advanced Intelligent Systems</i> , 2020, 2, 1900136.	3.3	132
3771	Tetrahydrofuran as an Oxygen Donor Additive to Enhance Stability and Reproducibility of Perovskite Solar Cells Fabricated in High Relative Humidity (50%) Atmosphere. <i>Energy Technology</i> , 2020, 8, 1900990.	1.8	6
3772	Functional metal oxide ceramics as electron transport medium in photovoltaics and photo-electrocatalysis. , 2020, , 207-273.		4
3773	Efficient Anti-solvent-free Spin-Coated and Printed Sn-Perovskite Solar Cells with Crystal-Based Precursor Solutions. <i>Matter</i> , 2020, 2, 167-180.	5.0	38
3775	Roadmap on halide perovskite and related devices. <i>Nanotechnology</i> , 2020, 31, 152001.	1.3	24
3776	Organic-Inorganic Copper (II)-Based Perovskites: A Benign Approach toward Low-Toxicity and Water-Stable Light Absorbers for Photovoltaic Applications. <i>Energy Technology</i> , 2020, 8, 1901185.	1.8	45
3777	Processing-Performance Evolution of Perovskite Solar Cells: From Large Grain Polycrystalline Films to Single Crystals. <i>Advanced Energy Materials</i> , 2020, 10, 1902762.	10.2	50
3778	Ultrafast laser-annealing of perovskite films for efficient perovskite solar cells. <i>Energy and Environmental Science</i> , 2020, 13, 1187-1196.	15.6	129
3779	Red-Carbon-Quantum-Dot-Doped SnO <sub>2</sub> Composite with Enhanced Electron Mobility for Efficient and Stable Perovskite Solar Cells. <i>Advanced Materials</i> , 2020, 32, e1906374.	11.1	230
3780	Light-emitting devices. , 2020, , 175-197.		0

#	ARTICLE	IF	CITATIONS
3781	Inverted planar perovskite solar cells featuring ligand-protecting colloidal NiO nanocrystals hole transport layer. <i>Vacuum</i> , 2020, 172, 109077.	1.6	12
3782	Ion Migration: A "Double-Edged Sword" for Halide Perovskite-Based Electronic Devices. <i>Small Methods</i> , 2020, 4, 1900552.	4.6	127
3783	Laser-Processed Perovskite Solar Cells and Modules. <i>Solar Rrl</i> , 2020, 4, 1900432.	3.1	34
3784	Ethylenediamine chlorides additive assisting formation of high-quality formamidinium-caesium perovskite film with low trap density for efficient solar cells. <i>Journal of Power Sources</i> , 2020, 449, 227484.	4.0	14
3785	Inhomogeneous Doping of Perovskite Materials by Dopants from Hole-Transport Layer. <i>Matter</i> , 2020, 2, 261-272.	5.0	38
3786	Light-induced non-Arrhenian conductivity of the single crystal methylammonium lead bromide perovskites. <i>Solid State Communications</i> , 2020, 307, 113777.	0.9	1
3787	Physical origins of high photoluminescence quantum yield in $\text{FAPbI}_3$ nanocrystals and their stability. <i>Applied Surface Science</i> , 2020, 508, 145188.	3.1	13
3788	Precharging Photon Upconversion: Interfacial Interactions in Solution-Processed Perovskite Upconversion Devices. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 601-607.	2.1	36
3789	Highly Conductive P-Type $\text{MAPbI}_3$ Films and Crystals via Sodium Doping. <i>Frontiers in Chemistry</i> , 2020, 8, 754.	1.8	18
3790	Internal quantum efficiency and time signals from intensity-modulated photocurrent spectra of perovskite solar cells. <i>Journal of Applied Physics</i> , 2020, 128, .	1.1	25
3791	Charge behavior modulation by titanium-carbide quantum dots and nanosheets for efficient perovskite solar cells. <i>Materials Today Energy</i> , 2020, 18, 100562.	2.5	17
3792	S doped silicon quantum dots with high quantum yield as a fluorescent sensor for determination of $\text{Fe}^{3+}$ in water. <i>Optical Materials</i> , 2020, 110, 110461.	1.7	24
3793	g-C <sub>3</sub> N <sub>4</sub> @PMo <sub>12</sub> composite material double adjustment improves the performance of perovskite-based photovoltaic devices. <i>Solar Energy</i> , 2020, 209, 363-370.	2.9	13
3794	Interlayer Polarization Explains Slow Charge Recombination in Two-Dimensional Halide Perovskites by Nonadiabatic Molecular Dynamics Simulation. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 9032-9037.	2.1	13
3795	Solid-State NMR and NQR Spectroscopy of Lead-Halide Perovskite Materials. <i>Journal of the American Chemical Society</i> , 2020, 142, 19413-19437.	6.6	76
3796	Radical Molecular Modulator for High-Performance Perovskite Solar Cells. <i>Frontiers in Chemistry</i> , 2020, 8, 825.	1.8	9
3797	A solvent-based surface cleaning and passivation technique for suppressing ionic defects in high-mobility perovskite field-effect transistors. <i>Nature Electronics</i> , 2020, 3, 694-703.	13.1	99
3798	Efficient light-emitting diodes from mixed-dimensional perovskites on a fluoride interface. <i>Nature Electronics</i> , 2020, 3, 704-710.	13.1	143



#	ARTICLE	IF	CITATIONS
3799	Investigating the effect of electric fields on lead halide perovskites by scanning tunneling microscopy. <i>Journal of Applied Physics</i> , 2020, 128, .	1.1	13
3800	Stabilization of Intrinsic Ions in Perovskite Solar Cells by Employment of a Bipolar Star-Shaped Organic Molecule as a Charge Transport Buffer. <i>ACS Applied Energy Materials</i> , 2020, 3, 10632-10641.	2.5	2
3801	Compositional Engineering Study of Lead-Free Hybrid Perovskites for Solar Cell Applications. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 49636-49647.	4.0	31
3802	Toward Stable Solution-Processed High-Mobility p-i-n Type Thin Film Transistors Based on Halide Perovskites. <i>ACS Nano</i> , 2020, 14, 14790-14797.	7.3	42
3803	Perovskite Termination-Dependent Charge Transport Behaviors of the CsPbI <sub>3</sub> /Black Phosphorus van der Waals Heterostructure*. <i>Chinese Physics Letters</i> , 2020, 37, 107301.	1.3	8
3804	Integrated Photodetectors Based on Group IV and Colloidal Semiconductors: Current State of Affairs. <i>Micromachines</i> , 2020, 11, 842.	1.4	13
3805	Rapid synthesis of inorganic halide perovskite single crystals with high thermal stability. <i>Chemical Physics Letters</i> , 2020, 759, 137985.	1.2	7
3806	Photoinduced ion-redistribution in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite solar cells. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 25118-25125.	1.3	13
3807	ABX <sub>3</sub> -type lead-free perovskites using superatom ions with tunable photovoltaic performances. <i>Journal of Materials Chemistry A</i> , 2020, 8, 21993-22000.	5.2	8
3808	The dual interfacial modification of 2D g-C <sub>3</sub> N <sub>4</sub> for high-efficiency and stable planar perovskite solar cells. <i>Nanoscale Advances</i> , 2020, 2, 5396-5402.	2.2	19
3809	A Quantitative Analysis of the Research Trends in Perovskite Solar Cells in 2009–2019. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2020, 217, 2000441.	0.8	5
3810	Flexible energy generation and storage devices: focus on key role of heterocyclic solid-state organic ionic conductors. <i>Chemical Society Reviews</i> , 2020, 49, 7819-7844.	18.7	27
3811	Morphology Evolution of a High-Efficiency PSC by Modulating the Vapor Process. <i>Small</i> , 2020, 16, e2003582.	5.2	15
3812	Air Stable Organic-Inorganic Perovskite Nanocrystals@Polymer Nanofibers and Waveguide Lasing. <i>Small</i> , 2020, 16, e2004409.	5.2	29
3813	Insight into the Origins of Figures of Merit and Design Strategies for Organic/Inorganic Lead-Halide Perovskite Solar Cells. <i>Solar Rrl</i> , 2020, 4, 2000452.	3.1	14
3814	Boron nitride-incorporated NiOx as a hole transport material for high-performance p-i-n planar perovskite solar cells. <i>Journal of Power Sources</i> , 2020, 477, 228738.	4.0	27
3815	In situ NMR Investigation of the Photoresponse of Perovskite Crystal. <i>Matter</i> , 2020, 3, 2042-2054.	5.0	12
3816	Two-Step Processed Efficient Potassium and Cesium-Alloyed Quaternary Cations Perovskite Solar Cells. <i>Synthetic Metals</i> , 2020, 269, 116564.	2.1	6

#	ARTICLE	IF	CITATIONS
3817	Traps in metal halide perovskites: characterization and passivation. <i>Nanoscale</i> , 2020, 12, 22425-22451.	2.8	26
3818	Unraveling the Crystallization Kinetics of 2D Perovskites with Sandwich-Type Structure for High-Performance Photovoltaics. <i>Advanced Materials</i> , 2020, 32, e2002784.	11.1	52
3819	Light-induced improvement of dopant-free PTAA on performance of inverted perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2020, 215, 110606.	3.0	36
3820	Does entrepreneurial leadership encourage innovation work behavior? The mediating role of creative self-efficacy and support for innovation. <i>European Journal of Innovation Management</i> , 2020, 24, 1-22.	2.4	58
3821	Mo <sup>5+</sup> doping induced interface polarization for improving performance of planar perovskite solar cells. <i>Journal of Semiconductors</i> , 2020, 41, 052203.	2.0	1
3822	Halide Pb-Free Double Perovskites: Ternary vs. Quaternary Stoichiometry. <i>Energies</i> , 2020, 13, 3516.	1.6	10
3823	Perovskite-Based Tandem Solar Cells: Get the Most Out of the Sun. <i>Advanced Functional Materials</i> , 2020, 30, 2001904.	7.8	78
3824	Surface Sulfuration of NiO Boosts the Performance of Inverted Perovskite Solar Cells. <i>Solar Rrl</i> , 2020, 4, 2000270.	3.1	31
3825	Postpassivation of Multication Perovskite with Rubidium Butyrate. <i>ACS Photonics</i> , 2020, 7, 2282-2291.	3.2	11
3826	An efficient phenylaminocarbazole-based three-dimensional hole-transporting materials for high-stability perovskite solar cells. <i>Dyes and Pigments</i> , 2020, 182, 108663.	2.0	6
3827	Greatly enhanced power conversion efficiency of hole-transport-layer-free perovskite solar cell via coherent interfaces of perovskite and carbon layers. <i>Nano Energy</i> , 2020, 77, 105110.	8.2	31
3828	Temperature-Dependent Interplay of Polaron Formation and Hot Carrier Cooling Dynamics in CsPbBr <sub>3</sub> Nanocrystals: Role of Carrier-Phonon Coupling Strength. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 6206-6213.	2.1	22
3829	Crystalline Nature of Colloids in Methylammonium Lead Halide Perovskite Precursor Inks Revealed by Cryo-Electron Microscopy. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 5980-5986.	2.1	30
3830	Organic solid-state lasers: a materials view and future development. <i>Chemical Society Reviews</i> , 2020, 49, 5885-5944.	18.7	250
3831	Ferroelectric polyoxometalate-modified nano semiconductor TiO <sub>2</sub> for increasing electron lifetime and inhibiting electron recombination in dye-sensitized solar cells. <i>Inorganic Chemistry Frontiers</i> , 2020, 7, 3072-3080.	3.0	13
3832	Methodologies for structural investigations of organic lead halide perovskites. <i>Materials Today</i> , 2020, 38, 67-83.	8.3	7
3833	Investigation of Inorganic electron-hole transport material for high efficiency, stable and low-cost perovskite solar cell. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 13657-13666.	1.1	7
3834	Gradient band structure: high performance perovskite solar cells using poly(bisphenol A) Tj ETQq1 1 0.784314 rgBT/Overlock 10 Tf 506	5.2	14

#	ARTICLE	IF	CITATIONS
3835	Molecular Interaction Regulates the Performance and Longevity of Defect Passivation for Metal Halide Perovskite Solar Cells. <i>Journal of the American Chemical Society</i> , 2020, 142, 20071-20079.	6.6	145
3836	Microfluidic Approach for Lead Halide Perovskite Flexible Phototransistors. <i>Electronics (Switzerland)</i> , 2020, 9, 1852.	1.8	6
3837	Band gap prediction of the alloying halide perovskites using GW compare to DFT-1/2 method. AIP Conference Proceedings, 2020, , .	0.3	1
3838	Room-temperature random lasing of metal-halide perovskites <i>via</i> morphology-controlled synthesis. <i>Nanoscale Advances</i> , 2020, 2, 5833-5840.	2.2	13
3839	Printable Free-Standing Hybrid Graphene/Dry-Spun Carbon Nanotube Films as Multifunctional Electrodes for Highly Stable Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 54806-54814.	4.0	18
3840	Recent developments in fabrication and performance of metal halide perovskite field-effect transistors. <i>Journal of Materials Chemistry C</i> , 2020, 8, 16691-16715.	2.7	34
3841	Atomistic and Electronic Origin of Phase Instability of Metal Halide Perovskites. <i>ACS Applied Energy Materials</i> , 2020, 3, 11548-11558.	2.5	23
3842	Overall photocatalytic water splitting by an organolead iodide crystalline material. <i>Nature Catalysis</i> , 2020, 3, 1027-1033.	16.1	113
3843	Enhanced photovoltaic performance of perovskite solar cells based on sufficient pore-filling in the mesoporous TiO <sub>2</sub> electron transport layer. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 22844-22855.	1.1	1
3844	Synthesis and Characterisations of Mixed Tellurium and Iodine Anions Based Chalcogenâ€Halogen Lead Perovskite. <i>Electroanalysis</i> , 2020, 32, 2870-2881.	1.5	1
3845	Radiation-Resistant CsPbBr <sub>3</sub> Nanoplate-Based Lasers. <i>ACS Applied Nano Materials</i> , 2020, 3, 12017-12024.	2.4	10
3846	Fluorescence in â€œNonfluorescentâ€ Polymers. <i>ACS Omega</i> , 2020, 5, 30747-30766.	1.6	43
3847	Unveiling hot carrier relaxation and carrier transport mechanisms in quasi-two-dimensional layered perovskites. <i>Journal of Materials Chemistry A</i> , 2020, 8, 25402-25410.	5.2	25
3848	Optoelectronic Properties of Mixed Sn/Pb Perovskite Solar Cells: The Study of Compressive Strain by Raman Modes. <i>Journal of Physical Chemistry C</i> , 2020, 124, 27136-27147.	1.5	21
3849	Potassium Acetate-Based Treatment for Thermally Co-Evaporated Perovskite Solar Cells. <i>Coatings</i> , 2020, 10, 1163.	1.2	9
3850	Anchoring Carbon Nanodots onto Nanosilica for Phosphorescence Enhancement and Delayed Fluorescence Nascence in Solid and Liquid States. <i>Small</i> , 2020, 16, e2005228.	5.2	61
3851	Selective Valorization of 5-Hydroxymethylfurfural to 2,5-Diformylfuran Using Atmospheric O <sub>2</sub> and MAPbBr <sub>3</sub> Perovskite under Visible Light. <i>ACS Catalysis</i> , 2020, 10, 14793-14800.	5.5	83
3852	Transient circular dichroism and exciton spin dynamics in all-inorganic halide perovskites. <i>Nature Communications</i> , 2020, 11, 5665.	5.8	29

#	ARTICLE	IF	CITATIONS
3853	Applications of Self-Assembled Monolayers for Perovskite Solar Cells Interface Engineering to Address Efficiency and Stability. <i>Advanced Energy Materials</i> , 2020, 10, 2002989.	10.2	117
3854	Nonradiative Relaxation Dynamics of a Cesium Lead Halide Perovskite Photovoltaic Architecture: Effect of External Electric Fields. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 9983-9989.	2.1	11
3855	Chlorobenzene-Mediated Control of Crystallization in Perovskite Films for High-Performance Solar Cells. <i>ACS Applied Energy Materials</i> , 2020, 3, 12291-12297.	2.5	12
3856	Large-Scale Thin CsPbBr <sub>3</sub> Single-Crystal Film Grown on Sapphire <i>via</i> Chemical Vapor Deposition: Toward Laser Array Application. <i>ACS Nano</i> , 2020, 14, 15605-15615.	7.3	112
3857	Chain-Length Dependence of Thermal Conductivity in 2D Alkylammonium Lead Iodide Single Crystals. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 53705-53711.	4.0	10
3858	Sodium Dodecylbenzene Sulfonate Interface Modification of Methylammonium Lead Iodide for Surface Passivation of Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 52643-52651.	4.0	25
3859	Suppressing Defect-Induced Nonradiative Recombination for Efficient Perovskite Solar Cells through Green Antisolvent Engineering. <i>Advanced Materials</i> , 2020, 32, e2003965.	11.1	123
3860	Highly Flexible and Transparent Polylactic Acid Composite Electrode for Perovskite Solar Cells. <i>Solar Rrl</i> , 2020, 4, 2000320.	3.1	18
3861	A comprehensive review on synthesis and applications of single crystal perovskite halides. <i>Progress in Solid State Chemistry</i> , 2020, 60, 100286.	3.9	77
3862	Halide perovskite-based photocatalysis systems for solar-driven fuel generation. <i>Solar Energy</i> , 2020, 208, 296-311.	2.9	31
3863	Effects of compositional engineering and surface passivation on the properties of halide perovskites: a theoretical understanding. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 19718-19724.	1.3	11
3864	Recent progress on nanostructured carbon-based counter/back electrodes for high-performance dye-sensitized and perovskite solar cells. <i>Nanoscale</i> , 2020, 12, 17590-17648.	2.8	48
3865	Progress and perspective on CsPbX <sub>3</sub> nanocrystals for light emitting diodes and solar cells. <i>Journal of Applied Physics</i> , 2020, 128, .	1.1	20
3866	Dynamic Response of Alternating-Current-Driven Light-Emitting Diodes Based on Hybrid Halide Perovskites. <i>Physical Review Applied</i> , 2020, 14, .	1.5	11
3867	i-Propylammonium Lead Chloride Based Perovskite Photocatalysts for Depolymerization of Lignin Under UV Light. <i>Molecules</i> , 2020, 25, 3520.	1.7	12
3868	Searching for stable perovskite solar cell materials using materials genome techniques and high-throughput calculations. <i>Journal of Materials Chemistry C</i> , 2020, 8, 12012-12035.	2.7	22
3869	Cascade Type-II 2D/3D Perovskite Heterojunctions for Enhanced Stability and Photovoltaic Efficiency. <i>Solar Rrl</i> , 2020, 4, 2000282.	3.1	18
3870	Monocrystalline InP Thin Films with Tunable Surface Morphology and Energy Band gap. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 36380-36388.	4.0	12

#	ARTICLE	IF	CITATIONS
3871	Ti-Alloying of BaZrS <sub>3</sub> Chalcogenide Perovskite for Photovoltaics. ACS Omega, 2020, 5, 18579-18583.	1.6	54
3872	Multifunctional molecules of surfactant to support enhanced efficiency and stability for perovskite solar cells. Journal of Materials Science, 2020, 55, 14761-14772.	1.7	15
3873	Effect of alkaline earth metal chloride additives BCl <sub>2</sub> (B = Mg, Ca, Sr and Ba) on the photovoltaic performance of FAPbI <sub>3</sub> based perovskite solar cells. Nanoscale Horizons, 2020, 5, 1332-1343.	4.1	40
3874	Oriented Perovskite Crystal towards Efficient Charge Transport in FASnI <sub>3</sub> Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000153.	3.1	26
3875	The impact of synthesis techniques on the properties of hybrid perovskite materials for photovoltaic application. Materials Express, 2020, 10, 1127-1134.	0.2	2
3876	Perovskite Solar Cell with Added Gold/Silver Nanoparticles: Enhanced Optical and Electrical Characteristics. Energies, 2020, 13, 3854.	1.6	12
3877	In situ TEM observation of the heat-induced degradation of single- and triple-cation planar perovskite solar cells. Nano Energy, 2020, 77, 105164.	8.2	25
3878	Denatured M13 Bacteriophage-templated Perovskite Solar Cells Exhibiting High Efficiency. Advanced Science, 2020, 7, 2000782.	5.6	31
3879	Numerical Analysis of Pb-Free Perovskite Absorber Materials: Prospects and Challenges. Solar Rrl, 2020, 4, 2000299.	3.1	23
3880	Optical Property Behaviors of CsPbBr <sub>3</sub> Colloidal Nanoparticles in a Ligand-Assisted Recipitation Process. Crystal Growth and Design, 2020, 20, 4855-4860.	1.4	12
3881	Role of the Exciton-Polariton in a Continuous-Wave Optically Pumped CsPbBr <sub>3</sub> Perovskite Laser. Nano Letters, 2020, 20, 6636-6643.	4.5	145
3882	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
3883	Ink Engineering of Inkjet Printing Perovskite. ACS Applied Materials & Interfaces, 2020, 12, 39082-39091.	4.0	85
3884	Trap-Enabled Long-Distance Carrier Transport in Perovskite Quantum Wells. Journal of the American Chemical Society, 2020, 142, 15091-15097.	6.6	66
3885	Lead Halide Perovskite Nanocrystals: Room Temperature Syntheses toward Commercial Viability. Advanced Energy Materials, 2020, 10, 2001349.	10.2	63
3886	Co-Evaporated p-i-n Perovskite Solar Cells beyond 20% Efficiency: Impact of Substrate Temperature and Hole-Transport Layer. ACS Applied Materials & Interfaces, 2020, 12, 39261-39272.	4.0	79
3887	A thin film (<200 nm) perovskite solar cell with 18% efficiency. Journal of Materials Chemistry A, 2020, 8, 17420-17428.	5.2	14
3888	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

#	ARTICLE	IF	CITATIONS
3889	Suppressing Interfacial Charge Recombination in Electron-Transport-Layer-Free Perovskite Solar Cells to Give an Efficiency Exceeding 21%. <i>Angewandte Chemie</i> , 2020, 132, 21166-21173.	1.6	36
3890	Suppressing Interfacial Charge Recombination in Electron-Transport-Layer-Free Perovskite Solar Cells to Give an Efficiency Exceeding 21%. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 20980-20987.	7.2	65
3891	Halide Perovskite Nanocrystal Photocatalysts for CO <sub>2</sub> Reduction: Successes and Challenges. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 6921-6934.	2.1	82
3892	Unique Behavior of Halide Double Perovskites with Mixed Halogens. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 37100-37107.	4.0	19
3893	Defect passivation of grain surface toward perovskite solar cells with a high open-circuit voltage exceeding 1.16V. <i>Journal of Applied Physics</i> , 2020, 128, 044504.	1.1	13
3894	Effect of Additives AX (A=FA, MA, Cs, Rb, NH <sub>4</sub> , X=Cl, Br, I) in FAPbI <sub>3</sub> on Photovoltaic Parameters of Perovskite Solar Cells. <i>Solar Rrl</i> , 2020, 4, 2000331.	3.1	55
3895	Advancement in Inorganic Hole Transport Materials for Inverted Perovskite Solar Cells. <i>Journal of Electronic Materials</i> , 2020, 49, 5840-5881.	1.0	31
3896	Dimensionality engineering of metal halide perovskites. <i>Frontiers of Optoelectronics</i> , 2020, 13, 196-224.	1.9	25
3897	Recent progress in the development of hole-transport materials to boost the power conversion efficiency of perovskite solar cells. <i>Sustainable Materials and Technologies</i> , 2020, 26, e00210.	1.7	18
3898	Intrinsically Ultralow Thermal Conductivity in Ruddlesden-Popper 2D Perovskite Cs <sub>2</sub> PbI <sub>2</sub> Cl <sub>2</sub> : Localized Anharmonic Vibrations and Dynamic Octahedral Distortions. <i>Journal of the American Chemical Society</i> , 2020, 142, 15595-15603.	6.6	82
3899	Role of Individual Bands in the Unusual Temperature-Dependent Band Gap of Methylammonium Lead Iodide. <i>Journal of Physical Chemistry C</i> , 2020, 124, 19841-19848.	1.5	7
3900	Identification of recombination losses and charge collection efficiency in a perovskite solar cell by comparing impedance response to a drift-diffusion model. <i>Nanoscale</i> , 2020, 12, 17385-17398.	2.8	43
3901	9.05% HTM free perovskite solar cell with negligible hysteresis by introducing silver nanoparticles encapsulated with P4VP polymer. <i>SN Applied Sciences</i> , 2020, 2, 1.	1.5	8
3902	CNTs/Cf based counter electrode for highly efficient hole-transport-material-free perovskite solar cells. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2020, 403, 112843.	2.0	15
3903	Hydrophobic 2D Perovskite-Modified Layer with Polyfunctional Groups for Enhanced Performance and High Moisture Stability of Perovskite Solar Cells. <i>Solar Rrl</i> , 2020, 4, 2000647.	3.1	16
3904	Perovskite MAPb(Br <sub>1-x</sub> Cl <sub>x</sub> ) <sub>3</sub> single crystals: Solution growth and electrical properties. <i>Journal of Crystal Growth</i> , 2020, 549, 125869.	0.7	7
3905	Magnetron sputtered all-metal-oxide layers with balanced charge carrier transport efficiency for long-term stable perovskite solar cells. <i>Solar Energy</i> , 2020, 208, 652-658.	2.9	9
3906	Improving the performances of CsPbBr <sub>3</sub> solar cells fabricated in ambient condition. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 21154-21167.	1.1	18



#	ARTICLE	IF	CITATIONS
3907	Metal Halide Perovskites for High-Energy Radiation Detection. <i>Advanced Science</i> , 2020, 7, 2002098.	5.6	126
3908	Recent Advances of Dopant-Free Polymer Hole-Transporting Materials for Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2020, 3, 10282-10302.	2.5	50
3909	Visible light driven perovskite-based photocatalysts: A new candidate for green organic synthesis by photochemical protocol. <i>Current Research in Green and Sustainable Chemistry</i> , 2020, 3, 100031.	2.9	33
3910	Light-Driven Piezo- and Triboelectricity in Organic-Inorganic Metal Trihalide Perovskite toward Mechanical Energy Harvesting and Self-powered Sensor Application. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 50472-50483.	4.0	46
3911	Incorporated Guanidinium Expands the $\text{CH}_3\text{NH}_3\text{PbI}_3$ Lattice and Enhances Photovoltaic Performance. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 43885-43891.	4.0	31
3912	Photoinduced Vibrations Drive Ultrafast Structural Distortion in Lead Halide Perovskite. <i>Journal of the American Chemical Society</i> , 2020, 142, 16569-16578.	6.6	30
3913	Improving Efficiency and Stability in Quasi-2D Perovskite Light-Emitting Diodes by a Multifunctional LiF Interlayer. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 43018-43023.	4.0	53
3914	Effect of Polyethylene Glycol Incorporation in Electron Transport Layer on Photovoltaic Properties of Perovskite Solar Cells. <i>Nanomaterials</i> , 2020, 10, 1753.	1.9	12
3915	Progress and Prospects of Solution-Processed Two-Dimensional Semiconductor Nanocrystals. <i>Journal of Physical Chemistry C</i> , 2020, 124, 21895-21908.	1.5	32
3916	Ultrastable Lead-Free Double Perovskite Warm-White Light-Emitting Devices with a Lifetime above 1000 Hours. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 46330-46339.	4.0	61
3917	Highly Tunable Single-Phase Excitons in Mixed Halide Layered Perovskites. <i>ACS Applied Electronic Materials</i> , 2020, 2, 3199-3210.	2.0	10
3918	Establishing Multifunctional Interface Layer of Perovskite Ligand Modified Lead Sulfide Quantum Dots for Improving the Performance and Stability of Perovskite Solar Cells. <i>Small</i> , 2020, 16, e2002628.	5.2	20
3919	Comparative Study on Methods for the Synthesis of $\text{CsPbBr}_3$ Perovskite Nanoparticles at Room Temperature. <i>High Energy Chemistry</i> , 2020, 54, 328-335.	0.2	2
3920	Passivation of defects in perovskite solar cell: From a chemistry point of view. <i>Nano Energy</i> , 2020, 77, 105237.	8.2	92
3921	Deciphering the role of quantum dot size in the ultrafast charge carrier dynamics at the perovskite-quantum dot interface. <i>Journal of Materials Chemistry C</i> , 2020, 8, 14834-14844.	2.7	9
3922	Triple Interface Passivation Strategy Enabled Efficient and Stable Inverted Perovskite Solar Cells. <i>Small Methods</i> , 2020, 4, 2000478.	4.6	44
3923	Flexible Ultrathin Single-Crystalline Perovskite Photodetector. <i>Nano Letters</i> , 2020, 20, 7144-7151.	4.5	117
3924	Manipulation of PEDOT:PSS with Polar and Nonpolar Solvent Post-treatment for Efficient Inverted Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2020, 3, 9656-9666.	2.5	16

#	ARTICLE	IF	CITATIONS
3925	Contrasting Electron and Hole Transfer Dynamics from CH(NH <sub>2</sub> ) <sub>2</sub> PbI <sub>3</sub> Perovskite Quantum Dots to Charge Transport Layers. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 5553.	1.3	5
3926	Superior Carrier Lifetimes Exceeding 6 Åµs in Polycrystalline Halide Perovskites. <i>Advanced Materials</i> , 2020, 32, e2002585.	11.1	151
3927	Surface Modification of NiO Nanoparticles for Highly Stable Perovskite Solar Cells Based on All-Inorganic Charge Transfer Layers. <i>Journal of Electronic Materials</i> , 2020, 49, 6300-6307.	1.0	5
3928	Rashba Splitting in Two Dimensional Hybrid Perovskite Materials for High Efficient Solar and Heat Energy Harvesting. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 7679-7686.	2.1	14
3929	Grain Boundary Defect Passivation of Triple Cation Mixed Halide Perovskite with Hydrazine-Based Aromatic Iodide for Efficiency Improvement. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 41312-41322.	4.0	45
3930	Antisolvents in Perovskite Solar Cells: Importance, Issues, and Alternatives. <i>Advanced Materials Interfaces</i> , 2020, 7, 2000950.	1.9	94
3931	Solution-Processed Epitaxial Growth of Arbitrary Surface Nanopatterns on Hybrid Perovskite Monocrystalline Thin Films. <i>ACS Nano</i> , 2020, 14, 11029-11039.	7.3	25
3932	A multifunctional additive of scandium trifluoromethanesulfonate to achieve efficient inverted perovskite solar cells with a high fill factor of 83.80%. <i>Journal of Materials Chemistry A</i> , 2020, 8, 19555-19560.	5.2	23
3933	One-step vapour phase growth of two-dimensional formamidinium-based perovskite and its hot carrier dynamics. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 21512-21519.	1.3	4
3934	Improvement of Characteristics of Metal Doped TiO <sub>2</sub> Thin Film and Application to Perovskite Solar Cell. <i>Journal of Nanoscience and Nanotechnology</i> , 2020, 20, 7130-7134.	0.9	2
3935	Synthesis of halide perovskite microwires via methylammonium cations reaction. <i>Frontiers of Materials Science</i> , 2020, 14, 332-340.	1.1	1
3936	Interface passivation strategy improves the efficiency and stability of organic-inorganic hybrid metal halide perovskite solar cells. <i>Journal of Materials Research</i> , 2020, 35, 2166-2189.	1.2	4
3937	Novel amphiphilic corannulene additive for moisture-resistant perovskite solar cells. <i>Chemical Communications</i> , 2020, 56, 11997-12000.	2.2	15
3938	Prospects of lead-free perovskite-inspired materials for photovoltaic applications. <i>Energy and Environmental Science</i> , 2020, 13, 4691-4716.	15.6	47
3939	Halide Perovskite Quantum Dots Photosensitized Amorphous Oxide Transistors for Multimodal Synapses. <i>Advanced Materials Technologies</i> , 2020, 5, 2000514.	3.0	38
3940	Synergistic Effect of Additive and Solvent Vapor Annealing on the Enhancement of MAPbI <sub>3</sub> Perovskite Solar Cells Fabricated in Ambient Air. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 46837-46845.	4.0	23
3941	In Situ Formation of Bismuth-Based Perovskite Heterostructures for High-Performance Cocatalyst-Free Photocatalytic Hydrogen Evolution. <i>Advanced Functional Materials</i> , 2020, 30, 2006919.	7.8	58
3942	Why choosing the right partner is important: stabilization of ternary Cs <sub>y</sub> GAxFA(1-y)xPbI <sub>3</sub> perovskites. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 20880-20890.	1.3	2

#	ARTICLE	IF	CITATIONS
3943	Flexible Lead Bromide Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 9817-9823.	2.5	17
3944	Excellent Excitonic Photovoltaic Effect in 2D CsPbBr <sub>3</sub> /CdS Heterostructures. Advanced Functional Materials, 2020, 30, 2006166.	7.8	38
3945	A solution-processed ternary copper halide thin films for air-stable and deep-ultraviolet-sensitive photodetector. Nanoscale, 2020, 12, 17213-17221.	2.8	55
3946	Multiecitonic Broad-Band Emission Enhanced by Resonant Energy Transfer in a New Two-Dimensional Organic-Inorganic Perovskite: (C <sub>3</sub> H <sub>8</sub> N <sub>6</sub> )PbCl <sub>4</sub> . Journal of Physical Chemistry C, 2020, 124, 20359-20366.	1.5	13
3947	The properties, photovoltaic performance and stability of visible to near-IR all inorganic perovskites. Materials Advances, 2020, 1, 1920-1929.	2.6	5
3948	Isothermally crystallized perovskites at room-temperature. Energy and Environmental Science, 2020, 13, 3412-3422.	15.6	153
3949	Impacts of carrier trapping and ion migration on charge transport of perovskite solar cells with TiO <sub>x</sub> electron transport layer. RSC Advances, 2020, 10, 28083-28089.	1.7	4
3950	Light-intensity and thickness dependent efficiency of planar perovskite solar cells: charge recombination versus extraction. Journal of Materials Chemistry C, 2020, 8, 12648-12655.	2.7	70
3951	Photocorrosion at Irradiated Perovskite/Electrolyte Interfaces. Journal of the American Chemical Society, 2020, 142, 21595-21614.	6.6	32
3952	Role of formamidinium in the crystallization of F <sub>x</sub> MA <sub>1-x</sub> PbI <sub>3-y</sub> Cl <sub>y</sub> perovskite via recrystallization-assisted bath-immersion sequential ambient deposition. Journal of Power Sources, 2020, 477, 228736.	4.0	3
3953	Carrier recombination of organic-inorganic 3D halide perovskite single crystals. Chinese Journal of Chemical Physics, 2020, 33, 252-257.	0.6	2
3954	Stress Effects on Vibrational Spectra of a Cubic Hybrid Perovskite: A Probe of Local Strain. Journal of Physical Chemistry C, 2020, 124, 27287-27299.	1.5	7
3955	Enhanced stability and photovoltaic performance of planar perovskite solar cells through anilinium thiobenzoate interfacial engineering. Journal of Power Sources, 2020, 479, 228811.	4.0	9
3956	Hot Phonon and Auger Heating Mediated Slow Intraband Carrier Relaxation in Mixed Halide Perovskite. IEEE Journal of Quantum Electronics, 2020, , 1-1.	1.0	1
3957	A Study of an Inorganic-Organic HTM on the Implementation of Lead based PSC Device. , 2020, , .		2
3958	Molecular Weight Effects of Biscarbazole-Based Hole Transport Polymers on the Performance of Solid-State Dye-Sensitized Solar Cells. Nanomaterials, 2020, 10, 2516.	1.9	5
3959	Effect of humidity on the orientational ordering of CH <sub>3</sub> NH <sub>3</sub> in methylammonium lead iodide. Bulletin of Materials Science, 2020, 43, 1.	0.8	1
3960	The Bright Side and Dark Side of Hybrid Organic-Inorganic Perovskites. Journal of Physical Chemistry C, 2020, 124, 27340-27355.	1.5	3

#	ARTICLE	IF	CITATIONS
3961	Understanding Hole Extraction of Inverted Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 56068-56075.	4.0	16
3962	Surface and grain boundary carbon heterogeneity in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskites and its impact on optoelectronic properties. Applied Physics Reviews, 2020, 7, .	5.5	9
3963	Impact of Cation Multiplicity on Halide Perovskite Defect Densities and Solar Cell Voltages. Journal of Physical Chemistry C, 2020, 124, 27333-27339.	1.5	18
3964	Perovskite quantum dot solar cells: Mapping interfacial energetics for improving charge separation. Nano Energy, 2020, 78, 105319.	8.2	31
3965	A Critical Review on Crystal Growth Techniques for Scalable Deposition of Photovoltaic Perovskite Thin Films. Materials, 2020, 13, 4851.	1.3	38
3966	Halide Perovskites: A Progress Report on Photon Interconversion. Advanced Optical Materials, 2021, 9, 2001470.	3.6	20
3967	Geometric Analysis and Formability of the Cubic A <sub>2</sub> BX <sub>6</sub> Vacancy-Ordered Double Perovskite Structure. Chemistry of Materials, 2020, 32, 9573-9583.	3.2	35
3968	High-humidity processed perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 10481-10518.	5.2	56
3969	[NH <sub>3</sub> (CH <sub>2</sub> ) <sub>6</sub> NH <sub>3</sub> ] <sub>4</sub> PbI <sub>4</sub> as Dionâ€“Jacobson phase bifunctional capping layer for 2D/3D perovskite solar cells with high efficiency and excellent UV stability. Journal of Materials Chemistry A, 2020, 8, 10283-10290.	5.2	26
3970	Roll-to-roll slot-die coated Pâ€“N perovskite solar cells using acetonitrile based single step perovskite solvent system. Sustainable Energy and Fuels, 2020, 4, 3340-3351.	2.5	53
3971	Structural Deformation Controls Charge Losses in MAPbI <sub>3</sub> : Unsupervised Machine Learning of Nonadiabatic Molecular Dynamics. ACS Energy Letters, 2020, 5, 1930-1938.	8.8	55
3972	Efficient Solar Cells Constructed with Lead Iodide Perovskite Templated by a 3-aminopropyl trimethoxysilane and methyltrimethoxysilane Mixed Monolayer. International Journal of Electrochemical Science, 2020, , 5540-5551.	0.5	0
3973	Recent Progress in Engineering Metal Halide Perovskites for Efficient Visibleâ€“Lightâ€“Driven Photocatalysis. ChemSusChem, 2020, 13, 4005-4025.	3.6	79
3974	Efficient Flexible Perovskite Solar Cells Using Low-Cost Cu Top and Bottom Electrodes. ACS Applied Materials & Interfaces, 2020, 12, 26050-26059.	4.0	26
3975	Vertical Phase Separated Cesium Fluoride Doping Organic Electron Transport Layer: A Facile and Efficient â€œBridgeâ€“Linked Heterojunction for Perovskite Solar Cells. Advanced Functional Materials, 2020, 30, 2001418.	7.8	44
3976	The application of halide perovskites in memristors. Journal of Semiconductors, 2020, 41, 051205.	2.0	22
3977	Stable Whispering Gallery Mode Lasing from Solutionâ€“Processed Formamidinium Lead Bromide Perovskite Microdisks. Advanced Optical Materials, 2020, 8, 2000030.	3.6	32
3978	Potassiumâ€“Induced Phase Stability Enables Stable and Efficient Wideâ€“Bandgap Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000098.	3.1	37

#	ARTICLE	IF	CITATIONS
3979	Pressure Effects on Optoelectronic Properties of CsPbBr <sub>3</sub> Nanocrystals. <i>Journal of Physical Chemistry C</i> , 2020, 124, 11239-11247.	1.5	18
3980	Challenges and approaches towards upscaling the assembly of hybrid perovskite solar cells. <i>Materials Advances</i> , 2020, 1, 292-309.	2.6	35
3981	Anti-correlation between Band gap and Carrier Lifetime in Lead Halide Perovskites under Compression Rationalized by Ab Initio Quantum Dynamics. <i>Chemistry of Materials</i> , 2020, 32, 4707-4715.	3.2	36
3982	Reversible Decomposition of Single-Crystal Methylammonium Lead Iodide Perovskite Nanorods. <i>ACS Central Science</i> , 2020, 6, 959-968.	5.3	4
3983	Boosted efficiency of conductive metal oxide-free perovskite solar cells using poly(3-(4-methylaminocarboxylbutyl)thiophene) buffer layers. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 284001.	1.3	6
3984	Comparison of Physical Isolation on Large Active Area Perovskite Solar Cells. <i>Chemical Research in Chinese Universities</i> , 2020, 36, 1279-1283.	1.3	4
3985	Balance between Energy Transfer and Exciton Separation in Ternary Organic Solar Cells with Two Conjugated Polymer Donors. <i>ACS Applied Energy Materials</i> , 2020, 3, 5792-5803.	2.5	27
3986	Ionic-liquid induced enhanced performance of perovskite light-emitting diodes. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 384002.	1.3	5
3987	Facile deposition of high-quality Cs <sub>2</sub> AgBiBr <sub>6</sub> films for efficient double perovskite solar cells. <i>Science China Materials</i> , 2020, 63, 1518-1525.	3.5	41
3988	Side-chain engineering of PEDOT derivatives as dopant-free hole-transporting materials for efficient and stable n-i-p structured perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2020, 8, 9236-9242.	2.7	14
3989	Boosting the power conversion efficiency of perovskite solar cells based on Sn doped TiO <sub>2</sub> electron extraction layer via modification the TiO <sub>2</sub> phase junction. <i>Solar Energy</i> , 2020, 205, 390-398.	2.9	13
3990	Surface Treatment of Perovskite Layer with Guanidinium Iodide Leads to Enhanced Moisture Stability and Improved Efficiency of Perovskite Solar Cells. <i>Advanced Materials Interfaces</i> , 2020, 7, 2000105.	1.9	39
3991	Negative Pressure Engineering with Large Cage Cations in 2D Halide Perovskites Causes Lattice Softening. <i>Journal of the American Chemical Society</i> , 2020, 142, 11486-11496.	6.6	84
3992	Lead-free perovskite solar cells enabled by hetero-valent substitutes. <i>Energy and Environmental Science</i> , 2020, 13, 2363-2385.	15.6	109
3993	A review of flexible halide perovskite solar cells towards scalable manufacturing and environmental sustainability. <i>Journal of Semiconductors</i> , 2020, 41, 041603.	2.0	20
3994	Synergistic Cascade Carrier Extraction via Dual Interfacial Positioning of Ambipolar Black Phosphorene for High-Efficiency Perovskite Solar Cells. <i>Advanced Materials</i> , 2020, 32, e2000999.	11.1	104
3995	Correlation between efficiency and device characterization in MAPbI <sub>3</sub> -xCl <sub>x</sub> standard perovskite solar cells. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 10251-10259.	1.1	9
3996	Progress toward Applications of Perovskite Solar Cells. <i>Energy &amp; Fuels</i> , 2020, 34, 6624-6633.	2.5	31

#	ARTICLE	IF	CITATIONS
3997	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
3998	Electron Transport Materials: Evolution and Case Study for High-Efficiency Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000136.	3.1	32
3999	Determining In-Plane Carrier Diffusion in Two-Dimensional Perovskite Using Local Time-Resolved Photoluminescence. ACS Applied Materials & Interfaces, 2020, 12, 26384-26390.	4.0	20
4000	A Highly Sensitive Single Crystal Perovskite-Graphene Hybrid Vertical Photodetector. Small, 2020, 16, e2000733.	5.2	55
4001	Solution-processed perovskite solar cells. Journal of Central South University, 2020, 27, 1104-1133.	1.2	34
4002	Hybrid interfacial ETL engineering using PCBM-SnS <sub>2</sub> for High-Performance p-i-n structured planar perovskite solar cells. Chemical Engineering Journal, 2020, 397, 125504.	6.6	37
4003	One-Step Fabrication of Perovskite-Based Upconversion Devices. ChemPhotoChem, 2020, 4, 704-712.	1.5	17
4004	Spin Polarization Dynamics of Free Charge Carriers in CsPbI <sub>3</sub> Nanocrystals. Nano Letters, 2020, 20, 4724-4730.	4.5	32
4005	All-vacuum-deposited inorganic cesium lead halide perovskite light-emitting diodes. APL Materials, 2020, 8, .	2.2	28
4006	Vapor-Phase Photocatalytic Overall Water Splitting Using Hybrid Methylammonium Copper and Lead Perovskites. Nanomaterials, 2020, 10, 960.	1.9	11
4007	FAPbI <sub>3</sub> -Based Perovskite Solar Cells Employing Hexyl-Based Ionic Liquid with an Efficiency Over 20% and Excellent Long-Term Stability. Advanced Functional Materials, 2020, 30, 2002964.	7.8	172
4008	Strong band-filling induced significant excited state absorption in MAPbI <sub>3</sub> under high pump power. Materials Today Physics, 2020, 14, 100228.	2.9	16
4009	The use of nickel oxide as a hole transport material in perovskite solar cell configuration: Achieving a high performance and stable device. International Journal of Energy Research, 2020, 44, 9839-9863.	2.2	28
4010	Doping and ion substitution in colloidal metal halide perovskite nanocrystals. Chemical Society Reviews, 2020, 49, 4953-5007.	18.7	269
4011	Self-trapped-induced energy funneling and broadband emission in the Mn <sup>2+</sup> doped two-dimensional perovskite. Journal of Luminescence, 2020, 226, 117457.	1.5	7
4012	Size control of single-crystal perovskite nanoplatelets based on vapor deposition. Optical Materials, 2020, 107, 110120.	1.7	3
4013	High-performance Photodetector Based on $\text{In}_2\text{Se}_3/\text{Sn}_2\text{S}_3/\text{CH}_3\text{NH}_3\text{PbI}_3$		



