

# The light and shade of perovskite solar cells

Nature Materials

13, 838-842

DOI: [10.1038/nmat4065](https://doi.org/10.1038/nmat4065)

Citation Report

#	ARTICLE	IF	CITATIONS
3	Calcium manganate: A promising candidate as buffer layer for hybrid halide perovskite photovoltaic-thermoelectric systems. <i>Journal of Applied Physics</i> , 2014, 116, 194901.	1.1	8
4	Optically Transparent FTO-Free Cathode for Dye-Sensitized Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 22343-22350.	4.0	18
5	Organic electronics and photonics: concluding remarks. <i>Faraday Discussions</i> , 2014, 174, 429-438.	1.6	11
6	Water-repellent perovskite solar cell. <i>Journal of Materials Chemistry A</i> , 2014, 2, 20017-20021.	5.2	65
7	Electrochemical Doping of Compact $\text{TiO}_2$ Thin Layers. <i>Journal of Physical Chemistry C</i> , 2014, 118, 25970-25977.	1.5	24
8	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
9	Low-temperature processed high-performance flexible perovskite solar cells via rationally optimized solvent washing treatments. <i>RSC Advances</i> , 2014, 4, 62971-62977.	1.7	182
10	Hysteresis Analysis Based on the Ferroelectric Effect in Hybrid Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 3937-3945.	2.1	329
11	Role of Chloride in the Morphological Evolution of Organo-Lead Halide Perovskite Thin Films. <i>ACS Nano</i> , 2014, 8, 10640-10654.	7.3	353
12	Vapor-assisted solution process for perovskite materials and solar cells. <i>MRS Bulletin</i> , 2015, 40, 667-673.	1.7	39
13	Hexagonal rare-earth manganites as promising photovoltaics and light polarizers. <i>Physical Review B</i> , 2015, 92, .	1.1	100
14	Silver Iodide Formation in Methyl Ammonium Lead Iodide Perovskite Solar Cells with Silver Top Electrodes. <i>Advanced Materials Interfaces</i> , 2015, 2, 1500195.	1.9	646
16	Direct Observation of Long Electron-Hole Diffusion Distance in $\text{CH}_3\text{NH}_3\text{PbI}_3$ Perovskite Thin Film. <i>Scientific Reports</i> , 2015, 5, 14485.	1.6	172
17	Temperature Effects on the Photovoltaic Performance of Planar Structure Perovskite Solar Cells. <i>Chemistry Letters</i> , 2015, 44, 1557-1559.	0.7	83
19	Organic Charge Carriers for Perovskite Solar Cells. <i>ChemSusChem</i> , 2015, 8, 3012-3028.	3.6	109
20	Square-Centimeter Solution-Processed Planar $\text{CH}_3\text{NH}_3\text{PbI}_3$ Perovskite Solar Cells with Efficiency Exceeding 15%. <i>Advanced Materials</i> , 2015, 27, 6363-6370.	11.1	311
21	A Smooth $\text{CH}_3\text{NH}_3\text{PbI}_3$ Film via a New Approach for Forming the $\text{PbI}_2$ Nanostructure Together with Strategically High $\text{CH}_3\text{NH}_3\text{I}$ Concentration for High Efficient Planar Heterojunction Solar Cells. <i>Advanced Energy Materials</i> , 2015, 5, 1501354.	10.2	228
23	Methylamine-Induced Defect-Healing Behavior of $\text{CH}_3\text{NH}_3\text{PbI}_3$ Thin Films for Perovskite Solar Cells. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 9705-9709.	7.2	377

#	ARTICLE	IF	CITATIONS
24	Life Cycle Assessment of Titania Perovskite Solar Cell Technology for Sustainable Design and Manufacturing. <i>ChemSusChem</i> , 2015, 8, 3882-3891.	3.6	70
25	Photoluminescence and electroluminescence imaging of perovskite solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2015, 23, 1697-1705.	4.4	76
26	A promising unisource thermal evaporation for <i>in situ</i> fabrication of organolead halide perovskite $\text{CH}_3\text{NH}_3\text{PbI}_3$ thin film. <i>Progress in Photovoltaics: Research and Applications</i> , 2015, 23, 1901-1907.	4.4	28
28	Similar Structural Dynamics for the Degradation of $\text{CH}_3\text{NH}_3\text{PbI}_3$ in Air and in Vacuum. <i>ChemPhysChem</i> , 2015, 16, 3064-3071.	1.0	80
29	Molecular Engineering of Organic Dyes with a Hole-Extending Donor Tail for Efficient All-Solid-State Dye-Sensitized Solar Cells. <i>ChemSusChem</i> , 2015, 8, 2529-2536.	3.6	18
30	Control and Study of the Stoichiometry in Evaporated Perovskite Solar Cells. <i>ChemSusChem</i> , 2015, 8, 3847-3852.	3.6	59
31	Self-Assembly of Perovskite for Fabrication of Semitransparent Perovskite Solar Cells. <i>Advanced Materials Interfaces</i> , 2015, 2, 1500118.	1.9	61
32	Can Trihalide Lead Perovskites Support Continuous Wave Lasing?. <i>Advanced Optical Materials</i> , 2015, 3, 1557-1564.	3.6	72
33	Lead Replacement in $\text{CH}_3\text{NH}_3\text{PbI}_3$ Perovskites. <