#	ARTICLE	IF	CITATIONS
4015	Structurally Tunable Two-Dimensional Layered Perovskites: From Confinement and Enhanced Charge Transport to Prolonged Hot Carrier Cooling Dynamics. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 5705-5718.	2.1	53
4016	Fully Integrated Mechanoluminescent Devices with Nanometer-Thick Perovskite Film as Self-Powered Flexible Sensor for Dynamic Pressure Sensing. <i>ACS Applied Nano Materials</i> , 2020, 3, 6749-6756.	2.4	25
4017	Exciton recombination mechanisms in solution grown single crystalline CsPbBr <sub>3</sub> perovskite. <i>Journal of Luminescence</i> , 2020, 226, 117471.	1.5	20
4018	Enhanced Device Performance of Perovskite Photovoltaics by Magnetic Field-Aligned Perovskites-Magnetic Nanoparticles Composite Thin Film. <i>Advanced Functional Materials</i> , 2020, 30, 2002808.	7.8	10
4019	CH <sub>3</sub> NH <sub>3</sub> CdCl <sub>3</sub> : A promising new lead-free hybrid organic-inorganic perovskite for photovoltaic applications. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2020, 124, 114235.	1.3	24
4020	Robot-Accelerated Perovskite Investigation and Discovery. <i>Chemistry of Materials</i> , 2020, 32, 5650-5663.	3.2	113
4021	Photo-responsive degradable hollow mesoporous organosilica nanoplateforms for drug delivery. <i>Journal of Nanobiotechnology</i> , 2020, 18, 91.	4.2	18
4022	Secondary Ion Mass Spectrometry (SIMS) for Chemical Characterization of Metal Halide Perovskites. <i>Advanced Functional Materials</i> , 2020, 30, 2002201.	7.8	29
4023	Tuning the crystallization process of perovskite active layer using a functionalized graphene oxide for enhanced photovoltaic performance. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 12257-12268.	1.1	8
4024	Enhanced Ballistic Transport of Charge Carriers in Alloyed and K-Passivated Alloyed Perovskite Thin Films. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 5402-5406.	2.1	8
4025	Electronic Properties and Carrier Trapping in Bi and Mn Co-doped CsPbCl <sub>3</sub> Perovskite. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 5482-5489.	2.1	25
4026	Perovskite Materials: Recent Advancements and Challenges. , 2020, , .		3
4027	Understanding the effect of light and temperature on the optical properties and stability of mixed-ion halide perovskites. <i>Journal of Materials Chemistry C</i> , 2020, 8, 9714-9723.	2.7	13
4028	Recovering Quadruple-cation Perovskite Films from Water Caused Permanent Degradations. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2020, 35, 57-64.	0.4	3
4029	Hybrid 2D [Pb(CH <sub>3</sub> NH <sub>2</sub> ) <sub>2</sub> ] <sub>2</sub> Coordination Polymer Precursor for Scalable Perovskite Deposition. <i>ACS Energy Letters</i> , 2020, 5, 2305-2312.	8.8	18
4030	Influence of polytetrafluoroethylene (PTFE) on photovoltaic performance and perovskite solar cell stability. <i>Sustainable Energy and Fuels</i> , 2020, 4, 4257-4263.	2.5	13
4031	Nanocarbon. , 2020, , 131-155.		0
4032	A chiral lead-free photoactive hybrid material with a narrow bandgap. <i>Inorganic Chemistry Frontiers</i> , 2020, 7, 2770-2777.	3.0	16

#	ARTICLE	IF	CITATIONS
4033	Flat Lenses Based on 2D Perovskite Nanosheets. <i>Advanced Materials</i> , 2020, 32, e2001388.	11.1	26
4034	Significantly Enhanced $V_{oc}$ and Efficiency in Perovskite Solar Cells through Composition Adjustment of $\text{SnS}_2$ Electron Transport Layers. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 9250-9256.	3.2	18
4035	Numerical modeling of planar lead free perovskite solar cell using tungsten disulfide ( $\text{WS}_2$ ) as an electron transport layer and $\text{Cu}_2\text{O}$ as a hole transport layer. <i>Modern Physics Letters B</i> , 2020, 34, 2050258.	1.0	30
4036	Improving the crystal growth of a $\text{Cs}_{0.24}\text{FA}_{0.76}\text{PbI}_3$ perovskite in a vapor-solid reaction process using strontium iodide. <i>Sustainable Energy and Fuels</i> , 2020, 4, 2491-2496.	2.5	12
4037	Emerging Thin Film Solar Panels. , 0, , .		10
4038	A General Wet Transferring Approach for Diffusion-Facilitated Space-Confined Grown Perovskite Single-Crystalline Optoelectronic Thin Films. <i>Nano Letters</i> , 2020, 20, 2747-2755.	4.5	34
4039	Grain Growth of $\text{MAPbI}_3$ via Diethylammonium Bromide Induced Grain Mergence. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 16707-16714.	4.0	10
4040	Charge localization and trapping at surfaces in lead-iodide perovskites: the role of polarons and defects. <i>Journal of Materials Chemistry A</i> , 2020, 8, 6882-6892.	5.2	49
4041	First-principles study on photovoltaic properties of 2D $\text{Cs}_2\text{PbI}_4$ -black phosphorus heterojunctions. <i>Journal of Physics Condensed Matter</i> , 2020, 32, 195501.	0.7	10
4042	Fabrication of nickel oxide composites with carbon nanotubes for enhanced charge transport in planar perovskite solar cells. <i>Applied Surface Science</i> , 2020, 516, 146116.	3.1	22
4043	Low-temperature processed highly efficient hole transport layer free carbon-based planar perovskite solar cells with $\text{SnO}_2$ quantum dot electron transport layer. <i>Materials Today Physics</i> , 2020, 13, 100204.	2.9	35
4044	Flexible perovskite solar cells based on AgNW/ATO composite transparent electrodes. <i>Synthetic Metals</i> , 2020, 262, 116286.	2.1	23
4045	Tuning ferromagnetism at room temperature by visible light. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 6417-6423.	3.3	15
4046	Exciton Character and High-Performance Stimulated Emission of Hybrid Lead Bromide Perovskite Polycrystalline Film. <i>Advanced Optical Materials</i> , 2020, 8, 1902026.	3.6	22
4047	Chiral-perovskite optoelectronics. <i>Nature Reviews Materials</i> , 2020, 5, 423-439.	23.3	445
4048	Fabricating Surface-Functionalized $\text{CsPbBr}_3/\text{Cs}_4\text{PbBr}_6$ Nanosheets for Visible-Light Photocatalytic Oxidation of Styrene. <i>Frontiers in Chemistry</i> , 2020, 8, 130.	1.8	10
4049	Sandwich-like electron transporting layer to achieve highly efficient perovskite solar cells. <i>Journal of Power Sources</i> , 2020, 453, 227876.	4.0	15
4050	Effect of the Hole Transporting/Active Layer Interface on the Perovskite Solar Cell Stability. <i>ACS Applied Energy Materials</i> , 2020, 3, 3282-3292.	2.5	29

#	ARTICLE	IF	CITATIONS
4051	Defect-Tolerant Sodium-Based Dopant in Charge Transport Layers for Highly Efficient and Stable Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2020, 5, 1198-1205.	8.8	33
4052	Advances in stable and flexible perovskite solar cells. <i>Current Applied Physics</i> , 2020, 20, 720-737.	1.1	20
4053	Ultraviolet-ozone modification on TiO <sub>2</sub> surface to promote both efficiency and stability of low-temperature planar perovskite solar cells. <i>Chemical Engineering Journal</i> , 2020, 393, 124731.	6.6	29
4054	Comparing the excited-state properties of a mixed-cation mixed-halide perovskite to methylammonium lead iodide. <i>Journal of Chemical Physics</i> , 2020, 152, 104703.	1.2	18
4055	Long Carrier Diffusion Length and Slow Hot Carrier Cooling in Thin Film Mixed Halide Perovskite. <i>IEEE Journal of Photovoltaics</i> , 2020, 10, 803-810.	1.5	16
4056	A Polymerization-Assisted Grain Growth Strategy for Efficient and Stable Perovskite Solar Cells. <i>Advanced Materials</i> , 2020, 32, e1907769.	11.1	161
4057	Room temperature synthesis of perovskite (MAPbI <sub>3</sub> ) single crystal by anti-solvent assisted inverse temperature crystallization method. <i>Journal of Crystal Growth</i> , 2020, 537, 125598.	0.7	18
4058	The effects of interstitial iodine in hybrid perovskite hot carrier cooling: A non-adiabatic molecular dynamics study. <i>Journal of Chemical Physics</i> , 2020, 152, 091102.	1.2	15
4059	Hot Carriers in Halide Perovskites: How Hot Truly?. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 2743-2750.	2.1	41
4060	Scalable Synthesis of Micron Size Crystals of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> at Room Temperature in Acetonitrile via Rapid Reactive Crystallization. <i>ChemistrySelect</i> , 2020, 5, 3266-3271.	0.7	1
4061	Effect of Sr substitution on the property and stability of CH <sub>3</sub> NH <sub>3</sub> SnI <sub>3</sub> perovskite: A first-principles investigation. <i>International Journal of Energy Research</i> , 2020, 44, 5765-5778.	2.2	19
4062	Revealing the Mechanism of Doping of spiro-MeOTAD via Zn Complexation in the Absence of Oxygen and Light. <i>ACS Energy Letters</i> , 2020, 5, 1271-1277.	8.8	29
4063	Direct observation of charge transfer between molecular heterojunctions based on inorganic semiconductor clusters. <i>Chemical Science</i> , 2020, 11, 4085-4096.	3.7	16
4064	Large and Dense Organic-Inorganic Hybrid Perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Wafer Fabricated by One-Step Reactive Direct Wafer Production with High X-ray Sensitivity. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 16592-16600.	4.0	94
4065	In Situ Growth of MAPbBr <sub>3</sub> Nanocrystals on Few-Layer MXene Nanosheets with Efficient Energy Transfer. <i>Small</i> , 2020, 16, e1905896.	5.2	38
4066	Iodine and Sulfur Vacancy Cooperation Promotes Ultrafast Charge Extraction at MAPbI <sub>3</sub> /MoS <sub>2</sub> Interface. <i>ACS Energy Letters</i> , 2020, 5, 1346-1354.	8.8	53
4067	Phase Distribution and Carrier Dynamics in Multiple-Ring Aromatic Spacer-Based Two-Dimensional Ruddlesden-Popper Perovskite Solar Cells. <i>ACS Nano</i> , 2020, 14, 4871-4881.	7.3	126
4068	Quo vadis, perovskite emitters?. <i>Journal of Chemical Physics</i> , 2020, 152, 130901.	1.2	20

#	ARTICLE	IF	CITATIONS
4069	Mechanism of Crystal Formation in Ruddlesden-Popper Sn-Based Perovskites. <i>Advanced Functional Materials</i> , 2020, 30, 2001294.	7.8	91
4070	Methylammonium Lead Tribromide Single Crystal Detectors towards Robust Gamma-Ray Photon Sensing. <i>Advanced Optical Materials</i> , 2020, 8, 2000233.	3.6	18
4071	Dual effective dopant based hole transport layer for stable and efficient perovskite solar cells. <i>Nano Energy</i> , 2020, 72, 104673.	8.2	78
4072	Low-Temperature (<math>\leq 40\text{ }^\circ\text{C}</math>) Atmospheric-Pressure Dielectric-Barrier-Discharge-Jet Treatment on Nickel Oxide for $\text{p}^{\text{n}}$ Structure Perovskite Solar Cells. <i>ACS Omega</i> , 2020, 5, 6082-6089.	1.6	17
4073	A study of perovskite solar cell with a $\text{Fe}^{3+}/\text{Ga}^{3+}$ doped $\text{TiO}_2$ layer. <i>Japanese Journal of Applied Physics</i> , 2020, 59, SGGF05.	0.8	2
4074	Optical design and optimization for back-contact perovskite solar cells. <i>Solar Energy</i> , 2020, 201, 84-91.	2.9	29
4075	A Self-Assembled Small-Molecule-Based Hole-Transporting Material for Inverted Perovskite Solar Cells. <i>Chemistry - A European Journal</i> , 2020, 26, 10276-10282.	1.7	19
4076	Back-interface regulation for carbon-based perovskite solar cells. <i>Carbon</i> , 2020, 168, 372-391.	5.4	33
4077	Engineered electronic properties of the spin-coated MAPI for hole-transport-free perovskite solar cell (HT-free PSC): Spinning time and PSC performance relationship. <i>Chemical Physics Letters</i> , 2020, 754, 137718.	1.2	32
4078	Insights into Ultrafast Carrier Dynamics in Perovskite Thin Films and Solar Cells. <i>ACS Photonics</i> , 2020, 7, 1893-1907.	3.2	34
4079	Tailoring the Surface Morphology and Phase Distribution for Efficient Perovskite Electroluminescence. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 5877-5882.	2.1	17
4080	Recent Progresses on Metal Halide Perovskite-Based Material as Potential Photocatalyst. <i>Catalysts</i> , 2020, 10, 709.	1.6	65
4081	Enhanced performance of perovskite solar cells via laser-induced heat treatment on perovskite film. <i>Solar Energy</i> , 2020, 206, 301-307.	2.9	6
4082	The role of hafnium acetylacetonate buffer layer on the performance of lead halide perovskite solar cells derived from dehydrated lead acetate as Pb source. <i>AIP Advances</i> , 2020, 10, .	0.6	1
4083	Cationic polyelectrolytes as convenient electron extraction layers in perovskite solar cells. <i>Dyes and Pigments</i> , 2020, 182, 108634.	2.0	9
4084	<i>In Situ</i> Interface Engineering for Highly Efficient Electron-Transport-Layer-Free Perovskite Solar Cells. <i>Nano Letters</i> , 2020, 20, 5799-5806.	4.5	67
4085	Comparison of interfacial bridging carbon materials for effective carbon-based perovskite solar cells. <i>Journal of Colloid and Interface Science</i> , 2020, 579, 425-430.	5.0	13
4086	Recent advances and comprehensive insights on nickel oxide in emerging optoelectronic devices. <i>Sustainable Energy and Fuels</i> , 2020, 4, 4415-4458.	2.5	33

#	ARTICLE	IF	CITATIONS
4087	Exploring Electron Transporting Layer in Combination with a Polyelectrolyte for $\eta$ - $\mu$ Perovskite Solar Cells. <i>Advanced Materials Interfaces</i> , 2020, 7, 2000412.	1.9	13
4088	Understanding the interplay of stability and efficiency in A-site engineered lead halide perovskites. <i>APL Materials</i> , 2020, 8, .	2.2	57
4089	Tunable electronic properties of TiO <sub>2</sub> nanocrystals by in situ dopamine functionalization for planar perovskite solar cells. <i>Electrochimica Acta</i> , 2020, 354, 136720.	2.6	12
4090	Self-Repairing Tin-Based Perovskite Solar Cells with a Breakthrough Efficiency Over 11%. <i>Advanced Materials</i> , 2020, 32, e1907623.	11.1	179
4091	Imide-functionalized acceptor-acceptor copolymers as efficient electron transport layers for high-performance perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2020, 8, 13754-13762.	5.2	28
4092	Substitutional doping of hybrid organic-inorganic perovskite crystals for thermoelectrics. <i>Journal of Materials Chemistry A</i> , 2020, 8, 13594-13599.	5.2	51
4093	Optical-electrical-thermal optimization of plasmon-enhanced perovskite solar cells. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 17068-17074.	1.3	20
4094	Theoretical Progress on the Relationship between the Structures and Properties of Perovskite Solar Cells. <i>Advanced Theory and Simulations</i> , 2020, 3, 2000022.	1.3	10
4095	Perovskite nanogels: synthesis, properties, and applications. <i>Journal of Materials Chemistry C</i> , 2020, 8, 12355-12379.	2.7	7
4096	Comprehensive insights into defect passivation and charge dynamics for FA <sub>0.8</sub> MA <sub>0.15</sub> Cs <sub>0.05</sub> PbI <sub>2.8</sub> Br <sub>0.2</sub> perovskite solar cells. <i>Applied Physics Letters</i> , 2020, 117, .	1.5	7
4097	Compositional and Interface Engineering of Organic-Inorganic Lead Halide Perovskite Solar Cells. <i>IScience</i> , 2020, 23, 101359.	1.9	105
4098	Recent trends in efficiency-stability improvement in perovskite solar cells. <i>Materials Today Energy</i> , 2020, 17, 100449.	2.5	43
4099	Low-Dimensional Dion-Jacobson Phase Lead-Free Perovskites for High-Performance Photovoltaics with Improved Stability. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 6909-6914.	7.2	123
4100	Low-Dimensional Dion-Jacobson Phase Lead-Free Perovskites for High-Performance Photovoltaics with Improved Stability. <i>Angewandte Chemie</i> , 2020, 132, 6976-6981.	1.6	26
4101	Exploiting Electrical Transients to Quantify Charge Loss in Solar Cells. <i>Joule</i> , 2020, 4, 472-489.	11.7	53
4102	A Nonionic and Low-Entropic MA(MMA) <sub>n</sub> PbI <sub>3</sub> -Ink for Fast Crystallization of Perovskite Thin Films. <i>Joule</i> , 2020, 4, 615-630.	11.7	46
4103	Effect of annealing treatment on the properties of inverted solar cells based on mixed halide perovskite. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2020, 119, 114000.	1.3	10
4104	Correlation between Charge Transport Length Scales and Dielectric Relaxation Time Constant in Hybrid Halide Perovskite Semiconductors. <i>ACS Energy Letters</i> , 2020, 5, 728-735.	8.8	17

#	ARTICLE	IF	CITATIONS
4105	Verification of Type-A and Type-B-HC Blinking Mechanisms of Organic-Inorganic Formamidinium Lead Halide Perovskite Quantum Dots by FLID Measurements. <i>Scientific Reports</i> , 2020, 10, 2172.	1.6	12
4106	Enhanced performance of planar perovskite solar cells using Ce-doped TiO <sub>2</sub> as electron transport layer. <i>Journal of Materials Science</i> , 2020, 55, 5681-5689.	1.7	16
4107	Multi-cation perovskites prevent carrier reflection from grain surfaces. <i>Nature Materials</i> , 2020, 19, 412-418.	13.3	100
4108	Reducing Anomalous Hysteresis in Perovskite Solar Cells by Suppressing the Interfacial Ferroelectric Order. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 12275-12284.	4.0	13
4109	Formation of stable 2D methylammonium antimony iodide phase for lead-free perovskite-like solar cells. <i>JPhys Energy</i> , 2020, 2, 024007.	2.3	13
4110	Two-dimensional organic-inorganic hybrid Ruddlesden-Popper perovskite materials: preparation, enhanced stability, and applications in photodetection. <i>Sustainable Energy and Fuels</i> , 2020, 4, 2087-2113.	2.5	36
4111	Role of defect density on the electronic transport and current-voltage characteristics of the hole transporter free perovskite solar cell. <i>Materials Today: Proceedings</i> , 2020, 28, 223-229.	0.9	2
4112	Revealing the Role of Interfaces in Photocarrier Dynamics of Perovskite Films by Alternating Front/Back Side Excitation Time-Resolved Photoluminescence. <i>Journal of Physical Chemistry C</i> , 2020, 124, 6290-6296.	1.5	25
4113	Over 1 $\mu$ m electron-hole diffusion lengths in CsPbI <sub>2</sub> Br for high efficient solar cells. <i>Journal of Power Sources</i> , 2020, 454, 227913.	4.0	31
4114	Low-Temperature Solution-Processed Amorphous Titania Nanowire Thin Films for 1 cm <sup>2</sup> Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 11450-11458.	4.0	9
4115	High performance perovskite solar cells using multiple hole transport layer and modulated F <sub>x</sub> MA <sub>1-x</sub> PbI <sub>3</sub> active layer. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 4135-4141.	1.1	3
4116	A pressure-assisted annealing method for high quality CsPbBr <sub>3</sub> film deposited by sequential thermal evaporation. <i>RSC Advances</i> , 2020, 10, 8905-8909.	1.7	20
4117	Stability diagrams, defect tolerance, and absorption coefficients of hybrid halide semiconductors: High-throughput first-principles characterization. <i>Journal of Chemical Physics</i> , 2020, 152, 084106.	1.2	22
4118	Pump-probe micro-spectroscopy and 2D materials. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 473001.	1.3	8
4119	Low-frequency lattice phonons in halide perovskites explain high defect tolerance toward electron-hole recombination. <i>Science Advances</i> , 2020, 6, eaaw7453.	4.7	182
4120	Air-Stable Highly Crystalline Formamidinium Perovskite 1D Structures for Ultrasensitive Photodetectors. <i>Advanced Functional Materials</i> , 2020, 30, 1908894.	7.8	27
4121	Enhanced performance and stability of ambient-processed CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3-x</sub> (SCN) <sub>x</sub> planar perovskite solar cells by introducing ammonium salts. <i>Applied Surface Science</i> , 2020, 513, 145790.	3.1	14
4122	Constructing binary electron transport layer with cascade energy level alignment for efficient CsPbI <sub>2</sub> Br solar cells. <i>Nano Energy</i> , 2020, 71, 104604.	8.2	56



#	ARTICLE	IF	CITATIONS
4123	Highly stable inverted methylammonium lead tri-iodide perovskite solar cells achieved by surface re-crystallization. <i>Energy and Environmental Science</i> , 2020, 13, 840-847.	15.6	44
4124	Charge transfer dynamics in a singlet fission organic molecule and organometal perovskite bilayer structure. <i>Journal of Materials Chemistry A</i> , 2020, 8, 5572-5579.	5.2	16
4125	Vacuum-Induced Degradation of 2D Perovskites. <i>Frontiers in Chemistry</i> , 2020, 8, 66.	1.8	19
4126	Imaging Carrier Dynamics and Transport in Hybrid Perovskites with Transient Absorption Microscopy. <i>Advanced Energy Materials</i> , 2020, 10, 1903781.	10.2	16
4127	Broadband downconversion in Bi <sup>3+</sup> -Yb <sup>3+</sup> -codoped transparent glass ceramics containing LaF <sub>3</sub> nanocrystals. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 5117-5123.	1.1	1
4128	Influence of substrate temperature on the chemical, microstructural and optical properties of spray deposited CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite thin films. <i>Journal of Materials Research and Technology</i> , 2020, 9, 3411-3417.	2.6	5
4129	Boosting Multiple Interfaces by Co-Doped Graphene Quantum Dots for High Efficiency and Durability Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 13941-13949.	4.0	69
4130	TiO <sub>2</sub> -Assisted Halide Ion Segregation in Mixed Halide Perovskite Films. <i>Journal of the American Chemical Society</i> , 2020, 142, 5362-5370.	6.6	72
4131	In[Ba <sub>3</sub> Cl <sub>3</sub> F <sub>6</sub> ]: a novel infrared-transparent molecular sieve constructed by halides. <i>Chemical Communications</i> , 2020, 56, 3297-3300.	2.2	3
4132	Several economical and eco-friendly bio-carbon electrodes for highly efficient perovskite solar cells. <i>Carbon</i> , 2020, 162, 267-272.	5.4	48
4133	Polymer interface engineering enabling high-performance perovskite solar cells with improved fill factors of over 82%. <i>Journal of Materials Chemistry C</i> , 2020, 8, 5467-5475.	2.7	25
4134	Controlling the film structure by regulating 2D Ruddlesden-Popper perovskite formation enthalpy for efficient and stable tri-cation perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2020, 8, 5874-5881.	5.2	23
4135	Interfacing Low-Temperature Atomic Layer Deposited TiO <sub>2</sub> Electron Transport Layers with Metal Electrodes. <i>Advanced Materials Interfaces</i> , 2020, 7, 1902054.	1.9	6
4136	Carbon-based interlayers in perovskite solar cells. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 124, 109774.	8.2	46
4137	Comparative studies of optoelectrical properties of prominent PV materials: Halide perovskite, CdTe, and GaAs. <i>Materials Today</i> , 2020, 36, 18-29.	8.3	33
4138	A noble-metal-free MoS <sub>2</sub> nanosheet-coupled MAPbI <sub>3</sub> photocatalyst for efficient and stable visible-light-driven hydrogen evolution. <i>Chemical Communications</i> , 2020, 56, 3281-3284.	2.2	43
4139	Interface Engineering by Thiazolium Iodide Passivation Towards Reduced Thermal Diffusion and Performance Improvement in Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2020, 30, 1910561.	7.8	47
4140	Excitons in Metal-Halide Perovskites. <i>Advanced Energy Materials</i> , 2020, 10, 1903659.	10.2	240

#	ARTICLE	IF	CITATIONS
4141	Enhancing Device Performance in Quasi-2D Perovskite ((BA) <sub>2</sub> (MA) <sub>3</sub> Pb <sub>4</sub> I <sub>13</sub> ) Solar Cells Using PbCl <sub>2</sub> Additives. ACS Applied Materials & Interfaces, 2020, 12, 11190-11196.	4.0	35
4142	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
4143	A review on perovskite solar cells: Evolution of architecture, fabrication techniques, commercialization issues and status. Solar Energy, 2020, 198, 665-688.	2.9	321
4144	Interfacial and structural modifications in perovskite solar cells. Nanoscale, 2020, 12, 5719-5745.	2.8	39
4145	Pb dimerization greatly accelerates charge losses in MAPbI <sub>3</sub> : Time-domain ab initio analysis. Journal of Chemical Physics, 2020, 152, 064707.	1.2	12
4146	Defect Passivation via the Incorporation of Tetrapropylammonium Cation Leading to Stability Enhancement in Lead Halide Perovskite. Advanced Functional Materials, 2020, 30, 1909737.	7.8	50
4147	Effects of Chlorine Mixing on Optoelectronics, Ion Migration, and Gamma-Ray Detection in Bromide Perovskites. Chemistry of Materials, 2020, 32, 1854-1863.	3.2	46
4148	MAI-Induced Intermediate Engineering for High-Performance Mixed-Cation Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 10535-10543.	4.0	48
4149	A highly stable hole-conductor-free Cs MA <sub>1</sub> Pb <sub>3</sub> perovskite solar cell based on carbon counter electrode. Electrochimica Acta, 2020, 335, 135686.	2.6	16
4150	Effect of perovskite precursor ratios and solvents volume on the efficiency of MAPbI <sub>3</sub> -xCl <sub>x</sub> mixed halide perovskite solar cells. Materials Science in Semiconductor Processing, 2020, 109, 104915.	1.9	24
4151	An Emerging Visible-Light Organic-Inorganic Hybrid Perovskite for Photocatalytic Applications. Nanomaterials, 2020, 10, 115.	1.9	20
4152	Coupling halide perovskites with different materials: From doping to nanocomposites, beyond photovoltaics. Progress in Materials Science, 2020, 110, 100639.	16.0	38
4153	Nanochemical Investigation of Degradation in Organic-Inorganic Hybrid Perovskite Films Using Infrared Nanoscopy. Journal of Physical Chemistry C, 2020, 124, 3915-3922.	1.5	12
4154	Dopant-Free Hole-Transport Materials Based on 2,4,6-Triarylpyridine for Inverted Planar Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 1672-1683.	2.5	48
4155	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
4156	Synergy between Ion Migration and Charge Carrier Recombination in Metal-Halide Perovskites. Journal of the American Chemical Society, 2020, 142, 3060-3068.	6.6	91
4157	Highly (100)-oriented CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> 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
4158	Light-Induced Defect Healing and Strong Many-Body Interactions in Formamidinium Lead Bromide Perovskite Nanocrystals. Journal of Physical Chemistry Letters, 2020, 11, 1239-1246.	2.1	18

#	ARTICLE	IF	CITATIONS
4159	Single crystals of mixed Br/Cl and Sn-doped formamidinium lead halide perovskites <i>via</i> inverse temperature crystallization. RSC Advances, 2020, 10, 3832-3836.	1.7	18
4160	First principle study of Lead free halide double perovskites Cs <sub>2</sub> AuBiX <sub>6</sub> (X = Cl, Br). Materials Today: Proceedings, 2020, 27, 561-564.	0.9	4
4161	Multifunctional nanostructured materials for next generation photovoltaics. Nano Energy, 2020, 70, 104480.	8.2	52
4162	Microfluidic solution-processed organic and perovskite nanowires fabricated for field-effect transistors and photodetectors. Journal of Materials Chemistry C, 2020, 8, 2353-2362.	2.7	17
4163	Solvent-Free Mechanochemical Synthesis of a Systematic Series of Pure-Phase Mixed-Halide Perovskites MAPb(I <sub>x</sub> Br <sub>1-x</sub> ) <sub>3</sub> and MAPb(Br <sub>x</sub> Cl <sub>1-x</sub> ) <sub>3</sub> for Continuous Composition and Band-Gap Tuning. ChemPlusChem, 2020, 85, 240-246.	1.3	15
4164	Large-area, green solvent spray deposited nickel oxide films for scalable fabrication of triple-cation perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 3357-3368.	5.2	52
4165	Recent advances in defect passivation of perovskite active layer via additive engineering: a review. Journal Physics D: Applied Physics, 2020, 53, 183002.	1.3	15
4166	Interface Engineering of Air-Stable Doping Fullerene-Modified TiO <sub>2</sub> Electron Transport Layer for Highly Efficient and Stable Perovskite Solar Cells. Advanced Materials Interfaces, 2020, 7, 1901964.	1.9	32
4167	X-Ray Microscopy of Halide Perovskites: Techniques, Applications, and Prospects. Advanced Energy Materials, 2020, 10, 1903170.	10.2	49
4168	Engineering Multiphase Metal Halide Perovskites Thin Films for Stable and Efficient Solar Cells. Advanced Energy Materials, 2020, 10, 1903221.	10.2	16
4169	Vertical Strain-Driven Antiferromagnetic to Ferromagnetic Phase Transition in EuTiO <sub>3</sub> Nanocomposite Thin Films. ACS Applied Materials & Interfaces, 2020, 12, 8513-8521.	4.0	14
4170	van der Waals PtO <sub>2</sub> /MoS <sub>2</sub> heterostructure verified from first principles. Physics Letters, Section A: General, Atomic and Solid State Physics, 2020, 384, 126286.	0.9	9
4171	Surface Modification of TiO <sub>2</sub> for Perovskite Solar Cells. Trends in Chemistry, 2020, 2, 148-162.	4.4	91
4172	Soft Lattice and Defect Covalency Rationalize Tolerance of CsPbI <sub>3</sub> Perovskite Solar Cells to Native Defects. Angewandte Chemie - International Edition, 2020, 59, 6435-6441.	7.2	147
4173	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
4174	Nonaromatic Green-Solvent-Processable, Dopant-Free, and Lead-Capturable Hole Transport Polymers in Perovskite Solar Cells with High Efficiency. Advanced Energy Materials, 2020, 10, 1902662.	10.2	141
4175	Photoelectrochemical Water Splitting Reaction System Based on Metal-Organic Halide Perovskites. Materials, 2020, 13, 210.	1.3	23
4176	Theoretical study on the stability of the complexes A <sub>3</sub> BX <sub>3</sub> [A = CH <sub>3</sub> NH <sub>3</sub> <sup>+</sup> , NH <sub>2</sub> CHNH <sub>2</sub> <sup>+</sup> , NH <sub>2</sub> CHOH <sup>+</sup> ; B = Sn <sup>2+</sup> , Pb <sup>2+</sup> ; X = F <sup>-</sup> , Cl <sup>-</sup> , Br <sup>-</sup> , I <sup>-</sup> ]. Journal of Molecular Modeling, 2020, 26, 46.	0.8	9

#	ARTICLE	IF	CITATIONS
4177	Enhancing the stability of perovskites by constructing heterojunctions of graphene/MASnI <sub>3</sub> . Physical Chemistry Chemical Physics, 2020, 22, 3724-3733.	1.3	6
4178	High Performance Planar Structure Perovskite Solar Cells Using a Solvent Dripping Treatment on Hole Transporting Layer. Coatings, 2020, 10, 127.	1.2	9
4179	Study on the Ultrafast Process of Perovskite Nanoparticles Modified by Different Alkyl Chains. Langmuir, 2020, 36, 1507-1514.	1.6	6
4180	Soft Lattice and Defect Covalency Rationalize Tolerance of $\text{CsPbI}_3$ Perovskite Solar Cells to Native Defects. Angewandte Chemie, 2020, 132, 6497-6503.	1.6	8
4181	Interpretation of the photoluminescence decay kinetics in metal halide perovskite nanocrystals and thin polycrystalline films. Journal of Luminescence, 2020, 221, 117092.	1.5	30
4182	Towards Efficient Integrated Perovskite/Organic Bulk Heterojunction Solar Cells: Interfacial Energetic Requirement to Reduce Charge Carrier Recombination Losses. Advanced Functional Materials, 2020, 30, 2001482.	7.8	43
4183	First principle study of the structural and optoelectronic properties of direct bandgap double perovskite Cs <sub>2</sub> AgInCl <sub>6</sub> . Materials Today: Proceedings, 2020, 33, 1252-1256.	0.9	17
4184	Tuning the wettability of the blade enhances solution-sheared perovskite solar cell performance. Nano Energy, 2020, 74, 104830.	8.2	19
4185	Influence of Chloride/Iodide Ratio in MAPbI <sub>3</sub> -xCl <sub>x</sub> Perovskite Solar Devices: Case of Low Temperature Processable AZO Sub-Layer. Energies, 2020, 13, 1927.	1.6	11
4186	Approaching the Most Economic Preparation of Hole Transport Layer by Organic Monomolecular Strategy for Efficient Inverted Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000011.	3.1	6
4187	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
4188	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
4189	Charge Transport in MAPbI <sub>3</sub> Pellets across the Tetragonal-to-Cubic Phase Transition: The Role of Grain Boundaries from Structural, Electrical, and Optical Characterizations. Journal of Physical Chemistry C, 2020, 124, 10793-10803.	1.5	11
4190	Tunable relativistic quasiparticle electronic and excitonic behavior of the FAPb(I <sub>1-x</sub> Br <sub>x</sub> ) <sub>3</sub> alloy. Physical Chemistry Chemical Physics, 2020, 22, 11943-11955.	1.3	18
4191	Nanoscale spatial mapping of charge carrier dynamics in perovskite solar cells. Nano Today, 2020, 33, 100874.	6.2	21
4192	A Thermally Induced Perovskite Crystal Control Strategy for Efficient and Photostable Wide-Bandgap Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000033.	3.1	22
4193	Impact of Cesium/Rubidium Incorporation on the Photophysics of Multiple-Cation Lead Halide Perovskites. Solar Rrl, 2020, 4, 2000072.	3.1	13
4194	Fabrication of perovskite solar cell with high short-circuit current density (JSC) using moth-eye structure of SiO <sub>x</sub> . Nano Research, 2020, 13, 1156-1161.	5.8	17

#	ARTICLE	IF	CITATIONS
4195	Highly Efficient Thermally Co-evaporated Perovskite Solar Cells and Mini-modules. <i>Science China Materials</i> , 2020, 63, 1015-1023.		20
4196	Halogen-containing semiconductors: From artificial photosynthesis to unconventional computing. <i>Coordination Chemistry Reviews</i> , 2020, 415, 213316.	9.5	21
4197	Controlled crystallinity and morphologies of 2D Ruddlesden-Popper perovskite films grown without anti-solvent for solar cells. <i>Chemical Engineering Journal</i> , 2020, 394, 124959.	6.6	33
4198	Highly Efficient Thermally Co-evaporated Perovskite Solar Cells and Mini-modules. <i>Joule</i> , 2020, 4, 1035-1053.	11.7	257
4199	Effect of deposition method on the structural and optical properties of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite thin films. <i>Optical Materials</i> , 2020, 103, 109836.	1.7	64
4200	Understanding the mechanisms of a conjugated polymer electrolyte for interfacial modification in solution-processed organic-inorganic hybrid perovskite photodetectors. <i>Organic Electronics</i> , 2020, 83, 105729.	1.4	7
4201	Carrier Diffusion Lengths Exceeding 1 $\mu$ m Despite Trap-Limited Transport in Halide Double Perovskites. <i>ACS Energy Letters</i> , 2020, 5, 1337-1345.	8.8	58
4202	Solution-processed one-dimensional CsCu <sub>2</sub> I <sub>3</sub> nanowires for polarization-sensitive and flexible ultraviolet photodetectors. <i>Materials Horizons</i> , 2020, 7, 1613-1622.	6.4	120
4203	Influence of Film Thickness on the Electronic Band Structure and Optical Properties of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Solar Cells. <i>Advanced Engineering Materials</i> , 2020, 22, 2000185.	1.6	10
4204	Raman Scattering Studies of the Structural Phase Transitions in Single-Crystalline CH <sub>3</sub> NH <sub>3</sub> PbCl <sub>3</sub> . <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 3773-3781.	2.1	18
4205	Effect of A-Site Cation on Photoluminescence Spectra of Single Lead Bromide Perovskite Nanocrystals. <i>Nano Letters</i> , 2020, 20, 4022-4028.	4.5	29
4206	Elucidating tuneable ambipolar charge transport and field induced bleaching at the CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> /electrolyte interface. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 11062-11074.	1.3	20
4207	Recent Progress on Interface Engineering for High-Performance, Stable Perovskites Solar Cells. <i>Advanced Materials Interfaces</i> , 2020, 7, 2000118.	1.9	34
4208	Opportunity of the Lead-Free All-Inorganic Cs <sub>3</sub> Cu <sub>2</sub> I <sub>5</sub> Perovskite Film for Memristor and Neuromorphic Computing Applications. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 23094-23101.	4.0	132
4209	Light-induced phase transition and photochromism in all-inorganic two-dimensional Cs <sub>2</sub> PbI <sub>2</sub> Cl <sub>2</sub> perovskite. <i>Science China Materials</i> , 2020, 63, 1510-1517.	3.5	14
4210	Theoretical prediction of double perovskite Cs <sub>2</sub> Ag <sub>x</sub> Cu <sub>1-x</sub> In <sub>y</sub> Tb <sub>1-y</sub> Cl <sub>6</sub> for infrared detection. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 265302.	1.3	29
4211	An Environmentally Stable Organic-Inorganic Hybrid Perovskite Containing Py Cation with Low Trap-State Density. <i>Crystals</i> , 2020, 10, 272.	1.0	7
4212	Direct atomic scale characterization of the surface structure and planar defects in the organic-inorganic hybrid CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> by Cryo-TEM. <i>Nano Energy</i> , 2020, 73, 104820.	8.2	35

#	ARTICLE	IF	CITATIONS
4213	China's progress of perovskite solar cells in 2019. <i>Science Bulletin</i> , 2020, 65, 1306-1315.	4.3	12
4214	A Series of Organic-Inorganic Hybrid Compounds $[(\text{C}_{2x}\text{H}_5)_4\text{N}]\text{InCl}_4\text{Br}_x$ ( $x = 0, 2, 4$ ): Synthesis, Crystal Structure, and Nonlinear Optical Properties. <i>Inorganic Chemistry</i> , 2020, 59, 5721-5727.	1.9	28
4215	Scaling Laws of Exciton Recombination Kinetics in Low Dimensional Halide Perovskite Nanostructures. <i>Journal of the American Chemical Society</i> , 2020, 142, 8871-8879.	6.6	26
4216	Halide Perovskites: Thermal Transport and Prospects for Thermoelectricity. <i>Advanced Science</i> , 2020, 7, 1903389.	5.6	129
4217	Morphology Control of Doped Spiro-MeOTAD Films for Air Stable Perovskite Solar Cells. <i>Small</i> , 2020, 16, e1907513.	5.2	16
4218	Noncontact Tunneling in Methylammonium Lead Iodide $(\text{CH}_3\text{NH}_3\text{PbI}_3)$ : Evidence of Bipolar Resistive Switching through Defect Migration. <i>ACS Applied Electronic Materials</i> , 2020, 2, 1395-1401.	2.0	4
4219	17% efficient perovskite solar mini-module via hexamethylphosphoramide (HMPA)-adduct-based large-area D-bar coating. <i>Journal of Materials Chemistry A</i> , 2020, 8, 9345-9354.	5.2	44
4220	Tungsten-Doped Zinc Oxide and Indium-Zinc Oxide Films as High-Performance Electron-Transport Layers in $\text{PbI}_2$ Perovskite Solar Cells. <i>Polymers</i> , 2020, 12, 737.	2.0	10
4221	Vapor-Deposited $\text{Cs}_2\text{AgBiCl}_6$ Double Perovskite Films toward Highly Selective and Stable Ultraviolet Photodetector. <i>Advanced Science</i> , 2020, 7, 1903662.	5.6	64
4222	Quantum Dot Optoelectronic Devices. <i>Lecture Notes in Nanoscale Science and Technology</i> , 2020, , .	0.4	5
4223	Highly stable and efficient perovskite solar cells produced via high-boiling point solvents and additive engineering synergistically. <i>Science China Chemistry</i> , 2020, 63, 818-826.	4.2	11
4224	Efficient planar heterojunction perovskite solar cells with enhanced FTO/SnO <sub>2</sub> interface electronic coupling. <i>Journal of Alloys and Compounds</i> , 2020, 831, 154717.	2.8	28
4225	Tailoring the Dimension of Halide Perovskites Enables Quantum Wires with Enhanced Visible Light Absorption. <i>Journal of Physical Chemistry C</i> , 2020, 124, 11124-11131.	1.5	1
4226	Designing the Perovskite Structural Landscape for Efficient Blue Emission. <i>ACS Energy Letters</i> , 2020, 5, 1593-1600.	8.8	71
4227	Dealing with Climate Parameters in the Fabrication of Perovskite Solar Cells under Ambient Conditions. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 7132-7138.	3.2	11
4228	Machine-learning structural and electronic properties of metal halide perovskites using a hierarchical convolutional neural network. <i>Npj Computational Materials</i> , 2020, 6, .	3.5	93
4229	Improvement of the stability of perovskite solar cells in terms of humidity/heat via compositional engineering. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 285501.	1.3	12
4230	Glass rod-sliding and low pressure assisted solution processing composition engineering for high-efficiency perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2020, 211, 110532.	3.0	11



#	ARTICLE	IF	CITATIONS
4231	$\hat{I}^{\pm}$ -DTC <sub>70</sub> fullerene performs significantly better than $\hat{I}^2$ -DTC70 as electron transporting material in perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2020, 8, 6813-6819.	2.7	5
4232	Review on applications of PEDOTs and PEDOT:PSS in perovskite solar cells. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 12746-12757.	1.1	59
4233	Controllable crystallization by way of solvent engineering for perovskite solar cells. <i>Surface Innovations</i> , 2021, 9, 57-64.	1.4	4
4234	Defect passivation by nontoxic biomaterial yields 21% efficiency perovskite solar cells. <i>Journal of Energy Chemistry</i> , 2021, 55, 265-271.	7.1	50
4235	Numerical modeling and simulation for augmenting the photovoltaic response of HTL free perovskite solar cells. <i>Materials Today: Proceedings</i> , 2021, 46, 6367-6373.	0.9	10
4236	A self-powered photodetector based on polarization-driven in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> single crystal (100) plane. <i>Chemical Engineering Journal</i> , 2021, 404, 125957.	6.6	17
4237	Effect of temperature on the performance of perovskite solar cells. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 12784-12792.	1.1	44
4238	Molecular-Level Insight into Correlation between Surface Defects and Stability of Methylammonium Lead Halide Perovskite Under Controlled Humidity. <i>Small Methods</i> , 2021, 5, e2000834.	4.6	30
4239	Multifunctional Enhancement for Highly Stable and Efficient Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2021, 31, 2005776.	7.8	273
4240	Sequential Formation of Tunable Bandgap Mixed Halide Lead-Based Perovskites: In Situ Investigation and Photovoltaic Devices. <i>Solar Rrl</i> , 2021, 5, .	3.1	15
4241	Evaluation of the optical properties of the lead-free mixed-halide iron perovskite CH <sub>3</sub> NH <sub>3</sub> FeI <sub>2</sub> Br for application in solar cells: A computational study. <i>Materials Today Communications</i> , 2021, 26, 101847.	0.9	2
4242	Dimethylammonium iodide stabilized bismuth halide perovskite photocatalyst for hydrogen evolution. <i>Nano Research</i> , 2021, 14, 1116-1125.	5.8	34
4243	Structural and optical properties of RF sputtered ZnO thin films: Annealing effect. <i>Physica B: Condensed Matter</i> , 2021, 605, 412421.	1.3	15
4244	Ultrasensitive detection of hydrogen sulfide gas based on perovskite vertical channel chemo-sensor. <i>Sensors and Actuators B: Chemical</i> , 2021, 326, 128988.	4.0	31
4245	Efficient and stable inverted perovskite solar cells enabled by inhibition of self-aggregation of fullerene electron-transporting compounds. <i>Science Bulletin</i> , 2021, 66, 339-346.	4.3	23
4246	Compositional effect on water adsorption on metal halide perovskites. <i>Applied Surface Science</i> , 2021, 538, 148058.	3.1	30
4247	Strategies from small-area to scalable fabrication for perovskite solar cells. <i>Journal of Energy Chemistry</i> , 2021, 57, 567-586.	7.1	17
4248	Environmental impacts of solar energy systems: A review. <i>Science of the Total Environment</i> , 2021, 754, 141989.	3.9	373

#	ARTICLE	IF	CITATIONS
4249	Hybrid organolead halide perovskite microwire arrays/single CdSe nanobelt for a high-performance photodetector. <i>Chemical Engineering Journal</i> , 2021, 406, 126779.	6.6	18
4250	Composition optimization of lead-free double perovskite Cs <sub>2</sub> AgIn <sub>1-x</sub> Bi <sub>x</sub> Cl <sub>6</sub> for efficient and stable photoluminescence. <i>Journal of Alloys and Compounds</i> , 2021, 854, 156930.	2.8	15
4251	P-type doping in internally photoemitted hot carrier solar cells. <i>Journal of Cleaner Production</i> , 2021, 278, 124168.	4.6	2
4252	Recent advances in semitransparent perovskite solar cells. <i>Informa-Ån-Å-Materi-Åly</i> , 2021, 3, 101-124.	8.5	55
4253	All-inorganic perovskite CsPbX <sub>3</sub> electrospun nanofibers with color-tunable photoluminescence and high performance optoelectronic applications. <i>Journal of Alloys and Compounds</i> , 2021, 856, 157426.	2.8	22
4254	Surface structures and equilibrium shapes of layered 2D Ruddlesden-Popper perovskite crystals from density functional theory calculations. <i>Materials Today Communications</i> , 2021, 26, 101745.	0.9	5
4255	Efficient and Stable Perovskite Solar Cells by Fluorinated Ionic Liquid-Induced Component Interaction. <i>Solar Rrl</i> , 2021, 5, .	3.1	24
4256	Emerging perovskite quantum dot solar cells: feasible approaches to boost performance. <i>Energy and Environmental Science</i> , 2021, 14, 224-261.	15.6	94
4257	Donor-Acceptor Type Porphyrin Derivatives Assisted Defect Passivation for Efficient Hybrid Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2021, 31, 2007762.	7.8	106
4258	Progress in Materials Development for Flexible Perovskite Solar Cells and Future Prospects. <i>ChemSusChem</i> , 2021, 14, 512-538.	3.6	38
4259	Environmental risks and strategies for the long-term stability of carbon-based perovskite solar cells. <i>Materials Today Energy</i> , 2021, 19, 100590.	2.5	14
4260	Toward Efficient and Stable Perovskite Solar Cells by 2D Interface Energy Band Alignment. <i>Advanced Materials Interfaces</i> , 2021, 8, .	1.9	19
4261	Mixed Group 14-15 Metalates as Model Compounds for Doped Lead Halide Perovskites. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 3906-3911.	7.2	11
4262	Two-dimensional halide perovskite-based solar cells: Strategies for performance and stability enhancement. <i>FlatChem</i> , 2021, 25, 100213.	2.8	4
4263	Distinctive Bulk- and Surface-Specific Photoluminescence and Photocarrier Dynamics in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite. <i>Crystal Growth and Design</i> , 2021, 21, 45-51.	1.4	9
4264	Emerging Perovskite Materials with Different Nanostructures for Photodetectors. <i>Advanced Optical Materials</i> , 2021, 9, 2001637.	3.6	40
4265	Light Stability Enhancement of Perovskite Solar Cells Using $\text{C}_{18}\text{F}_{17}\text{Si}$ -Perfluorooctyltriethoxysilane Passivation. <i>Solar Rrl</i> , 2021, 5, 2000650.	3.1	7
4266	Compositionally Designed 2D Ruddlesden-Popper Perovskites for Efficient and Stable Solar Cells. <i>Solar Rrl</i> , 2021, 5, 2000661.	3.1	8

#	ARTICLE	IF	CITATIONS
4267	A spiro-OMeTAD based semiconductor composite with over 100°C glass transition temperature for durable perovskite solar cells. <i>Nano Energy</i> , 2021, 81, 105655.	8.2	41
4268	In CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Film, the Surface Termination Layer Dominates the Moisture Degradation Pathway. <i>Chemistry - A European Journal</i> , 2021, 27, 3729-3736.	1.7	10
4269	2D Hybrid Halide Perovskites: Synthesis, Properties, and Applications. <i>Solar Rrl</i> , 2021, 5, .	3.1	20
4270	Investigation of bulk carrier diffusion dynamics using $\text{I}^{2-}\text{Mn}2\text{V}2\hat{x}\text{MoxO}7$ photoanodes in solar water splitting. <i>Applied Surface Science</i> , 2021, 540, 148376.	3.1	6
4271	Fluorene-based enamines as low-cost and dopant-free hole transporting materials for high performance and stable perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2021, 9, 301-309.	5.2	25
4272	Broadband and sensitive two-dimensional halide perovskite photodetector for full-spectrum underwater optical communication. <i>Nano Research</i> , 2021, 14, 1210-1217.	5.8	58
4273	High Efficiency Tin Halide Perovskite Solar Cells: The Chemistry of Tin (II) Compounds and Their Interaction with Lewis Base Additives during Perovskite Film Formation. <i>Solar Rrl</i> , 2021, 5, .	3.1	50
4274	Ti4-doping induced bulk defects passivation in halide perovskites for high efficient photovoltaic devices. <i>Organic Electronics</i> , 2021, 88, 105973.	1.4	1
4275	Morphology control of perovskite film for efficient CsPbI <sub>2</sub> Br <sub>2</sub> based inorganic perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2021, 221, 110878.	3.0	24
4276	One-step method for the fabrication of high-quality perovskite thin-films under ambient conditions: Stability, morphological, optical, and electrical evaluation. <i>Thin Solid Films</i> , 2021, 717, 138438.	0.8	2
4277	Numerical simulation of highly efficient lead-free perovskite layers for the application of all-perovskite multi-junction solar cell. <i>Superlattices and Microstructures</i> , 2021, 149, 106750.	1.4	43
4278	Enhancing efficiency and decreasing photocatalytic degradation of perovskite solar cells using a hydrophobic copper-modified titania electron transport layer. <i>Applied Catalysis B: Environmental</i> , 2021, 284, 119714.	10.8	42
4279	Development of structure and tuning ability of the luminescence of lead-free halide perovskite nanocrystals (NCs). <i>Chemical Engineering Journal</i> , 2021, 420, 127603.	6.6	18
4280	Low-temperature processed bipolar metal oxide charge transporting layers for highly efficient perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2021, 221, 110870.	3.0	12
4281	Direct Observation on p- to n-Type Transformation of Perovskite Surface Region during Defect Passivation Driving High Photovoltaic Efficiency. <i>Joule</i> , 2021, 5, 467-480.	11.7	245
4282	Anti-solvent mixture-mediated reduction of photocurrent hysteresis in high-impurity perovskite precursor based MAPbI <sub>3</sub> solar cells. <i>Solar Energy</i> , 2021, 214, 86-92.	2.9	19
4283	CsPbBr <sub>3</sub> perovskite detectors with 1.4% energy resolution for high-energy $\hat{\gamma}$ -rays. <i>Nature Photonics</i> , 2021, 15, 36-42.	15.6	210
4284	Synergistically Enhanced Amplified Spontaneous Emission by Cd Doping and Cl-Assisted Crystallization. <i>Advanced Optical Materials</i> , 2021, 9, 2001825.	3.6	2

#	ARTICLE	IF	CITATIONS
4285	Gemischte Gruppe $\text{A}_{1-x}\text{B}_x\text{C}_2\text{D}_3$ Metallate als Modellverbindungen für dotierte Bleihalogenidperowskite. <i>Angewandte Chemie</i> , 2021, 133, 3952-3956.	1.6	0
4286	Deep surface passivation for efficient and hydrophobic perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2021, 9, 2919-2927.	5.2	74
4287	Carrier diffusion coefficient is independent of defects in $\text{CH}_3\text{NH}_3\text{PbBr}_3$ single crystals: Direct evidence. <i>Journal of Energy Chemistry</i> , 2021, 58, 441-445.	7.1	2
4288	Understanding the Synergistic Effect of Device Architecture Design toward Efficient Perovskite Light-Emitting Diodes Using Interfacial Layer Engineering. <i>Advanced Materials Interfaces</i> , 2021, 8, 2001712.	1.9	29
4289	Large-area perovskite films for PV applications: A perspective from nucleation and crystallization. <i>Journal of Energy Chemistry</i> , 2021, 59, 626-641.	7.1	11
4290	Ampholytic interface induced <i>in situ</i> growth of $\text{CsPbBr}_3$ for highly efficient perovskite light-emitting diodes. <i>Journal of Materials Chemistry C</i> , 2021, 9, 1025-1033.	2.7	10
4291	Band gaps of the solar perovskites photovoltaic $\text{CsXCl}_3$ (X=Sn, Pb or Ge). <i>Materials Science in Semiconductor Processing</i> , 2021, 122, 105484.	1.9	67
4292	Progress in efficiency and stability of hybrid perovskite photovoltaic devices in high reactive environments. , 2021, , 239-257.		3
4293	Layer Edge States Stabilized by Internal Electric Fields in Two-Dimensional Hybrid Perovskites. <i>Nano Letters</i> , 2021, 21, 182-188.	4.5	14
4294	Spacer Cation Tuning Enables Vertically Oriented and Graded Quasi-2D Perovskites for Efficient Solar Cells. <i>Advanced Functional Materials</i> , 2021, 31, 2008404.	7.8	94
4295	Urea-complexed tin oxide as an electron transporting layer for stable and efficient planar perovskite solar cells. <i>Materials Science in Semiconductor Processing</i> , 2021, 123, 105511.	1.9	3
4296	Study of antimony selenide hole-transport material for Mo/Sb <sub>2</sub> Se <sub>3</sub> /MAPbI <sub>3</sub> /C60/GZO/Ag heterojunction planar solar cells. <i>Surface and Coatings Technology</i> , 2021, 405, 126550.	2.2	5
4297	Recent Advances in Carbon Nanotube Utilizations in Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2021, 31, 2004765.	7.8	37
4298	Synthesis of Spiro[fluorene-9,9'-xanthene] Derivatives. <i>Chinese Journal of Chemistry</i> , 2021, 39, 701-709.	2.6	6
4299	High-throughput computational design of halide perovskites and beyond for optoelectronics. <i>Wiley Interdisciplinary Reviews: Computational Molecular Science</i> , 2021, 11, e1500.	6.2	16
4300	Ambient Fabrication of Organic-Inorganic Hybrid Perovskite Solar Cells. <i>Small Methods</i> , 2021, 5, e2000744.	4.6	63
4301	Low-temperature processed, stable n-i-p perovskite solar cells with indene-C60-bisadduct as electron transport material. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 12872-12880.	1.1	1
4302	Numerical Modeling and Analysis of HTM-Free Heterojunction Solar Cell Using SCAPS-1D. <i>East European Journal of Physics</i> , 2021, , .	0.1	2

#	ARTICLE	IF	CITATIONS
4303	Elucidation of Quantum-Well-Specific Carrier Mobilities in Layered Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 1116-1123.	2.1	9
4304	SMART Perovskite Growth: Enabling a Larger Range of Process Conditions. <i>ACS Energy Letters</i> , 2021, 6, 650-658.	8.8	14
4305	Studies on Dye-Sensitized Solar Cells Incorporated with Perovskite as Sensitizer Dye. , 2021, , 45-81.		0
4306	The effect of bromide precursor on the properties of organolead halide perovskite for solar cell fabricated under ambient condition. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 3797-3808.	1.1	0
4307	Structural Phase Transitions of Hybrid Perovskites CH <sub>3</sub> NH <sub>3</sub> PbX <sub>3</sub> (X=Br, Cl) from Synchrotron and Neutron Diffraction Data. , 0, , .		1
4308	A feasible process for lead-free Cs <sub>2</sub> Sn <sub>6</sub> films using vapor-assisted deposition method with Sn and I <sub>2</sub> powders as reactants. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 145101.	1.3	5
4309	The solution-processed fabrication of perovskite light-emitting diodes for low-cost and commercial applications. <i>Journal of Materials Chemistry C</i> , 2021, 9, 12037-12045.	2.7	7
4310	A rational design of an efficient counter electrode with the Co/Co <sub>1</sub> P <sub>1</sub> N <sub>3</sub> atomic interface for promoting catalytic performance. <i>Materials Chemistry Frontiers</i> , 2021, 5, 3085-3092.	3.2	8
4311	Toward highly efficient and stable Sn <sup>2+</sup> and mixed Pb <sup>2+</sup> /Sn <sup>2+</sup> based halide perovskite solar cells through device engineering. <i>Energy and Environmental Science</i> , 2021, 14, 3256-3300.	15.6	49
4312	Mechanical ductile detwinning in CH <sub>3</sub> NH <sub>3</sub> Pb <sub>3</sub> perovskite. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 21863-21873.	1.3	0
4313	Solution-processed two-dimensional materials for next-generation photovoltaics. <i>Chemical Society Reviews</i> , 2021, 50, 11870-11965.	18.7	96
4314	Carbon-based electrodes for perovskite solar cells. <i>Materials Advances</i> , 2021, 2, 5560-5579.	2.6	49
4315	Ammonium sulfate treatment at TiO <sub>2</sub> /perovskite interface boosts operational stability of perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 0, , .	2.7	0
4316	Perovskite solar cells: A review of architecture, processing methods, and future prospects. , 2021, , 375-412.		6
4317	Dynamic structural property of organic-inorganic metal halide perovskite. <i>IScience</i> , 2021, 24, 101959.	1.9	29
4318	Carrier dynamic process in all-inorganic halide perovskites explored by photoluminescence spectra. <i>Photonics Research</i> , 2021, 9, 151.	3.4	52
4319	Formamidine disulfide oxidant as a localised electron scavenger for >20% perovskite solar cell modules. <i>Energy and Environmental Science</i> , 2021, 14, 4903-4914.	15.6	63
4320	Temporal-spatial-energy resolved advance multidimensional techniques to probe photovoltaic materials from atomistic viewpoint for next-generation energy solutions. <i>Energy and Environmental Science</i> , 2021, 14, 4760-4802.	15.6	12

#	ARTICLE	IF	CITATIONS
4321	The 2D Halide Perovskite Rulebook: How the Spacer Influences Everything from the Structure to Optoelectronic Device Efficiency. <i>Chemical Reviews</i> , 2021, 121, 2230-2291.	23.0	506
4322	All-round performance improvement of semitransparent perovskite solar cells by a pressure-assisted method. <i>Journal of Materials Chemistry C</i> , 2021, 9, 15056-15064.	2.7	13
4323	<i>Ab initio</i> nonadiabatic molecular dynamics of charge carriers in metal halide perovskites. <i>Nanoscale</i> , 2021, 13, 10239-10265.	2.8	70
4324	Advent of alkali metal doping: a roadmap for the evolution of perovskite solar cells. <i>Chemical Society Reviews</i> , 2021, 50, 2696-2736.	18.7	90
4325	Balancing crystallization rate in a mixed Sn <sup>2+</sup> /Pb perovskite film for efficient and stable perovskite solar cells of more than 20% efficiency. <i>Journal of Materials Chemistry A</i> , 2021, 9, 17830-17840.	5.2	51
4326	Polycrystalline silicon solar cells. , 2021, , 271-285.		0
4327	Efficient and Stable Perovskite-Based Photocathode for Photoelectrochemical Hydrogen Production. <i>Advanced Functional Materials</i> , 2021, 31, 2008277.	7.8	36
4328	Lessons learned from spiro-OMeTAD and PTAA in perovskite solar cells. <i>Energy and Environmental Science</i> , 2021, 14, 5161-5190.	15.6	255
4329	Semiconductor to metallic transition under induced pressure in Cs <sub>2</sub> AgBiBr <sub>6</sub> double halide perovskite: a theoretical DFT study for photovoltaic and optoelectronic applications. <i>RSC Advances</i> , 2021, 11, 24001-24012.	1.7	26
4330	Orientation-Dependent Conversion of VLS-Grown Lead Iodide Nanowires into Organic-Inorganic Hybrid Perovskites. <i>Nanomaterials</i> , 2021, 11, 223.	1.9	1
4331	Rapid growth of the CH <sub>3</sub> NH <sub>3</sub> PbCl <sub>3</sub> single crystal by microwave irradiation. <i>RSC Advances</i> , 2021, 11, 1360-1366.	1.7	4
4332	Block copolymer micelles enable facile synthesis of organic-inorganic perovskite nanostructures with tailored architecture. <i>Chemical Communications</i> , 2021, 57, 1879-1882.	2.2	4
4333	Swelling-processed high luminescent organic perovskite with superior stability. <i>Journal of Materials Chemistry C</i> , 2021, 9, 10222-10225.	2.7	3
4334	Sustainable fabrication of ultralong Pb(OH)Br nanowires and their conversion to luminescent CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> nanowires. <i>Green Chemistry</i> , 2021, 23, 7956-7962.	4.6	3
4335	Organic-inorganic hybrid and inorganic halide perovskites: structural and chemical engineering, interfaces and optoelectronic properties. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 133002.	1.3	27
4336	Ambient processed (110) preferred MAPb <sub>3</sub> thin films for highly efficient perovskite solar cells. <i>Nanoscale Advances</i> , 2021, 3, 2056-2064.	2.2	15
4337	The regulatory effect of triphenylphosphine oxide on perovskites for morphological and radiative improvement. <i>Journal of Materials Chemistry C</i> , 2021, 9, 6399-6403.	2.7	2
4338	Dye-Sensitized and Perovskite Solar Cells: Theory and Applications. , 2021, , 558-594.		0



#	ARTICLE	IF	CITATIONS
4339	The dual effect of inorganic fullerene $\{Mo_{132}\}$ doped with $SnO_2$ for efficient perovskite-based photodetectors. <i>Materials Chemistry Frontiers</i> , 2021, 5, 6931-6940.	3.2	5
4340	Halide perovskite composites for photocatalysis: A mini review. <i>EcoMat</i> , 2021, 3, e12079.	6.8	60
4341	Lead-free $Mn^{II}$ -based red-emitting hybrid halide $(CH_6N_3)_2MnCl_4$ toward high performance warm WLEDs. <i>Journal of Materials Chemistry C</i> , 2021, 9, 4895-4902.	2.7	63
4342	Hot carrier photovoltaics in van der Waals heterostructures. <i>Nature Reviews Physics</i> , 2021, 3, 178-192.	11.9	77
4343	$NiCo_2O_4$ arrays with a tailored morphology as hole transport layers of perovskite solar cells. <i>Dalton Transactions</i> , 2021, 50, 5845-5852.	1.6	9
4344	A Perspective on Perovskite Solar Cells. <i>Energy, Environment, and Sustainability</i> , 2021, , 55-151.	0.6	1
4345	A bromide-induced highly oriented low-dimensional Ruddlesden-Popper phase for efficient and stable perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2021, 9, 15068-15075.	5.2	5
4346	Halide perovskites for light emission and artificial photosynthesis: Opportunities, challenges, and perspectives. <i>EcoMat</i> , 2021, 3, e12074.	6.8	29
4347	Realization and Characterization of $CH_3NH_3Pb_3/c-Si$ Heterojunction. <i>Defect and Diffusion Forum</i> , 0, 406, 364-374.	0.4	0
4348	Effect of Plasmonic Nanostructures on the Optical Properties of $CH_3NH_3PbI$ Perovskite Films. <i>Frontiers in Materials</i> , 2021, 7, .	1.2	2
4349	Novel (110) Double-Layered Guanidinium-Lead Iodide Perovskite Material: Crystal Structure, Electronic Structure, and Broad Luminescence. <i>Journal of Physical Chemistry C</i> , 2021, 125, 964-972.	1.5	4
4350	Morphology and surface analyses for $CH_3NH_3Pb_3$ perovskite thin films treated with versatile solvent-antisolvent vapors. <i>RSC Advances</i> , 2021, 11, 17789-17799.	1.7	10
4351	Enhancing the photocatalytic activity of $TiO_2$ and $TiO_2/SiO_2$ by coupling with graphene-gold nanocomposites. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 5082-5093.	1.1	13
4352	Quasi-2D lead-free halide perovskite using superalkali cations for red-light-emitting diodes. <i>Nanoscale</i> , 2021, 13, 13152-13157.	2.8	4
4353	Tetra-indole core as a dual agent: a hole selective layer that passivates defects in perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2021, 9, 7074-7082.	2.7	8
4354	Investigating the iodide and bromide ion exchange in metal halide perovskite single crystals and thin films. <i>Chemical Communications</i> , 2021, 57, 6125-6128.	2.2	7
4355	Perovskite solar cells as modern nano tools and devices in solar power energy. , 2021, , 377-427.		5
4356	Enhanced photocurrent of perovskite solar cells by dual-sensitized $\hat{I}^2-NaYF_4:Nd^{3+}/Yb^{3+}/Er^{3+}$ up-conversion nanoparticles. <i>Chemical Physics Letters</i> , 2021, 763, 138253.	1.2	23

#	ARTICLE	IF	CITATIONS
4357	The effects of the chemical composition on the structural, thermodynamic, and mechanical properties of all-inorganic halide perovskites. <i>Inorganic Chemistry Frontiers</i> , 2021, 8, 3803-3814.	3.0	7
4358	Interference effects in high-order harmonics from colloidal perovskite nanocrystals excited by an elliptically polarized laser. <i>Physical Review Materials</i> , 2021, 5, .	0.9	11
4359	Influence of Deposition and Annealing Parameters on the Degradation of Spray-Deposited Perovskite Films. <i>Materials Research</i> , 2021, 24, .	0.6	1
4360	Nanoscale properties of lead halide perovskites by scanning tunneling microscopy. <i>EcoMat</i> , 2021, 3, e12081.	6.8	6
4361	Colloidal synthesis of lead-free Cs <sub>2</sub> TiBr <sub>6</sub> perovskite nanocrystals. <i>Journal of Materials Chemistry C</i> , 2021, 9, 11098-11103.	2.7	16
4362	Inorganic hole transport layers in inverted perovskite solar cells: A review. <i>Nano Select</i> , 2021, 2, 1081-1116.	1.9	65
4363	High-Performance Perovskite Solar Cells Based on NaCsWO <sub>3</sub> @NaYF <sub>4</sub> @NaYF <sub>4</sub> :Yb,Er Upconversion Nanoparticles. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 2674-2684.	4.0	60
4364	Pushing commercialization of perovskite solar cells by improving their intrinsic stability. <i>Energy and Environmental Science</i> , 2021, 14, 3233-3255.	15.6	166
4365	A lead-free I-based hybrid double perovskite (I-C <sub>4</sub> H <sub>8</sub> NH <sub>3</sub> ) <sub>4</sub> AgBi <sub>8</sub> for X-ray detection. <i>Journal of Materials Chemistry C</i> , 2021, 9, 13157-13161.	2.7	25
4366	Calculation of electronic and optical properties of methylammonium lead iodide perovskite for application in solar cell. <i>Environmental Science and Pollution Research</i> , 2021, 28, 25382-25389.	2.7	2
4367	Frenkel defects promote polaronic exciton dissociation in methylammonium lead iodide perovskites. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 6583-6590.	1.3	2
4368	MAPbI <sub>3</sub> -based efficient, transparent and air-stable broadband photodetectors. <i>Indian Journal of Physics</i> , 2022, 96, 903-908.	0.9	3
4369	Low photoactive phase temperature all-inorganic, tin-free lead mixed perovskite solar cell. <i>RSC Advances</i> , 2021, 11, 3264-3271.	1.7	6
4370	Effect of SnO <sub>2</sub> Annealing Temperature on the Performance of Perovskite Solar Cells. <i>Wuji Cailiao Xuebao/Journal of Inorganic Materials</i> , 2021, 36, 168.	0.6	4
4371	Mechanochemical synthesis of pure phase mixed-cation/anion (FAPb <sub>3</sub> ) <sub>x</sub> (MAPbBr <sub>3</sub> ) <sub>1-x</sub> hybrid perovskite materials: compositional engineering and photovoltaic performance. <i>RSC Advances</i> , 2021, 11, 5874-5884.	1.7	8
4372	Enhancement of charge transfer efficiency from CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite film in layer of titanium dioxide in the presence of Ag/SiO <sub>2</sub> nanostructures. <i>Materials Today: Proceedings</i> , 2021, 49, 2506-2506.	0.9	0
4373	Highly stable and efficient cathode-buffer-layer-free inverted perovskite solar cells. <i>Nanoscale</i> , 2021, 13, 5652-5659.	2.8	7
4375	Understanding the origin of broad-band emission in CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> . <i>Journal of Materials Chemistry C</i> , 2021, 9, 2793-2800.	2.7	14

#	ARTICLE	IF	CITATIONS
4376	Red/green-light emission in continuous dielectric phase transition materials: [Me <sub>3</sub> NVinyl] <sub>2</sub> [MnX <sub>4</sub> ] (X = Cl, Br). RSC Advances, 2021, 11, 2329-2336.	1.7	5
4377	Dielectric polarization effect and transient relaxation in FAPbBr <sub>3</sub> films before and after PMMA passivation. Physical Chemistry Chemical Physics, 2021, 23, 10153-10163.	1.3	14
4378	Lead-free halide double perovskites: Toward stable and sustainable optoelectronic devices. Materials Today, 2021, 49, 123-144.	8.3	57
4379	Fused Dithienopicenocarbazole Enabling High Mobility Dopant-Free Hole-Transporting Polymers for Efficient and Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 6688-6698.	4.0	26
4380	Using steric hindrance to manipulate and stabilize metal halide perovskites for optoelectronics. Chemical Science, 2021, 12, 7231-7247.	3.7	31
4381	Origins of the long-range exciton diffusion in perovskite nanocrystal films: photon recycling vs exciton hopping. Light: Science and Applications, 2021, 10, 2.	7.7	66
4382	Manipulating the Crystallization Kinetics by Additive Engineering toward High-Efficient Photovoltaic Performance. Advanced Functional Materials, 2021, 31, 2009103.	7.8	20
4383	Facile Fabrication of Self-Assembly Functionalized Polythiophene Hole Transporting Layer for High Performance Perovskite Solar Cells. Advanced Science, 2021, 8, 2002718.	5.6	46
4384	Efficient defect passivation with niacin for high-performance and stable perovskite solar cells. Journal of Materials Chemistry C, 0, , .	2.7	10
4385	Influence of the stoichiometry of tin-based 2D/3D perovskite active layers on solar cell performance. Journal of Materials Chemistry A, 2021, 9, 10095-10103.	5.2	13
4386	Uncovering the Electron-Phonon Interplay and Dynamical Energy Dissipation Mechanisms of Hot Carriers in Hybrid Lead Halide Perovskites. Advanced Energy Materials, 2021, 11, 2003071.	10.2	28
4387	Large-Scale and Low-Cost Preparation of Ordered Honeycomb-Patterned Film by Solvent Evaporation-Induced Phase Separation Method. Industrial & Engineering Chemistry Research, 2021, 60, 898-907.	1.8	6
4388	Investigation of Hot Carrier Cooling Dynamics in Monolayer MoS <sub>2</sub> . Journal of Physical Chemistry Letters, 2021, 12, 861-868.	2.1	20
4389	Perovskite/Silicon Nanowire-Based Hybrid Heterojunctions for Fast and Broadband Photodetectors. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2000537.	1.2	9
4390	Efficient Two-Dimensional Perovskite Solar Cells Realized by Incorporation of Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene as Nano-Dopants. Nano-Micro Letters, 2021, 13, 68.	14.4	44
4391	Modifying Surface Termination of CsPbI <sub>3</sub> Grain Boundaries by 2D Perovskite Layer for Efficient and Stable Photovoltaics. Advanced Functional Materials, 2021, 31, 2009515.	7.8	62
4392	Improving the stability of perovskite by covering graphene on FAPbI <sub>3</sub> surface. International Journal of Energy Research, 2021, 45, 10808-10820.	2.2	7
4393	Perovskite materials as superior and powerful platforms for energy conversion and storage applications. Nano Energy, 2021, 80, 105552.	8.2	91

#	ARTICLE	IF	CITATIONS
4394	Strong Excitonic Magneto-Optic Effects in Two-Dimensional Organic-Inorganic Hybrid Perovskites. ACS Applied Materials & Interfaces, 2021, 13, 10279-10286.	4.0	11
4395	Photonic Structuration of Hybrid Inverse-Opal TiO <sub>2</sub> Perovskite Layers for Enhanced Light Absorption in Solar Cells. ACS Applied Energy Materials, 2021, 4, 1108-1119.	2.5	17
4396	Phosphine Oxide Derivative as a Passivating Agent to Enhance the Performance of Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 1259-1268.	2.5	11
4397	Electronic, structural and optical properties of cerium and zinc co-doped organic-inorganic halide perovskites for photovoltaic application. Physica B: Condensed Matter, 2021, 603, 412703.	1.3	4
4398	Effect of film structure on CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite thin films degradation. AIP Advances, 2021, 11, .	0.6	4
4399	An investigation of physical properties and photovoltaic performance of methylammonium lead-tin iodide (CH <sub>3</sub> NH <sub>3</sub> Sn <sub>1-x</sub> Pb <sub>x</sub> ) solar cells. Microelectronics International, 2021, 38, 23-32.	0.4	0
4400	Polarization-Sensitive Halide Perovskites for Polarized Luminescence and Detection: Recent Advances and Perspectives. Advanced Materials, 2021, 33, e2003615.	11.1	89
4401	Influence of Fluorinated Components on Perovskite Solar Cells Performance and Stability. Small, 2021, 17, e2004081.	5.2	29
4402	Inch-sized high-quality perovskite single crystals by suppressing phase segregation for light-powered integrated circuits. Science Advances, 2021, 7, .	4.7	81
4403	Spectral characterization of the Rashba spin-split band in a lead halide perovskite single crystal by photocurrent heterodyne interference spectroscopy. Physical Review B, 2021, 103, .	1.1	8
4404	The Opto-Electronic Functional Devices Based on Three-Dimensional Lead Halide Perovskites. Applied Sciences (Switzerland), 2021, 11, 1453.	1.3	11
4405	Nonlinear Photonics Using Low-Dimensional Metal-Halide Perovskites: Recent Advances and Future Challenges. Advanced Materials, 2021, 33, e2004446.	11.1	58
4406	Fluorinating Dopant-Free Small-Molecule Hole-Transport Material to Enhance the Photovoltaic Property. ACS Applied Materials & Interfaces, 2021, 13, 7705-7713.	4.0	25
4407	A Triple Axial Chirality, Racemic Molecular Semiconductor Based on Thiahelicene and Ethylenedioxythiophene for Perovskite Solar Cells: Microscopic Insights on Performance Enhancement. Advanced Functional Materials, 2021, 31, 2009854.	7.8	23
4408	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
4409	Crystallization Features of MAPbI <sub>3</sub> Hybrid Perovskite during the Reaction of PbI <sub>2</sub> with Reactive Polyiodide Melts. Russian Journal of Inorganic Chemistry, 2021, 66, 153-162.	0.3	8
4410	Achieving Optical Gain of the CsPbBr <sub>3</sub> Perovskite Quantum Dots and Influence of the Variable Stripe Length Method. ACS Omega, 2021, 6, 5297-5309.	1.6	21
4411	CdS Induced Passivation toward High Efficiency and Stable Planar Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 9771-9780.	4.0	17

#	ARTICLE	IF	CITATIONS
4412	1D Perovskitoid as Absorbing Material for Stable Solar Cells. <i>Crystals</i> , 2021, 11, 241.	1.0	16
4413	Enhanced Efficiency and Mechanical Robustness of Flexible Perovskite Solar Cells by Using HPbI <sub>3</sub> Additive. <i>Solar Rrl</i> , 2021, 5, 2000821.	3.1	29
4414	Improved efficiency and stability of perovskite solar cells with molecular ameliorating of ZnO nanorod/perovskite interface and Mg-doping ZnO*. <i>Chinese Physics B</i> , 2021, 30, 038801.	0.7	6
4415	Photostable and Uniform CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Film Prepared via Stoichiometric Modification and Solvent Engineering. <i>Nanomaterials</i> , 2021, 11, 405.	1.9	5
4416	Recent Progress in Perovskite Solar Cells Modified by Sulfur Compounds. <i>Solar Rrl</i> , 2021, 5, 2000713.	3.1	17
4417	Ultralow-Threshold Continuous-Wave Room-Temperature Crystal-Fiber/Nanoperovskite Hybrid Lasers for All-Optical Photonic Integration. <i>Advanced Materials</i> , 2021, 33, e2006819.	11.1	14
4418	Broadband optical absorption enhancement in hybrid organic-inorganic perovskite metasurfaces. <i>AIP Advances</i> , 2021, 11, .	0.6	9
4419	Relationship between perovskite solar cell efficiency and lattice disordering. <i>Japanese Journal of Applied Physics</i> , 2021, 60, 035001.	0.8	0
4420	Atomic and electronic structure of cesium lead triiodide surfaces. <i>Journal of Chemical Physics</i> , 2021, 154, 074712.	1.2	2
4421	p-n heterojunction perovskite solar cell with bilateral Ohmic contacts. <i>Applied Physics Letters</i> , 2021, 118, .	1.5	17
4422	Metal Halide Perovskites for Laser Applications. <i>Advanced Functional Materials</i> , 2021, 31, 2010144.	7.8	180
4423	Illumination Durability and High-Efficiency Sn-Based Perovskite Solar Cell under Coordinated Control of Phenylhydrazine and Halogen Ions. <i>Matter</i> , 2021, 4, 709-721.	5.0	159
4424	Accelerating the development of new solar absorbers by photoemission characterization coupled with density functional theory. <i>JPhys Energy</i> , 2021, 3, 032001.	2.3	2
4425	High-Performance Rb <sub>0.14</sub> FA <sub>0.86</sub> Pb(Br <sub>x</sub> I <sub>1-x</sub> ) <sub>3</sub> Perovskite Solar Cells Achieved by Regulating the Halogen Exchange in Vapor-Solid Reaction Process. <i>Solar Rrl</i> , 2021, 5, 2100102.	3.1	13
4426	Influence of donor units on spiro[fluorene-9,9'-xanthene]-based dopant-free hole transporting materials for perovskite solar cells. <i>Solar Energy</i> , 2021, 216, 180-187.	2.9	18
4427	Complementary interface formation toward high-efficiency all-back-contact perovskite solar cells. <i>Cell Reports Physical Science</i> , 2021, 2, 100363.	2.8	17
4428	Efficient and Stable Carbon-Based Perovskite Solar Cells via Passivation by a Multifunctional Hydrophobic Molecule with Bidentate Anchors. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 16485-16497.	4.0	30
4429	2D materials for conducting holes from grain boundaries in perovskite solar cells. <i>Light: Science and Applications</i> , 2021, 10, 68.	7.7	59

#	ARTICLE	IF	CITATIONS
4430	Simultaneous Transport Promotion and Recombination Suppression in Perovskite Solar Cells by Defect Passivation with Li-Doped Graphitic Carbon Nitride. <i>Journal of Physical Chemistry C</i> , 2021, 125, 5525-5533.	1.5	7
4431	Lead-Free Cs <sub>2</sub> SnI <sub>6</sub> Perovskites for Optoelectronic Applications: Recent Developments and Perspectives. <i>Solar Rrl</i> , 2021, 5, 2000830.	3.1	25
4433	Effects of Fe doping on the visible light absorption and bandgap tuning of lead-free (CsSnCl <sub>3</sub> ) and lead halide (CsPbCl <sub>3</sub> ) perovskites for optoelectronic applications. <i>AIP Advances</i> , 2021, 11, .	0.6	20
4434	A Facile Surface Passivation Enables Thermally Stable and Efficient Planar Perovskite Solar Cells Using a Novel IDTT-Based Small Molecule Additive. <i>Advanced Energy Materials</i> , 2021, 11, 2003829.	10.2	72
4435	Enhanced Selective Charge Collection with Metal-Insulator-Semiconductor Junction in Electron Transport Layer-Free Perovskite Solar Cells. <i>Advanced Electronic Materials</i> , 2021, 7, 2100006.	2.6	5
4436	Perovskite Oxide-Halide Solid Solutions: A Platform for Electrocatalysts. <i>Angewandte Chemie</i> , 2021, 133, 10041-10046.	1.6	3
4437	The effects of pyridine molecules structure on the defects passivation of perovskite solar cells. <i>Journal of Solid State Electrochemistry</i> , 2021, 25, 1531-1540.	1.2	12
4438	The photophysics of Ruddlesden-Popper perovskites: A tale of energy, charges, and spins. <i>Applied Physics Reviews</i> , 2021, 8, .	5.5	34
4439	Unravelling a Zigzag Pathway for Hot Carrier Collection with Graphene Electrode. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 2886-2891.	2.1	2
4440	Core/Shell Metal Halide Perovskite Nanocrystals for Optoelectronic Applications. <i>Advanced Functional Materials</i> , 2021, 31, 2100438.	7.8	67
4441	Solvent Engineering of the Precursor Solution toward Large-Area Production of Perovskite Solar Cells. <i>Advanced Materials</i> , 2021, 33, e2005410.	11.1	182
4442	Two-dimensional overdamped fluctuations of the soft perovskite lattice in CsPbBr <sub>3</sub> . <i>Nature Materials</i> , 2021, 20, 977-983.	13.3	89
4443	In-situ observation of trapped carriers in organic metal halide perovskite films with ultra-fast temporal and ultra-high energetic resolutions. <i>Nature Communications</i> , 2021, 12, 1636.	5.8	11
4444	Long-term stability in $\hat{\Gamma}^3$ -CsPbI <sub>3</sub> perovskite via an ultraviolet-curable polymer network. <i>Communications Materials</i> , 2021, 2, .	2.9	14
4445	Dual Additive for Simultaneous Improvement of Photovoltaic Performance and Stability of Perovskite Solar Cell. <i>Advanced Functional Materials</i> , 2021, 31, 2100396.	7.8	66
4446	Multifunctional potassium hexafluorophosphate passivate interface defects for high efficiency perovskite solar cells. <i>Journal of Power Sources</i> , 2021, 488, 229451.	4.0	39
4447	Suppression of ion migration through cross-linked PDMS doping to enhance the operational stability of perovskite solar cells. <i>Solar Energy</i> , 2021, 217, 105-112.	2.9	10
4448	Intrinsic Semiconducting Behavior in a Large Mixed-Valent Uranium(V/VI) Cluster. <i>Angewandte Chemie</i> , 2021, 133, 9974-9978.	1.6	4



#	ARTICLE	IF	CITATIONS
4449	2D Phase Purity Determines Charge-Transfer Yield at 3D/2D Lead Halide Perovskite Heterojunctions. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 3312-3320.	2.1	13
4450	Energy Barrier Alignment for Efficient Perovskite Photodetectors Consisting of PEIE Combined With PCBM Electron Transport Layer. <i>IEEE Journal of Photovoltaics</i> , 2021, 11, 362-367.	1.5	2
4451	Highly Efficient Halide Perovskite Light-Emitting Diodes via Molecular Passivation. <i>Angewandte Chemie</i> , 2021, 133, 8418-8424.	1.6	9
4452	Ambient Inkjet-Printed High-Efficiency Perovskite Solar Cells: Manipulating the Spreading and Crystallization Behaviors of Picoliter Perovskite Droplets. <i>Solar Rrl</i> , 2021, 5, 2100106.	3.1	24
4453	Highly Efficient Halide Perovskite Light-Emitting Diodes via Molecular Passivation. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 8337-8343.	7.2	47
4454	Intrinsic Semiconducting Behavior in a Large Mixed-Valent Uranium(V/VI) Cluster. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 9886-9890.	7.2	36
4455	Suppressing the $\gamma$ -Phase and Photoinstability through a Hypophosphorous Acid Additive in Carbon-Based Mixed-Cation Perovskite Solar Cells. <i>Journal of Physical Chemistry C</i> , 2021, 125, 6585-6592.	1.5	9
4456	Engineering the Optical Emission and Robustness of Metal-Halide Layered Perovskites through Ligand Accommodation. <i>Advanced Materials</i> , 2021, 33, e2008004.	11.1	23
4457	Heterovalent Substitution in Mixed Halide Perovskite Quantum Dots for Improved and Stable Photovoltaic Performance. <i>Journal of Physical Chemistry C</i> , 2021, 125, 5485-5493.	1.5	18
4458	Origin of Efficiency and Stability Enhancement in High-Performing Mixed Dimensional 2D-3D Perovskite Solar Cells: A Review. <i>Advanced Functional Materials</i> , 2022, 32, 2009164.	7.8	96
4459	A review of stability and progress in tin halide perovskite solar cell. <i>Solar Energy</i> , 2021, 216, 26-47.	2.9	67
4460	Perovskite Oxide-Halide Solid Solutions: A Platform for Electrocatalysts. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 9953-9958.	7.2	26
4461	Tuning the Interactions of Methylammonium Acetate with Acetonitrile to Create Efficient Perovskite Solar Cells. <i>Journal of Physical Chemistry C</i> , 2021, 125, 6555-6563.	1.5	16
4462	Perspectives of Organic and Perovskite-Based Spintronics. <i>Advanced Optical Materials</i> , 2021, 9, 2100215.	3.6	46
4463	Efficient and bright warm-white electroluminescence from lead-free metal halides. <i>Nature Communications</i> , 2021, 12, 1421.	5.8	99
4464	Lateral Structured Phototransistor Based on Mesoscopic Graphene/Perovskite Heterojunctions. <i>Nanomaterials</i> , 2021, 11, 641.	1.9	3
4465	Enhanced electrical properties of Li-salts doped mesoporous TiO <sub>2</sub> in perovskite solar cells. <i>Joule</i> , 2021, 5, 659-672.	11.7	127
4466	Cooperative Nature of Ferroelectricity in Two-Dimensional Hybrid Organic-Inorganic Perovskites. <i>Nano Letters</i> , 2021, 21, 3170-3176.	4.5	20

#	ARTICLE	IF	CITATIONS
4467	Surface Defect Passivation and Energy Level Alignment Engineering with a Fluorine-Substituted Hole Transport Material for Efficient Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 13470-13477.	4.0	26
4468	Highly Absorbing Lead-Free Semiconductor $\text{Cu}_2\text{AgBi}_6$ for Photovoltaic Applications from the Quaternary $\text{Cu}^{\text{I}}\text{Bi}^{\text{III}}$ Phase Space. Journal of the American Chemical Society, 2021, 143, 3983-3992.	6.6	59
4469	Diluted-CdS Quantum Dot-Assisted $\text{SnO}_2$ 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
4470	Controlling the Microstructure and Porosity of Perovskite Films by Additive Engineering. ACS Applied Energy Materials, 2021, 4, 2990-2998.	2.5	13
4471	Perspective on Predominant Metal Oxide Charge Transporting Materials for High-Performance Perovskite Solar Cells. Frontiers in Materials, 2021, 8, .	1.2	9
4472	The poly(styrene-co-acrylonitrile) polymer assisted preparation of high-performance inverted perovskite solar cells with efficiency exceeding 22%. Nano Energy, 2021, 82, 105731.	8.2	79
4473	Quasi-two-dimensional perovskite light emitting diodes for bright future. Light: Science and Applications, 2021, 10, 86.	7.7	17
4474	Energy vs Charge Transfer in Manganese-Doped Lead Halide Perovskites. ACS Energy Letters, 2021, 6, 1869-1878.	8.8	36
4475	Isomeric Carbazole-Based Hole-Transporting Materials: Role of the Linkage Position on the Photovoltaic Performance of Perovskite Solar Cells. Chemistry of Materials, 2021, 33, 3286-3296.	3.2	25
4476	Molecularly Engineered Cyclopenta[2,1- <i>b</i> ;3,4- <i>b'</i> ]dithiophene-Based Hole-Transporting Materials for High-Performance Perovskite Solar Cells with Efficiency over 19%. ACS Applied Energy Materials, 2021, 4, 4719-4728.	2.5	21
4477	Understanding Transient Photoluminescence in Halide Perovskite Layer Stacks and Solar Cells. Advanced Energy Materials, 2021, 11, 2003489.	10.2	117
4478	Large-Area Blade-Coated Solar Cells: Advances and Perspectives. Advanced Energy Materials, 2021, 11, 2100378.	10.2	77
4479	Simulation of steady-state characteristics of heterojunction perovskite solar cells in wxAMPS. Optik, 2021, 232, 166382.	1.4	2
4480	Mechanically Robust and Flexible Perovskite Solar Cells via a Printable and Gelatinous Interface. ACS Applied Materials & Interfaces, 2021, 13, 19959-19969.	4.0	39
4481	The Electron-Hole Plasma Contributes to Both Plasmonic and Photonic Lasing from $\text{CH}_3\text{NH}_3\text{PbBr}_3$ Nanowires at Room Temperature. Laser and Photonics Reviews, 2021, 15, 2000512.	4.4	14
4482	Operating the stacked photoanode at the thickness of exciton diffusion length enhances the efficiency of photoelectrochemical water splitting. Journal of Chemical Sciences, 2021, 133, 1.	0.7	2
4486	One-pot synthesis of tetraarylpyrrolo[3,2- <i>b</i> ]pyrrole dopant-free hole-transport materials for inverted perovskite solar cells. Chinese Journal of Chemical Physics, 2021, 34, 217-226.	0.6	3
4487	Phase Tailoring of Ruddlesden-Popper Perovskite at Fixed Large Spacer Cation Ratio. Small, 2021, 17, e2100560.	5.2	10

#	ARTICLE	IF	CITATIONS
4488	In-Depth Comparative Study of Cathode Interfacial Layer for Stable Inverted Perovskite Solar Cell. <i>ChemSusChem</i> , 2021, 14, 2393-2400.	3.6	3
4489	Nanocrystalline Polymorphic Energy Funnel for Efficient and Stable Perovskite Light-Emitting Diodes. <i>ACS Energy Letters</i> , 2021, 6, 1821-1830.	8.8	23
4490	Evident Enhancement of Efficiency and Stability in Perovskite Solar Cells with Triphenylamine-Based Macromolecules on the CuSCN Hole-Transporting Layer. <i>Journal of Electronic Materials</i> , 2021, 50, 3962-3971.	1.0	11
4491	Characterization on Highly Efficient Perovskite Solar Cells Made from One-Step and Two-Step Solution Processes. <i>Solar Rrl</i> , 2021, 5, 2100109.	3.1	3
4492	Structural and optoelectronic properties of hybrid halide perovskites for solar cells. <i>Organic Electronics</i> , 2021, 91, 106077.	1.4	27
4493	Polymer strategies for high-efficiency and stable perovskite solar cells. <i>Nano Energy</i> , 2021, 82, 105712.	8.2	64
4494	Chiral Perovskites for Next-Generation Photonics: From Chirality Transfer to Chiroptical Activity. <i>Advanced Materials</i> , 2021, 33, e2005760.	11.1	107
4495	Interface engineering for high-efficiency perovskite solar cells. <i>Journal of Applied Physics</i> , 2021, 129, .	1.1	38
4496	Light-Emitting Diodes with Manganese Halide Tetrahedron Embedded in Anti-Perovskites. <i>ACS Energy Letters</i> , 2021, 6, 1901-1911.	8.8	17
4497	High-Resolution, Flexible, and Full-Color Perovskite Image Photodetector via Electrohydrodynamic Printing of Ionic-Liquid-Based Ink. <i>Advanced Functional Materials</i> , 2021, 31, 2100857.	7.8	61
4498	Probing Carrier Transport in Layered Perovskites with Nonlinear Optical and Photocurrent Spectroscopies. <i>Journal of Physical Chemistry C</i> , 2021, 125, 8021-8030.	1.5	4
4499	Molecular Engineering of Polymeric Hole-Transporting Materials for Efficient and Stable Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2021, 4, 3526-3534.	2.5	5
4500	Efficient Optical Orientation and Slow Spin Relaxation in Lead-Free CsSnBr <sub>3</sub> Perovskite Nanocrystals. <i>ACS Energy Letters</i> , 2021, 6, 1670-1676.	8.8	23
4501	Structural, electronic, and charge transfer features for two kinds of MoS <sub>2</sub> /Cs <sub>2</sub> PbI <sub>4</sub> interfaces with optoelectronic applicability: Insights from first-principles. <i>Applied Physics Letters</i> , 2021, 118, .	1.5	4
4502	Nanochannel-confined growth of crystallographically orientated perovskite nanowire arrays for polarization-sensitive photodetector application. <i>Science China Materials</i> , 2021, 64, 2497-2506.	3.5	21
4503	SnS quantum dots with different sizes in active layer for enhancing the performance of perovskite solar cells. <i>Applied Physics A: Materials Science and Processing</i> , 2021, 127, 1.	1.1	3
4504	Elpasolite structures based on A <sub>2</sub> AgBiX <sub>6</sub> (A: MA, Cs, X: I, Br): Application in double perovskite solar cells. <i>Materials Science in Semiconductor Processing</i> , 2021, 125, 105639.	1.9	22
4505	In situ XPS investigation of the X-ray-triggered decomposition of perovskites in ultrahigh vacuum condition. <i>Npj Materials Degradation</i> , 2021, 5, .	2.6	36

#	ARTICLE	IF	CITATIONS
4506	A Dual-Functional Conjugated Polymer as an Efficient Hole-Transporting Layer for High-Performance Inverted Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 16744-16753.	4.0	34
4507	Polarization-Controlled Surface Defect Formation in a Hybrid Perovskite. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 3898-3906.	2.1	6
4508	Perovskite random lasers: a tunable coherent light source for emerging applications. <i>Nanotechnology</i> , 2021, 32, 282001.	1.3	26
4509	High-Performance Photodetectors Based on Nanostructured Perovskites. <i>Nanomaterials</i> , 2021, 11, 1038.	1.9	27
4510	Suppressing the Trapping Process by Interfacial Charge Extraction in Antimony Selenide Heterojunctions. <i>ACS Energy Letters</i> , 2021, 6, 1740-1748.	8.8	33
4511	[2.2]Paracyclophane-based hole-transporting materials for perovskite solar cells. <i>Journal of Power Sources</i> , 2021, 491, 229543.	4.0	7
4512	Cost-effective liquid-junction solar devices with plasma-implanted Ni/TiN/CNF hierarchically structured nanofibers. <i>Journal of Electroanalytical Chemistry</i> , 2021, 887, 115167.	1.9	10
4513	Materials, photophysics and device engineering of perovskite light-emitting diodes. <i>Reports on Progress in Physics</i> , 2021, 84, 046401.	8.1	52
4514	SnO <sub>2</sub> /2D-Bi <sub>2</sub> O <sub>2</sub> Se new hybrid electron transporting layer for efficient and stable perovskite solar cells. <i>Chemical Engineering Journal</i> , 2021, 410, 128436.	6.6	32
4515	Defect-passivation of organometal trihalide perovskite with functionalized organic small molecule for enhanced device performance and stability. <i>Dyes and Pigments</i> , 2021, 189, 109255.	2.0	10
4516	Enhanced crystallization of solution-processed perovskite using urea as an additive for large-grain MAPbI <sub>3</sub> perovskite solar cells. <i>Nanotechnology</i> , 2021, 32, 30LT02.	1.3	8
4517	Thermal and Humidity Stability of Mixed Spacer Cations 2D Perovskite Solar Cells. <i>Advanced Science</i> , 2021, 8, 2004510.	5.6	40
4518	Ultrafast two-photon optical switch using single crystal hybrid halide perovskites. <i>Optica</i> , 2021, 8, 735.	4.8	10
4519	Single-shot transient absorption spectroscopy techniques and design principles. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2021, 253, 119557.	2.0	4
4520	Manipulation of perovskite film by bias-induced reversible lattice deformation toward tunable photoelectric performances. <i>Nano Select</i> , 0, , .	1.9	0
4521	Durable Defect Passivation of the Grain Surface in Perovskite Solar Cells with $\pi$ -Conjugated Sulfamic Acid Additives. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 26013-26022.	4.0	35
4522	An accurate numerical approach for studying perovskite solar cells. <i>International Journal of Energy Research</i> , 2021, 45, 16456-16477.	2.2	8
4523	Tailoring quasi-2D perovskite thin films via nanocrystals mediation for enhanced electroluminescence. <i>Chemical Engineering Journal</i> , 2021, 411, 128511.	6.6	12

#	ARTICLE	IF	CITATIONS
4524	Impact of precursor concentration on the properties of perovskite solar cells obtained from the dehydrated lead acetate precursors. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021, 39, .	0.9	5
4525	Interfacial Trap-Assisted Triplet Generation in Lead Halide Perovskite Sensitized Solid-State Upconversion. <i>Advanced Materials</i> , 2021, 33, e2100854.	11.1	18
4526	Phonon-Limited Mobility and Electron-Phonon Coupling in Lead-Free Halide Double Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 4474-4482.	2.1	30
4527	Interfacial stabilization for inverted perovskite solar cells with long-term stability. <i>Science Bulletin</i> , 2021, 66, 991-1002.	4.3	45
4528	Enhanced Efficiency of Inorganic CsPbI <sub>3</sub> Br <sub>x</sub> Perovskite Solar Cell via Self-Regulation of Antisite Defects. <i>Advanced Energy Materials</i> , 2021, 11, 2100403.	10.2	45
4529	Effective carrier transport tuning of CuOx quantum dots hole interfacial layer for high-performance inverted perovskite solar cell. <i>Applied Surface Science</i> , 2021, 547, 149117.	3.1	19
4530	Elucidating the Trajectory of the Charge Transfer Mechanism and Recombination Process of Hybrid Perovskite Solar Cells. <i>Materials</i> , 2021, 14, 2698.	1.3	5
4531	Theoretical insights to excitonic effect in lead bromide perovskites. <i>Applied Physics Letters</i> , 2021, 118, .	1.5	12
4532	Exploring inorganic and nontoxic double perovskites Cs <sub>2</sub> AgInBr <sub>6</sub> (1-x)Cl <sub>x</sub> from material selection to device design in material genome approach. <i>Journal of Alloys and Compounds</i> , 2021, 862, 158575.	2.8	7
4533	Stability and optoelectronic property of lead-free halide double perovskite Cs <sub>2</sub> Bil <sub>6</sub> (Bil = Li, Na and K)*. <i>Chinese Physics B</i> , 2021, 30, 108102.	0.7	11
4534	Impact of A-Site Cations on Fluorescence Quenching in Organic-Inorganic Hybrid Perovskite Materials. <i>Journal of Physical Chemistry C</i> , 2021, 125, 11524-11531.	1.5	3
4535	Evaporation Deposition Strategies for All-Inorganic CsPb(I <sub>1-x</sub> Br <sub>x</sub> ) <sub>3</sub> Perovskite Solar Cells: Recent Advances and Perspectives. <i>Solar Rrl</i> , 2021, 5, 2100172.	3.1	24
4536	CoFe <sub>2</sub> O <sub>4</sub> nanocrystals for interface engineering to enhance performance of perovskite solar cells. <i>Solar Energy</i> , 2021, 220, 400-405.	2.9	9
4537	Understanding the Effects of Fluorine Substitution in Lithium Salt on Photovoltaic Properties and Stability of Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2021, 6, 2218-2228.	8.8	51
4538	Photonic crystals for perovskite-based optoelectronic applications. <i>Nano Select</i> , 2022, 3, 39-50.	1.9	4
4539	Exploration of structural, thermal stability and band-gap tunability of organic and inorganic mixed cation (MA) <sub>1-x</sub> Cs <sub>x</sub> PbBr <sub>3</sub> perovskite harvester via ultrasonication synthesis route. <i>Journal of Physics Condensed Matter</i> , 2021, 33, 245705.	0.7	1
4540	Surfactant-Free, One-Step Synthesis of Lead-Free Perovskite Hollow Nanospheres for Trace CO Detection. <i>Advanced Materials</i> , 2021, 33, e2100674.	11.1	18
4541	Improved CsPbBr <sub>3</sub> visible light photodetectors via decoration of sputtered au nanoparticles with synergistic benefits. <i>Nano Select</i> , 0, .	1.9	8

#	ARTICLE	IF	CITATIONS
4542	Improved stability and efficiency of perovskite via a simple solid diffusion method. <i>Materials Today Physics</i> , 2021, 18, 100374.	2.9	19
4543	Mechanism and Timescales of Reversible p-Doping of Methylammonium Lead Triiodide by Oxygen. <i>Advanced Materials</i> , 2021, 33, e2100211.	11.1	17
4544	Dimethylformamide-free synthesis and fabrication of lead halide perovskite solar cells from electrodeposited PbS precursor films. <i>Chemical Engineering Journal</i> , 2021, 411, 128460.	6.6	15
4545	Perovskit GÃ¼neÅŸ Pilleri ve KararsÄ±zlÄ±k Problemleri Ãœzerine Bir AraÅŸtÄ±rma. DÃ¼zce Ãœniversitesi Bilim Ve Teknoloji Dergisi, 0, , 158-171.	0.2	0
4546	Research Progress on Structure and Property of Hybrid Organic-Inorganic Perovskite. <i>IOP Conference Series: Earth and Environmental Science</i> , 2021, 781, 022069.	0.2	2
4547	Scalable Production of Ambient Stable Hybrid Bismuth-Based Materials: AACVD of Phenethylammonium Bismuth Iodide Films**. <i>Chemistry - A European Journal</i> , 2021, 27, 9406-9413.	1.7	4
4548	The Role of Dimensionality on the Optoelectronic Properties of Oxide and Halide Perovskites, and their Halide Derivatives. <i>Advanced Energy Materials</i> , 2022, 12, 2100499.	10.2	66
4549	Solvent Engineering as a Vehicle for High Quality Thin Films of Perovskites and Their Device Fabrication. <i>Small</i> , 2021, 17, e2008145.	5.2	53
4550	Comparative Study on TiO <sub>2</sub> and C <sub>60</sub> Electron Transport Layers for Efficient Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2021, 4, 5543-5553.	2.5	4
4551	Polymeric Dopant-Free Hole Transporting Materials for Perovskite Solar Cells: Structures and Concepts towards Better Performances. <i>Polymers</i> , 2021, 13, 1652.	2.0	24
4552	Effect of crystallization on the photovoltaic parameters and stability of perovskite solar cells. <i>Polyhedron</i> , 2021, 199, 115089.	1.0	4
4553	Enhanced efficiency and stability of perovskite solar cell by adding polymer mixture in perovskite photoactive layer. <i>Journal of Alloys and Compounds</i> , 2021, 864, 158793.	2.8	33
4554	N-doped anatase TiO <sub>2</sub> as an efficient electron-transporting layer for mesoporous perovskite solar cells. <i>Applied Physics Express</i> , 0, , .	1.1	3
4555	Methods of Stability Control of Perovskite Solar Cells for High Efficiency. <i>Energies</i> , 2021, 14, 2918.	1.6	12
4556	Thermal Quenching and Antiquenching of Photoluminescence in Solution-Grown Cs <sub>4</sub> PbBr <sub>6</sub> Perovskite Single Crystals. <i>Journal of Physical Chemistry C</i> , 2021, 125, 11278-11284.	1.5	10
4557	In the Quest of Low-Frequency Impedance Spectra of Efficient Perovskite Solar Cells. <i>Energy Technology</i> , 2021, 9, 2100229.	1.8	16
4558	Degradation mechanism of hybrid tin-based perovskite solar cells and the critical role of tin (IV) iodide. <i>Nature Communications</i> , 2021, 12, 2853.	5.8	236
4559	Plasma Oxidized Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene as Electron Transport Layer for Efficient Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 32495-32502.	4.0	41



#	ARTICLE	IF	CITATIONS
4560	Dimethyl Sulfoxide Vapor-Assisted Cs <sub>2</sub> AgBiBr <sub>6</sub> Homogenous Film Deposition for Solar Cell Application. ACS Applied Energy Materials, 2021, 4, 6797-6805.	2.5	20
4561	Phenyl Ethylammonium Iodide introduction into inverted triple cation perovskite solar cells for improved VOC and stability. Organic Electronics, 2021, 93, 106121.	1.4	3
4562	Multidimensional time-of-flight spectroscopy. Journal of Chemical Physics, 2021, 154, 220901.	1.2	7
4563	3D Heterogeneous Device Arrays for Multiplexed Sensing Platforms Using Transfer of Perovskites. Advanced Materials, 2021, 33, e2101093.	11.1	33
4564	Kalium persulfate as a low-cost and effective dopant for spiro-OMeTAD in high performance and stable planar perovskite solar cells. Electrochimica Acta, 2021, 380, 138233.	2.6	24
4565	Effect of sulfur-doped graphene quantum dots incorporation on morphological, optical and electron transport properties of CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> perovskite thin films. Journal of Materials Science: Materials in Electronics, 2021, 32, 17406-17417.	1.1	17
4566	Additive-Induced Synergies of Defect Passivation and Energetic Modification toward Highly Efficient Perovskite Solar Cells. Advanced Energy Materials, 2021, 11, 2101394.	10.2	36
4567	Variational hysteresis and photoresponse behavior of MAPbX <sub>3</sub> (X = I, Br, Cl) perovskite single crystals. Journal of Physics Condensed Matter, 2021, 33, 285703.	0.7	7
4568	A Thienothiophene-Based Cation Treatment Allows Semitransparent Perovskite Solar Cells with Improved Efficiency and Stability. Advanced Functional Materials, 2021, 31, 2103130.	7.8	15
4569	Carbon-based all-inorganic perovskite solar cells: Progress, challenges and strategies toward 20% efficiency. Materials Today, 2021, 50, 239-258.	8.3	33
4570	Metasurface-assisted broadband optical absorption in ultrathin perovskite films. Optics Express, 2021, 29, 19170.	1.7	5
4571	Preparation and Characterization of Thin-Film Solar Cells with Ag/C60/MAPbI <sub>3</sub> /CZTSe/Mo/FTO Multilayered Structures. Molecules, 2021, 26, 3516.	1.7	2
4572	Advances of Nonlinear Photonics in Low-Dimensional Halide Perovskites. Small, 2021, 17, e2100809.	5.2	39
4573	Effective Piezo-Phototronic Enhancement of Flexible Photodetectors Based on 2D Hybrid Perovskite Ferroelectric Single-Crystalline Thin-Films. Advanced Materials, 2021, 33, e2101263.	11.1	53
4574	Crown ether-induced supramolecular passivation and two-dimensional crystal interlayer formation in perovskite photovoltaics. Cell Reports Physical Science, 2021, 2, 100450.	2.8	6
4575	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
4576	Lead-free halide perovskites, beyond solar cells and LEDs. JPhys Energy, 2021, 3, 032014.	2.3	11
4577	Advances in Lead-Free Perovskite Single Crystals: Fundamentals and Applications. , 2021, 3, 1025-1080.		70

#	ARTICLE	IF	CITATIONS
4578	The effects of heteroatoms-doping on the stability, electronic and magnetic properties of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite. <i>Surfaces and Interfaces</i> , 2021, 24, 101027.	1.5	6
4579	State of the Art and Prospects for Halide Perovskite Nanocrystals. <i>ACS Nano</i> , 2021, 15, 10775-10981.	7.3	705
4580	Emerging perovskite monolayers. <i>Nature Materials</i> , 2021, 20, 1325-1336.	13.3	124
4581	Universal Bottom Contact Modification with Diverse 2D Spacers for High-Performance Inverted Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2021, 31, 2104036.	7.8	29
4582	Observation of Net Stimulated Emission in CsPbBr <sub>3</sub> Thin Films Prepared by Pulsed Laser Deposition. <i>Advanced Optical Materials</i> , 2021, 9, 2100564.	3.6	9
4583	Achieving 256 Å— 256-Color Images by Perovskite-Based Photodetectors Coupled with Algorithms. <i>Advanced Functional Materials</i> , 2021, 31, 2104320.	7.8	27
4584	Stable Perovskite Solar Cells Using Molecularly Engineered Functionalized Oligothiophenes as Low-Cost Hole-Transporting Materials. <i>Small</i> , 2021, 17, e2100783.	5.2	19
4585	Restricted growth and grain boundary reinforcement of MAPbBr <sub>3</sub> film by graphene quantum dots with enhanced luminescence and stability. <i>Functional Materials Letters</i> , 2021, 14, 2151028.	0.7	0
4586	Ultrafast Pump-Probe Spectroscopy—A Powerful Tool for Tracking Spin-Quantum Dynamics in Metal Halide Perovskites. <i>Advanced Quantum Technologies</i> , 2021, 4, 2100052.	1.8	12
4587	Quantifying Photoinduced Polaronic Distortions in Inorganic Lead Halide Perovskite Nanocrystals. <i>Journal of the American Chemical Society</i> , 2021, 143, 9048-9059.	6.6	33
4588	Solid-State Neutron Detection Based on Methylammonium Lead Bromide Perovskite Single Crystals. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 28049-28056.	4.0	12
4589	Designing zero-dimensional dimer-type all-inorganic perovskites for ultra-fast switching memory. <i>Nature Communications</i> , 2021, 12, 3527.	5.8	38
4590	Zn-Doped SnO <sub>2</sub> Compact Layer for Enhancing Performance of Perovskite Solar Cells. <i>International Journal of Photoenergy</i> , 2021, 2021, 1-10.	1.4	1
4591	Grain Boundary Perfection Enabled by Pyridinic Nitrogen Doped Graphdiyne in Hybrid Perovskite. <i>Advanced Functional Materials</i> , 2021, 31, 2104633.	7.8	27
4592	Characterizations and Understanding of Additives Induced Passivation Effects in Narrow-Bandgap Sn—Pb Alloyed Perovskite Solar Cells. <i>Journal of Physical Chemistry C</i> , 2021, 125, 12560-12567.	1.5	6
4593	Fully automated spectroscopic ellipsometry analyses: Application to MoO <sub>x</sub> thin films. <i>Journal of Applied Physics</i> , 2021, 129, .	1.1	5
4594	Triple Interface Passivation Strategy Enabled Efficient and Stable Inverted Perovskite Solar Cells. , 2021, , .		0
4595	Perovskite Solar Cells with Polyaniline Hole Transport Layers Surpassing a 20% Power Conversion Efficiency. <i>Chemistry of Materials</i> , 2021, 33, 4679-4687.	3.2	34

#	ARTICLE	IF	CITATIONS
4596	A review on thermalization mechanisms and prospect absorber materials for the hot carrier solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2021, 225, 111073.	3.0	27
4597	Understanding the synergistic effect of mixed solvent annealing on perovskite film formation*. <i>Chinese Physics B</i> , 2021, 30, 068103.	0.7	0
4598	Study of performance and stability of hole transport layer-free perovskite solar cells with modified electron transport layer. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 17602-17611.	1.1	6
4599	Cascade Electron Transfer Induces Slow Hot Carrier Relaxation in CsPbBr <sub>3</sub> Asymmetric Quantum Wells. <i>ACS Energy Letters</i> , 2021, 6, 2602-2609.	8.8	13
4600	Current Development toward Commercialization of Metal-Halide Perovskite Photovoltaics. <i>Advanced Optical Materials</i> , 2021, 9, 2100390.	3.6	15
4601	Room-Temperature-Processed, Carbon-Based Fully Printed Mesoscopic Perovskite Solar Cells with 15% Efficiency. <i>Solar Rrl</i> , 2021, 5, 2100274.	3.1	11
4602	Antisolvent-assisted one-step solution synthesis of defect-less 1D MAPbI <sub>3</sub> nanowire networks with improved charge transport dynamics. <i>Journal of Materials Research and Technology</i> , 2021, 13, 162-172.	2.6	4
4603	Advances in cesium lead iodide perovskite solar cells: Processing science matters. <i>Materials Today</i> , 2021, 47, 156-169.	8.3	25
4604	Review on Solar Hydrogen: Its Prospects and Limitations. <i>Energy &amp; Fuels</i> , 2021, 35, 11613-11639.	2.5	48
4605	Overcoming the Limitation of Cs <sub>2</sub> AgBiBr <sub>6</sub> Double Perovskite Solar Cells Through Using Mesoporous TiO <sub>2</sub> Electron Extraction Layer. <i>Energy and Environmental Materials</i> , 2022, 5, 1317-1322.	7.3	17
4606	Doping Electron Transporting Layer: An Effective Method to Enhance $J_{SC}$ of All-Inorganic Perovskite Solar Cells. <i>Energy and Environmental Materials</i> , 2021, 4, 500-501.	7.3	17
4607	Laser-induced recoverable fluorescence quenching of perovskite films at a microscopic grain-scale. <i>Energy and Environmental Materials</i> , 0, , .	7.3	2
4608	Graded interface engineering of 3D/2D halide perovskite solar cells through ultrathin (PEA) <sub>2</sub> PbI <sub>4</sub> nanosheets. <i>Chinese Chemical Letters</i> , 2021, 32, 2259-2262.	4.8	23
4609	A novel dopant for spiro-OMeTAD towards efficient and stable perovskite solar cells. <i>Science China Materials</i> , 2021, 64, 2915-2925.	3.5	7
4610	How the Copper Dopant Alters the Geometric and Photoelectronic Properties of the Lead-Free Cs <sub>2</sub> AgSbCl <sub>6</sub> Double Perovskite. <i>Advanced Theory and Simulations</i> , 2021, 4, 2100142.	1.3	6
4611	Perovskite crystals redissolution strategy for affordable, reproducible, efficient and stable perovskite photovoltaics. <i>Materials Today</i> , 2021, 50, 199-223.	8.3	43
4612	Chalcogenide perovskite BaZrS <sub>3</sub> thin-film electronic and optoelectronic devices by low temperature processing. <i>Nano Energy</i> , 2021, 85, 105959.	8.2	46
4613	Understanding the Mechanism of PbCl <sub>2</sub> Additive for MAPbI <sub>3</sub> -Based Perovskite Solar Cells. <i>Advanced Photonics Research</i> , 2021, 2, 2100012.	1.7	4

#	ARTICLE	IF	CITATIONS
4614	Solvent Engineering for Controlled Crystallization and Growth of All-Inorganic Pb-Free Rudorffite Absorbers of Perovskite Solar Cells. <i>Inorganic Chemistry</i> , 2021, 60, 11110-11119.	1.9	6
4615	Study of hybrid organic-inorganic halide perovskite solar cells based on MAI[(PbI <sub>2</sub> ) <sub>1-x</sub> (CuI) <sub>x</sub> ] absorber layers and their long-term stability. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 20684-20697.	1.1	2
4616	Designing conductive fullerenes ionene polymers as efficient cathode interlayer to improve inverted perovskite solar cells efficiency and stability. <i>Chemical Engineering Journal</i> , 2021, 415, 128816.	6.6	15
4617	Chirality-Dependent Second-Order Nonlinear Optical Effect in 1D Organic-Inorganic Hybrid Perovskite Bulk Single Crystal. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 20021-20026.	7.2	100
4618	Oriented Halide Perovskite Nanostructures and Thin Films for Optoelectronics. <i>Chemical Reviews</i> , 2021, 121, 12112-12180.	23.0	70
4619	Co-Evaporated MAPbI <sub>3</sub> with Graded Fermi Levels Enables Highly Performing, Scalable, and Flexible Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2021, 31, 2103252.	7.8	40
4620	Co-Evaporated Formamidinium Lead Iodide Based Perovskites with 1000 h Constant Stability for Fully Textured Monolithic Perovskite/Silicon Tandem Solar Cells. <i>Advanced Energy Materials</i> , 2021, 11, 2101460.	10.2	102
4621	Spray-Coated Lead-Free Cs <sub>2</sub> AgBiBr <sub>6</sub> Double Perovskite Solar Cells with High Open-Circuit Voltage. <i>Solar Rrl</i> , 2021, 5, 2100422.	3.1	40
4622	Chirality-Dependent Second-Order Nonlinear Optical Effect in 1D Organic-Inorganic Hybrid Perovskite Bulk Single Crystal. <i>Angewandte Chemie</i> , 2021, 133, 20174-20179.	1.6	8
4624	Highly efficient perovskite solar cells fabricated under a 70% relative humidity atmosphere. <i>Journal of Power Sources</i> , 2021, 500, 229985.	4.0	8
4625	Influence of Atmospheric Constituents on Spectral Instability and Defect-Mediated Carrier Recombination in Hybrid Perovskite Nanoplatelets. <i>Journal of Physical Chemistry C</i> , 2021, 125, 17133-17143.	1.5	10
4626	Single-atom Pt-13 sites on all-inorganic Cs <sub>2</sub> SnI <sub>6</sub> perovskite for efficient photocatalytic hydrogen production. <i>Nature Communications</i> , 2021, 12, 4412.	5.8	128
4627	Fiber-Shaped Electronic Devices. <i>Advanced Energy Materials</i> , 2021, 11, 2101443.	10.2	74
4628	Beyond the Limit of Goldschmidt Tolerance Factor: Crystal Surface Engineering to Boost the Phase Stability of Formamidinium-Only Hybrid Inorganic-Organic Perovskites. <i>Solar Rrl</i> , 2021, 5, 2100188.	3.1	8
4629	1,10-Phenanthroline as an Efficient Bifunctional Passivating Agent for MAPbI <sub>3</sub> Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 32894-32905.	4.0	13
4630	Formation Mechanisms and Phase Stability of Solid-State Grown CsPbI <sub>3</sub> Perovskites. <i>Nanomaterials</i> , 2021, 11, 1823.	1.9	6
4632	A roadmap towards stable perovskite solar cells: prospective on substitution of organic (A) & inorganic (B) cations. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 18466-18511.	1.1	8
4633	An in-situ defect passivation through a green anti-solvent approach for high-efficiency and stable perovskite solar cells. <i>Science Bulletin</i> , 2021, 66, 1419-1428.	4.3	29

#	ARTICLE	IF	CITATIONS
4634	Unfused Electronic Acceptor-Based Polymers as Interfacial Materials for Efficient Inverted Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 33328-33334.	4.0	5
4635	One-Step Synthesis of SnI <sub>2</sub> ·(DMSO) <sub>x</sub> Adducts for High-Performance Tin Perovskite Solar Cells. <i>Journal of the American Chemical Society</i> , 2021, 143, 10970-10976.	6.6	280
4636	A mini review: Constructing perovskite p-n homojunction solar cells. <i>Chinese Chemical Letters</i> , 2022, 33, 1772-1778.	4.8	13
4637	Defect Passivation Effect of Chemical Groups on Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 34161-34170.	4.0	33
4638	The formation mechanism of (001) preferred orientation for anatase TiO <sub>2</sub> film prepared by DC pulsed magnetron sputtering. <i>Vacuum</i> , 2021, 190, 110287.	1.6	9
4639	Efficient and stable planar MAPbI <sub>3</sub> perovskite solar cells based on a small molecule passivator. <i>Surfaces and Interfaces</i> , 2021, 25, 101213.	1.5	3
4640	Recent Progresses in Carbon Counter Electrode Materials for Perovskite Solar Cells and Modules. <i>ChemElectroChem</i> , 2021, 8, 4396-4411.	1.7	4
4641	Fast Light-Cured TiO <sub>2</sub> Layers for Low-Cost Carbon-Based Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2021, 4, 7800-7810.	2.5	9
4642	Superior photo-carrier diffusion dynamics in organic-inorganic hybrid perovskites revealed by spatiotemporal conductivity imaging. <i>Nature Communications</i> , 2021, 12, 5009.	5.8	10
4643	Electronic and Optical Properties of van der Waals Heterostructures Based on Two-Dimensional Perovskite (PEA) <sub>2</sub> PbI <sub>4</sub> and Black Phosphorus. <i>ACS Omega</i> , 2021, 6, 20877-20886.	1.6	9
4644	Photon Recycling in Semiconductor Thin Films and Devices. <i>Advanced Science</i> , 2021, 8, e2004076.	5.6	16
4645	Multi-Walled Carbon Nanotube-Assisted Encapsulation Approach for Stable Perovskite Solar Cells. <i>Molecules</i> , 2021, 26, 5060.	1.7	8
4646	37.3: Invited Paper: Quantum dot LED-based display technology. <i>Digest of Technical Papers SID International Symposium</i> , 2021, 52, 479-479.	0.1	0
4647	Slow carrier relaxation in tin-based perovskite nanocrystals. <i>Nature Photonics</i> , 2021, 15, 696-702.	15.6	40
4648	Achieving high-performance in situ fabricated FAPbBr <sub>3</sub> and electroluminescence. <i>Optics Letters</i> , 2021, 46, 4378.	1.7	5
4649	Solid-state reaction process for high-quality organometallic halide perovskite thin film. <i>Solar Energy Materials and Solar Cells</i> , 2021, 227, 111014.	3.0	3
4650	Thickness control and photovoltaic properties of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> bar-coated thin film. <i>Japanese Journal of Applied Physics</i> , 2022, 61, SB1032.	0.8	7
4651	Dual Blue Emission in Ruddlesden-Popper Lead-Bromide Perovskites Induced by Photon Recycling. <i>Journal of Physical Chemistry C</i> , 2021, 125, 18308-18316.	1.5	10

#	ARTICLE	IF	CITATIONS
4652	First-principles prediction of the ground-state crystal structure of double-perovskite halides Cs <sub>2</sub> AgCrX <sub>6</sub> (X = Cl, Br, and I). <i>Journal of Physics and Chemistry of Solids</i> , 2022, 160, 110302.	1.9	64
4653	Environmentally Compatible Lead-Free Perovskite Solar Cells and Their Potential as Light Harvesters in Energy Storage Systems. <i>Nanomaterials</i> , 2021, 11, 2066.	1.9	18
4654	From Frequency Domain to Time Transient Methods for Halide Perovskite Solar Cells: The Connections of IMPS, IMVS, TPC, and TPV. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 7964-7971.	2.1	34
4655	Charge Trapping Dynamics Revealed in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> by Ultrafast Multipulse Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2021, 125, 18834-18840.	1.5	2
4656	Thermal fluctuations and carrier localization induced by dynamic disorder in MAPbI <sub>3</sub> described by first-principles based tight-binding model. <i>Physical Review Materials</i> , 2021, 5, .	1.9	12
4657	Revealing Ultrafast Charge-Carrier Thermalization in Tin-Iodide Perovskites through Novel Pump-“Push”-Probe Terahertz Spectroscopy. <i>ACS Photonics</i> , 2021, 8, 2509-2518.	3.2	14
4658	Manipulating crystallization dynamics through chelating molecules for bright perovskite emitters. <i>Nature Communications</i> , 2021, 12, 4831.	5.8	56
4659	Local Structure of Multinary Hybrid Lead Halide Perovskites Investigated by Nuclear Quadrupole Resonance Spectroscopy. <i>Chemistry of Materials</i> , 2021, 33, 6965-6973.	3.2	13
4660	Low-temperature synthesis of zirconium silicate stabilized perovskite quantum dot composite material. <i>Advanced Powder Technology</i> , 2021, 32, 2798-2805.	2.0	4
4661	Mesoporous TiO <sub>2</sub> electron transport layer engineering for efficient inorganic-organic hybrid perovskite solar cells using hydrochloric acid treatment. <i>Thin Solid Films</i> , 2021, 732, 138768.	0.8	10
4662	Dopant-free hole transporting polymeric materials based on pyrroloindacenodithiophene donor unit for efficient perovskite solar cells. <i>Dyes and Pigments</i> , 2021, 192, 109432.	2.0	8
4663	First-principles investigation of CO <sub>2</sub> , CO, and O <sub>2</sub> adsorptions on the (001)-reconstructed surfaces of CsPbX <sub>3</sub> (X = Cl, Br, and I) perovskites. <i>Surfaces and Interfaces</i> , 2021, 25, 101264.	1.5	2
4665	Complementary bulk and surface passivations for highly efficient perovskite solar cells by gas quenching. <i>Cell Reports Physical Science</i> , 2021, 2, 100511.	2.8	21
4666	Recent Advances in Flexible Perovskite Light-Emitting Diodes. <i>Advanced Materials Interfaces</i> , 2021, 8, 2100441.	1.9	28
4667	Solvent Recrystallization-Enabled Green Amplified Spontaneous Emissions with an Ultra-Low Threshold from Pinhole-Free Perovskite Films. <i>Advanced Functional Materials</i> , 2021, 31, 2106108.	7.8	31
4668	Grain Boundaries in Methylammonium Lead Halide Perovskites Facilitate Water Diffusion. <i>Advanced Energy and Sustainability Research</i> , 2021, 2, 2100087.	2.8	9
4669	Fabrications of Halide Perovskite Single-Crystal Slices and Their Applications in Solar Cells, Photodetectors, and LEDs. <i>Crystal Growth and Design</i> , 2021, 21, 5983-5997.	1.4	9
4670	Lithium Polystyrene Sulfonate as a Hole Transport Material in Inverted Perovskite Solar Cells. <i>Chemistry - an Asian Journal</i> , 2021, 16, 3151-3161.	1.7	4



#	ARTICLE	IF	CITATIONS
4671	Enhance efficiency in flat and nano roughness surface perovskite solar cells with the use of index near zero materials filter. <i>Optical and Quantum Electronics</i> , 2021, 53, 1.	1.5	2
4672	A tin-based perovskite solar cell with an inverted hole-free transport layer to achieve high energy conversion efficiency by SCAPS device simulation. <i>Optical and Quantum Electronics</i> , 2021, 53, 1.	1.5	25
4673	Dopant Engineering for Spiro-OMeTAD Hole-Transporting Materials towards Efficient Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2021, 31, 2102124.	7.8	67
4674	Stability study of large-area perovskite solar cells fabricated with copper as low-cost metal contact. <i>International Journal of Energy Research</i> , 2022, 46, 1250-1262.	2.2	24
4675	Sulfur-rich benzodithieno[3,2-b]thiophene-cored hole transporting materials for long-time stability of perovskite solar cells. <i>Dyes and Pigments</i> , 2021, 193, 109506.	2.0	6
4676	Grain Boundary Defects Passivated with <i>i</i> -tert-Butyl Methacrylate for High-Efficiency Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2021, 4, 11298-11305.	2.5	8
4677	Heterostructural perovskite solar cell constructed with Li-doped p-MAPbI <sub>3</sub> /n-TiO <sub>2</sub> PN junction. <i>Solar Energy</i> , 2021, 226, 446-454.	2.9	7
4678	Interface passivation engineering for hybrid perovskite solar cells. <i>Materials Reports Energy</i> , 2021, 1, 100060.	1.7	19
4679	Additive Engineering for Efficient and Stable MAPbI <sub>3</sub> -Perovskite Solar Cells with an Efficiency of over 21%. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 44451-44459.	4.0	18
4680	Review on engineering two-dimensional nanomaterials for promoting efficiency and stability of perovskite solar cells. <i>Journal of Energy Chemistry</i> , 2022, 68, 154-175.	7.1	11
4681	Design and optimization of CuSCN/CH <sub>3</sub> NH <sub>2</sub> perovskite solar cells. <i>Journal of Energy Chemistry</i> , 2022, 68, 154-175.	1.0	28
4682	Molecular passivation of MAPbI <sub>3</sub> perovskite films follows the Langmuir adsorption rule. <i>Applied Physics Letters</i> , 2021, 119, .	1.5	8
4683	A Perspective on the Commercial Viability of Perovskite Solar Cells. <i>Solar Rrl</i> , 2021, 5, 2100401.	3.1	33
4684	The Trapped Charges at Grain Boundaries in Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2021, 31, 2107125.	7.8	47
4685	Numerical study of lead free CsSn <sub>0.5</sub> Ge <sub>0.5</sub> I <sub>3</sub> perovskite solar cell by SCAPS-1D. <i>Optik</i> , 2021, 248, 168060.	1.4	53
4686	Advances in Flexible Memristors with Hybrid Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 8798-8825.	2.1	36
4687	Tailored conductive fullerenes-based passivator for efficient and stable inverted perovskite solar cells. <i>Journal of Colloid and Interface Science</i> , 2021, 598, 229-237.	5.0	13
4688	Origin of Rashba Spin Splitting and Strain Tunability in Ferroelectric Bulk CsPbF <sub>3</sub> . <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 9539-9546.	2.1	10

#	ARTICLE	IF	CITATIONS
4689	Robust, High-Performing Maize-Perovskite-Based Solar Cells with Improved Stability. ACS Applied Energy Materials, 2021, 4, 11194-11203.	2.5	11
4690	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
4691	Promising Lead-Free Double-Perovskite Photovoltaic Materials Cs <sub>2</sub> MMa <sup>2</sup> Br <sub>6</sub> (M) Tj ETQq0 0 0 rgBT /Overlock Journal of Physical Chemistry C, 2021, 125, 21160-21168.	1.5	22
4692	Application of upconversion photoluminescent materials in perovskite solar cells: opportunities and challenges. Materials Today Energy, 2021, 21, 100740.	2.5	5
4693	Defects in CsPbX <sub>3</sub> Perovskite: From Understanding to Effective Manipulation for High-Performance Solar Cells. Small Methods, 2021, 5, e2100725.	4.6	37
4694	Enhanced thermal and moisture stability via dual additives approach in methylammonium lead iodide based planar perovskite solar cells. Solar Energy, 2021, 225, 200-210.	2.9	9
4695	A review on two-dimensional (2D) and 2D-3D multidimensional perovskite solar cells: Perovskites structures, stability, and photovoltaic performances. Journal of Photochemistry and Photobiology C: Photochemistry Reviews, 2021, 48, 100405.	5.6	77
4696	There is plenty of room at the top: generation of hot charge carriers and their applications in perovskite and other semiconductor-based optoelectronic devices. Light: Science and Applications, 2021, 10, 174.	7.7	32
4697	Elucidating the Role of Substrates on Domain Distribution of Quasi-2D Perovskites for Blue Light-Emitting Diodes. ACS Applied Electronic Materials, 2021, 3, 4056-4065.	2.0	3
4698	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
4699	Atomic-scale understanding on the physics and control of intrinsic point defects in lead halide perovskites. Applied Physics Reviews, 2021, 8, .	5.5	36
4700	Structural, electronic, and optical properties of Pt-based vacancy-ordered double perovskites A <sub>2</sub> PtX <sub>6</sub> (A = K, Rb, Cs; X = Cl, Br, I) in tetragonal P4/mnc polymorph. Optical Materials, 2021, 119, 111323.	1.7	6
4701	Optimization of optoelectrical properties during synthesizing methylammonium lead iodide perovskites via a two-step dry process. Journal of Materials Research and Technology, 2021, 14, 1-9.	2.6	4
4702	A review of primary technologies of thin-film solar cells. Engineering Research Express, 2021, 3, 032001.	0.8	42
4703	Tuning Alkyl Chain Lengths of Oxasmaragdyrins-B(OR) <sub>2</sub> for Optimizing Hole-Transport and Efficiency in Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 9090-9098.	2.5	2
4704	Amino-capped zinc oxide modified tin oxide electron transport layer for efficient perovskite solar cells. Cell Reports Physical Science, 2021, 2, 100590.	2.8	15
4705	Influence of charge transporting layers on ion migration and interfacial carrier recombination in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite solar cells. Chemical Physics Letters, 2021, 784, 139094.	1.2	3
4706	Cesium-doped Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene for efficient and thermally stable perovskite solar cells. Cell Reports Physical Science, 2021, 2, 100598.	2.8	29

#	ARTICLE	IF	CITATIONS
4707	Genetic Manipulation of M13 Bacteriophage for Enhancing the Efficiency of Virus-Inoculated Perovskite Solar Cells with a Certified Efficiency of 22.3%. <i>Advanced Energy Materials</i> , 2021, 11, 2101221.	10.2	20
4708	Toward Commercialization of Efficient and Stable Perovskite Solar Modules. <i>Solar Rrl</i> , 2022, 6, 2100600.	3.1	16
4709	Towards environmental friendly multi-step processing of efficient mixed-cation mixed halide perovskite solar cells from chemically bath deposited lead sulphide. <i>Scientific Reports</i> , 2021, 11, 18561.	1.6	7
4710	Solution process of selective color-gamut perovskite solar cell modulated with organic Fabry-Perot electrode for building-integrated photovoltaic. <i>Solar Energy Materials and Solar Cells</i> , 2021, 230, 111192.	3.0	7
4711	Hot carrier redistribution, electron-phonon interaction, and their role in carrier relaxation in thin film metal-halide perovskites. <i>Physical Review Materials</i> , 2021, 5, .	0.9	8
4712	On the Origin of Room-Temperature Amplified Spontaneous Emission in CsPbBr <sub>3</sub> Single Crystals. <i>Chemistry of Materials</i> , 2021, 33, 7185-7193.	3.2	9
4713	Multipulse Terahertz Spectroscopy Unveils Hot Polaron Photoconductivity Dynamics in Metal-Halide Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 8732-8739.	2.1	8
4714	Interfacial engineering designed on CuSCN for highly efficient and stable carbon-based perovskite solar cells. <i>Materials Today Energy</i> , 2021, 21, 100801.	2.5	5
4715	Tailoring hot carrier cooling and recombination dynamics of mixed-halide-perovskite by incorporating Au@CZTS core-shell nanocrystal. <i>Journal Physics D: Applied Physics</i> , 0, , .	1.3	3
4716	Surface modification with ionic liquid for efficient CsPbI <sub>2</sub> Br perovskite solar cells. <i>Journal of Materiomics</i> , 2021, 7, 1039-1048.	2.8	17
4717	Repair Strategies for Perovskite Solar Cells. <i>Chemical Research in Chinese Universities</i> , 2021, 37, 1055-1066.	1.3	3
4718	CsPbBr <sub>3</sub> Nanocrystal Induced Bilateral Interface Modification for Efficient Planar Perovskite Solar Cells. <i>Advanced Science</i> , 2021, 8, e2102648.	5.6	92
4719	A critical review of materials innovation and interface stabilization for efficient and stable perovskite photovoltaics. <i>Nano Energy</i> , 2021, 87, 106141.	8.2	28
4720	Effect of chlorobenzene on the optical and structural properties of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> :DMF perovskite films. <i>Journal of Materials Research and Technology</i> , 2021, 14, 287-297.	2.6	5
4721	Charge Carrier Diffusion Dynamics in Multisized Quaternary Alkylammonium-Capped CsPbBr <sub>3</sub> Perovskite Nanocrystal Solids. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 44742-44750.	4.0	11
4722	Lead-Free Double Perovskite Cs <sub>2</sub> AgBiBr <sub>6</sub> : Fundamentals, Applications, and Perspectives. <i>Advanced Functional Materials</i> , 2021, 31, 2105898.	7.8	166
4723	Self-Assembled Perovskite Nanoislands on CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Cuboid Single Crystals by Energetic Surface Engineering. <i>Advanced Functional Materials</i> , 2021, 31, 2105542.	7.8	9
4724	Functionalized SnO <sub>2</sub> films by using EDTA-2AM for high efficiency perovskite solar cells with efficiency over 23%. <i>Chemical Engineering Journal</i> , 2022, 430, 132683.	6.6	38

#	ARTICLE	IF	CITATIONS
4725	Recent progress on all-inorganic metal halide perovskite solar cells. <i>Materials Today Nano</i> , 2021, 16, 100143.	2.3	13
4726	Effect of isomeric hole-transporting materials on perovskite solar cell performance. <i>Materials Today Energy</i> , 2021, 21, 100780.	2.5	13
4727	Quasiparticle Band Structure and Phonon-Induced Band Gap Renormalization of the Lead-Free Halide Double Perovskite Cs <sub>2</sub> InAgCl <sub>6</sub> . <i>Journal of Physical Chemistry C</i> , 2021, 125, 21689-21700.	1.5	13
4728	Synergistic Effect of NiO and Spiro-OMeTAD for Hole Transfer in Perovskite Solar Cells. <i>Journal of Electronic Materials</i> , 2021, 50, 6512-6517.	1.0	5
4729	Time-Dependent Field Effect in Three-Dimensional Lead-Halide Perovskite Semiconductor Thin Films. <i>ACS Applied Energy Materials</i> , 2021, 4, 10603-10609.	2.5	9
4730	Dependence between Structural and Electronic Properties of CsPbI <sub>3</sub> : Unsupervised Machine Learning of Nonadiabatic Molecular Dynamics. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 8672-8678.	2.1	26
4731	Defects in Hybrid Perovskites: The Secret of Efficient Charge Transport. <i>Advanced Functional Materials</i> , 2021, 31, 2104467.	7.8	24
4732	Chiral Hybrid Perovskite Single-Crystal Nanowire Arrays for High-Performance Circularly Polarized Light Detection. <i>Advanced Science</i> , 2021, 8, e2102065.	5.6	34
4733	Self-powered narrowband visible-light photodetection enabled by organolead halide perovskite CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> /p-Si heterojunction. <i>Applied Physics Letters</i> , 2021, 119, .	1.5	17
4734	Self-Polymerization of Monomer and Induced Interactions with Perovskite for Highly Performed and Stable Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2022, 32, 2105290.	7.8	14
4735	Impermeable inorganic "walls" sandwiching perovskite layer toward inverted and indoor photovoltaic devices. <i>Nano Energy</i> , 2021, 88, 106286.	8.2	19
4736	Chromium trioxide modified spiro-OMeTAD for highly efficient and stable planar perovskite solar cells. <i>Journal of Energy Chemistry</i> , 2021, 61, 386-394.	7.1	17
4737	Advances in perovskite solar cells: Film morphology control and interface engineering. <i>Journal of Cleaner Production</i> , 2021, 317, 128368.	4.6	10
4738	Fluorinated Cross-linkable and Dopant-free hole transporting materials for efficient and stable perovskite solar cells. <i>Chemical Engineering Journal</i> , 2021, 422, 130124.	6.6	26
4739	Solution-processable infrared photodetectors: Materials, device physics, and applications. <i>Materials Science and Engineering Reports</i> , 2021, 146, 100643.	14.8	49
4740	Carrier transport layer free perovskite solar cell for enhancing the efficiency: A simulation study. <i>Optik</i> , 2021, 243, 167492.	1.4	16
4741	Ultrafast photo-induced carrier dynamics of FAPbI <sub>3</sub> -MAPbBr <sub>3</sub> perovskite films fabricated with additives and a hole transport material. <i>Chemical Physics Letters</i> , 2021, 784, 139100.	1.2	4
4742	A DFT investigation of CsMgX <sub>3</sub> (X=Cl, Br) halide perovskites: Electronic, thermoelectric and optical properties. <i>Computational and Theoretical Chemistry</i> , 2021, 1204, 113415.	1.1	47

#	ARTICLE	IF	CITATIONS
4743	Influence of spin-coating methods on the properties of planar solar cells based on ambient-air-processed triple-cation mixed-halide perovskites. <i>Journal of Alloys and Compounds</i> , 2021, 879, 160373.	2.8	6
4744	W-doped TiO <sub>2</sub> as electron transport layer for high performance solution-processed perovskite solar cells. <i>Applied Surface Science</i> , 2021, 563, 150298.	3.1	15
4745	Performance analysis of carbon-based perovskite solar cells by graphene oxide as hole transport layer: Experimental and numerical simulation. <i>Optical Materials</i> , 2021, 121, 111584.	1.7	34
4746	The effect of defects in tin-based perovskites and their photovoltaic devices. <i>Materials Today Physics</i> , 2021, 21, 100513.	2.9	17
4747	Emergence of bulk photovoltaic effect in anion-ordered perovskite sulfur diiodide MASbSI <sub>2</sub> with spontaneous out-of-plane ferroelectricity. <i>Materials Today Physics</i> , 2021, 21, 100459.	2.9	4
4748	First-principle calculations to investigate structural, electronic and optical properties of MgHfS <sub>3</sub> . <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2021, 273, 115405.	1.7	4
4749	Forming laterally structured heterojunction with FAPbI <sub>3</sub> film for improving performance of MAPbBr <sub>3</sub> photodetectors. <i>Optical Materials</i> , 2021, 121, 111586.	1.7	7
4750	Profiling photo-induced degradation for operationally perovskite solar cells in space environment. <i>Journal of Power Sources</i> , 2021, 512, 230520.	4.0	1
4751	New strategy for improving the perovskite solar cells' open-circuit voltage: Cation substitution of hole transport layer. <i>Optical Materials</i> , 2021, 121, 111262.	1.7	2
4752	Mixed solvent atmosphere induces the surface termination state transition of perovskite to achieve matched energy level alignment. <i>Chemical Engineering Journal</i> , 2021, 424, 130508.	6.6	5
4753	Visualizing band alignment across 2D/3D perovskite heterointerfaces of solar cells with light-modulated scanning tunneling microscopy. <i>Nano Energy</i> , 2021, 89, 106362.	8.2	13
4754	Novel Intense-pulsed-light synthesis of amorphous SnO <sub>2</sub> electron-selective layers for efficient planar MAPbI <sub>3</sub> perovskite solar cells. <i>Journal of Materials Science and Technology</i> , 2021, 92, 171-177.	5.6	7
4755	Temperature dependence of MAPbI <sub>3</sub> films by quasi-vapor deposition technique and impact on photovoltaic performance and stability of perovskite solar cells. <i>Journal of Alloys and Compounds</i> , 2021, 888, 161448.	2.8	5
4756	Analysis of electronic structure and properties of Ga <sub>2</sub> O <sub>3</sub> /CuAlO <sub>2</sub> heterojunction. <i>Applied Surface Science</i> , 2021, 568, 150826.	3.1	16
4757	Effect of heterostructure engineering on electronic structure and transport properties of two-dimensional halide perovskites. <i>Computational Materials Science</i> , 2021, 200, 110823.	1.4	10
4758	Introduction of 4-hydroxybenzaldehyde as interface modifier with multidimensional defects passivation effect for high-performance perovskite solar cells. <i>Applied Surface Science</i> , 2021, 570, 151259.	3.1	9
4759	In situ nanocrystal seeding perovskite crystallization toward high-performance solar cells. <i>Materials Today Energy</i> , 2021, 22, 100855.	2.5	9
4760	Exploring low-temperature processed multifunctional HEPES-Au NSs-modified SnO <sub>2</sub> for efficient planar perovskite solar cells. <i>Chemical Engineering Journal</i> , 2022, 427, 131832.	6.6	12

#	ARTICLE	IF	CITATIONS
4761	Gamma-ray irradiation of lead iodide precursor for enhanced perovskite crystalline properties. <i>Applied Surface Science</i> , 2022, 571, 151263.	3.1	3
4762	Self-woven monolayer polyionic mesh to achieve highly efficient and stable inverted perovskite solar cells. <i>Chemical Engineering Journal</i> , 2022, 428, 132074.	6.6	19
4763	A strategic review on processing routes towards scalable fabrication of perovskite solar cells. <i>Journal of Energy Chemistry</i> , 2022, 64, 538-560.	7.1	33
4764	Fluorene-terminated hole transporting materials with a spiro[fluorene-9,9'-xanthene] core for perovskite solar cells. <i>New Journal of Chemistry</i> , 2021, 45, 5497-5502.	1.4	7
4765	Metal Halide Perovskite/2D Material Heterostructures: Syntheses and Applications. <i>Small Methods</i> , 2021, 5, e2000937.	4.6	24
4767	97.3% Pb-Reduced CsPb <sub>1-x</sub> Ge <sub>x</sub> Br <sub>3</sub> Perovskite with Enhanced Phase Stability and Photovoltaic Performance through Surface Cu Doping. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 1098-1103.	2.1	18
4768	Full-scale chemical and field-effect passivation: 21.52% efficiency of stable MAPbI <sub>3</sub> solar cells via benzenamine modification. <i>Nano Research</i> , 2021, 14, 2783-2789.	5.8	20
4769	Photodiodes based on a MAPbBr <sub>3</sub> /Bi <sup>3+</sup> -doped MAPbCl <sub>3</sub> single crystals heterojunction for the X-ray detection. <i>CrystEngComm</i> , 2021, 23, 4954-4962.	1.3	10
4770	Formamide iodide: a new cation additive for inhibiting $\gamma$ -phase formation of formamidinium lead iodide perovskite. <i>Materials Advances</i> , 2021, 2, 2272-2277.	2.6	2
4771	Photophysics of 2D Organic-Inorganic Hybrid Lead Halide Perovskites: Progress, Debates, and Challenges. <i>Advanced Science</i> , 2021, 8, 2001843.	5.6	59
4772	Photodetectors Based on Perovskite Quantum Dots. <i>Lecture Notes in Nanoscale Science and Technology</i> , 2021, , 75-117.	0.4	0
4773	Reduced energy loss enabled by thiophene-based interlayers for high performance and stable perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2021, 9, 4138-4149.	5.2	80
4774	Spontaneous interface engineering for dopant-free poly(3-hexylthiophene) perovskite solar cells with efficiency over 24%. <i>Energy and Environmental Science</i> , 2021, 14, 2419-2428.	15.6	152
4775	Simulation of Optimized High-Current Tandem Solar-Cells With Efficiency Beyond 41%. <i>IEEE Access</i> , 2021, 9, 49724-49737.	2.6	28
4776	Charge transfer balancing of planar perovskite solar cell based on a low cost and facile solution-processed CuOx as an efficient hole transporting layer. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 2312-2325.	1.1	7
4777	Centimeter-Sized Single Crystals of Two-Dimensional Hybrid Iodide Double Perovskite (4,4'-difluoropiperidinium) <sub>4</sub> AgBiI <sub>8</sub> for High-Temperature Ferroelectricity and Efficient X-Ray Detection. <i>Advanced Functional Materials</i> , 2021, 31, 2009457.	7.8	121
4778	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. <i>Journal of Materials Chemistry C</i> , 2021, 9, 12920-12927.	2.7	12
4779	Design of surface termination for high-performance perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2021, 9, 23597-23606.	5.2	25



#	ARTICLE	IF	CITATIONS
4780	Regulation of hole transport layer for perovskite quantum dot light-emitting diodes. E3S Web of Conferences, 2021, 245, 03021.	0.2	1
4781	Termination dependence and electric field modification of band alignment in a CNT/CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> heterojunction. Physical Chemistry Chemical Physics, 2021, 23, 9249-9258.	1.3	3
4782	Future perspectives of perovskite solar cells: Metal oxide-based inorganic hole-transporting materials. , 2021, , 181-219.		5
4783	Nanocarbons for emerging photovoltaic applications. , 2021, , 49-80.		0
4784	Benzocyclobutene polymer as an additive for a benzocyclobutene-fullerene: application in stable p-i-n perovskite solar cells. Journal of Materials Chemistry A, 2021, 9, 9347-9353.	5.2	6
4785	Perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> XCl <sub>x</sub> Solar Cells and their Degradation (Part 1: A Short Review). Latvian Journal of Physics and Technical Sciences, 2021, 58, 44-52.	0.4	1
4786	Optimization of the perovskite solar cell design to achieve a highly improved efficiency. Optical Materials, 2021, 111, 110661.	1.7	34
4787	Fundamentals of tin iodide perovskites: a promising route to highly efficient, lead-free solar cells. Journal of Materials Chemistry A, 2021, 9, 11812-11826.	5.2	32
4788	Lead-Free Perovskite Materials for Solar Cells. Nano-Micro Letters, 2021, 13, 62.	14.4	175
4789	The structural stability and defect-tolerance of ionic spinel semiconductors for high-efficiency solar cells. Journal of Materials Chemistry A, 2021, 9, 14566-14575.	5.2	6
4790	Chlorine management of a carbon counter electrode for high performance printable perovskite solar cells. Journal of Materials Chemistry C, 2021, 9, 8615-8622.	2.7	8
4791	Precise incorporation of transition metals into organolead oxyhalide crystalline materials for photocatalysis. Dalton Transactions, 2021, 50, 11360-11364.	1.6	1
4792	Impact of spin-orbit splitting on two-photon absorption spectra in a halide perovskite single crystal. Physical Review B, 2021, 103, .	1.1	14
4793	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
4794	Defect passivation and humidity protection for perovskite solar cells enabled by 1-dodecanethiol. Journal of Materials Chemistry C, 2021, 9, 9584-9591.	2.7	20
4795	Graphene, an epoch-making material in RFID technology: a detailed overview. New Journal of Chemistry, 2021, 45, 18700-18721.	1.4	8
4796	Band-Tail Recombination in Hybrid Lead Iodide Perovskite. Advanced Functional Materials, 2017, 27, 1700860.	7.8	127
4797	Photon-Induced Reversible Phase Transition in CsPbBr <sub>3</sub> Perovskite. Advanced Functional Materials, 2019, 29, 1807922.	7.8	56

#	ARTICLE	IF	CITATIONS
4798	Stable $\text{CsPbI}_3$ Perovskite Nanowire Arrays with Preferential Crystallographic Orientation for Highly Sensitive Photodetectors. <i>Advanced Functional Materials</i> , 2019, 29, 1808741.	7.8	78
4799	Towards Simplifying the Device Structure of High-Performance Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2020, 30, 2000863.	7.8	67
4800	Metal Halide Perovskite Arrays: From Construction to Optoelectronic Applications. <i>Advanced Functional Materials</i> , 2021, 31, 2005230.	7.8	40
4801	Perovskite Single Crystals: Synthesis, Optoelectronic Properties, and Application. <i>Advanced Functional Materials</i> , 2021, 31, 2008684.	7.8	70
4802	Synergistic Effects of Cation and Anion in an Ionic Imidazolium Tetrafluoroborate Additive for Improving the Efficiency and Stability of Mixed $\text{PbSn}$ Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2021, 31, 2008801.	7.8	66
4803	Improved Efficiency and Stability of Perovskite Solar Cells Induced by $\text{C}_{18}\text{H}_{37}\text{O}$ Functionalized Hydrophobic Ammonium-Based Additives. <i>Advanced Materials</i> , 2018, 30, 1703670.	11.1	132
4804	Photophysics of Methylammonium Lead Tribromide Perovskite: Free Carriers, Excitons, and Sub-Bandgap States. <i>Advanced Energy Materials</i> , 2020, 10, 1903258.	10.2	20
4805	Imaging Carrier Transport Properties in Halide Perovskites using Time-Resolved Optical Microscopy. <i>Advanced Energy Materials</i> , 2020, 10, 1903814.	10.2	21
4806	Simultaneously Passivating Cation and Anion Defects in Metal Halide Perovskite Solar Cells Using a Zwitterionic Amino Acid Additive. <i>Small</i> , 2021, 17, e2005608.	5.2	51
4807	Perovskite-Based Nanocrystals: Synthesis and Applications beyond Solar Cells. <i>Small Methods</i> , 2018, 2, 1700380.	4.6	140
4808	Recent Development of Organic-Inorganic Perovskite-Based Tandem Solar Cells. <i>Solar Rrl</i> , 2017, 1, 1700045.	3.1	32
4809	Cesium Lead Halide Perovskite Quantum Dots in the Limelight: Dynamics and Applications. <i>Lecture Notes in Nanoscale Science and Technology</i> , 2020, , 175-205.	0.4	5
4810	Magnetic, Electronic, and Optical Properties of Perovskite Materials. <i>Materials Horizons</i> , 2020, , 43-59.	0.3	6
4811	All-Inorganic Perovskite Quantum Dots: Ligand Modification, Surface Treatment and Other Strategies for Enhanced Stability and Durability. <i>Springer Series in Materials Science</i> , 2020, , 51-106.	0.4	2
4812	Synthesis, crystal structure and optical property of manganese (II) halides based on pyridine ionic liquids with high quantum yield. <i>Transition Metal Chemistry</i> , 2020, 45, 413-421.	0.7	15
4813	Carrier behaviors of 6,13-Bis (triisopropylsilylethynyl) pentacene device with self-assembled monolayer. <i>Materials Chemistry and Physics</i> , 2019, 227, 250-254.	2.0	5
4814	Enhancing Chemical Stability and Suppressing Ion Migration in $\text{CH}_3\text{NH}_3\text{PbI}_3$ Perovskite Solar Cells via Direct Backbone Attachment of Polyesters on Grain Boundaries. <i>Chemistry of Materials</i> , 2020, 32, 5104-5117.	3.2	64
4815	An Emerging All-Inorganic $\text{CsSn}_{1-x}\text{Pb}_x\text{Br}_3$ (0 $\leq$ x $\leq$ 1) $\text{ETQq1.1}$ $0.784314 \text{ rgBT}$ Properties. <i>Journal of Physical Chemistry C</i> , 2020, 124, 13434-13446.	1.5	16

#	ARTICLE	IF	CITATIONS
4816	Temperature-Dependent Ultrafast Spectral Response of FAPb(Br <sub>0.4</sub> IO <sub>0.6</sub> ) <sub>3</sub> Nanocrystals. <i>Journal of Physical Chemistry C</i> , 2021, 125, 1157-1166.	1.5	7
4817	Resolving Spectral Mismatch Errors for Perovskite Solar Cells in Commercial Class AAA Solar Simulators. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 3782-3788.	2.1	10
4818	Simulating the Coupled Structural–Electronic Dynamics of Photoexcited Lead Iodide Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 4448-4455.	2.1	16
4819	Influence of Donor Groups on Benzoselenadiazole-Based Dopant-Free Hole Transporting Materials for High Performance Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2021, 4, 312-321.	2.5	10
4820	Composite Encapsulation Enabled Superior Comprehensive Stability of Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 27277-27285.	4.0	54
4821	Nonlinear Optics in Lead Halide Perovskites: Mechanisms and Applications. <i>ACS Photonics</i> , 2021, 8, 113-124.	3.2	80
4822	Scalable fabrication and coating methods for perovskite solar cells and solar modules. <i>Nature Reviews Materials</i> , 2020, 5, 333-350.	23.3	568
4823	Chapter 1. High Efficiency Mesoscopic Organometal Halide Perovskite Solar Cells. <i>RSC Energy and Environment Series</i> , 2016, , 1-31.	0.2	3
4824	Characterization of Capacitance, Transport and Recombination Parameters in Hybrid Perovskite and Organic Solar Cells. <i>RSC Energy and Environment Series</i> , 2016, , 57-106.	0.2	9
4825	Chapter 7. Electronic Properties of Metal Halide Perovskites. <i>RSC Energy and Environment Series</i> , 2016, , 202-233.	0.2	2
4826	Halide Perovskites With Ambipolar Transport Properties for Transistor Applications. <i>RSC Smart Materials</i> , 2020, , 41-82.	0.1	2
4827	A stable, efficient textile-based flexible perovskite solar cell with improved washable and deployable capabilities for wearable device applications. <i>RSC Advances</i> , 2017, 7, 54361-54368.	1.7	51
4828	The impacts of Pbl <sub>2</sub> purity on the morphology and device performance of one-step spray-coated planar heterojunction perovskite solar cells. <i>Sustainable Energy and Fuels</i> , 2018, 2, 436-443.	2.5	34
4829	On the effect of atomic layer deposited Al <sub>2</sub> O <sub>3</sub> on the environmental degradation of hybrid perovskite probed by positron annihilation spectroscopy. <i>Journal of Materials Chemistry C</i> , 2019, 7, 5275-5284.	2.7	11
4830	All-inorganic perovskite CsPbBr <sub>3</sub> microstructures growth <i>via</i> chemical vapor deposition for high-performance photodetectors. <i>Nanoscale</i> , 2019, 11, 21386-21393.	2.8	51
4831	Efficiency enhancement of perovskite solar cell by modifying the TiO <sub>2</sub> with Ag/TiO <sub>2</sub> core–shell nanowires. <i>Micro and Nano Letters</i> , 2019, 14, 1075-1078.	0.6	3
4832	Fabrication of organic-inorganic perovskite thin films for planar solar cells via pulsed laser deposition. <i>AIP Advances</i> , 2016, 6, 015001.	0.6	32
4833	Cryogenic spatial–temporal imaging of surface photocarrier dynamics in MAPbI <sub>3</sub> films at the single grain level. <i>AIP Advances</i> , 2020, 10, .	0.6	2

#	ARTICLE	IF	CITATIONS
4834	Origin of Hysteresis in Perovskite Solar Cells. , 2020, , 1-1-1-42.		19
4835	Low-Temperature synthesis of FeOOH Quantum Dots as Promising Electron-Transporting Layers for High-Performance Planar Perovskite Solar Cells. IOP Conference Series: Earth and Environmental Science, 0, 585, 012010.	0.2	2
4836	MAPbBr <sub>3</sub> single crystal based metal-semiconductor-metal photodetector enhanced by localized surface plasmon. Materials Research Express, 2020, 7, 125902.	0.8	5
4837	Physical properties of bulk, defective, 2D and 0D metal halide perovskite semiconductors from a symmetry perspective. JPhys Materials, 2020, 3, 042001.	1.8	29
4838	Temporally decoherent and spatially coherent vibrations in metal halide perovskites. Physical Review B, 2020, 102, .	1.1	7
4839	Hot carriers in mixed Pb-Sn halide perovskite semiconductors cool slowly while retaining their electrical mobility. Physical Review B, 2020, 102, .	1.1	15
4840	Observation of positive and negative trions in organic-inorganic hybrid perovskite nanocrystals. Physical Review Materials, 2018, 2, .	0.9	35
4841	Up-converted photoluminescence from $C_nH_{3n}N$ impact of metal $n$ lone pair on luminescence quantum efficiency in low-dimensional halide perovskites. Physical Review Materials, 2019, 3, .	0.9	32
4842	Impact of metal lone pair on luminescence quantum efficiency in low-dimensional halide perovskites. Physical Review Materials, 2019, 3, .	0.9	60
4843	Alternative materials for perovskite solar cells from materials informatics. Physical Review Materials, 2019, 3, .	0.9	14
4844	Towards predictive band gaps for halide perovskites: Lessons from one-shot and eigenvalue self-consistent $G$ W calculations. Physical Review Materials, 2019, 3, .	0.9	39
4845	Excitonic enhancement of optical nonlinearities in perovskite $CH_3NH_3PbBr_3$ single crystals. Physical Review Materials, 2019, 3, .	0.9	37
4846	Impact of organic molecule rotation on the optoelectronic properties of hybrid halide perovskites. Physical Review Materials, 2019, 3, .	0.9	20
4847	Time-resolved imaging of carrier transport in halide perovskite thin films and evidence for nondiffusive transport. Physical Review Materials, 2019, 3, .	0.9	10
4848	Large thermal expansion leads to negative thermo-optic coefficient of halide perovskite $C_nH_{3n}N$	0.9	12
4849	How does entrepreneurial leadership affect innovation work behavior? The mediating role of individual and team creativity self-efficacy. European Journal of Innovation Management, 2022, 25, 1-18.	2.4	29
4850	Optical studies of semiconductor perovskite nanocrystals for classical optoelectronic applications and quantum information technologies: a review. Advanced Photonics, 2020, 2, .	6.2	30
4851	Enhanced light absorption of textured perovskite solar cells employing two-dimensional nanoarrays. Journal of Photonics for Energy, 2019, 9, 1.	0.8	5

#	ARTICLE	IF	CITATIONS
4852	First-Principles Study of Structural and Electronic Properties of Perovskite-Type CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> . Applied Physics, 2016, 06, 281-287.	0.0	1
4853	Study on organic-inorganic hybrid perovskite nanocrystals with regular morphologies and their effect on photoluminescence properties. Optics Express, 2020, 28, 10714.	1.7	7
4854	Random lasing in cesium lead iodide (CsPbI <sub>3</sub> ) thin films with no surface passivation. Optics Express, 2020, 28, 21805.	1.7	6
4855	Investigation on binding energy and reduced effective mass of exciton in organic-inorganic hybrid lead perovskite films by a pure optical method. Optics Letters, 2019, 44, 3474.	1.7	13
4856	TiO <sub>2</sub> /Mg-SnO <sub>2</sub> nanoparticle composite compact layer for enhancing the performance of perovskite solar cells. Optical Materials Express, 2020, 10, 157.	1.6	14
4857	Amplified spontaneous emission properties of solution processed CsPbBr <sub>3</sub> perovskite thin films doped with large-group ammonium cations. Optical Materials Express, 2020, 10, 981.	1.6	6
4858	Influence of mixed organic cations on the nonlinear optical properties of lead tri-iodide perovskites. Photonics Research, 2020, 8, A25.	3.4	11
4859	High detectivity photodetectors based on perovskite nanowires with suppressed surface defects. Photonics Research, 2020, 8, 1862.	3.4	23
4860	Lead-free metal-halide double perovskites: from optoelectronic properties to applications. Nanophotonics, 2021, 10, 2181-2219.	2.9	33
4861	Lead-free halide perovskite photodetectors spanning from near-infrared to X-ray range: a review. Nanophotonics, 2021, 10, 2221-2247.	2.9	30
4862	Ultrafast dynamics of photoexcited carriers in perovskite semiconductor nanocrystals. Nanophotonics, 2021, 10, 1943-1965.	2.9	16
4863	Advances in Dion-Jacobson phase two-dimensional metal halide perovskite solar cells. Nanophotonics, 2021, 10, 2069-2102.	2.9	38
4864	Recent Progress on Applications of Nano Metal Oxides in Perovskite Solar Cells. Wuji Cailiao Xuebao/Journal of Inorganic Materials, 2016, 31, 897.	0.6	3
4865	Growth of single crystals of methylammonium lead mixedhalide perovskites. Communications in Physics, 2018, 28, 237.	0.0	2
4866	Additive-induced Crystallization of Inorganic Perovskite Films for Efficient Solar Cells. International Journal of Electrochemical Science, 2018, 13, 4479-4488.	0.5	5
4867	Recent Progress in Long-term Stability of Perovskite Solar Cells. U Porto Journal of Engineering, 2015, 1, 52-62.	0.2	11
4868	Back-Contact Perovskite Solar Cells. , 2019, 1, 1-10.		4
4869	Effect of Passivation Layer on the Thin Film Perovskite Random Lasers. Materials, 2020, 13, 2322.	1.3	5

#	ARTICLE	IF	CITATIONS
4870	Enhanced Photovoltaic Properties of Perovskite Solar Cells by Employing Bathocuproine/Hydrophobic Polymer Films as Hole-Blocking/Electron-Transporting Interfacial Layers. <i>Polymers</i> , 2021, 13, 42.	2.0	10
4871	Direction-selective electron beam damage to CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> based on crystallographic anisotropy. <i>Applied Physics Express</i> , 2020, 13, 091001.	1.1	7
4872	Conjugated polymers as functional hole selective layers in efficient metal halide perovskite solar cells. <i>AIMS Materials Science</i> , 2017, 4, 956-969.	0.7	3
4873	Simulation and Optimization of Lead-Based Perovskite Solar Cells with Cuprous Oxide as a P-type Inorganic Layer. <i>Journal of the Nigerian Society of Physical Sciences</i> , 0, , 72-81.	0.0	8
4875	Progress of research on new hole transporting materials used in perovskite solar cells. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2015, 64, 033301.	0.2	5
4876	Recent advances in planar heterojunction organic-inorganic hybrid perovskite solar cells. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2015, 64, 038401.	0.2	16
4877	Key issues in highly efficient perovskite solar cells. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2015, 64, 038404.	0.2	12
4878	Recent progress in research on solid organic-inorganic hybrid solar cells. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2015, 64, 038405.	0.2	6
4879	progress in electron-transport materials in application of perovskite solar cells. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2015, 64, 038802.	0.2	12
4880	Factors influencing the stability of perovskite solar cells. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2015, 64, 038803.	0.2	7
4881	Recent research progress in perovskite solar cells. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2016, 65, 237902.	0.2	7
4882	An in-situ real time study of the perovskite film micro-structural evolution in a humid environment by using synchrotron based characterization technique. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2017, 66, 018401.	0.2	3
4883	Preparation and performance of high-efficient hole-transport-material-free carbon based perovskite solar cells. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2018, 67, 228801.	0.2	3
4884	Barium as doping element tuning both toxicity and optoelectric properties of lead-based halide perovskites. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2019, 68, 157101.	0.2	8
4885	Understanding the dopant induced effects on SFX-MeOTAD for perovskite solar cells: a spectroscopic and computational investigation. <i>Journal of Materials Chemistry C</i> , 2021, 9, 16226-16239.	2.7	4
4886	Photocatalytic reduction of CO <sub>2</sub> by halide perovskites: recent advances and future perspectives. <i>Materials Advances</i> , 2021, 2, 7187-7209.	2.6	27
4887	Current density in solar fuel technologies. <i>Energy and Environmental Science</i> , 2021, 14, 5760-5787.	15.6	32
4888	Emerging electronic applications of fullerene derivatives: an era beyond OPV. <i>Journal of Materials Chemistry C</i> , 2021, 9, 16143-16163.	2.7	21



#	ARTICLE	IF	CITATIONS
4889	Surface recrystallized stable 2Dâ€“3D graded perovskite solar cells for efficiency beyond 21%. Journal of Materials Chemistry A, 2021, 9, 26069-26076.	5.2	36
4890	PHASE FORMATION PROCESSES OF ORGANIC-INORGANIC CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> PEROVSKITES USING A DMF SOLVENT. Ukrainian Chemistry Journal, 2021, 87, 63-81.	0.1	1
4891	Halide Perovskites: Advanced Photovoltaic Materials Empowered by a Unique Bonding Mechanism. Advanced Functional Materials, 2022, 32, 2110166.	7.8	35
4892	Photo tuned electron field emission from vertically aligned CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> nanorods grown in AAO template. Journal of Physics and Chemistry of Solids, 2022, 161, 110457.	1.9	3
4893	Defect suppression and energy level alignment in formamidinium-based perovskite solar cells. Journal of Energy Chemistry, 2022, 67, 65-72.	7.1	19
4894	Ultrafast Response (<math>\sim 1 \mu\text{s}</math>) Perovskite Ultraviolet Photodetector via Ballâ€“Milling Pretreated Singleâ€“Source Vapor Deposition. Advanced Materials Technologies, 2022, 7, 2100392.	3.0	9
4895	Deepâ€“Red Perovskite Lightâ€“Emitting Diodes Based on Oneâ€“Stepâ€“Formed $\text{CsPbI}_3$ Cuboid Crystallites. Advanced Materials, 2021, 33, e2105699.	11.1	30
4896	Bismuth-based halide perovskite and perovskite-inspired light absorbing materials for photovoltaics. Journal Physics D: Applied Physics, 2022, 55, 113002.	1.3	17
4897	Orders of Recombination in Complete Perovskite Solar Cells â€“ Linking Timeâ€“Resolved and Steadyâ€“State Measurements. Advanced Energy Materials, 2021, 11, 2101823.	10.2	31
4898	A Peryleneâ€“Based Conjugated Polymer Endows Perovskite Solar Cells with 85â€“C Durability: The Control of Gas Permeation. Advanced Functional Materials, 2022, 32, 2108855.	7.8	19
4899	Emerging Perovskite Solar Cell Technology: Remedial Actions for the Foremost Challenges. Advanced Energy Materials, 2021, 11, .	10.2	40
4900	Photogeneration of thiyl radicals using metalâ€“halide perovskite for highly efficient synthesis of thioethers. Applied Organometallic Chemistry, 2022, 36, e6492.	1.7	11
4901	Simulating the Performance of a Formamidinium Based Mixed Cation Lead Halide Perovskite Solar Cell. Materials, 2021, 14, 6341.	1.3	19
4902	Realization of an Artificial Visual Nervous System using an Integrated Optoelectronic Device Array. Advanced Materials, 2021, 33, e2105485.	11.1	33
4903	Allâ€“inorganic CsPbI <sub>2</sub> Br Perovskite Solar Cells: Recent Developments and Challenges. Energy Technology, 2021, 9, 2100691.	1.8	11
4904	Improved Efficiency and Stability of Perovskite Solar Cells Using a Difluorobenzothiadiazole-Based Interfacial Material. ACS Applied Energy Materials, 2021, 4, 10646-10655.	2.5	9
4905	Use of n-type amorphous silicon films as an electron transport layer in the perovskite solar cells. Japanese Journal of Applied Physics, 2022, 61, SB1012.	0.8	0
4906	A-site phase segregation in mixed cation perovskite. Materials Reports Energy, 2021, 1, 100064.	1.7	19

#	ARTICLE	IF	CITATIONS
4907	Halide Perovskite Solar Cells for Building Integrated Photovoltaics: Transforming Building Façades into Power Generators. <i>Advanced Materials</i> , 2022, 34, e2104661.	11.1	37
4908	An Embedding 2D/3D Heterostructure Enables High-Performance Alloyed Flexible Perovskite Solar Cells with Efficiency over 20%. <i>Advanced Science</i> , 2021, 8, e2101856.	5.6	57
4909	Enhancing the stability and crystallinity of CsPbI <sub>3</sub> through antisolvent engineering. <i>Journal of Materials Science</i> , 2021, 56, 20071-20086.	1.7	9
4910	Enhancing the photo-luminescence stability of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> film with ionic liquids. <i>Chinese Physics B</i> , 2022, 31, 037802.	0.7	5
4911	Enhanced Performance and Stability of Carbon Counter Electrode-Based MAPbI <sub>3</sub> Perovskite Solar Cells with <i>p</i> -Methylphenylamine Iodate Additives. <i>ACS Applied Energy Materials</i> , 2021, 4, 11314-11324.	2.5	4
4912	Dopant-Free Hole Transporting Material Based on Nonconjugated Adamantane for High-Performance Perovskite Solar Cells. <i>Frontiers in Chemistry</i> , 2021, 9, 746365.	1.8	3
4913	Advancing 2D Perovskites for Efficient and Stable Solar Cells: Challenges and Opportunities. <i>Advanced Materials</i> , 2022, 34, e2105849.	11.1	104
4914	Semiconducting Materials for Printed Flexible Electronics. <i>Springer Series in Materials Science</i> , 2022, , 159-220.	0.4	0
4915	Machine learning stability and band gap of lead-free halide double perovskite materials for perovskite solar cells. <i>Solar Energy</i> , 2021, 228, 689-699.	2.9	23
4916	A new and simple method for simulation of lattice mismatch on the optical properties of solar cells: A combination of DFT and FDTD simulations. <i>Solar Energy</i> , 2021, 230, 166-176.	2.9	5
4917	The roles of surface defects in MAPbBr <sub>3</sub> and multi-structures in MAPbI <sub>3</sub> . <i>Optical Materials</i> , 2021, 122, 111600.	1.7	6
4918	Current research and future development of organic laser materials and devices. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2015, 64, 094202.	0.2	4
4919	Time- and Excitation-dependent Photoluminescence Characterisation of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite films. , 2015, , .		0
4920	Computational prediction of lattice defects in multinary compound semiconductors as photovoltaic materials. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2015, 64, 186102.	0.2	3
4921	Robust interface engineering for High-performance and Stable inverted planar perovskite solar cells via both poly(2-ethyl-2-oxazoline) nanodots. , 2016, , .		0
4922	Novel Insight into the Function of PC61BM in Efficient Planar Perovskite Solar Cells. , 2016, , .		1
4923	Chapter 6. Structural, Electronic, and Optical Properties of Lead Halide Perovskites. <i>RSC Energy and Environment Series</i> , 2016, , 177-201.	0.2	0
4925	Chapter 7. Controlling the Photoanode Mesostructure for Dye-sensitized and Perovskite-sensitized Solar Cells. , 2016, , 292-323.		0

#	ARTICLE	IF	CITATIONS
4926	The Influence of $PbI_2$ on Characteristic of Organic-Inorganic Hybrid Perovskite Thin Films. Modeling and Numerical Simulation of Material Science, 2017, 07, 47-57.	0.5	0
4927	First-Principle Study of Electronic Structure and Optical Absorption of Perovskite $CH_3NH_3PbBr_3$ . Material Sciences, 2017, 07, 64-71.	0.0	0
4929	Sample Preparation and Characterization Techniques. Springer Theses, 2017, , 19-40.	0.0	0
4930	Halide Perovskite Lasers. , 2017, , .		0
4931	16 Photoelectrochemical Approaches to Solar-H <sub>2</sub> Generation. Green Chemistry and Chemical Engineering, 2017, , 691-716.	0.0	0
4932	Ultrafast terahertz snapshots of excitonic Rydberg states and electronic coherence in an organometal halide perovskite $CH_3NH_3PbI_3$ . , 2017, , .		0
4933	Photoelectrochemical Approaches to Solar-H <sub>2</sub> Generation. , 2017, , 691-716.		0
4934	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
4935	Stable and Efficient Perovskite Solar Cells Fabricated Using Aqueous Lead Nitrate Precursor: Interpretation of the Conversion Mechanism and Renovation of the Sequential Deposition. SSRN Electronic Journal, 0, , .	0.4	0
4936	Improvement of current characteristic of perovskite solar cells using dodecanedioic acid modified TiO <sub>2</sub> electron transporting layer. Wuli Xuebao/Acta Physica Sinica, 2018, 67, 098801.	0.2	3
4937	Progress in Pb-free and less-Pb organic-inorganic hybrid perovskite solar cells. Wuli Xuebao/Acta Physica Sinica, 2018, 67, 028801.	0.2	4
4938	Determination of transport properties in optoelectronic devices by time-resolved fluorescence imaging. , 2018, , .		1
4939	Photophysics of organic-inorganic hybrid perovskite solar cells. , 2018, , .		0
4940	Photoinduced charge carrier dynamics and spectral band filling in organometal halide perovskites. Wuli Xuebao/Acta Physica Sinica, 2019, 68, 018401.	0.2	0
4941	Enhance the absorption of organic-inorganic perovskite film by nano-surface engineering. , 2019, , .		0
4942	Recent advances in photo-stability of lead halide perovskites. Wuli Xuebao/Acta Physica Sinica, 2019, 68, 157102.	0.2	4
4943	Inkjet printed perovskite solar cells: progress and prospects. Wuli Xuebao/Acta Physica Sinica, 2019, 68, 158807.	0.2	1
4944	Trap States Impact Photon Upconversion in Rubrene Sensitized by Lead Halide Perovskite Thin Films. SSRN Electronic Journal, 0, , .	0.4	1

#	ARTICLE	IF	CITATIONS
4945	Counter Electrode Materials for Organic-Inorganic Perovskite Solar Cells. , 2019, , 165-225.		2
4946	Rutile TiO <sub>2</sub> nanorod arrays grown by solution-processed for high efficiency solid-state perovskite solar cells. , 2019, , .		0
4947	Recent Development in Perovskite Solar Cell Based on Planar Structures. Lecture Notes in Electrical Engineering, 2020, , 1039-1046.	0.3	2
4948	PEROVSKITE PHOTOELECTRIC CONVERTERS WITHOUT HOLE-CONDUCTING BUFFER LAYERS. Vestnik Međunarodnogo Univerziteta Prirody, Obšestva i Ćeloveka Dubna, 2019, , 23-29.	0.0	0
4949	Effect of Urea Addition on the Photovoltaic Performance of Perovskite Solar Cells. Hans Journal of Nanotechnology, 2020, 10, 34-42.	0.1	0
4950	Perovskite Materials in Photovoltaics. Materials Horizons, 2020, , 175-207.	0.3	1
4951	Characterization of the $\{111\} / [001]$ Grain Boundary of Methyl-Ammonium Lead Triiodide Perovskite using Density Functional Theory. Transactions of the Materials Research Society of Japan, 2020, 45, 67-71.	0.2	0
4952	Lithium-Based Upconversion Nanoparticles for High Performance Perovskite Solar Cells. Nanomaterials, 2021, 11, 2909.	1.9	6
4953	A Holistic Study on the Effect of Annealing Temperature and Time on CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> -Based Perovskite Solar Cell Characteristics. Frontiers in Energy Research, 2021, 9, .	1.2	3
4954	An Approach to Quantify the Negative Capacitance Features in a Triple-Cation based Perovskite Solar Cells. Advanced Materials Interfaces, 2021, 8, 2101002.	1.9	11
4955	Deciphering the Carrier Transport Properties in Two-Dimensional Perovskites via Surface-Enhanced Raman Scattering. Small, 2021, 17, e2103756.	5.2	4
4956	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
4957	Surface-tension release in PTAA-based inverted perovskite solar cells. Organic Electronics, 2022, 100, 106378.	1.4	20
4958	Synergetic Co-Modulation of Crystallization and Co-Passivation of Defects for FAPbI <sub>3</sub> Perovskite Solar Cells. Advanced Functional Materials, 2022, 32, 2108567.	7.8	38
4959	Hydrogen-Anion-Induced Carrier Recombination in MAPbI <sub>3</sub> Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2021, 12, 10677-10683.	2.1	12
4960	Ultrahigh Color Rendering in RGB Perovskite Micro-Light-Emitting Diode Arrays with Resonance-Enhanced Photon Recycling for Next Generation Displays. Advanced Optical Materials, 2022, 10, 2101642.	3.6	19
4961	Effects of Crystallinity on the Photocatalytic Polymerization of 3,4-Ethylenedioxythiophene over CsPbBr <sub>3</sub> Inverse Opals. Catalysts, 2021, 11, 1331.	1.6	4
4962	Laser-Assisted Synthesis of Ag <sub>2</sub> S Quantum Dots in Perovskite Matrix and Its Application in Broadband Photodetectors. Advanced Optical Materials, 2022, 10, 2101535.	3.6	10

#	ARTICLE	IF	CITATIONS
4963	Defect Passivation through Cyclohexylethylamine Post-treatment for High-Performance and Stable Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2021, 4, 12848-12857.	2.5	6
4964	Optical and Electrical Simulation of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> -based Perovskite Solar Cells. <i>International Journal of Optics and Photonics</i> , 2020, 14, 57-66.	0.2	0
4965	Silver nanowires network-based electrode for metal-semiconductor-metal perovskite solar devices. <i>Materials Today: Proceedings</i> , 2020, , .	0.9	0
4966	Stability study of organometal halide perovskite and its enhanced X-ray scintillation from the incorporation of anodic TiO <sub>2</sub> nanotubes. <i>RSC Advances</i> , 2020, 10, 43773-43782.	1.7	2
4967	Photovoltaics. <i>Springer Theses</i> , 2020, , 3-20.	0.0	0
4968	Construction of a gradient-type 2D/3D perovskite structure for subsurface passivation and energy-level alignment of an MAPbI <sub>3</sub> film. <i>Journal of Materials Chemistry A</i> , 2021, 9, 26086-26094.	5.2	12
4969	Perovskite Quantum Dots Based Lasing-Prospects and Challenges. <i>Springer Series in Materials Science</i> , 2020, , 279-335.	0.4	0
4970	Two-dimensional nanomaterials and their derivatives for laser protection. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2020, 69, 184201.	0.2	4
4971	Perovskite Materials in Biomedical Applications. <i>Materials Horizons</i> , 2020, , 95-116.	0.3	5
4972	Review of the research on nano-structure used as light harvesting in perovskite solar cells. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2020, 69, 077101.	0.2	1
4973	Effect of annealing temperature on size and optical properties of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> nanowires. <i>International Journal of Materials Research</i> , 2020, 111, 261-264.	0.1	0
4979	MXene-Based Tailoring of Carrier Dynamics, Defect Passivation, and Interfacial Band Alignment for Efficient Planar Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2021, 4, 12137-12148.	2.5	23
4981	Flexible and Wearable Optoelectronic Devices Based on Perovskites. <i>Advanced Materials Technologies</i> , 2022, 7, .	3.0	26
4983	Recent Progress in Perovskite-Based Reversible Photon-Electricity Conversion Devices. <i>Advanced Functional Materials</i> , 2022, 32, 2108926.	7.8	18
4984	Dispersed SnO <sub>2</sub> colloids using sodium dodecyl benzene sulfonate for high-performance planar perovskite solar cells. <i>Solar Energy</i> , 2021, 230, 747-753.	2.9	7
4985	Interface charge accumulation dynamics in 3D and quasi-2D perovskite solar cells. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 014004.	1.3	1
4986	Detection of Volatile Organic Compounds (VOCs) using Organic-Inorganic Hybrid Perovskite Nanoparticles. <i>Korean Journal of Materials Research</i> , 2020, 30, 515-521.	0.1	0
4987	A multifunctional 2D black phosphorene-based platform for improved photovoltaics. <i>Chemical Society Reviews</i> , 2021, 50, 13346-13371.	18.7	25

#	ARTICLE	IF	CITATIONS
4988	Improved morphology, structure and optical properties of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> film via HQ additive in PbI <sub>2</sub> precursor solution for efficient and stable mesoporous perovskite solar cells. <i>Synthetic Metals</i> , 2022, 283, 116965.	2.1	7
4989	Interfacial fracture of hybrid organic–inorganic perovskite solar cells. <i>Extreme Mechanics Letters</i> , 2022, 50, 101515.	2.0	7
4990	Top Thermal Annealing of 2D/3D Lead Halide Perovskites: Anisotropic Photoconductivity and Vertical Gradient of Dimensionality. <i>Journal of Photopolymer Science and Technology</i> = [Fotoporima Konwakai Shi], 2021, 34, 263-269.	0.1	3
4991	Updated Progresses in Perovskite Solar Cells. <i>Chinese Physics Letters</i> , 2021, 38, 107801.	1.3	11
4993	High-efficiency (>20%) planar carbon-based perovskite solar cells through device configuration engineering. <i>Journal of Colloid and Interface Science</i> , 2022, 608, 3151-3158.	5.0	34
4994	MXene-Based Materials for Solar Cell Applications. <i>Nanomaterials</i> , 2021, 11, 3170.	1.9	19
4995	Halide perovskite-based indoor photovoltaics: recent development and challenges. <i>Materials Today Energy</i> , 2022, 23, 100907.	2.5	27
4996	Impedance Spectroscopy of Metal Halide Perovskite Solar Cells from the Perspective of Equivalent Circuits. <i>Chemical Reviews</i> , 2021, 121, 14430-14484.	23.0	121
4997	Carrier-Specific Hot Phonon Bottleneck in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Revealed by Femtosecond XUV Absorption. <i>Journal of the American Chemical Society</i> , 2021, 143, 20176-20182.	6.6	16
4998	Pb <sub>2</sub> –TiO <sub>2</sub> Bulk Heterojunctions with Long-Range Ordering for X-ray Detectors. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 11176-11181.	2.1	9
4999	Traversing Excitonic and Ionic Landscapes: Reduced-Dimensionality-Inspired Design of Organometal Halide Semiconductors for Energy Applications. <i>Accounts of Chemical Research</i> , 2021, 54, 4371-4382.	7.6	7
5000	3D graphene-like semiconductor Ba <sub>2</sub> HfTe <sub>4</sub> with electronic structure similar to graphene and bandgap close to silicon. <i>Cell Reports Physical Science</i> , 2021, 2, 100658.	2.8	4
5001	High-Performance Perovskite Solar Cells by Doping Didodecyl Dimethyl Ammonium Bromide in the Hole Transport Layer. <i>ACS Applied Energy Materials</i> , 2021, 4, 13471-13481.	2.5	2
5002	Role of Phase Nanosegregation in the Photoluminescence Spectra of Halide Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 11659-11665.	2.1	1
5003	Colloidal Metal–Halide Perovskite Nanoplatelets: Thickness–Controlled Synthesis, Properties, and Application in Light-Emitting Diodes. <i>Advanced Materials</i> , 2022, 34, e2107105.	11.1	124
5004	Tailored Fabrication of Carbon Dot Composites with Full-Color Ultralong Room-Temperature Phosphorescence for Multidimensional Encryption. <i>Advanced Science</i> , 2022, 9, e2103833.	5.6	100
5005	Vacuum-evaporated lead halide perovskite LEDs [Invited]. <i>Optical Materials Express</i> , 2022, 12, 256.	1.6	6
5006	Electron transport layer engineering with rubidium chloride alkali halide to boost the performance of perovskite absorber layer. <i>Current Applied Physics</i> , 2022, 34, 50-54.	1.1	7



#	ARTICLE	IF	CITATIONS
5007	Highly efficient (200) oriented MAPbI <sub>3</sub> perovskite solar cells. <i>Chemical Engineering Journal</i> , 2022, 433, 133845.	6.6	21
5008	Current status and trends of carbon-based electrodes for fully solution-processed perovskite solar cells. <i>Journal of Energy Chemistry</i> , 2022, 68, 222-246.	7.1	29
5009	Hybrid Perovskite/Polymer Materials: Preparation and Physicochemical Properties. <i>Journal of Composites Science</i> , 2021, 5, 304.	1.4	3
5010	Insight into the Interface Engineering of a SnO <sub>2</sub> /FAPbI <sub>3</sub> Perovskite Using Lead Halide as an Interlayer: A First-Principles Study. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 11330-11338.	2.1	8
5011	Effect of Cs <sup>+</sup> and K <sup>+</sup> incorporation on the charge carrier lifetime, device performance and stability in perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2022, 236, 111512.	3.0	8
5012	Mixed halide bulk perovskite triplet sensitizers: Interplay between band alignment, mid-gap traps, and phonons. <i>Journal of Chemical Physics</i> , 2021, 155, 234706.	1.2	8
5013	The roles of black phosphorus in performance enhancement of halide perovskite solar cells. <i>Journal of Energy Chemistry</i> , 2022, 67, 672-683.	7.1	6
5014	Low-temperature Atomic Layer Deposited Electron Transport Layers for Co-evaporated Perovskite Solar Cells. <i>Solar Rrl</i> , 2022, 6, 2100842.	3.1	16
5015	Improved crystallinity and self-healing effects in perovskite solar cells via functional incorporation of polyvinylpyrrolidone. <i>Journal of Energy Chemistry</i> , 2022, 68, 12-18.	7.1	31
5016	Insights into the Adsorption of Water and Oxygen on the Cubic CsPbBr <sub>3</sub> Surfaces: A First-Principle Study. <i>Chinese Physics B</i> , 0, , .	0.7	1
5017	Unraveling the Role of Chloride in Vertical Growth of Low-Dimensional Ruddlesden-Popper Perovskites for Efficient Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, , .	4.0	6
5018	Stability and electronic properties of two-dimensional metal-organic perovskites in Janus phase. <i>APL Materials</i> , 2021, 9, 111105.	2.2	2
5019	3,5-Difluorophenylboronic acid-modified SnO <sub>2</sub> as ETLs for perovskite solar cells: PCE > 22.3%, T <sub>82</sub> > 3000 h. <i>Chemical Engineering Journal</i> , 2022, 433, 133744.	6.6	22
5020	Inkjet printed organic light-emitting diodes employing organometal-halide perovskite as hole transport layer. <i>Journal Physics D: Applied Physics</i> , 2022, 55, 105101.	1.3	1
5021	X-Ray-Induced Modification of the Photophysical Properties of MAPbBr <sub>3</sub> Single Crystals. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 58301-58308.	4.0	15
5022	Interfacial engineering of mp-TiO <sub>2</sub> /CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> with Al <sub>2</sub> O <sub>3</sub> : Effect of different phases of alumina on performance and stability of perovskite solar cells. <i>Journal of Materials Research</i> , 2021, 36, 4938-4950.	1.2	3
5023	Room-temperature multiple ligands-tailored SnO <sub>2</sub> quantum dots endow in situ dual-interface binding for upscaling efficient perovskite photovoltaics with high VOC. <i>Light: Science and Applications</i> , 2021, 10, 239.	7.7	40
5024	Highly Tunable Enhancement and Switching of Nonlinear Emission from All-Inorganic Lead Halide Perovskites via Electric Field. <i>Nano Letters</i> , 2021, 21, 10230-10237.	4.5	12

#	ARTICLE	IF	CITATIONS
5025	Anti-Ribbing: Ink Optimization Enables Certified Slot-Die Coated Perovskite Solar Cells with > 22% Certified Power Conversion Efficiency and a Full Year Outdoor Stability. SSRN Electronic Journal, 0, , .	0.4	1
5026	Halide Perovskites for Photonics: Recent History and Perspectives. , 2021, , 1-28.		1
5027	Silk Fibroin Induced Homeotropic Alignment of Perovskite Crystals Toward High Efficiency and Stability. SSRN Electronic Journal, 0, , .	0.4	0
5028	Charge Transport Layers in Halide Perovskite Photonic Devices. , 2021, , 1-32.		0
5029	Studying the influence of heat treatment on structural and morphological properties of thin CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3-x</sub> Cl <sub>x</sub> films prepared by spin coating method. AIP Conference Proceedings, 2021, , .	0.3	1
5030	Exploring the Ruddlesdenâ€“Popper layered organicâ€“inorganic hybrid semiconducting perovskite for visible-blind ultraviolet photodetection. CrystEngComm, 2022, 24, 2258-2263.	1.3	2
5031	Electronic Doping Strategy in Perovskite Solar Cells. , 2021, , 1-56.		1
5032	Excited-State Dynamics in Metal Halide Perovskites: A Theoretical Perspective. , 2021, , 1-54.		0
5033	Strain relaxation and domain enlargement via phase transition towards efficient CsPbI <sub>2</sub> Br solar cells. Journal of Materials Chemistry A, 2022, 10, 3513-3521.	5.2	11
5034	A bilayered two-dimensional hybrid perovskite with a cage-templated secondary cation for high efficiency photodetection. Inorganic Chemistry Frontiers, 2022, 9, 637-644.	3.0	9
5035	Atomistic origin of lattice softness and its impact on structural and carrier dynamics in three dimensional perovskites. Energy and Environmental Science, 2022, 15, 660-671.	15.6	24
5036	High-efficiency modified tandem solar cell: Simulation of two-absorbers bottom subcell. Optik, 2022, 251, 168458.	1.4	3
5037	Self-aligned CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> perovskite nanowires via dielectrophoresis for gas sensing applications. Applied Materials Today, 2022, 26, 101307.	2.3	9
5038	A tale of two organic small molecular hole transporting materials: Showing same extended shelf-life but very different efficiency of inverted MAPbI <sub>3</sub> perovskite solar cells. Organic Electronics, 2022, 102, 106428.	1.4	3
5039	Alkali metal ions induced high-quality all-inorganic Cs <sub>2</sub> AgBiBr <sub>6</sub> perovskite films for flexible self-powered photodetectors. Applied Surface Science, 2022, 579, 152198.	3.1	20
5040	Recent progress in perovskite solar cells: challenges from efficiency to stability. Materials Today Chemistry, 2022, 23, 100686.	1.7	26
5041	Ambient environment induced synergetic improvement in morphology and iodine vacancy passivation by MAI surface engineering in mixed-cation lead mixed-halide (FA <sub>0.85</sub> MA <sub>0.15</sub> PbI <sub>0.55</sub> Br <sub>0.45</sub> ) perovskite solar cells. Surfaces and Interfaces, 2022, 29, 101703.	1.5	1
5042	Annealing free tin oxide electron transport layers for flexible perovskite solar cells. Nano Energy, 2022, 94, 106919.	8.2	29

#	ARTICLE	IF	CITATIONS
5043	Efficiency improvement of Cs <sub>2</sub> AgBiBr <sub>6</sub> perovskite solar cells with modification of SnS quantum dots. <i>Materials Letters</i> , 2022, 312, 131672.	1.3	11
5044	Efficiency improvement of half-tandem CIGS/perovskite solar cell by designing nano-prism nanostructure as the controllable light trapping. <i>Energy Reports</i> , 2022, 8, 1298-1308.	2.5	17
5045	Stability of Low-index Surfaces of Cs <sub>2</sub> SnI <sub>6</sub> Studied by First-principles Calculations. <i>Wuji Cailiao Xuebao/Journal of Inorganic Materials</i> , 2022, 37, 691.	0.6	2
5046	Two-Terminal Perovskite/Silicon Solar Cell: Simulation and Analysis. , 2021, , .		4
5047	Surface Passivation Toward Efficient and Stable Perovskite Solar Cells. <i>Energy and Environmental Materials</i> , 2023, 6, .	7.3	46
5048	Stable Lead-Free Blue-Emitting Cs <sub>3</sub> Cu <sub>2</sub> Br <sub>5</sub> Single Crystal with Self-Trap Exciton Emission for Optoelectronics. <i>Advanced Photonics Research</i> , 2022, 3, .	1.7	13
5049	Expanding the Cage of 2D Bromide Perovskites by Large A-Site Cations. <i>Chemistry of Materials</i> , 2022, 34, 1132-1142.	3.2	22
5050	Enhanced crystallization in the CsPbBr <sub>3</sub> all-inorganic perovskite <i>via</i> an advanced nucleation method. <i>Journal of Materials Chemistry C</i> , 2022, 10, 3429-3434.	2.7	5
5051	Perovskite Quantum Dots in Solar Cells. <i>Advanced Science</i> , 2022, 9, e2104577.	5.6	49
5052	Tailoring Anchoring Groups in Low-Dimensional Organic Semiconductor-Incorporated Perovskites. <i>Small Structures</i> , 2022, 3, .	6.9	9
5053	Controlling the Grain Size of Dion-Jacobson-Phase Two-Dimensional Layered Perovskite for Memory Application. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 4371-4377.	4.0	15
5054	First principles study of electronic, optical, and thermoelectric properties of K <sub>2</sub> Pd(Cl/Br) <sub>6</sub> for solar cells and renewable energy. <i>Physica Scripta</i> , 2022, 97, 035803.	1.2	14
5055	Nonlinear absorption of CsPbBr <sub>3</sub> /antimonene blend materials prepared by laser ablation in liquid. <i>Optical Materials</i> , 2022, 123, 111901.	1.7	1
5056	Effect of Iodine Octahedral Rotations on Dipole Ordering in Organic-Inorganic Hybrid Perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> . <i>Journal of Physical Chemistry C</i> , 2022, 126, 779-785.	1.5	2
5057	Dynamics of Strong Coupling Between Free Charge Carriers in Organometal Halide Perovskites and Aluminum Plasmonic States. <i>Frontiers in Chemistry</i> , 2021, 9, 818459.	1.8	0
5058	Ab initio study of structural, electronic, mechanical and optical properties of the tetragonal Cs <sub>2</sub> AgBiBr <sub>6</sub> halide double perovskite. <i>Applied Physics A: Materials Science and Processing</i> , 2022, 128, 1.	1.1	8
5059	Effect of annealing treatment of PC60BM layer on inverted perovskite solar cells. <i>Journal of Materials Science: Materials in Electronics</i> , 2022, 33, 5351-5358.	1.1	1
5060	Direct measurement of radiative decay rates in metal halide perovskites. <i>Energy and Environmental Science</i> , 2022, 15, 1211-1221.	15.6	7

#	ARTICLE	IF	CITATIONS
5061	Oxidized Nickel to Prepare an Inorganic Hole Transport Layer for High-Efficiency and Stability of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Solar Cells. <i>Energies</i> , 2022, 15, 919.	1.6	5
5062	Microspacing In-Air Sublimation Growth of Thickness-Controllable Lead Halide Crystal and the Morphology Evolution in Conversion to Perovskite. <i>ACS Applied Energy Materials</i> , 0, , .	2.5	3
5063	Oxide free materials for perovskite solar cells. , 2022, , 287-306.		2
5064	Ultrafast Triplet Generation at the Lead Halide Perovskite/Rubrene Interface. <i>ACS Energy Letters</i> , 2022, 7, 617-623.	8.8	24
5065	Unveiling the effect of amino acids on the crystallization pathways of methylammonium lead iodide perovskites. <i>Journal of Energy Chemistry</i> , 2022, 69, 253-260.	7.1	10
5066	Realizing High-Efficiency and Stable Perovskite Solar Cells via Double-Perovskite Nanocrystal Passivation. <i>ACS Applied Energy Materials</i> , 2022, 5, 1169-1174.	2.5	10
5067	4-tert-butyl pyridine additive for moisture-resistant wide bandgap perovskite solar cells. <i>Optical Materials</i> , 2022, 123, 111876.	1.7	12
5068	Ultrasensitive Photodetectors Based on Strongly Interacted Layered-Perovskite Nanowires. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 1601-1608.	4.0	8
5069	Stacked perovskite photodetectors for multi-color fluorescence detection. <i>Journal of Materials Chemistry C</i> , 2021, 10, 321-328.	2.7	3
5070	Quantifying Efficiency Limitations in All-Inorganic Halide Perovskite Solar Cells. <i>Advanced Materials</i> , 2022, 34, e2108132.	11.1	44
5071	Regulation of the luminescence mechanism of two-dimensional tin halide perovskites. <i>Nature Communications</i> , 2022, 13, 60.	5.8	48
5072	Study of MAPb(I <sup>1-x</sup> Br <sub>x</sub> ) <sub>3</sub> thin film and perovskite solar cells based on hole transport material-free and carbon electrode. <i>Journal of Materials Science: Materials in Electronics</i> , 2022, 33, 2654.	1.1	0
5073	Enhancing the efficiency and stability of perovskite solar cells based on moisture-resistant dopant free hole transport materials by using a 2D-BA <sub>2</sub> Pb <sub>4</sub> interfacial layer. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 1675-1684.	1.3	5
5074	Amidinium additives for high-performance perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2022, 10, 3506-3512.	5.2	11
5075	Rare earth-based compounds for solar cells. , 2022, , 365-393.		1
5076	Defect Passivation Using Trichloromelamine for Highly Efficient and Stable Perovskite Solar Cells. <i>Polymers</i> , 2022, 14, 398.	2.0	7
5077	Rashba splitting in organic-inorganic lead halide perovskites revealed through two-photon absorption spectroscopy. <i>Nature Communications</i> , 2022, 13, 483.	5.8	31
5078	Tunable engineering of photo- and electro-induced carrier dynamics in perovskite photoelectronic devices. <i>Science China Materials</i> , 2022, 65, 855-875.	3.5	9

#	ARTICLE	IF	CITATIONS
5079	Methylammonium Compensation Effects in MAPbI <sub>3</sub> Perovskite Solar Cells for High-Quality Inorganic CuSCN Hole Transport Layers. ACS Applied Materials & Interfaces, 2022, 14, 5203-5210.	4.0	24
5080	Switchable photovoltaic effect in solar cells: Architecture, features, and future scope. , 2022, , 161-184.		0
5081	Optimizing the quasi-equilibrium state of hot carriers in all-inorganic lead halide perovskite nanocrystals through Mn doping: fundamental dynamics and device perspectives. Chemical Science, 2022, 13, 1734-1745.	3.7	11
5082	Effect of ligand groups on photoexcited charge carrier dynamics at the perovskite/TiO <sub>2</sub> interface. RSC Advances, 2021, 12, 78-87.	1.7	1
5083	Emerging doping strategies in two-dimensional hybrid perovskite semiconductors for cutting edge optoelectronics applications. Nanoscale Advances, 2022, 4, 995-1025.	2.2	14
5084	Potassium Iodide Doping Strategy for High-Efficiency Perovskite Solar Cells Revealed by Ultrafast Spectroscopy. Journal of Physical Chemistry Letters, 2022, 13, 711-717.	2.1	3
5085	Inspired from Spiro-OMeTAD: developing ambipolar spirobifluorene derivatives as effective passivation molecules for perovskite solar cells. Journal of Materials Chemistry C, 2022, 10, 1357-1364.	2.7	10
5086	DFT study of electronic structure and mobility of pristine and fluorinated methylammonium lead halide perovskites (CH <sub>3</sub> NH <sub>3</sub> PbX <sub>3</sub> , X = I, Br, Cl). International Journal of Energy Research, 2022, 46, 6889-6900.	2.2	5
5087	Mechanical study of perovskite solar cells: opportunities and challenges for wearable power source. Optical Materials Express, 2022, 12, 772.	1.6	9
5088	Amplified Spontaneous Emission with a Low Threshold from Quasi-2D Perovskite Films via Phase Engineering and Surface Passivation. Advanced Optical Materials, 2022, 10, .	3.6	15
5089	A GGA+vdW study on electronic properties and optoelectronic functionality of Cd-doped tetragonal CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> for photovoltaics. Chemical Physics, 2022, 556, 111461.	0.9	1
5090	Polymer-Assisted Phase Stable CsPbI <sub>3</sub> Perovskite Film for Self-Powered and Ultrafast Photodiodes. Advanced Materials Interfaces, 2022, 9, .	1.9	1
5091	FAPbI <sub>3</sub> Perovskite Films Prepared by Solvent Self-Volatilization for Photovoltaic Applications. ACS Applied Energy Materials, 2022, 5, 1487-1495.	2.5	18
5092	Insight into the Enhanced Charge Transport in Quasi-2D Perovskite via Fluorination of Ammonium Cations for Photovoltaic Applications. ACS Applied Materials & Interfaces, 2022, 14, 7917-7925.	4.0	9
5093	Grain Boundaries Engineering via Laser Manufactured La-Doped BaSnO <sub>3</sub> Nanocrystals with Tailored Surface States Enabling Perovskite Solar Cells with Efficiency of 23.74%. Advanced Functional Materials, 2022, 32, 2112388.	7.8	16
5094	Growing MASn <sub>3</sub> perovskite single-crystal films by inverse temperature crystallization. Journal of Physics Condensed Matter, 2022, 34, 144009.	0.7	4
5095	Silk fibroin induced homeotropic alignment of perovskite crystals toward high efficiency and stability. Nano Energy, 2022, 94, 106936.	8.2	25
5096	Techno-economic and environmental sustainability of industrial-scale productions of perovskite solar cells. Renewable and Sustainable Energy Reviews, 2022, 158, 112146.	8.2	23

#	ARTICLE	IF	CITATIONS
5097	Two-dimensional perovskites: Impacts of species, components, and properties of organic spacers on solar cells. <i>Nano Today</i> , 2022, 43, 101394.	6.2	58
5098	Substrate depended chemical composition segregation and electrical property of perovskite films. <i>Journal of Alloys and Compounds</i> , 2022, 902, 163797.	2.8	1
5099	Improving water-resistance of inverted flexible perovskite solar cells via tailoring the top electron-selective layers. <i>Solar Energy Materials and Solar Cells</i> , 2022, 238, 111609.	3.0	19
5100	Effect of introducing zinc on the photoluminescence and stability of cesium lead halide perovskite materials. <i>Applied Surface Science</i> , 2022, 584, 152527.	3.1	3
5101	Bulky ammonium iodide and in-situ formed 2D Ruddlesden-Popper layer enhances the stability and efficiency of perovskite solar cells. <i>Journal of Colloid and Interface Science</i> , 2022, 614, 247-255.	5.0	12
5102	Synergetic interfacial passivation, band alignment, and long-term stability with halide-optimized CsPbBr <sub>3</sub> nanocrystals for high-efficiency MAPbI <sub>3</sub> solar cells. <i>Journal of Materials Chemistry C</i> , 2022, 10, 5134-5140.	2.7	2
5103	A New Organic-Inorganic Hybrid Compound: Synthesis, crystal structure, Hirshfeld surface analysis, vibrational, optical, magnetic properties and theoretical study. <i>Polyhedron</i> , 2022, 217, 115717.	1.0	5
5104	Formation of Bi <sub>2</sub> Dimers in Heavily Bi-Doped Lead Halide Perovskites: Origin of Carrier Density Saturation. <i>Physical Review Applied</i> , 2022, 17, .	1.5	1
5105	Ruddlesden-Popper 2D perovskites of type (C <sub>6</sub> H <sub>9</sub> C <sub>2</sub> H <sub>4</sub> NH <sub>3</sub> ) <sub>2</sub> (CH <sub>3</sub> NH <sub>3</sub> ) <sub>n-1</sub> PbnI <sub>3n+1</sub> (n=1-4) for optoelectronic applications. <i>Scientific Reports</i> , 2022, 12, 2176.	1.6	30
5106	Emerging New Generation Detecting and Sensing of Metal Halide Perovskites. <i>Advanced Electronic Materials</i> , 2022, 8, .	2.6	17
5107	Spacer Engineering of Thiophene-Based Two-Dimensional/Three-Dimensional Hybrid Perovskites for Stable and Efficient Solar Cells. <i>Journal of Physical Chemistry C</i> , 2022, 126, 3351-3358.	1.5	9
5108	Ambient Stable Perovskite Solar Cells through Trifluoro Acetic Acid-Mediated Multifunctional Anchoring. <i>ACS Applied Energy Materials</i> , 2022, 5, 1571-1579.	2.5	9
5109	Two-dimensional material-based printed photonics: a review. <i>2D Materials</i> , 2022, 9, 042003.	2.0	5
5110	Impact of Molybdenum Dichalcogenides on the Active and Hole-Transport Layers for Perovskite Solar Cells, X-Ray Detectors, and Photodetectors. <i>Small</i> , 2022, 18, e2104216.	5.2	22
5111	Efficiently Improved Photoluminescence in Cesium Lead Halide Perovskite Nanocrystals by Using Bis(trifluoromethane)sulfonimide. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 1519-1525.	2.1	12
5112	Post-treatment Passivation by Quaternary Ammonium Chloride Zwitterion for Efficient and Stable Perovskite Solar Cells. <i>Solar Rrl</i> , 2022, 6, .	3.1	3
5113	Light-Emitting Diodes Based on Two-Dimensional Nanoplatelets. <i>Energy Material Advances</i> , 2022, 2022, .	4.7	26
5114	Review of Two-Step Method for Lead Halide Perovskite Solar Cells. <i>Solar Rrl</i> , 2022, 6, .	3.1	44



#	ARTICLE	IF	CITATIONS
5115	Inverted Perovskite Solar Cells: The Emergence of a Highly Stable and Efficient Architecture. <i>Energy Technology</i> , 2022, 10, .	1.8	11
5116	Metal Halide-Based Adsorption and Substitution at Halide Perovskite Surfaces: Study of CuBr <sub>2</sub> /CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> . <i>Russian Journal of Physical Chemistry A</i> , 2022, 96, 190-197.	0.1	1
5117	Synergistic effects of bithiophene ammonium salt for high-performance perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2022, 10, 9971-9980.	5.2	14
5118	Experimental and theoretical study of europium-doped organometal halide perovskite nanoplatelets for UV photodetection with high responsivity and fast response. <i>Nanoscale</i> , 2022, 14, 6402-6416.	2.8	8
5119	Cation substitution effects on the structural, electronic and sun-light absorption features of all-inorganic halide perovskites. <i>Inorganic Chemistry Frontiers</i> , 2022, 9, 1337-1353.	3.0	2
5120	Design and simulation of perovskite solar cell using graphene oxide as hole transport material. <i>AIP Conference Proceedings</i> , 2022, , .	0.3	5
5121	Enhanced crystal quality of perovskite via protonated graphitic carbon nitride added in carbon-based perovskite solar cells. <i>Chinese Journal of Chemical Physics</i> , 2022, 35, 390-398.	0.6	2
5122	Boosting Radiation of Stacked Halide Layer for Perovskite Solar Cells With Efficiency Over 25%. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
5123	<i>In situ</i> growth of a 2D assisted passivation layer enabling high-performance and stable 2D/3D stacked perovskite photodetectors for visible light communication applications. <i>Journal of Materials Chemistry C</i> , 2022, 10, 6846-6856.	2.7	9
5124	Investigation on energy resolution of CsPbBr <sub>3</sub> detectors: from charge transport behavior to device configuration. <i>Journal of Materials Chemistry C</i> , 2022, 10, 6017-6024.	2.7	6
5125	Supramolecular Bridging Strategy Enables High Performance and Stable Organic-Inorganic Halide Perovskite Solar Cells. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
5126	Instability Issues and Stabilization Strategies of Lead Halide Perovskites for Photo(electro)catalytic Solar Fuel Production. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 1806-1824.	2.1	7
5127	Combination of Photovoltaics and Organic Light-Emitting Diode Display. <i>Journal of Physics: Conference Series</i> , 2022, 2194, 012022.	0.3	0
5128	Unveiling Charge Carrier Recombination, Extraction, and Hot Carrier Dynamics in Indium Incorporated Highly Efficient and Stable Perovskite Solar Cells. <i>Advanced Science</i> , 2022, 9, e2103491.	5.6	15
5129	Rethinking the A cation in halide perovskites. <i>Science</i> , 2022, 375, eabj1186.	6.0	207
5130	Short Photoluminescence Lifetimes Linked to Crystallite Dimensions, Connectivity, and Perovskite Crystal Phases. <i>Journal of Physical Chemistry C</i> , 2022, 126, 3466-3474.	1.5	4
5131	Revealing the quasiparticle electronic and excitonic nature in cubic, tetragonal, and hexagonal phases of FAPbI <sub>3</sub> . <i>AIP Advances</i> , 2022, 12, 025330.	0.6	2
5132	Tolerance Factor for Stabilizing 3D Hybrid Halide Perovskitoids Using Linear Diammonium Cations. <i>Journal of the American Chemical Society</i> , 2022, 144, 3902-3912.	6.6	36

#	ARTICLE	IF	CITATIONS
5133	Fast Polaron Formation and Low Carrier Mobility in Defect-Free Polyhedral CsPbBr <sub>3</sub> Perovskite Nanocrystals. ACS Photonics, 2022, 9, 969-978.	3.2	23
5134	Internal Interactions between Mixed Bulky Organic Cations on Passivating Defects in Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 11200-11210.	4.0	14
5135	Controllable Introduction of Surface Defects on CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite. Nanomaterials, 2022, 12, 1002.	1.9	1
5136	Hydrophobic Graphene Quantum Dots for Defect Passivation and Enhanced Moisture Stability of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	11
5137	Effect of Steric Hindrance of Butylammonium Iodide as Interface Modification Materials on the Performance of Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	10
5138	Highly Efficient Large-Area Flexible Perovskite Solar Cells Containing Tin Oxide Vertical Nanopillars without Oxygen Vacancies. ACS Applied Energy Materials, 2022, 5, 3568-3577.	2.5	13
5139	Understanding Instability in Formamidinium Lead Halide Perovskites: Kinetics of Transformative Reactions at Grain and Subgrain Boundaries. ACS Energy Letters, 2022, 7, 1534-1543.	8.8	45
5140	Engineering Surface Orientations for Efficient and Stable Hybrid Perovskite Single-Crystal Solar Cells. ACS Energy Letters, 2022, 7, 1544-1552.	8.8	24
5141	Importance and Advancement of Modification Engineering in Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	8
5142	2D Materials for Wearable Energy Harvesting. Advanced Materials Technologies, 2022, 7, .	3.0	16
5143	Acetylammonium chloride as an additive for crystallization control and defect passivation in MAPbI <sub>3</sub> based perovskite solar cells. Journal Physics D: Applied Physics, 2022, 55, 265501.	1.3	7
5144	Low-Temperature-Processed Stable Perovskite Solar Cells and Modules: A Comprehensive Review. Advanced Energy Materials, 2022, 12, .	10.2	38
5145	Pattern-Selective Molecular Epitaxial Growth of Single-Crystalline Perovskite Arrays toward Ultrasensitive and Ultrafast Photodetector. Nano Letters, 2022, 22, 2948-2955.	4.5	8
5146	Embedding laser generated GaAs nanocrystals in perovskite wires for enhanced charge transport and photodetection. Science China: Physics, Mechanics and Astronomy, 2022, 65, 1.	2.0	1
5147	In-Depth Chemical and Optoelectronic Analysis of Triple-Cation Perovskite Thin Films by Combining XPS Profiling and PL Imaging. ACS Applied Materials & Interfaces, 2022, 14, 34228-34237.	4.0	13
5148	Iterative method for optical modelling of perovskite-based tandem solar cells. Optics Express, 2022, 30, 9604.	1.7	4
5149	The effect of solvent on preparation of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> photodetectors via an antisolvent-free method. Luminescence, 2022, , .	1.5	0
5150	Coevaporation of Doped Inorganic Carrier-Selective Layers for High-Performance Inverted Planar Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	4

#	ARTICLE	IF	CITATIONS
5151	Hybrid Organic-Inorganic Perovskite Halide Materials for Photovoltaics towards Their Commercialization. <i>Polymers</i> , 2022, 14, 1059.	2.0	18
5152	Organic Amine-Bridged Quasi-2D Perovskite/PbS Colloidal Quantum Dots Composites for High-Gain Near-Infrared Photodetectors. <i>Nano Letters</i> , 2022, 22, 2277-2284.	4.5	16
5153	Theoretical modelling of high-efficiency perovskite solar cells and reduction of internal heat generation using hot-electron extraction. <i>Optical and Quantum Electronics</i> , 2022, 54, 1.	1.5	0
5154	Enhanced Performance of Carbon-Based, Fully Printed Mesoscopic Perovskite Solar Cells through Defects Passivation. <i>Advanced Materials Interfaces</i> , 2022, 9, .	1.9	3
5155	Efficient and stable TiO <sub>2</sub> nanorod array structured perovskite solar cells in air: Co-passivation and synergistic mechanism. <i>Ceramics International</i> , 2022, 48, 17950-17959.	2.3	9
5156	Recent Developments on the Properties of Chalcogenide Thin Films. , 0, , .		4
5157	High-performance and stable 2D/3D perovskite photodetectors enabled by PEAL passivation. , 2022, , .		2
5158	Triple Passivation Approach to Laminate Perovskite Layers for Augmented UV and Ambient Stable Photovoltaics. <i>ACS Applied Energy Materials</i> , 2022, 5, 3392-3400.	2.5	6
5159	Influence of Halide Choice on Formation of Low-Dimensional Perovskite Interlayer in Efficient Perovskite Solar Cells. <i>Energy and Environmental Materials</i> , 2022, 5, 670-682.	7.3	9
5160	Low-temperature processed nickel oxide hole-transporting layer for perovskite solar cell. <i>Journal of the Korean Physical Society</i> , 2022, 80, 981-985.	0.3	1
5161	Nanophotonic-structured front contact for high-performance perovskite solar cells. <i>Science China Materials</i> , 2022, 65, 1727-1740.	3.5	5
5162	Interfacial Defect Passivation Effect of <i>N</i> -Methyl- <i>N</i> -(thien-2-ylmethyl)amine for Highly Effective Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2022, 5, 4270-4278.	2.5	2
5163	Hierarchically Ordered Perovskites with High Photo-Electronic and Environmental Stability via Nanoimprinting Guided Block Copolymer Self-Assembly. <i>Advanced Materials Interfaces</i> , 2022, 9, .	1.9	11
5164	A study on numerical simulation optimization of perovskite solar cell based on CuI and C60. <i>Materials Research Express</i> , 2022, 9, 036401.	0.8	9
5165	Synergistic Passivation of Perovskite Absorber Films for Efficient Four-Terminal Perovskite/Silicon Tandem Solar Cells. <i>Advanced Energy and Sustainability Research</i> , 2022, 3, .	2.8	10
5166	Improving the performance of organic lead-tin laminated perovskite solar cells from the perspective of device simulation. <i>Optical and Quantum Electronics</i> , 2022, 54, 1.	1.5	6
5167	Lead-Free Solid-State Organic-Inorganic Halide Perovskite Electrolyte for Lithium-Ion Conduction. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 17479-17485.	4.0	5
5168	Highly efficient and stable perovskite solar cells induced by novel bulk organosulfur ammonium. <i>Materials Today Energy</i> , 2022, 26, 101004.	2.5	7

#	ARTICLE	IF	CITATIONS
5169	Reducing the Trap Density in MAPbI <sub>3</sub> Based Perovskite Solar Cells via Bromide Substitution. ChemPlusChem, 2022, 87, e202200021.	1.3	6
5170	Preparation of MAPbI <sub>3</sub> perovskite film by pulsed laser deposition for high-performance silicon-based heterojunction photodetector. Optical Materials, 2022, 126, 112147.	1.7	5
5171	Surface modification of CsPbI <sub>2</sub> Br for improved performance of inorganic perovskite solar cells. Physica E: Low-Dimensional Systems and Nanostructures, 2022, 142, 115265.	1.3	6
5172	Intrinsically Low Thermal Conductivity in the n-Type Vacancy-Ordered Double Perovskite Cs <sub>2</sub> SnI <sub>6</sub> : Octahedral Rotation and Anharmonic Rattling. Chemistry of Materials, 2022, 34, 3301-3310.	3.2	32
5173	A Study on UVC Photodetector Using Mixed-Cation Perovskite with High Detection Rate as Light-Absorption Layer. Nanomaterials, 2022, 12, 1185.	1.9	1
5174	First-principles investigation of $\text{Rb}_2\text{Ag}(\text{Ga/In})\text{Br}_6$ for thermoelectric and photovoltaic applications. International Journal of Quantum Chemistry, 2022, 122, .	1.0	3
5175	Progress and challenges in layered two-dimensional hybrid perovskites. Nanotechnology, 2022, 33, 292501.	1.3	11
5176	Defect Healing in FAPb(I <sub>x</sub> Br <sub>x</sub> ) <sub>3</sub> Perovskites: Multifunctional Fluorinated Sulfonate Surfactant Anchoring Enables >21% Modules with Improved Operation Stability. Advanced Energy Materials, 2022, 12, .	10.2	32
5177	Fabrication, characterization and simulation analysis of perovskite solar cells with dopant-free solution-processible C6Pch2 hole transporting material. Optical and Quantum Electronics, 2022, 54, 1.	1.5	0
5178	Structural, electronic and optoelectronic properties of asymmetric organic ligands in Dion-Jacobson phase perovskites. Solid State Communications, 2022, 350, 114761.	0.9	4
5179	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
5180	Azide additive acting as a powerful locker for Li <sup>+</sup> and TBP in spiro-OMeTAD toward highly efficient and stable perovskite solar cells. Nano Energy, 2022, 96, 107072.	8.2	29
5181	All green solvent engineering of organic-inorganic hybrid perovskite layer for high-performance solar cells. Chemical Engineering Journal, 2022, 437, 135458.	6.6	28
5182	CuInSe <sub>2</sub> quantum dots doped MAPbI <sub>3</sub> films with reduced trap density for perovskite solar cells. Journal of Alloys and Compounds, 2022, 906, 164292.	2.8	9
5183	Recent progress of perovskite devices fabricated using thermal evaporation method: Perspective and outlook. Materials Today Advances, 2022, 14, 100232.	2.5	28
5184	Strain-induced electronic and optical properties of inorganic lead halide perovskites APbBr <sub>3</sub> (A= Rb) Tj ETQq1 1 0.784314 rgBT /Overlo	0.9	17
5185	Multi-site passivation-based antisolvent additive engineering with gradient distribution for superior triple cation P-I-N perovskite solar cells. Nano Energy, 2022, 97, 107193.	8.2	27
5186	N,N-di(4-methoxyphenyl)hydrazones of carbazole and phenothiazine carbaldehydes containing 4-methoxyphenyl groups as hole transporting materials. Synthetic Metals, 2022, 287, 117057.	2.1	2

#	ARTICLE	IF	CITATIONS
5187	Stronger binding force improving surface passivation of perovskites for High-Performance inverted solar cells. <i>Chemical Engineering Journal</i> , 2022, 440, 135974.	6.6	18
5188	First-Principles Study on the Direct Bandgap Double Perovskite Series Cs <sub>2</sub> LilnX <sub>6</sub> (X = F, Cl, and Br). <i>ACS Omega</i> , 2021, 6, 32408-32416.	1.6	8
5189	Correlating carrier lifetime with device design and photovoltaic performance of perovskite solar cells. <i>Applied Physics Letters</i> , 2021, 119, .	1.5	1
5190	Novel Anthracene HTM Containing TIPs for Perovskite Solar Cells. <i>Processes</i> , 2021, 9, 2249.	1.3	3
5191	Phosphorene Nanoribbon-Augmented Optoelectronics for Enhanced Hole Extraction. <i>Journal of the American Chemical Society</i> , 2021, 143, 21549-21559.	6.6	44
5192	Investigation of Threshold Carrier Densities in the Optically Pumped Amplified Spontaneous Emission of Formamidinium Lead Bromide Perovskite Using Different Excitation Wavelengths. <i>Photonics</i> , 2022, 9, 4.	0.9	4
5193	Solution-processed whispering-gallery-mode microsphere lasers based on colloidal CsPbBr <sub>3</sub> perovskite nanocrystals. <i>Nanotechnology</i> , 2022, 33, 115204.	1.3	4
5194	Photothermally Enhanced Photoresponse of Bismuth Halide Perovskite by Phonon Scattering. <i>ACS Applied Electronic Materials</i> , 2022, 4, 217-224.	2.0	2
5195	A quick peek at solar cells and a closer insight at perovskite solar cells. <i>Egyptian Journal of Petroleum</i> , 2021, 30, 53-63.	1.2	4
5197	Enhanced Activation Energy Released by Coordination of Bifunctional Lewis Base <sc>d</sc>-Tryptophan for Highly Efficient and Stable Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 58458-58466.	4.0	14
5198	Efficient and Stable Wide-Bandgap Perovskite Solar Cells Derived from a Thermodynamic Phase-Pure Intermediate. <i>Solar Rrl</i> , 2022, 6, .	3.1	11
5199	Efficient Photoluminescence of Manganese-Doped Two-Dimensional Chiral Alloyed Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 12129-12134.	2.1	31
5200	Temperature-Dependent Ionic Conductivity and Properties of Iodine-Related Defects in Metal Halide Perovskites. <i>ACS Energy Letters</i> , 2022, 7, 310-319.	8.8	19
5201	All in One: A Versatile n-Perovskite/p-Spiro-MeOTAD p-n Heterojunction Diode as a Photovoltaic Cell, Photodetector, and Memristive Photosynapse. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 12098-12106.	2.1	17
5202	Sn(IV) Inserted Lead-Free Perovskite Materials (MA <sub>3</sub> (Bi <sup>1+</sup> ) <sub>2</sub> Sn <sub>2</sub> I <sub>9</sub> ) as Light Absorbers: Bandgap Engineering and Enhanced Photovoltaic Performance. <i>Energy Technology</i> , 2022, 10, .	1.8	9
5203	Cerium-based lead-free chalcogenide perovskites for photovoltaics. <i>Physical Review B</i> , 2021, 104, .	1.1	6
5204	Modification of FA0.85MA0.15Pb(I0.85Br0.15) <sub>3</sub> Films by NH <sub>2</sub> -POSS. <i>Crystals</i> , 2021, 11, 1544.	1.0	3
5206	Flexible perovskite nanosheet-based photodetectors for ultraviolet communication applications. <i>Applied Physics Letters</i> , 2021, 119, .	1.5	11

#	ARTICLE	IF	CITATIONS
5207	Screen-Overprinted Perovskite RGB Microdisk Arrays Based on Wet-Solute-Chemical Dynamics for Full-Color Laser Displays. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 1774-1782.	4.0	10
5208	Efficient bandgap widening in co-evaporated MAPbI <sub>3</sub> perovskite. <i>Sustainable Energy and Fuels</i> , 2022, 6, 2428-2438.	2.5	8
5209	Mode-locking operation of an Er-doped fiber laser with (PEA) <sub>2</sub> (CsPbBr <sub>3</sub> ) <sub>1</sub> PbBr <sub>4</sub> perovskite saturable absorbers. <i>Journal of Materials Chemistry C</i> , 2022, 10, 7504-7510.	2.7	6
5210	Study on Process Parameters of Ink-Jet Printing Perovskite Solar Cell Film. <i>Lecture Notes in Electrical Engineering</i> , 2022, , 200-206.	0.3	1
5211	Interface compatibility: how to outperform classical spiro-OMeTAD in perovskite solar cells with carbazole derivatives. <i>Journal of Materials Chemistry C</i> , 2022, 10, 7680-7689.	2.7	9
5212	Perovskite fiber-shaped optoelectronic devices for wearable applications. <i>Journal of Materials Chemistry C</i> , 2022, 10, 6957-6991.	2.7	18
5213	Charge carrier dynamics in different crystal phases of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite. , 2022, 1, 210005-210005.		6
5214	Investigation of Anomalous Photon Management in Organic Nano Particles-coating Photovoltaic Solar Cells. <i>Silicon</i> , 0, , 1.	1.8	0
5215	A brief review on metal halide perovskite photocatalysts: History, applications and prospects. <i>Journal of Alloys and Compounds</i> , 2022, 911, 165062.	2.8	22
5216	All-Vacuum-Deposited Perovskite X-ray Detector with a Record-High Self-Powered Sensitivity of 1.2 C Gy <sup>-1</sup> cm <sup>-3</sup> . <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 19795-19805.	4.0	17
5217	Solution-Processed Ternary Perovskite-Organic Broadband Photodetectors with Ultrahigh Detectivity. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 18744-18750.	4.0	17
5218	Silicon Dioxide Nanoparticles Increase the Incidence Depth of Short-Wavelength Light in Active Layer for High-Performance Perovskite Solar Cells. <i>Journal of Physical Chemistry C</i> , 2022, 126, 7400-7409.	1.5	1
5219	Organic-semiconductor-assisted dielectric screening effect for stable and efficient perovskite solar cells. <i>Science Bulletin</i> , 2022, 67, 1243-1252.	4.3	23
5220	Surface Passivation and Energetic Modification Suppress Nonradiative Recombination in Perovskite Solar Cells. <i>Nano-Micro Letters</i> , 2022, 14, 108.	14.4	34
5221	Optical absorption and stability enhancement in mixed lead, tin, and germanium hybrid halide perovskites for photovoltaic applications. <i>Vacuum</i> , 2022, 201, 111106.	1.6	8
5222	Potassium chloride templated $\delta$ -FAPbI <sub>3</sub> perovskite crystal growth for efficient planar perovskite solar cells. <i>Organic Electronics</i> , 2022, 106, 106527.	1.4	5
5229	A nanofibrillar conjugated polymer film as an interface layer for high-performance CsPbBr <sub>2</sub> solar cells with efficiency exceeding 11%. <i>Sustainable Energy and Fuels</i> , 2022, 6, 2692-2699.	2.5	4
5230	Hetero-perovskite engineering for stable and efficient perovskite solar cells. <i>Sustainable Energy and Fuels</i> , 2022, 6, 3304-3323.	2.5	3



#	ARTICLE	IF	CITATIONS
5231	Light-induced beneficial ion accumulation for high-performance quasi-2D perovskite solar cells. <i>Energy and Environmental Science</i> , 2022, 15, 2499-2507.	15.6	18
5232	High-performance perovskite solar cells resulting from large perovskite grain size enabled by the urea additive. <i>Sustainable Energy and Fuels</i> , 2022, 6, 2955-2961.	2.5	5
5234	Electron transport layer assisted by nickel chloride hexahydrate for open-circuit voltage improvement in MAPbI <sub>3</sub> perovskite solar cells. <i>RSC Advances</i> , 2022, 12, 13820-13825.	1.7	0
5235	Black single crystals of lead-free perovskite Cs <sub>2</sub> Ag(Bi:Ru)Br <sub>6</sub> with an intermediate band. <i>Materials Advances</i> , 2022, 3, 4932-4937.	2.6	8
5236	Inhibition of buried cavities and defects in metal halide perovskite photodetectors via a two-step spin-coating method. <i>Journal of Materials Chemistry C</i> , 2022, 10, 7886-7895.	2.7	13
5237	Efficient and Stable FA-Rich Perovskite Photovoltaics: From Material Properties to Device Optimization. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	16
5238	çj...ãÿ-é'™é'çÿÿâ±,â±é~³èf1/2ç"µæ±çš,,ã...%ç®¡ç†ç-ç•¥. <i>Chinese Science Bulletin</i> , 2022, , .	0.4	1
5239	Determination of dominant recombination site in perovskite solar cells through illumination-dependent impedance spectroscopy. <i>Progress in Photovoltaics: Research and Applications</i> , 0, , .	4.4	4
5240	Could two-dimensional perovskites fundamentally solve the instability of perovskite photovoltaics. <i>Chinese Physics B</i> , 2022, 31, 117803.	0.7	0
5241	Numerical Simulation of 30% Efficient Lead-Free Perovskite CsSnGeI <sub>3</sub> -Based Solar Cells. <i>Materials</i> , 2022, 15, 3229.	1.3	25
5242	Microscopic Interfacial Charge Transfer at Perovskite/Hole Transport Layer Interfaces Clarified Using Pattern-Illumination Time-Resolved Phase Microscopy. <i>Journal of Physical Chemistry C</i> , 2022, 126, 7548-7555.	1.5	1
5243	Rational selection of the polymeric structure for interface engineering of perovskite solar cells. <i>Joule</i> , 2022, 6, 1032-1048.	11.7	72
5244	Fast Exciton Diffusion in Monolayer PtSe <sub>2</sub> . <i>Laser and Photonics Reviews</i> , 2022, 16, .	4.4	3
5245	Ultralight flexible perovskite solar cells. <i>Science China Materials</i> , 2022, 65, 2319-2324.	3.5	21
5246	Defect Passivation through (±-Methylguanido)acetic Acid in Perovskite Solar Cell for High Operational Stability. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 20848-20855.	4.0	8
5247	Stress and Defect Effects on Electron Transport Properties at SnO <sub>2</sub> /Perovskite Interfaces: A First-Principles Insight. <i>ACS Omega</i> , 2022, 7, 16187-16196.	1.6	4
5248	Advances in Photoelectric Detection Units for Imaging Based on Perovskite Materials. <i>Laser and Photonics Reviews</i> , 2022, 16, .	4.4	9
5249	A review on theoretical studies of structural and optoelectronic properties of FA-based perovskite materials with a focus on FAPbI <sub>3</sub> . <i>International Journal of Energy Research</i> , 2022, 46, 13117-13151.	2.2	12

#	ARTICLE	IF	CITATIONS
5250	Excellent Stability of Perovskite Solar Cells Encapsulated With Paraffin/Ethylene-Vinyl Acetate/Paraffin Composite Layer. <i>Frontiers in Materials</i> , 2022, 9, .	1.2	5
5251	Enhanced Efficiency of Semitransparent Perovskite Solar Cells via Double-Sided Sandwich Evaporation Technique for Four Terminal Perovskite-Silicon Tandem Application. <i>Nanomaterials</i> , 2022, 12, 1569.	1.9	6
5252	Crucial Contribution of Polarity for the Bulk Photovoltaic Effect in a Series of Noncentrosymmetric Two-Dimensional Organic-Inorganic Hybrid Perovskites. <i>Chemistry of Materials</i> , 2022, 34, 4428-4436.	3.2	15
5253	CuGaO <sub>2</sub> Nanosheets and CuCrO <sub>2</sub> Nanoparticles Mixed with Spiro-OMeTAD as the Hole-Transport Layer in Perovskite Solar Cells. <i>ACS Applied Nano Materials</i> , 2022, 5, 7312-7320.	2.4	6
5254	Unravel the Charge-Carrier Dynamics in Simple Dimethyl Oxalate-Treated Perovskite Solar Cells with Efficiency Exceeding 22%. <i>Energy and Environmental Materials</i> , 2023, 6, .	7.3	7
5255	Strategies for high-performance perovskite solar cells from materials, film engineering to carrier dynamics and photon management. <i>Informa-Materially</i> , 2022, 4, .	8.5	27
5256	PTAA as Efficient Hole Transport Materials in Perovskite Solar Cells: A Review. <i>Solar Rrl</i> , 2022, 6, .	3.1	65
5257	Efficiency improvement of inverted perovskite solar cells enabled by PTAA/MoS <sub>2</sub> double hole transporters. <i>Nanotechnology</i> , 2022, 33, 335202.	1.3	4
5258	Recent progress of lead-free halide double perovskites for green energy and other applications. <i>Applied Physics A: Materials Science and Processing</i> , 2022, 128, 1.	1.1	10
5259	A route towards the fabrication of large-scale and high-quality perovskite films for optoelectronic devices. <i>Scientific Reports</i> , 2022, 12, 7411.	1.6	13
5260	Probing Ultrafast Interfacial Carrier Dynamics in Metal Halide Perovskite Films and Devices by Transient Reflection Spectroscopy. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 34281-34290.	4.0	5
5261	High-Throughput Evaluation of Emission and Structure in Reduced-Dimensional Perovskites. <i>ACS Central Science</i> , 2022, 8, 571-580.	5.3	6
5262	Inorganic cesium lead mixed halide based perovskite solar materials modified with functional silver iodide. <i>Scientific Reports</i> , 2022, 12, 7794.	1.6	9
5263	Asymmetric charge carrier transfer and transport in planar lead halide perovskite solar cells. <i>Cell Reports Physical Science</i> , 2022, 3, 100890.	2.8	9
5264	Tuning the electronic, optical, and thermal properties of cubic perovskites CsPbCl <sub>3-n</sub> Br <sub>n</sub> (n = 0, 1, 2, and 3) through altering the halide ratio. <i>Physica Scripta</i> , 2022, 97, 065704.	1.2	3
5265	Tunable Photocatalytic Two-Electron Shuttle between Paired Redox Sites on Halide Perovskite Nanocrystals. <i>ACS Catalysis</i> , 2022, 12, 5903-5910.	5.5	13
5266	Perovskite solar cells by vapor deposition based and assisted methods. <i>Applied Physics Reviews</i> , 2022, 9, .	5.5	33
5267	Mixed halide lead perovskites thin films: Stability and growth investigation. <i>Optik</i> , 2022, 261, 169222.	1.4	21

#	ARTICLE	IF	CITATIONS
5268	Strain-induced tunability of the optoelectronic properties of inorganic lead iodide perovskites APbI <sub>3</sub> (A= Rb and Cs). <i>Physica B: Condensed Matter</i> , 2022, 638, 413960.	1.3	12
5269	Terahertz Detection with Optically Gated Halide Perovskites. <i>ACS Photonics</i> , 2022, 9, 1663-1670.	3.2	2
5270	Recent advancement in perovskite solar cell with imidazole additive. <i>Materials Science in Semiconductor Processing</i> , 2022, 148, 106788.	1.9	7
5271	High-quality all-inorganic CsPbBr <sub>3</sub> single crystals prepared by a facile one-step solution growth method. <i>RSC Advances</i> , 2022, 12, 14838-14843.	1.7	5
5272	Ultrafast Carrier Dynamics in Wide Band Gap Mixed-Cation Perovskites: Influence of the Cs Cation. <i>Journal of Physical Chemistry C</i> , 2022, 126, 8787-8793.	1.5	3
5273	Bridging the Interfacial Contact for Improved Stability and Efficiency of Inverted Perovskite Solar Cells. <i>Small</i> , 2022, 18, e2201694.	5.2	16
5274	When Aggregation-Induced Emission Meets Perovskites: Efficient Defect-Passivation and Charge-Transfer for Ambient Fabrication of Perovskite Solar Cells. <i>Chemistry - A European Journal</i> , 2022, 28, .	1.7	6
5275	A Perspective on Perovskite Solar Cells: Emergence, Progress, and Commercialization. <i>Frontiers in Chemistry</i> , 2022, 10, 802890.	1.8	14
5276	Synergistic effect of two hydrochlorides resulting in significantly enhanced performance of tin-based perovskite solar cells with 3D to quasi-2D structural transition. <i>Journal of Materials Chemistry A</i> , 2022, 10, 14441-14450.	5.2	10
5277	Impact of Composition Engineering on Charge Carrier Cooling in Hybrid Perovskites: Computational Insights. <i>Journal of Materials Chemistry C</i> , 0, , .	2.7	6
5278	Triplet Energy Transfer from Lead Halide Perovskite for Highly Selective Photocatalytic 2 + 2 Cycloaddition. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 25357-25365.	4.0	20
5279	Electrically Modulated Near-Infrared/Visible Light Dual-Mode Perovskite Photodetectors. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 25824-25833.	4.0	18
5280	Above 23% Efficiency by Binary Surface Passivation of Perovskite Solar Cells Using Guanidinium and Octylammonium Spacer Cations. <i>Solar Rrl</i> , 2022, 6, .	3.1	22
5281	Long term stability assessment of perovskite solar cell via recycling of metal contacts under ambient conditions. <i>Materials Letters</i> , 2022, 322, 132490.	1.3	4
5282	In Situ Growth of Bifunctional Modification Material for Highly Efficient Electron-Transport-Layer-Free Perovskite Solar Cells. <i>New Journal of Chemistry</i> , 0, , .	1.4	0
5283	High efficiency perovskite solar cells with PTAA hole transport layer enabled by PMMA:F4-TCNQ buried interface layer. <i>Journal of Materials Chemistry C</i> , 2022, 10, 9714-9722.	2.7	8
5285	Air-Degradation Mechanisms in Mixed Lead-Tin Halide Perovskites for Solar Cells. <i>Advanced Energy Materials</i> , 2023, 13, .	10.2	15
5286	Lanthanide-doped Mn <sup>2+</sup> -based perovskite-like single crystals: Switching on highly thermal-stable near-infrared emission and LED device. <i>Journal of Colloid and Interface Science</i> , 2022, 624, 725-733.	5.0	28

#	ARTICLE	IF	CITATIONS
5287	Quasi-CW Lasing from Directly Patterned and Encapsulated Perovskite Cavity at 260 K. ACS Photonics, 2022, 9, 1984-1991.	3.2	12
5288	A Thiophene Based Dopant-Free Hole-Transport Polymer for Efficient and Stable Perovskite Solar Cells. Macromolecular Research, 2022, 30, 391-396.	1.0	5
5289	Self-assembled TiO <sub>2</sub> hole-blocking layers for efficient perovskite solar cells. International Journal of Minerals, Metallurgy and Materials, 2022, 29, 1280-1285.	2.4	2
5290	Improving device performance of MAPbI <sub>3</sub> photovoltaic cells by manipulating the crystal orientation of tetragonal perovskites. Nanotechnology, 2022, 33, 415405.	1.3	7
5291	Sb <sup>2+</sup> -Substituted Cs <sub>2</sub> AgBiBr <sub>6</sub> "As Much As It Could Be?" Influence of Synthesis Methods on Sb <sup>2+</sup> Substitution Level in Cs <sub>2</sub> AgBiBr <sub>6</sub> . Energy Technology, 2022, 10, .	1.8	14
5292	Formamidinium Halide Perovskite and Carbon Nitride Thin Films Enhance Photoreactivity under Visible Light Excitation. Journal of Physical Chemistry A, 0, , .	1.1	0
5293	Electron-phonon interactions in halide perovskites. NPG Asia Materials, 2022, 14, .	3.8	46
5294	Damping the phase segregation in mixed halide perovskites: Influence of X-site anion. Materials Chemistry and Physics, 2022, 287, 126335.	2.0	2
5295	2D White-Light Spectroscopy: Application to Lead-Halide Perovskites with Mixed Cations. ACS Symposium Series, 0, , 135-151.	0.5	1
5296	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
5297	Halide perovskite single crystals: growth, characterization, and stability for optoelectronic applications. Nanoscale, 2022, 14, 9248-9277.	2.8	28
5298	Probing Longitudinal Carrier Transport in Perovskite Thin Films via Modified Transient Reflection Spectroscopy. Chemical Science, 0, , .	3.7	2
5299	Controlling the device functionality by solvent engineering, solar cell <i>versus</i> light emitting diode. Journal of Materials Chemistry C, 2022, 10, 10037-10046.	2.7	2
5302	Transient Suppression of Carrier Mobility Due to Hot Optical Phonons in Lead Bromide Perovskites. Journal of Physical Chemistry Letters, 2022, 13, 5488-5494.	2.1	3
5303	Electron-Volt Fluctuation of Defect Levels in Metal Halide Perovskites on a 100 ps Time Scale. Journal of Physical Chemistry Letters, 2022, 13, 5946-5952.	2.1	18
5306	Elucidating the origin of chiroptical activity in chiral 2D perovskites through nano-confined growth. Nature Communications, 2022, 13, .	5.8	41
5307	Low-Temperature, Scalable, Reactive Deposition of Tin Oxide for Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	3
5308	Robust Interfacial Modifier for Efficient Perovskite Solar Cells: Reconstruction of Energy Alignment at Buried Interface by Self-Diffusion of Dopants. Advanced Functional Materials, 2022, 32, .	7.8	26

#	ARTICLE	IF	CITATIONS
5309	Thermal Stability of K-Doped Organometal Halide Perovskite for Photovoltaic Materials. ACS Applied Energy Materials, 2022, 5, 10409-10414.	2.5	1
5310	Synthesis and evaluation of composite TiO <sub>2</sub> @ZnO quantum dots on hybrid nanostructure perovskite solar cell. Scientific Reports, 2022, 12, .	1.6	18
5311	Origin of the Photocatalytic Activity of Crystalline Phase Structures. ACS Applied Energy Materials, 2022, 5, 8923-8929.	2.5	2
5312	Photon echo from free excitons in a CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> halide perovskite single crystal. Physical Review B, 2022, 105, .		
5313	Metal Halide Perovskite-Based Memristors for Emerging Memory Applications. Journal of Physical Chemistry Letters, 2022, 13, 5638-5647.	2.1	38
5314	Solar Energy in Space Applications: Review and Technology Perspectives. Advanced Energy Materials, 2022, 12, .	10.2	68
5315	Lead-Tin Laminated All-Perovskite Solar Cells: Verification of Feasibility from the Perspective of Device Simulation. ECS Journal of Solid State Science and Technology, 2022, 11, 063011.	0.9	0
5316	Structural, Electronic, and Optical Properties of Ga-Based Lead-Free Mixed-Halide Perovskites Cs <sub>3</sub> Ga <sub>1-x</sub> Br <sub>x</sub> (0 ≤ x ≤ 6) for Solar Cell Applications: A DFT Study. Physica B: Condensed Matter, 2022, 640, 414085.	1.3	1
5317	Self-sacrifice alkali acetate seed layer for efficient four-terminal perovskite/silicon tandem solar cells. Nano Energy, 2022, 100, 107529.	8.2	15
5318	Supramolecular bridging strategy enables high performance and stable organic-inorganic halide perovskite solar cells. Chemical Engineering Journal, 2022, 446, 137431.	6.6	10
5319	A trifluorothymine interlayer reduces the degradation of perovskite and controls the cracks of hole transport layers. Journal of Materials Chemistry A, 2022, 10, 16080-16086.	5.2	4
5320	A simulation study of polarization characteristics of ultrathin CsPbBr <sub>3</sub> nanowires with different cross-section shapes and sizes. Chinese Physics B, 0, , .	0.7	0
5321	Schottky analysis of formamidinium lead halide perovskite nanocrystals <sup>TM</sup> devices with enhanced stability. Applied Nanoscience (Switzerland), 2022, 12, 2671-2681.	1.6	1
5322	Perovskite Quantum Dots for Emerging Displays: Recent Progress and Perspectives. Nanomaterials, 2022, 12, 2243.	1.9	30
5323	Investigating the band gap on the performance of tin-based perovskite solar cells by device simulation. Optical and Quantum Electronics, 2022, 54, .	1.5	2
5324	4-Hydroxy-2,2,6,6-tetramethylpiperidine as a Bifunctional Interface Modifier for High-Efficiency and Stable Perovskite Solar Cells. ACS Applied Energy Materials, 2022, 5, 6754-6763.	2.5	3
5325	Design and numerical simulation of highly efficient mixed-organic cation mixed-metal cation perovskite solar cells. International Journal of Energy Research, 2022, 46, 15654-15664.	2.2	5
5326	Narrowband Near-Infrared Photodetectors Based on Perovskite Waveguide Devices. Journal of Physical Chemistry Letters, 2022, 13, 6057-6063.	2.1	7

#	ARTICLE	IF	CITATIONS
5327	Ink Engineering in Blade-Coating Large-Area Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	39
5328	Investigation of graphene/perovskite nanowire for solar cell applications. <i>European Physical Journal Plus</i> , 2022, 137, .	1.2	0
5329	Photoinduced large polaron transport and dynamics in organic-inorganic hybrid lead halide perovskite with terahertz probes. <i>Light: Science and Applications</i> , 2022, 11, .	7.7	27
5330	Monolithic bilayered In <sub>2</sub> O <sub>3</sub> as an efficient interfacial material for high-performance perovskite solar cells. , 2022, 1, 526-536.		17
5331	A comparative study of different materials used for solar photovoltaics technology. <i>Materials Today: Proceedings</i> , 2022, 66, 3522-3528.	0.9	5
5332	Surface modified NiOx as an efficient hole transport layer in inverted perovskite solar cells. <i>Journal of Materials Science: Materials in Electronics</i> , 2022, 33, 18522-18532.	1.1	2
5333	Prepared high quality Cs FA <sub>1-x</sub> Pbl <sub>3</sub> based perovskite solar cells with template-assisted technique. <i>International Journal of Energy Research</i> , 0, , .	2.2	0
5334	Leveraging Hierarchical Chirality in Perovskite (Inspired) Halides for Transformative Device Applications. <i>Advanced Energy Materials</i> , 2023, 13, .	10.2	9
5335	A-site cation influence on the conduction band of lead bromide perovskites. <i>Nature Communications</i> , 2022, 13, .	5.8	9
5336	Balanced-Strength Additive for High-Efficiency Stable Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2022, 5, 8034-8041.	2.5	10
5337	16.35 % efficient Cs <sub>2</sub> GeSnCl <sub>6</sub> based heterojunction solar cell with hole-blocking SnO <sub>2</sub> layer: DFT and SCAPS-1D simulation. <i>Optik</i> , 2022, 267, 169608.	1.4	6
5338	Effective Passivation with Size-Matched Alkyldiammonium Iodide for High-Performance Inverted Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	41
5339	Single-Crystalline Perovskite p-n Junction Nanowire Arrays for Ultrasensitive Photodetection. <i>Advanced Materials</i> , 2022, 34, .	11.1	26
5340	Patterning Technologies for Metal Halide Perovskites: A Review. <i>Advanced Materials Technologies</i> , 2023, 8, .	3.0	17
5341	Stability of perovskite materials and devices. <i>Materials Today</i> , 2022, 58, 275-296.	8.3	35
5342	Back-Contact Ionic Compound Engineering Boosting the Efficiency and Stability of Blade-Coated Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 34040-34048.	4.0	1
5343	Simulation study of significant optical absorption enhancement for n-i-structured perovskite solar cells with optimized periodic nano texture. <i>Physica B: Condensed Matter</i> , 2022, , 414171.	1.3	1
5344	Energy band tuning induced by g-C <sub>3</sub> N <sub>4</sub> interface engineering for efficient and stable perovskite solar cells. <i>Materials Today Communications</i> , 2022, 32, 103899.	0.9	6



#	ARTICLE	IF	CITATIONS
5345	Decrypting Material Performance by Wide-field Femtosecond Interferometric Imaging of Energy Carrier Evolution. <i>Journal of the American Chemical Society</i> , 0, , .	6.6	4
5346	Influence of spin-orbit coupling and biaxial strain on the inorganic lead iodide perovskites, APb <sub>3</sub> (A = Tl, ET, Qq, 1, 1.9, 0.784314, 1.7, rgBT / Qv)	1.0	1
5347	Filterless ultra-narrow-band perovskite photodetectors with high external quantum efficiency based on the charge collection narrowing mechanism enabled by electron blocking/hole transport layer. <i>Semiconductor Science and Technology</i> , 0, , .	1.0	1
5348	Polar methylammonium organic cations detune state coupling and extend hot-carrier lifetime in lead halide perovskites. <i>CheM</i> , 2022, 8, 3051-3063.	5.8	4
5349	Organic-Inorganic Hybrid Compound [H <sub>2</sub> -1,5-Diazabicyclo[3.3.0]octane]ZnBr <sub>4</sub> with Reverse Symmetry Breaking Shows a Switchable Dielectric Anomaly and Robust Second Harmonic Generation Effect. <i>Inorganic Chemistry</i> , 2022, 61, 11859-11865.	1.9	7
5350	22% efficient Kusachiite solar cells of CuBi <sub>2</sub> O <sub>4</sub> light harvester and ABO <sub>3</sub> buffer layers: A theoretical analysis. <i>Materials Today Communications</i> , 2022, 32, 104061.	0.9	7
5351	Improved Stability of MAPb <sub>3</sub> Perovskite Solar Cells Using Two-Dimensional Transition-Metal Dichalcogenide Interlayers. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 35726-35733.	4.0	10
5352	Recent Advances in Nanostructured Inorganic Hole-Transporting Materials for Perovskite Solar Cells. <i>Nanomaterials</i> , 2022, 12, 2592.	1.9	11
5353	Progress on strategies to control the built-in electric field of perovskite solar cells. <i>Chinese Science Bulletin</i> , 2023, 68, 39-52.	0.4	2
5354	Chemically Engineered Avenues: Opportunities for Attaining Desired Carrier Cooling in Perovskites. <i>Chemical Record</i> , 2022, 22, .	2.9	2
5355	Novel Prediction Model of Band Gap in Organic-Inorganic Hybrid Perovskites Based on a Simple Cluster Model Database. <i>Journal of Physical Chemistry C</i> , 2022, 126, 13409-13415.	1.5	6
5356	Tracking carrier and exciton dynamics in mixed-cation lead mixed-halide perovskite thin films. <i>Communications Physics</i> , 2022, 5, .	2.0	6
5357	First-principles study of magnetic properties of the transition metal ion-doped methylammonium lead bromide. <i>International Journal of Modern Physics B</i> , 0, , .	1.0	1
5358	Interfacial Passivation Engineering for Highly Efficient Perovskite Solar Cells with a Fill Factor over 83%. <i>ACS Nano</i> , 2022, 16, 11902-11911.	7.3	30
5359	Electrochemically Prepared Polyaniline as an Alternative to Poly(3,4-ethylenedioxythiophene)-poly(styrenesulfonate) for Inverted Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2022, 5, 9351-9360.	2.5	2
5360	Defect-Polaron and Enormous Light-Induced Fermi-Level Shift at Halide Perovskite Surface. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 6711-6720.	2.1	8
5361	Photo-Induced Degradation of 2D Dion-Jacobson Perovskites under Continuous Light Illumination. <i>Solar Rrl</i> , 0, , 2200359.	3.1	3
5362	Data-driven design of high-performance MASn <sub>x</sub> Pb <sub>1-x</sub> perovskite materials by machine learning and experimental realization. <i>Light: Science and Applications</i> , 2022, 11, .	7.7	19

#	ARTICLE	IF	CITATIONS
5363	Doping Mechanism of Perovskite Films with $\text{PbCl}_2$ Prepared by Magnetron Sputtering for Enhanced Efficiency of Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 40062-40071.	4.0	6
5364	Printable Low-Temperature Carbon for Highly Efficient and Stable Mesoscopic Perovskite Solar Cells. <i>Energy Technology</i> , 2022, 10, .	1.8	2
5365	Temperature effect of photovoltaic cells: a review. <i>Advanced Composites and Hybrid Materials</i> , 2022, 5, 2675-2699.	9.9	44
5366	Panchromatic oxasamaragdyrin as dual functional hole-transporting material in a inorganic $\text{CsPbI}_3$ perovskite solar cells. <i>Journal of the Chinese Chemical Society</i> , 0, , .	0.8	0
5367	Stability and efficiency issues, solutions and advancements in perovskite solar cells: A review. <i>Solar Energy</i> , 2022, 244, 516-535.	2.9	76
5368	Influence of the Alkyl Chain Length of (Pentafluorophenylalkyl) Ammonium Salts on Inverted Perovskite Solar Cell Performance. <i>ACS Applied Materials &amp; Interfaces</i> , 0, , .	4.0	3
5369	Optimizing Black Phosphorus/Halide Perovskite Compositions by Scanning Photoelectrochemical Microscopy. <i>Journal of the Electrochemical Society</i> , 2022, 169, 096510.	1.3	1
5370	The Effect of 600 keV Ag Ion Irradiation on the Structural, Optical, and Photovoltaic Properties of $\text{MAPbBr}_3$ Films for Perovskite Solar Cell Applications. <i>Materials</i> , 2022, 15, 5299.	1.3	16
5371	Reversible Phase Transition for Durable Formamidinium-Dominated Perovskite Photovoltaics. <i>Advanced Materials</i> , 2022, 34, .	11.1	7
5372	Short-Chain Acid Additives to Control $\text{PbI}_2$ Crystallization in Hybrid Perovskite Films. <i>Inorganics</i> , 2022, 10, 114.	1.2	2
5373	Impact of Hole-Transport Layer and Interface Passivation on Halide Segregation in Mixed-Halide Perovskites. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	11
5374	Argon-Assisted Spray-Coating Induced Efficient and Stable $\text{MAPbI}_3$ Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2022, 5, 10307-10314.	2.5	5
5375	Ion-Assisted Ligand Exchange for Efficient and Stable Inverted $\text{FAPbI}_3$ Quantum Dot Solar Cells. <i>ACS Applied Energy Materials</i> , 2022, 5, 9858-9869.	2.5	9
5376	Metal Halide Perovskite Nanowires: Synthesis, Integration, Properties, and Applications in Optoelectronics. <i>Advanced Energy Materials</i> , 2023, 13, .	10.2	18
5377	Polishing the Lead-Poor Surface for Efficient Inverted $\text{CsPbI}_3$ Perovskite Solar Cells. <i>Advanced Materials</i> , 2022, 34, .	11.1	39
5378	Self-passivated perovskite film by overdoping $\text{MABr}$ to enhance the luminescence efficiency of $\text{MAPbBr}_3$ -based light-emitting diodes. <i>Optical Engineering</i> , 2022, 61, .	0.5	4
5379	A High-Performance Self-Powered Photodetector Based on $\text{MAPbBr}_3$ Single Crystal Thin Film/ $\text{MoS}_2$ Vertical Van Der Waals Heterostructure. <i>Advanced Materials Interfaces</i> , 2022, 9, .	1.9	8
5380	Intrinsic Carrier Diffusion in Perovskite Thin Films Uncovered by Transient Reflectance Spectroscopy. <i>Nano Letters</i> , 2022, 22, 7195-7202.	4.5	3

#	ARTICLE	IF	CITATIONS
5381	D <sup>+</sup> A <sup>-</sup> C <sup>+</sup> C <sup>-</sup> A <sup>-</sup> D Type Based Benzo <sup>-</sup> edithiophene as Core moiety a New Class Hole Transporting Materials for Efficient Perovskite Solar Cells. ChemPhotoChem, 0, .	1.5	1
5382	Halide Remixing under Device Operation Imparts Stability on Mixed <sup>-</sup> Cation Mixed <sup>-</sup> Halide Perovskite Solar Cells. Advanced Materials, 2022, 34, .	11.1	8
5383	Maximizing Merits of Undesirable $\text{FAPbI}_3$ by Constructing yellow/black Heterophase Bilayer for Efficient and Stable Perovskite Photovoltaics. Advanced Functional Materials, 2022, 32, .	7.8	11
5384	PCBM as The Interlayer of SnO <sub>2</sub> /Perovskite for The High Performance and Stable Perovskite Solar Cells. , 0, 13, 135-139.		0
5385	Semitransparent Printable Mesoscopic Perovskite Solar Cells for Tandem Solar Cells. Energy Technology, 2022, 10, .	1.8	6
5386	Ligand Coverage and Exciton Delocalization Control Chiral Imprinting in Perovskite Nanoplatelets. Journal of Physical Chemistry C, 2022, 126, 15986-15995.	1.5	7
5387	Novel heterologous binary redox mediator based on an ionic liquid and cobalt complex for efficient organic-solvent-free dye-sensitized solar cells. Journal of Industrial and Engineering Chemistry, 2022, 115, 263-271.	2.9	3
5388	Development of Multifunctional Materials Based on Heavy Concentration Er <sup>3+</sup> -Activated Lead <sup>-</sup> free Double Perovskite Cs <sub>2</sub> NaBiCl <sub>6</sub> . Advanced Optical Materials, 2022, 10, .	3.6	28
5389	Charge Transfer Dynamics of Two-Dimensional Ruddlesden Popper Perovskite in the Presence of Short-Chain Aromatic Thiol Ligands. Journal of Physical Chemistry C, 2022, 126, 14590-14597.	1.5	6
5390	Functional polymer passivating FA0.85PEA0.15SnI <sub>3</sub> for efficient and stable lead-free perovskite solar cells. Nano Research, 2023, 16, 481-488.	5.8	3
5391	Missed ferroelectricity in methylammonium lead iodide. Npj Computational Materials, 2022, 8, .	3.5	3
5392	Futuristic kusachiite solar cells of CuBi <sub>2</sub> O <sub>4</sub> absorber and metal sulfide buffer Layers: Theoretical efficiency approaching 28 %. Solar Energy, 2022, 244, 75-83.	2.9	15
5393	Liquid crystal semiconductor C6BTAPH <sub>2</sub> for hole transport materials in pervoskite solar cells: Fabrication, characterization, and simulation. Optical Materials, 2022, 132, 112820.	1.7	1
5394	Lewis base manipulated crystallization for efficient tin halide perovskite solar cells. Applied Surface Science, 2022, 602, 154393.	3.1	18
5395	The fundamental physical properties of Cs <sub>2</sub> PtI <sub>6</sub> and (CH <sub>3</sub> NH <sub>3</sub> ) <sub>2</sub> PtI <sub>6</sub> . Physica B: Condensed Matter, 2022, 644, 414235.	1.3	1
5396	Constructing 2D passivation layer on perovskites based on 3-chlorobenzylamine enables efficient and stable perovskite solar cells. Journal of Alloys and Compounds, 2022, 926, 166891.	2.8	10
5397	High photoresponsivity in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> -XCl <sub>x</sub> perovskite vertical field effect photo transistors. Results in Optics, 2022, 9, 100277.	0.9	0
5398	Phase-dependent memristive behaviors in FAPbI <sub>3</sub> -based memristors. Materials Today Communications, 2022, 33, 104186.	0.9	3

#	ARTICLE	IF	CITATIONS
5399	Fabrication and Modification Strategies of Metal Halide Perovskite Absorbers. <i>Journal of Renewable Materials</i> , 2023, 11, 61-77.	1.1	1
5400	Template-confined growth of copper halides micro-wire arrays for highly polarization-sensitive deep-ultraviolet photodetectors with a polarization sensitivity of 4.45. <i>Chemical Engineering Journal</i> , 2023, 451, 138531.	6.6	7
5401	Review of nanomaterials impact on improving the performance of dye-sensitized and perovskite solar cells. <i>Optical and Quantum Electronics</i> , 2022, 54, .	1.5	6
5402	Polaron mobility modulation by bandgap engineering in black phase $\text{FAPbI}_3$ . <i>Journal of Energy Chemistry</i> , 2023, 76, 175-180.	7.1	7
5403	Prevention of Noise Current Generation in Tin-Based Lead-Free Perovskites for Highly Sensitive Photodetection. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	14
5404	Induction of Chiral Hybrid Metal Halides from Achiral Building Blocks. <i>Journal of the American Chemical Society</i> , 2022, 144, 16471-16479.	6.6	29
5405	Pressure induced band gap shifting from ultra-violet to visible region of $\text{RbSrCl}_3$ perovskite. <i>Materials Research Express</i> , 2022, 9, 095902.	0.8	7
5406	Effective passivation of perovskite grain boundaries by a carboxylated polythiophene for bright and stable Pure-Red perovskite light emitting diodes. <i>Chemical Engineering Journal</i> , 2023, 451, 138892.	6.6	5
5407	A high performance $\text{Au/CH}_3\text{NH}_3\text{PbI}_3/\text{Cu}$ planar-type self-powered photodetector. <i>Journal of Materials Chemistry C</i> , 2022, 10, 12602-12609.	2.7	4
5408	A comparative study of the mechanical stability, electronic, optical and photocatalytic properties of $\text{CsPbX}_3$ (X = Cl, Br, I) by DFT calculations for optoelectronic applications. <i>RSC Advances</i> , 2022, 12, 23704-23717.	1.7	12
5409	Enhancing two-dimensional perovskite photodetector performance through balancing carrier density and directional transport. <i>Journal of Materials Chemistry A</i> , 2022, 10, 21044-21052.	5.2	8
5410	Solution-processed next generation thin film solar cells for indoor light applications. <i>Energy Advances</i> , 2022, 1, 761-792.	1.4	15
5411	Biexciton dynamics in halide perovskite nanocrystals. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 22405-22425.	1.3	12
5412	Lead-free $\text{AgBiI}_4$ perovskite artificial synapses for a tactile sensory neuron system with information preprocessing function. <i>Materials Advances</i> , 2022, 3, 7248-7256.	2.6	10
5413	Impact of localized surface plasmon resonance on efficiency of zinc oxide nanowire-based organic-inorganic perovskite solar cells fabricated under ambient conditions. <i>RSC Advances</i> , 2022, 12, 25163-25171.	1.7	7
5414	Interface-engineering studies on the photoelectric properties and stability of the $\text{CsSnI}_3\text{-SnS}$ heterostructure. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 24123-24129.	1.3	1
5415	Perovskite Solar Cells: Concepts and Prospects. <i>Energy Systems in Electrical Engineering</i> , 2022, , 97-133.	0.5	0
5416	Spatial microheterogeneity in the valence band of mixed halide hybrid perovskite materials. <i>Chemical Science</i> , 2022, 13, 9285-9294.	3.7	0

#	ARTICLE	IF	CITATIONS
5417	CsPbBr <sub>3</sub> perovskite quantum dots as a visible light photocatalyst for cyclisation of diamines and amino alcohols: an efficient approach to synthesize imidazolidines, fused-imidazolidines and oxazolidines. <i>Catalysis Science and Technology</i> , 2022, 12, 5891-5898.	2.1	3
5418	Application of ultrafast infrared spectroscopy in elucidating electronic processes in materials. , 2022, , 609-647.		0
5419	Interplay of structural fluctuations and charge carrier dynamics is key for high performance of hybrid lead halide perovskites. <i>Inorganic Chemistry Frontiers</i> , 2022, 9, 5549-5561.	3.0	5
5420	Fabrication of efficient and stable perovskite solar cells in open air through adopting a dye interlayer. <i>Sustainable Energy and Fuels</i> , 2022, 6, 4275-4284.	2.5	2
5421	Stable and large-scale organic-inorganic halide perovskite nanocrystal/polymer nanofiber films prepared via a green in situ fiber spinning chemistry method. <i>Nanoscale</i> , 2022, 14, 11998-12006.	2.8	5
5422	Decreasing toxicity and increasing photoconversion efficiency by Sn-substitution of Pb in 5-ammonium valeric acid-based two-dimensional hybrid perovskite materials. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 23226-23235.	1.3	3
5423	Introduction of a Reset MOSFET to Mitigate the Influence of Ionic Movement in Perovskite MOSFET Photodetector Measurements. , 2022, , .		0
5424	Roles of Inorganic Oxide Based HTMs towards Highly Efficient and Long-Term Stable PSC—A Review. <i>Nanomaterials</i> , 2022, 12, 3003.	1.9	6
5425	Laser-induced Modifiable Dual-wavelength Emissions from Lead Halide Perovskite Alloy Microcrystal. <i>Advanced Materials Interfaces</i> , 2022, 9, 2200680.	1.9	0
5426	Infrared Emission from Photoexcited MAPbBr <sub>3</sub> Perovskite Film. , 2022, , .		0
5427	Numerical Study of Various ETL Materials for an Efficient Lead-Free Perovskite Solar Cell. <i>Lecture Notes in Electrical Engineering</i> , 2023, , 265-272.	0.3	0
5428	Pivotal Routes for Maximizing Semitransparent Perovskite Solar Cell Performance: Photon Propagation Management and Carrier Kinetics Regulation. <i>Advanced Materials</i> , 2023, 35, .	11.1	11
5429	Topological feature engineering for machine learning based halide perovskite materials design. <i>Npj Computational Materials</i> , 2022, 8, .	3.5	16
5430	Antisolvent Treatment on Wet Solution-Processed CuSCN Hole Transport Layer Enables Efficient and Stable Perovskite Solar Cells. <i>Advanced Materials Interfaces</i> , 2022, 9, .	1.9	6
5431	Improved p-i-n MAPbI <sub>3</sub> perovskite solar cells via the interface defect density suppression by PEABr passivation. <i>Optics Express</i> , 2022, 30, 38104.	1.7	10
5432	Efficient and Stable Perovskite Solar Cells with a High Open-Circuit Voltage Over 1.2 V Achieved by a Dual-Side Passivation Layer. <i>Advanced Materials</i> , 2022, 34, .	11.1	20
5433	Effect of Dimensionality on Photoluminescence and Dielectric Properties of Imidazolium Lead Bromides. <i>Inorganic Chemistry</i> , 2022, 61, 15225-15238.	1.9	11
5434	Charge Transfer Dynamics at the Interface of CsPbX <sub>3</sub> Perovskite Nanocrystal-Acceptor Complexes: A Femtosecond Transient Absorption Spectroscopy Study. <i>Laser and Photonics Reviews</i> , 2022, 16, .	4.4	7

#	ARTICLE	IF	CITATIONS
5435	Effect of orientation of the cation CH <sub>3</sub> NH <sub>3</sub> on exciton <sup>TM</sup> s mobility in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> . Chinese Journal of Physics, 2022, 80, 34-45.	2.0	3
5436	Molecular Engineering of Peripheral Substitutions to Construct Efficient Acridine Core-Based Hole Transport Materials for Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 44450-44459.	4.0	5
5437	Recent Development of Lead-Free Perovskite Solar Cells. , 0, , .		0
5438	Control of Hot Carrier Cooling in Lead Halide Perovskites by Point Defects. Journal of the American Chemical Society, 2022, 144, 18126-18134.	6.6	15
5439	Fluorination of Carbazole-Based Polymeric Hole-Transporting Material Improves Device Performance of Perovskite Solar Cells with Fill Factor up to 82%. ACS Applied Energy Materials, 2022, 5, 12049-12058.	2.5	5
5440	Influence of layer thickness on the power conversion efficiency of tin halide-based planar heterojunction solar cells. Environmental Science and Pollution Research, 2023, 30, 98647-98654.	2.7	0
5442	A Type-II Heterostructure with a KBiFe <sub>2</sub> O <sub>5</sub> Brownmillerite Core and a ZnO Nanoparticle Shell for Enhanced Optoelectronic Performance. ChemistrySelect, 2022, 7, .	0.7	3
5443	Interfacial Charge Transfer Induced Enhanced Near-Infrared Photoluminescence and Enhanced Visible Photodetection in Two-Dimensional/Zero-Dimensional Bi <sub>2</sub> Se <sub>3</sub> /CsPbBr <sub>2</sub> I Heterojunctions with Type-I Band Alignment. Journal of Physical Chemistry C, 2022, 126, 16721-16731.	1.5	4
5444	Predictive analysis of multiple future scientific impacts by embedding a heterogeneous network. PLoS ONE, 2022, 17, e0274253.	1.1	0
5445	Improved optoelectronic performance from the internal secondary excitation of MAPbCl <sub>3</sub> -MAPbBr <sub>3</sub> single crystal photodetectors. Ceramics International, 2022, , .	2.3	0
5446	First-principles investigation on the structural, electronic, mechanical and optical properties of silver based perovskite AgXCl <sub>3</sub> (X= Ca, Sr). Journal of Materials Research and Technology, 2022, 20, 3296-3305.	2.6	20
5447	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
5448	Exciton-Phonon and Trion-Phonon Couplings Revealed by Photoluminescence Spectroscopy of Single CsPbBr <sub>3</sub> Perovskite Nanocrystals. Nano Letters, 2022, 22, 7674-7681.	4.5	21
5449	Revealing photovoltaic behavior in 2D hybrid perovskite ferroelectric single-crystalline microwire arrays for self-powered photodetectors. Materials Today Physics, 2022, 28, 100867.	2.9	5
5450	Ecotoxicity and Sustainability of Emerging Pb-Based Photovoltaics. Solar Rrl, 2022, 6, .	3.1	6
5451	Photovoltaic Performance Improvement of All-Inorganic CsPbBr <sub>3</sub> Perovskite Solar Cells by Antisolvent Assisted Crystallization. ChemistrySelect, 2022, 7, .	0.7	2
5452	Tuning Halide Composition Allows Low Dark Current Perovskite Photodetectors With High Specific Detectivity. Advanced Optical Materials, 2022, 10, .	3.6	9
5453	Solvent engineering in inkjet-printed perovskite solar cells. Chemical Physics Letters, 2022, 807, 140084.	1.2	2



#	ARTICLE	IF	CITATIONS
5454	Fluorinated spacers: an effective strategy to tailor the optoelectronic properties and stability of metal-halide perovskites for photovoltaic applications. <i>Journal of Materials Chemistry C</i> , 2022, 10, 16949-16982.	2.7	3
5455	Steady and transient optical properties of CsPbBr <sub>3</sub> /Pb <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub> perovskite quantum dots for white light-emitting diodes. <i>Journal of Materials Chemistry C</i> , 2022, 10, 16679-16686.	2.7	4
5456	<i>Organic Semiconductor Laser</i> , 2022, , 177-205.		0
5457	A Triethyleneglycol $\text{C}_{60}$ Monoadduct Derivative for Efficient Electron Transport in Inverted Perovskite Solar Cells. <i>Chinese Journal of Chemistry</i> , 2023, 41, 431-442.	2.6	4
5458	Strain-driven tunability of the optical, electronic, and mechanical properties of lead-free inorganic CsGeCl <sub>3</sub> perovskites. <i>Physica Scripta</i> , 2022, 97, 125817.	1.2	5
5459	2D-Antimonene-assisted hetero-epitaxial growth of perovskite films for efficient solar cells. <i>Materials Today</i> , 2022, 61, 54-64.	8.3	7
5460	Probing charge carrier dynamics in metal halide perovskite solar cells. <i>EcoMat</i> , 2023, 5, .	6.8	8
5461	MXene Based Nanocomposites for Recent Solar Energy Technologies. <i>Nanomaterials</i> , 2022, 12, 3666.	1.9	3
5462	In Situ Halide Exchange of Cesium Lead Halide Perovskites for Blue Light-Emitting Diodes. <i>Advanced Materials</i> , 2023, 35, .	11.1	26
5463	Carbonized polymer dots enhanced stability and flexibility of quasi-2D perovskite photodetector. <i>Light: Science and Applications</i> , 2022, 11, .	7.7	12
5464	Ultrasensitive Perovskite Photodetector Achieved When Configured with a Si Metal Oxide Semiconductor Field-Effect Transistor. <i>Advanced Photonics Research</i> , 0, , 2200034.	1.7	1
5465	Compositional Engineering in $\text{A}_{1-x}\text{CsPbI}_3$ toward the Efficiency and Stability Enhancement of All Inorganic Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2022, 5, 12099-12108.	2.5	10
5466	Carbazole-based donor materials with enhanced photovoltaic parameters for organic solar cells and hole-transport materials for efficient perovskite solar cells. <i>Journal of Molecular Modeling</i> , 2022, 28, .	0.8	4
5467	Flexible perovskite light-emitting diodes: Progress, challenges and perspective. <i>Science China Materials</i> , 2023, 66, 1-21.	3.5	15
5468	Perovskite/Hole Transport Layer Interfacial Engineering with Substoichiometric Tungsten Oxide Rich in Oxygen Vacancies to Boost the Photovoltaic Performance of Perovskite Solar Cells. <i>Solar Rrl</i> , 2022, 6, .	3.1	1
5469	Passivating Defects at the Bottom Interface of Perovskite by Ethylammonium to Improve the Performance of Perovskite Solar Cells. <i>Small</i> , 2022, 18, .	5.2	12
5470	Low-Temperature Processed Brookite Interfacial Modification for Perovskite Solar Cells with Improved Performance. <i>Nanomaterials</i> , 2022, 12, 3653.	1.9	1
5471	Exploring the Charge Dynamics and Energy Loss in Printable Mesoscopic Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	7

#	ARTICLE	IF	CITATIONS
5472	Differentially Accelerated Electron and Hole Diffusion in MAPbI <sub>3</sub> Film Surface Treated by a Quaternary Ammonium Halide for High-Efficiency Solar Cells. <i>Energy Technology</i> , 2023, 11, .	1.8	1
5473	Multifunctional Passivator Trifluoroacetamide for Improving the Performance of All-Inorganic CsPbI <sub>3</sub> Perovskite Solar Cells. <i>Solar Rrl</i> , 2022, 6, .	3.1	3
5474	Ligand-free CsPbBr <sub>3</sub> with calliandra-like nanostructure for efficient artificial photosynthesis. <i>Journal of Energy Chemistry</i> , 2022, , .	7.1	3
5475	Side substitution on benzothiadiazole-based hole transporting materials with a D <sup>+</sup> A <sup>-</sup> D molecular configuration for efficient perovskite solar cells. <i>Current Applied Physics</i> , 2022, , .	1.1	0
5476	Study of Thermoelectrical Behavior of BaXO <sub>3</sub> Perovskites (X = Pu, Am, Cm). <i>Lecture Notes in Mechanical Engineering</i> , 2023, , 143-154.	0.3	0
5477	Molecular Electronic Study of Spiro-[cyclopenta[1,2- <i>b</i> :5,4- <i>b'</i> ]dithiophene-4,9-difluorene] Derivatives: Route to Decent Hole-Transporting Materials. <i>Journal of Physical Chemistry C</i> , 2022, 126, 18238-18250.	1.5	0
5479	Simulation and Optimization of FAPbI <sub>3</sub> Perovskite Solar Cells with a BaTiO <sub>3</sub> Layer for Efficiency Enhancement. <i>Materials</i> , 2022, 15, 7310.	1.3	3
5480	Metal Halide Perovskite/Electrode Contacts in Charge-Transporting-Layer-Free Devices. <i>Advanced Science</i> , 2022, 9, .	5.6	11
5481	Probing drift velocity dispersion in MAPbI <sub>3</sub> photovoltaic cells with nonlinear photocurrent spectroscopy. <i>Journal of Chemical Physics</i> , 2022, 157, .	1.2	4
5482	Enhancing performance and stability of carbon-based perovskite solar cells by surface modification using 2-(trifluoromethylthio)aniline. <i>Materials Today Communications</i> , 2022, 33, 104653.	0.9	1
5483	Photo-dynamics in 2D materials: Processes, tunability and device applications. <i>Physics Reports</i> , 2022, 993, 1-70.	10.3	4
5484	±-FAPbI <sub>3</sub> phase stabilization using aprotic trimethylsulfonium cation for efficient perovskite solar cells. <i>Journal of Power Sources</i> , 2022, 551, 232207.	4.0	6
5485	Novel Li rich perovskites Li <sub>4</sub> NBI <sub>3</sub> (B = Ge, Sn, or Pb) with high mobility based on super alkali cation Li <sub>4</sub> N. <i>Computational Materials Science</i> , 2023, 216, 111857.	1.4	0
5486	Anti-solvent polarity engineering for structure, morphology and composition control of cesium copper (I) halide with efficient, stable and adjustable photoluminescence. <i>Journal of Alloys and Compounds</i> , 2023, 932, 167590.	2.8	3
5487	Recharging upconversion: revealing rubrene's replacement. <i>Nanoscale</i> , 2022, 14, 17254-17261.	2.8	5
5488	Optoelectronic functionality and photovoltaic performance of Sr-doped tetragonal CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> : A first-principles study. <i>Physica B: Condensed Matter</i> , 2023, 649, 414453.	1.3	1
5489	Lead-Free Perovskite and Improved Processes and Techniques for Creating Future Photovoltaic Cell to Aid Green Mobility. , 0, , .		1
5490	Computational Probing of Tin-Based Lead-Free Perovskite Solar Cells: Effects of Absorber Parameters and Various Electron Transport Layer Materials on Device Performance. <i>Materials</i> , 2022, 15, 7859.	1.3	10

#	ARTICLE	IF	CITATIONS
5491	Three-Dimensional Nanopillar Arrays-Based Efficient and Flexible Perovskite Solar Cells with Enhanced Stability. <i>Nano Letters</i> , 2022, 22, 9586-9595.	4.5	12
5492	Roles that Organic Ammoniums Play on the Surface of the Perovskite Film: A Review. <i>Chemistry - A European Journal</i> , 2023, 29, .	1.7	7
5493	Energy Transfer Induced by TADF Polymer Enables the Recycling of Excitons in Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	9
5494	Early thermal aging detection in tin based perovskite solar cell. <i>Heliyon</i> , 2022, 8, e11455.	1.4	0
5495	The Effect of Short Chain Carboxylic Acids as Additives on the Crystallization of Methylammonium Lead Triiodide (MAPI). <i>Inorganics</i> , 2022, 10, 201.	1.2	0
5496	Broadly Applicable Synthesis of Heteroarylated Dithieno[3,2-b:2',3'-d]pyrroles for Advanced Organic Materials " Part 2: Hole-Transporting Materials for Perovskite Solar Cells. <i>Organic Materials</i> , 2023, 5, 48-58.	1.0	3
5497	Efficient Perovskite Solar Cells with Cesium Acetate-Modified TiO <sub>2</sub> Electron Transport Layer. <i>Journal of Physical Chemistry C</i> , 2022, 126, 19963-19970.	1.5	3
5498	Defect engineering of metal halide perovskite optoelectronic devices. <i>Progress in Quantum Electronics</i> , 2022, 86, 100438.	3.5	4
5499	Boosting Performance of Inverted Perovskite Solar Cells by Diluting Hole Transport Layer. <i>Nanomaterials</i> , 2022, 12, 3941.	1.9	2
5500	Ultrafast laser spectroscopy uncovers mechanisms of light energy conversion in photosynthesis and sustainable energy materials. <i>Chemical Physics Reviews</i> , 2022, 3, .	2.6	10
5501	Bulk Single Crystals of a Narrow Band Gap Three-Dimensional Hybrid Perovskitoid Enabling Ultrastable Photodetection. <i>Chemistry of Materials</i> , 2022, 34, 10382-10389.	3.2	5
5502	Angle-resolved polarimetry of hybrid perovskite emission for photonic technologies. <i>Nanoscale</i> , 2022, 14, 17519-17527.	2.8	3
5503	Generating spin-triplet states at the bulk perovskite/organic interface for photon upconversion. <i>Nanoscale</i> , 2023, 15, 998-1013.	2.8	8
5504	Recent Progress of Surface Passivation Molecules for Perovskite Solar Cell Applications. <i>Journal of Renewable Materials</i> , 2023, 11, 1533-1554.	1.1	2
5505	Energy Level Modulation of TiO <sub>2</sub> Using Amino Trimethylene Phosphonic Acid for Efficient Perovskite Solar Cells with Average $V_{OC}$ of 1.19 V. <i>Sustainable Energy and Fuels</i> , 0, , .	2.5	0
5506	Perovskite solar cells: Thermal and chemical stability improvement, and economic analysis. <i>Materials Today Chemistry</i> , 2023, 27, 101284.	1.7	5
5507	The race between complicated multiple cation/anion compositions and stabilization of FAPbI <sub>3</sub> for halide perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2023, 11, 2449-2468.	2.7	3
5508	The construction of a three-dimensional donor/acceptor interface based on a bilayered titanium dioxide nanorod array-flower for perovskite solar cells. <i>Nanoscale</i> , 0, , .	2.8	1

#	ARTICLE	IF	CITATIONS
5509	Investigation of the optoelectronics properties and stability of Formamidinium lead mixed halides perovskite. <i>Optical Materials</i> , 2023, 135, 113334.	1.7	10
5510	Magnetic interactions based on proton orbital motion in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> and CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> . <i>Scripta Materialia</i> , 2023, 226, 115229.	2.6	1
5511	Exciton-Plasmon Coupling Modulation between Organic-Inorganic Hybrid Bromide Lead Perovskites and Aluminum Nanoparticle Lattices. <i>Journal of Luminescence</i> , 2023, 255, 119608.	1.5	2
5512	Chemical approaches for electronic doping in photovoltaic materials beyond crystalline silicon. <i>Chemical Society Reviews</i> , 2022, 51, 10016-10063.	18.7	11
5513	Additive-associated antisolvent engineering of perovskite films for highly stable and efficient p-i-n perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2022, 10, 18303-18311.	2.7	5
5514	Performance Analysis of Perovskite Solar Cell by Considering Temperature Effect on Physical Parameters of the Absorber Layer. , 2022, , .		1
5515	Transparent Liquid Crystal Hole-Transporting Material for Stable Perovskite Solar Cells. <i>Solar Rrl</i> , 2023, 7, .	3.1	1
5516	Fine Structure of Excitons in Vacancy-Ordered Halide Double Perovskites. , 2023, 5, 52-59.		9
5517	Improved opto-electro-mechanical properties of Cs <sub>2</sub> TeBr <sub>6</sub> double perovskite by Ge doping. <i>Journal of Applied Physics</i> , 2022, 132, .	1.1	1
5518	Voltage Bias Stress Effects and Electronic Stability of ĩ-Conjugated Crosslinked Tin Halide Perovskites. <i>ACS Applied Energy Materials</i> , 2022, 5, 14720-14731.	2.5	2
5519	Identification of Asymmetric Interfacial Recombination in Perovskite Solar Cells through Impedance Spectroscopy. <i>ACS Applied Energy Materials</i> , 2022, 5, 14760-14768.	2.5	1
5520	Defect Passivation by Natural Piperine Molecule Enabling for Stable Perovskite Solar Cells with Efficiencies over 23%. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 16359-16367.	3.2	3
5521	Boosting radiation of stacked halide layer for perovskite solar cells with efficiency over 25%. <i>Joule</i> , 2023, 7, 112-127.	11.7	27
5522	High-Performance and Stable Perovskite Solar Cells Using Carbon Quantum Dots and Upconversion Nanoparticles. <i>International Journal of Molecular Sciences</i> , 2022, 23, 14441.	1.8	4
5523	Synchronous Modulation of Defects and Buried Interfaces for Highly Efficient Inverted Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2023, 13, .	10.2	15
5524	Perovskite Films Doped with Polyoxometalate and Ionic Liquid Assisted Crystallization for Efficient Photodetectors. <i>European Journal of Inorganic Chemistry</i> , 2023, 26, .	1.0	2
5525	Fabrication of High-Performance CsPbBr <sub>3</sub> Perovskite Quantum Dots/Polymer Composites via Photopolymerization: Implications for Luminescent Displays and Lighting. <i>ACS Applied Nano Materials</i> , 2023, 6, 646-655.	2.4	3
5526	Unveiling Dopant-Induced Ultrafast Exciton Dynamics in Mn/Yb Codoped Perovskite Nanocrystals. , 0, , 2200071.		1



#	ARTICLE	IF	CITATIONS
5545	Compact-Type Quasi-2D Perovskite Based on Two Conventional 3D Perovskites. <i>Nano Letters</i> , 2023, 23, 252-258.	4.5	3
5546	The current state of the art in internal additive materials and quantum dots for improving efficiency and stability against humidity in perovskite solar cells. <i>Heliyon</i> , 2022, 8, e11878.	1.4	2
5547	Metal Halide Perovskite Alloy: Fundamental, Optoelectronic Properties and Applications. <i>Advanced Photonics Research</i> , 2023, 4, .	1.7	4
5548	Excitation Intensity- and Size-Dependent Halide Photo-segregation in $\text{CsPb}(\text{I}_{0.5}\text{Br}_{0.5})_3$ Perovskite Nanocrystals. <i>ACS Nano</i> , 2022, 16, 21636-21644.	7.3	8
5549	UV-Vis photodetector based on ionic liquid-modified perovskite-ZnO composite. <i>Journal of Applied Physics</i> , 2022, 132, .	1.1	3
5550	Key role of residual lead iodide in two-step processed perovskite layer for high performance perovskite solar cells. <i>Applied Physics Letters</i> , 2023, 122, .	1.5	2
5551	Rational Selection of the Lewis Base Molecules Targeted for Lead-Based Defects of Perovskite Solar Cells: The Synergetic Co-passivation of Carbonyl and Carboxyl Groups. <i>Journal of Physical Chemistry Letters</i> , 2023, 14, 653-662.	2.1	7
5552	Semitransparent Perovskite Solar Cells for Building Integrated Photovoltaics: Recent Advances. <i>Energies</i> , 2023, 16, 889.	1.6	10
5553	Numerical Study on the Effect of Dual Electron Transport Layer in Improving the Performance of Perovskite-Perovskite Tandem Solar Cells. <i>Advanced Theory and Simulations</i> , 2023, 6, .	1.3	6
5554	Strain-induced tunable optoelectronic properties of inorganic halide perovskites $\text{APbCl}_3$ (A = K, Rb, and Cs). <i>Japanese Journal of Applied Physics</i> , 2023, 62, 011002.	0.8	18
5555	Correlation between hysteresis dynamics and inductance in hybrid perovskite solar cells: studying the dependency on ETL/perovskite interfaces. <i>Nanoscale</i> , 2023, 15, 2152-2161.	2.8	4
5556	Unraveling Its Intrinsic Role of $\text{CH}_3\text{NH}_3\text{Cl}$ Doping for Efficient Enhancement of Perovskite Solar Cells from Fine Insight by Ultrafast Charge-Transfer Dynamics. <i>Solar Rrl</i> , 2023, 7, .	3.1	4
5557	$\text{CsPbBr}_3/\text{CsCaAl}_2\text{O}_4\text{:Nd,Er}$ Nanoriveted Structure Perovskites with Long Afterglow Dual-Wavelength Emission for Flexible Photoelectric Devices. <i>ACS Applied Nano Materials</i> , 2023, 6, 885-898.	2.4	5
5558	Healing aged metal halide perovskite toward robust optoelectronic devices: Mechanisms, strategies, and perspectives. <i>Nano Energy</i> , 2023, 108, 108219.	8.2	4
5559	Simultaneous Characterization of Optical, Electronic, and Thermal Properties of Perovskite Single Crystals Using a Photoacoustic Technique. <i>ACS Photonics</i> , 2023, 10, 265-273.	3.2	4
5560	Direct Tracking of Charge Carrier Drift and Extraction from Perovskite Solar Cells by Means of Transient Electroabsorption Spectroscopy. <i>ACS Applied Electronic Materials</i> , 2023, 5, 317-326.	2.0	3
5561	$\text{CsPbBr}_3$ in the Activation of the C-Br Bond of $\text{CBrX}_3$ (X = Cl, Br) under Sunlight. <i>Chemistry of Materials</i> , 2023, 35, 628-637.	3.2	8
5562	Effective Inhibition of Phase Segregation in Wide-Bandgap Perovskites with Alkali Halides Additives to Improve the Stability of Solar Cells. <i>Solar Rrl</i> , 2023, 7, .	3.1	10



#	ARTICLE	IF	CITATIONS
5563	A DFT Study of Alkaline Earth Metal-Doped FAPbI <sub>3</sub> (111) and (100) Surfaces. <i>Molecules</i> , 2023, 28, 372.	1.7	0
5564	Multimodal photodetectors with vacuum deposited perovskite bilayers. <i>Journal of Materials Chemistry C</i> , 2023, 11, 1258-1264.	2.7	2
5565	High-member low-dimensional Sn-based perovskite solar cells. <i>Science China Chemistry</i> , 2023, 66, 459-465.	4.2	22
5566	Strong Antibonding I (p)â€“Cu (d) States Lead to Intrinsically Low Thermal Conductivity in CuBiI <sub>4</sub> . <i>Journal of the American Chemical Society</i> , 2023, 145, 1349-1358.	6.6	19
5567	Extending the Absorption Spectra and Enhancing the Charge Extraction by the Organic Bulk Heterojunction for CsPbBr <sub>3</sub> Perovskite Solar Cells. <i>ACS Sustainable Chemistry and Engineering</i> , 2023, 11, 718-725.	3.2	6
5568	Electronic effect of substituents on the charge-transfer dynamics at the CsPbBr <sub>3</sub> perovskiteâ€“small molecule interface. <i>Physical Chemistry Chemical Physics</i> , 0, , .	1.3	2
5569	Improvement of a Two-step Method for Highly Efficient Perovskite Solar Cells via Modification of a Metal Halide Template and Dipping Conditions. <i>Chemistry Letters</i> , 2023, 52, 84-88.	0.7	0
5570	Stability of perovskite solar cells: issues and prospects. <i>RSC Advances</i> , 2023, 13, 1787-1810.	1.7	65
5571	Selfâ€“Powered Photodetector Based on Perovskite/NiO <sub>x</sub> Heterostructure for Sensitive Visible Light and Xâ€“Ray Detection. <i>Advanced Electronic Materials</i> , 2023, 9, .	2.6	7
5572	Synthesis, structure, and photoelectric properties of a novel zero-dimensional organic-inorganic hybrid perovskite (C <sub>6</sub> H <sub>9</sub> N <sub>2</sub> ) <sub>2</sub> MnI <sub>4</sub> . <i>Optical Materials</i> , 2023, 136, 113360.	1.7	2
5573	Performance analysis and optimization of perovskite solar cell using SCAPS-1D and genetic algorithm. <i>Materials Today Communications</i> , 2023, 34, 105420.	0.9	2
5574	Kháº£o sÃ¡jt tÃ¡nh cháº£t cá»ša tinh thá»f perovskite (C <sub>6</sub> H <sub>5</sub> C <sub>2</sub> H <sub>4</sub> NH <sub>3</sub> ) <sub>2</sub> PbCl <sub>4</sub> cháº£; táº£o báº£ng phÃ©Æ¡ng phÃ¡p bay hÆ¡i sjÃ¡u bÃ¡o 2022, , 303-308.		
5575	Importance of precursor complexation for green solventâ€“processed perovskite crystals. <i>Bulletin of the Korean Chemical Society</i> , 2023, 44, 304-309.	1.0	0
5576	Rinsing Intermediate Phase Strategy for Modulating Perovskite Crystal Growth and Fabricating Highly Efficient and Stable Inverted Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2023, 15, 818-829.	4.0	2
5577	Nonpolar and Ultra-long-chain Ligand to Modify the Perovskite Interface toward High-Efficiency and Stable Wide Bandgap Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2023, 6, 1731-1740.	2.5	2
5578	Ultraâ€“Stable and Sensitive Ultraviolet Photodetectors Based on Monocrystalline Perovskite Thin Films. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	7
5579	Halide perovskite photoelectric artificial synapses: materials, devices, and applications. <i>Nanoscale</i> , 2023, 15, 4653-4668.	2.8	10
5580	Indirect-to-direct bandgap transition in layered metal halide perovskite â€“ CsPb <sub>2</sub> Br <sub>5</sub> . <i>Journal of Materials Chemistry A</i> , 2023, 11, 4292-4301.	5.2	5

#	ARTICLE	IF	CITATIONS
5581	2D Organic Materials: Status and Challenges. <i>Advanced Science</i> , 2023, 10, .	5.6	13
5582	Energy level matched by an external electric field in nontoxic halide perovskite $\text{CH}_3\text{NH}_3\text{SnI}_3$ . <i>Modern Physics Letters B</i> , 0, , .	1.0	0
5583	Solar Cells. <i>Springer Series in Materials Science</i> , 2023, , 59-69.	0.4	1
5584	Recent advances in the development of flexible dye-sensitized solar cells: fabrication, challenges and applications-a review. <i>Flexible and Printed Electronics</i> , 2023, 8, 013001.	1.5	7
5585	Ab initio studies on perovskites. , 2023, , 153-185.		1
5586	Lattice-Distortion-Induced Change in the Magnetic Properties in Br-Defect Host $\text{CsPbBr}_3$ Perovskite Quantum Dots. <i>Journal of Physical Chemistry Letters</i> , 2023, 14, 888-896.	2.1	1
5587	Two-dimensional semiconducting $\text{Cu}(\text{SCN})/\text{Sb}(\text{SCN})$ bimetallic hybrid iodides with a double perovskite structure and photocurrent response. <i>Nanoscale</i> , 2023, 15, 5265-5273.	2.8	1
5588	Lead-Free Bismuth-Based Halide Perovskites with Excellent Stability for Visible-Light-Driven Photoelectrochemical Water Splitting. <i>ChemistrySelect</i> , 2023, 8, .	0.7	1
5589	Optimization of the Perovskite Solar Cell Design with Layer Thickness Engineering for Improving the Photovoltaic Response Using SCAPS-1D. <i>Journal of Electronic Materials</i> , 2023, 52, 2475-2491.	1.0	10
5590	Harnessing Strong Band-Filling in Mixed Pb-Sn Perovskites Boosts the Performance of Concentrator-Type Photovoltaics. <i>ACS Energy Letters</i> , 2023, 8, 1122-1130.	8.8	2
5591	A study on theoretical models for investigating time-resolved photoluminescence in halide perovskites. <i>Physical Chemistry Chemical Physics</i> , 2023, 25, 7574-7588.	1.3	6
5592	Perovskite solar cells. , 2023, , 129-156.		0
5593	Low-dimensional halide perovskite for solar cell applications. , 2023, , 239-265.		1
5594	Lead-free halide perovskites. , 2023, , 187-237.		0
5595	$\text{Fe}_2\text{O}_3$ -NiO doped carbon counter electrode for high-performance and long-term stable photovoltaic perovskite solar cells. <i>Journal of Materials Research and Technology</i> , 2023, 23, 2612-2625.	2.6	4
5596	Slot-die coating fabrication of perovskite solar cells toward commercialization. <i>Journal of Alloys and Compounds</i> , 2023, 942, 169104.	2.8	7
5597	High-efficiency perovskite photovoltaic system performance by molecular dynamics method: Optimizing electron transport thicknesses, hole transport, and anti-reflector layers of the sustainable energy materials. <i>Engineering Analysis With Boundary Elements</i> , 2023, 150, 120-126.	2.0	13
5598	Improved photovoltaic performance of Pb-free $\text{AgBi}_2\text{I}_7$ based photovoltaics. <i>Nanoscale Advances</i> , 2023, 5, 1624-1630.	2.2	3

#	ARTICLE	IF	CITATIONS
5599	Zn <sup>2+</sup> ion doping for structural modulation of lead-free Sn-based perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2023, 11, 10605-10611.	5.2	2
5600	Strategies for Optimizing the Morphology of CsSnI <sub>3</sub> Perovskite Solar Cells. <i>Crystals</i> , 2023, 13, 410.	1.0	2
5601	Mechanochemical Synthesis of Lead-Free Perovskite-Like MA <sub>3</sub> Bi <sub>2</sub> I <sub>9</sub> for Photo-Catalytic Hydrogen Production. <i>Chemistry - A European Journal</i> , 2023, 29, .	1.7	3
5602	Ink Design Enabling Slot-Die Coated Perovskite Solar Cells with >22% Power Conversion Efficiency, Micro-Modules, and 1 Year of Outdoor Performance Evaluation. <i>Advanced Energy Materials</i> , 2023, 13, .	10.2	21
5603	Bifunctional modified biopolymer for highly efficient and stable perovskite solar cells and modules. <i>Chemical Engineering Journal</i> , 2023, 460, 141699.	6.6	9
5604	Simple approach for crystallizing growth of MAPbI <sub>3</sub> perovskite nanorod without thermal annealing for Next-Generation optoelectronic applications. <i>Materials Chemistry and Physics</i> , 2023, 298, 127423.	2.0	6
5605	Simultaneous Photoluminescence and Photothermal Investigation of Individual CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> Microcrystals. <i>Journal of Physical Chemistry Letters</i> , 2023, 14, 3506-3511.	2.1	0
5606	Recent developments of lead-free halide-perovskite nanocrystals: Synthesis strategies, stability, challenges, and potential in optoelectronic applications. <i>Materials Today Physics</i> , 2023, 34, 101079.	2.9	8
5607	Metal halide perovskite materials in photocatalysis: Design strategies and applications. <i>Coordination Chemistry Reviews</i> , 2023, 481, 215031.	9.5	22
5608	Understanding electron transport on hybrid perovskite/carbon allotropes for energy conversion and storage applications: A first principles study. <i>Solar Energy</i> , 2023, 255, 180-190.	2.9	0
5609	Two-dimensional materials for boosting the performance of perovskite solar cells: Fundamentals, materials and devices. <i>Materials Science and Engineering Reports</i> , 2023, 153, 100727.	14.8	5
5610	Potential of low-cost inorganic CaFeO <sub>3</sub> as transporting material for efficient perovskite solar cells. <i>Materials Today Communications</i> , 2023, 35, 105956.	0.9	3
5611	Structure stabilized with robust molecular cation N(CH <sub>3</sub> ) <sub>4</sub> <sup>+</sup> in high efficiency perovskite solar cells. <i>Materials Today Chemistry</i> , 2023, 30, 101511.	1.7	1
5612	Crystal structure and electrical conduction of the new organic-inorganic compound (C <sub>7</sub> H <sub>10</sub> N) <sub>2</sub> MnCl <sub>4</sub> . <i>Journal of Molecular Structure</i> , 2023, 1281, 135080.	1.8	1
5613	Formamidinium Lead Iodide Perovskite Thin Films Formed by Two-Step Sequential Method: Solvent-Morphology Relationship. <i>Materials</i> , 2023, 16, 1049.	1.3	1
5614	Laser-induced controllable crystallization of organic-inorganic hybrid perovskites assisted by gold nanoislands. <i>Optical Materials Express</i> , 2023, 13, 538.	1.6	1
5615	Probing the Genuine Carrier Dynamics of Semiconducting Perovskites under Sunlight. <i>Jacs Au</i> , 2023, 3, 441-448.	3.6	6
5616	Development of high efficiency Ce <sup>1+</sup> BMgBO <sub>2</sub> buffer and perovskite HTL based CIGS <sub>2</sub> thin film solar cell using a simulation approach. <i>Physica B: Condensed Matter</i> , 2023, 653, 414691.	1.3	2

#	ARTICLE	IF	CITATIONS
5617	Chemical doping of lead-free metal-halide-perovskite related materials for efficient white-light photoluminescence. <i>Materials Today Physics</i> , 2023, 31, 100992.	2.9	12
5618	Coherent Random Lasing in Subwavelength Quasi-2D Perovskites. <i>Laser and Photonics Reviews</i> , 2023, 17, .	4.4	3
5619	Biomass-Derived Materials for Interface Engineering in Organic/Perovskite Photovoltaic and Light-Emitting Devices. <i>Advanced Materials Technologies</i> , 2023, 8, .	3.0	6
5620	Study of Optoelectronic Features in Polar and Nonpolar Polymorphs of the Oxynitride Tin-Based Semiconductor $\text{InSnO}_{2-x}\text{N}$ . <i>Journal of Physical Chemistry Letters</i> , 2023, 14, 1548-1555.	2.1	2
5621	Highly Efficient and Stable FA-Based Quasi-2D Ruddlesden-Popper Perovskite Solar Cells by the Incorporation of $\text{I}^2\text{A}$ -Fluorophenylethanamine Cations. <i>Advanced Materials</i> , 2023, 35, .	11.1	23
5622	Bifunctional Cellulose Interlayer Enabled Efficient Perovskite Solar Cells with Simultaneously Enhanced Efficiency and Stability. <i>Advanced Science</i> , 2023, 10, .	5.6	13
5623	Investigation of High-Efficiency and Stable Carbon-Perovskite/Silicon and Carbon-Perovskite/CIGS-GeTe Tandem Solar Cells. <i>Energies</i> , 2023, 16, 1676.	1.6	10
5624	Scanning Electrochemical Microscope Studies of Charge Transfer Kinetics at the Interface of the Perovskite/Hole Transport Layer. <i>Journal of Nanotechnology</i> , 2023, 2023, 1-12.	1.5	0
5625	Shedding light on electronically doped perovskites. <i>Materials Today Chemistry</i> , 2023, 29, 101380.	1.7	3
5626	Resonant Second Harmonic Generation in Proline Hybrid Lead Halide Perovskites. <i>Advanced Optical Materials</i> , 2023, 11, .	3.6	11
5627	Structural Symmetry Impressing Carrier Dynamics of Halide Perovskite. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	5
5628	Treasure trove for efficient hydrogen evolution through water splitting using diverse perovskite photocatalysts. <i>Materials Today Chemistry</i> , 2023, 29, 101387.	1.7	22
5629	Exploring the Role of Short Chain Acids as Surface Ligands in Photoinduced Charge Transfer Dynamics from $\text{CsPbBr}_3$ Perovskite Nanocrystals. <i>Journal of Physical Chemistry Letters</i> , 2023, 14, 1910-1917.	2.1	3
5630	Review of Defect Passivation for $\text{NiO}$ -Based Inverted Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2023, 6, 2098-2121.	2.5	10
5631	Systematic investigation of metal dopants and mechanism for the $\text{SnO}_2$ electron transport layer in perovskite solar cells. <i>Physical Chemistry Chemical Physics</i> , 2023, 25, 7229-7238.	1.3	3
5632	Recent advances in carbon-based materials for high-performance perovskite solar cells: gaps, challenges and fulfillment. <i>Nanoscale Advances</i> , 2023, 5, 1492-1526.	2.2	7
5633	Orientation Engineering via 2D Seeding for Stable 24.83% Efficiency Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2023, 13, .	10.2	23
5634	One-stone-for-two-birds strategy to attain beyond 25% perovskite solar cells. <i>Nature Communications</i> , 2023, 14, .	5.8	74

#	ARTICLE	IF	CITATIONS
5635	Two-Dimensional Quantum-Confined CsPbBr <sub>3</sub> in Silicene for LED Applications. ACS Applied Nano Materials, 2023, 6, 4028-4033.	2.4	0
5636	Identification of lead-free double halide perovskites for promising photovoltaic applications: first-principles calculations. European Physical Journal Plus, 2023, 138, .	1.2	0
5637	Suppressing Disproportionation Decomposition in Sn-Based Perovskite Light-Emitting Diodes. ACS Energy Letters, 2023, 8, 1597-1605.	8.8	13
5638	Recycling Useful Materials of Perovskite Solar Cells toward Sustainable Development. Advanced Sustainable Systems, 2023, 7, .	2.7	4
5639	Multifunctional anthraquinone-sulfonic potassium salts passivate the buried interface for efficient and stable planar perovskite solar cells. Physical Chemistry Chemical Physics, 2023, 25, 8403-8411.	1.3	3
5640	Enhanced Circularly Polarized Photoluminescence of Chiral Perovskite Films by Surface Passivation with Chiral Amines. Journal of Physical Chemistry Letters, 2023, 14, 2317-2322.	2.1	3
5641	Electron Transfer Dynamics from CsPbBr <sub>3</sub> Nanocrystals to Au <sub>144</sub> Clusters. ACS Physical Chemistry Au, 2023, 3, 348-357.	1.9	4
5642	Numerical Analysis of High-Efficiency CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Solar Cell with PEDOT:PSS Hole Transport Material Using SCAPS 1D Simulator. Journal of Electronic Materials, 2023, 52, 4338-4350.	1.0	4
5643	Polymerization Strategies to Construct a 3D Polymer Passivation Network toward High Performance Perovskite Solar Cells. Angewandte Chemie, 2023, 135, .	1.6	1
5644	Polymerization Strategies to Construct a 3D Polymer Passivation Network toward High Performance Perovskite Solar Cells. Angewandte Chemie - International Edition, 2023, 62, .	7.2	15
5645	Emerging photoelectric devices for neuromorphic vision applications: principles, developments, and outlooks. Science and Technology of Advanced Materials, 2023, 24, .	2.8	9
5646	Design of SnO <sub>2</sub> Electron Transport Layer in Perovskite Solar Cells to Achieve 2000 h Stability Under 1 Sun Illumination and 85 °C. Advanced Materials Interfaces, 2023, 10, .	1.9	12
5647	Efficient and Stable Perovskite Solar Cells by Tailoring of Interfaces. Advanced Materials, 2023, 35, .	11.1	21
5648	Intrinsic Dipole Arrangement to Coordinate Energy Levels for Efficient and Stable Perovskite Solar Cells. Advanced Materials, 2023, 35, .	11.1	20
5649	Influence of Ionic Additives in the PEDOT:PSS Hole Transport Layers for Efficient Blue Perovskite Light Emitting Diodes. ACS Applied Materials & Interfaces, 0, , .	4.0	3
5650	Theoretical Selection of 2D Perovskite for Constructing Efficient Heterojunction Solar Cells. , 2023, 5, 970-978.		5
5651	Intricate Reaction Pathways on CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Photocatalysts in Aqueous Solution Unraveled by Single-Particle Spectroscopy. Journal of Physical Chemistry Letters, 2023, 14, 2565-2572.	2.1	0
5652	Advancing Lead-Free Cs <sub>2</sub> AgBiBr <sub>6</sub> perovskite solar cells: Challenges and strategies. Solar Energy, 2023, 253, 563-583.	2.9	14

#	ARTICLE	IF	CITATIONS
5653	Application of Natural Molecules in Efficient and Stable Perovskite Solar Cells. <i>Materials</i> , 2023, 16, 2163.	1.3	3
5654	Rational Regulation of Organic Spacer Cations for Quasi-2D Perovskite Solar Cells. <i>Solar Rrl</i> , 2023, 7, .	3.1	2
5655	Relevance of Long Diffusion Lengths for Efficient Halide Perovskite Solar Cells. , 2023, 2, .		8
5656	Effect of KOH Concentration on the Optical and Structural Properties of Perovskite CaZnO <sub>3</sub> Thin films. <i>International Journal of Scientific Research in Science and Technology</i> , 2023, , 33-37.	0.1	2
5657	Stable Electron-Transport-Layer-Free Perovskite Solar Cells with over 22% Power Conversion Efficiency. <i>Nano Letters</i> , 2023, 23, 2195-2202.	4.5	9
5658	<i>In situ</i> growth of lead-free halide perovskites into SiO <sub>2</sub> -microcapsules toward water-stable photocatalytic CO <sub>2</sub> reduction. <i>Nanoscale</i> , 2023, 15, 7023-7031.	2.8	3
5659	Light-Induced Transient Lattice Dynamics and Metastable Phase Transition in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Nanocrystals. <i>ACS Nano</i> , 2023, 17, 5306-5315.	7.3	8
5660	Nanostructured Ruddlesden-Popper-Layered Lead Bromide Perovskites with Stable and Selected Wavelength for Photodetection Applications. <i>ACS Applied Nano Materials</i> , 2023, 6, 5187-5199.	2.4	5
5661	Tuning the band gap edges of perovskite material by Cd doping for achieving high current density in perovskite solar cells. <i>Ceramics International</i> , 2023, 49, 20465-20469.	2.3	14
5662	3,5-dichlorobenzylamine lead high-performance and stable 2D/3D perovskite solar cells. <i>Journal of Materials Science: Materials in Electronics</i> , 2023, 34, .	1.1	1
5663	Enhanced Carrier Diffusion Enables Efficient Back-Contact Perovskite Photovoltaics. <i>Angewandte Chemie - International Edition</i> , 2023, 62, .	7.2	1
5664	Enhanced Carrier Diffusion Enables Efficient Back-Contact Perovskite Photovoltaics. <i>Angewandte Chemie</i> , 0, , .	1.6	0
5665	Energy-Level Regulation and Low-Dimensional Phase Rearrangement via a Multifunctional Spacer Group toward Efficient Sky-Blue Quasi-2D Perovskite Light-Emitting Diodes. <i>Advanced Optical Materials</i> , 2023, 11, .	3.6	2
5666	Examining a Year-Long Chemical Degradation Process and Reaction Kinetics in Pristine and Defect-Passivated Lead Halide Perovskites. <i>Chemistry of Materials</i> , 2023, 35, 2904-2917.	3.2	3
5667	A Top-Down Strategy for Reforming the Characteristics of NiO Hole Transport Layer in Inverted Perovskite Solar Cells. <i>Solar Rrl</i> , 2023, 7, .	3.1	2
5668	Buried interface passivation strategies for high-performance perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2023, 11, 8573-8598.	5.2	10
5669	Laterally Grown Strain-Engineered Semitransparent Perovskite Solar Cells with 16.01% Efficiency. <i>ACS Applied Materials &amp; Interfaces</i> , 2023, 15, 17994-18005.	4.0	6
5670	CsPbBr <sub>3</sub> Quantum Dots-Sensitized Mesoporous TiO <sub>2</sub> Electron Transport Layers for High-Efficiency Perovskite Solar Cells. <i>Solar Rrl</i> , 2023, 7, .	3.1	2



#	ARTICLE	IF	CITATIONS
5671	Phase Control of Organometal Halide Perovskites for Development of Highly Efficient Solar Cells. ACS Applied Materials & Interfaces, 2023, 15, 21974-21981.	4.0	1
5672	Solar cell capacitance simulation and experimental photovoltaic performance analysis of perovskite solar cell based on CsGeI <sub>3</sub> . Materials Today: Proceedings, 2023, , .	0.9	2
5673	Light Soaking Effects in Perovskite Solar Cells: Mechanism, Impacts, and Elimination. ACS Applied Energy Materials, 2023, 6, 10303-10318.	2.5	5
5674	Optical Properties of Cu-Doped Perovskite Nanoplatelets. Journal of Nanoelectronics and Optoelectronics, 2023, 18, 1-5.	0.1	1
5675	Introduction to advanced electronic materials for clean energy applications. , 2023, , 3-26.		2
5676	Numerical Analysis in DFT and SCAPS-1D on the Influence of Different Charge Transport Layers of CsPbBr <sub>3</sub> Perovskite Solar Cells. Energy & Fuels, 2023, 37, 6078-6098.	2.5	61
5677	Improving the Solar Energy Utilization of Perovskite Solar Cells via Synergistic Effects of Alkylamine and Alkyl Acid on Defect Passivation. Solar Rrl, 2023, 7, .	3.1	1
5678	Bridging the Buried Interface with Piperazine Dihydriodide Layer for High Performance Inverted Solar Cells. Small, 2023, 19, .	5.2	10
5679	Lead halide perovskite sensitized WSe <sub>2</sub> photodiodes with ultrahigh open circuit voltages. ELight, 2023, 3, .	11.9	13
5680	Indirect Bandgap Emission of the Metal Halide Perovskite FAPbI <sub>3</sub> at Low Temperatures. Journal of Physical Chemistry Letters, 2023, 14, 3805-3810.	2.1	2
5681	Ferroelectric order in hybrid organic-inorganic perovskite NH <sub>4</sub> PbI <sub>3</sub> with non-polar molecules and small tolerance factor. Npj Computational Materials, 2023, 9, .	3.5	2
5682	Inhibition of Ion Migration for Highly Efficient and Stable Perovskite Solar Cells. Advanced Materials, 2023, 35, .	11.1	8
5683	Experimental synthesis of double perovskite functional nano-ceramic Eu <sub>2</sub> NiMnO <sub>6</sub> : Combining optical characterization and DFT calculations. Journal of Solid State Chemistry, 2023, 323, 124022.	1.4	4
5684	Operando Characterizations of Light-Induced Junction Evolution in Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2023, 15, 20909-20916.	4.0	1
5685	Self-healing perovskite solar cells based on copolymer-templated TiO <sub>2</sub> electron transport layer. Scientific Reports, 2023, 13, .	1.6	5
5686	Photophysics of Hybrid and Inorganic Lead Halide Perovskites. , 2023, , 27-51.		0
5687	Designing Y-shaped two-dimensional (2D) polymer-based donor materials with addition of end group acceptors for organic and perovskite solar cells. Journal of Molecular Modeling, 2023, 29, .	0.8	6
5688	Investigating the Molecular Orientation and Thermal Stability of Spiro-OMeTAD and its Dopants by Near Edge X-ray Absorption Fine Structure. , 2023, 2, .		1

#	ARTICLE	IF	CITATIONS
5696	Two-Dimensional Metal Halides for X-Ray Detection Applications. Nano-Micro Letters, 2023, 15, .	14.4	17
5706	Advances in Synthesis and Defect Properties of Halide Perovskite Nanocrystals: Experimental and Theoretical Perspectives. Composites Science and Technology, 2023, , 3-37.	0.4	0
5725	Perovskite-based LEDs and lasers. , 2023, , 519-548.		0
5739	Additive treatment yields high-performance lead-free perovskite light-emitting diodes. Nature Photonics, 2023, 17, 755-760.	15.6	17
5747	Phase-pure two-dimensional layered perovskite thin films. Nature Reviews Materials, 2023, 8, 533-551.	23.3	25
5748	Advances in All-Inorganic Perovskite Nanocrystal-Based White Light Emitting Devices. ACS Omega, 2023, 8, 17337-17349.	1.6	1
5769	Phonon-driven transient bandgap renormalization in perovskite single crystals. Materials Horizons, 0, , .	6.4	1
5774	Recent Progress of Layered Perovskite Solar Cells Incorporating Aromatic Spacers. Nano-Micro Letters, 2023, 15, .	14.4	5
5780	Recent Progress in Interfacial Dipole Engineering for Perovskite Solar Cells. Nano-Micro Letters, 2023, 15, .	14.4	10
5789	Tailoring passivators for highly efficient and stable perovskite solar cells. Nature Reviews Chemistry, 2023, 7, 632-652.	13.8	36
5797	Structure, composition, and stability of metal halide perovskites. , 2023, , 3-47.		0
5799	Perovskite nonlinear optical properties and photonics. , 2023, , 323-370.		0
5800	Halide perovskite micro and nano lasers. , 2023, , 219-255.		0
5807	Critical role of 1D materials in realizing efficient and stable perovskite solar cells. Journal of Materials Chemistry A, 2023, 11, 18592-18604.	5.2	4
5824	Cross-linking polymerization boosts the performance of perovskite solar cells: from material design to performance regulation. Energy and Environmental Science, 2023, 16, 4251-4279.	15.6	1
5829	The role of organic spacers in 2D/3D hybrid perovskite solar cells. Materials Chemistry Frontiers, 2023, 8, 82-103.	3.2	2
5853	Recent advances in synthesis of water-stable metal halide perovskites and photocatalytic applications. Journal of Materials Chemistry A, 2023, 11, 22656-22687.	5.2	4
5859	Self-assembly of perovskite nanoplates in colloidal suspensions. Materials Horizons, 0, , .	6.4	0

#	ARTICLE	IF	CITATIONS
5871	Numerical Simulation and Optimization of CsSnI <sub>3</sub> Perovskite PV Cell using SCAPS-1D. , 2023, , .		0
5895	Two dimensional perovskites. Semiconductors and Semimetals, 2023, , .	0.4	0
5910	Dopant engineering for ZnO electron transport layer towards efficient perovskite solar cells. RSC Advances, 2023, 13, 33797-33819.	1.7	2
5919	Solution fabrication methods and optimization strategies of CsPbBr <sub>3</sub> perovskite solar cells. Journal of Materials Chemistry C, 0, , .	2.7	0
5920	Pernicious effects and management of lead leakage from perovskite solar cells. Journal of Materials Chemistry A, 2023, 11, 25825-25848.	5.2	1
5924	Perovskite Solar Cells. , 2023, , 131-164.		0
5925	Thermal Behavior of Crystalline Silicon Bottom Cell in a Monolithic Perovskite/Si Tandem Solar Cells. , 2023, , .		0
5979	Analytical Study on the Effect of Perovskite Layer Thickness on Photo-capacitor Device for Retinomorphing Sensor Application. , 2023, , .		0
5993	Metal halide perovskites for CO <sub>2</sub> photoreduction: recent advances and future perspectives. , 2024, 2, 448-474.		0
6024	Strategies for constructing high-performance tin-based perovskite solar cells. Journal of Materials Chemistry C, 2024, 12, 4184-4207.	2.7	0
6034	Halide Perovskite Materials for Photovoltaics and Lighting. Advances in Chemical and Materials Engineering Book Series, 2024, , 126-146.	0.2	0
6052	Perovskite Nanomaterials as Advanced Optical Sensor. Advanced Structured Materials, 2024, , 203-224.	0.3	0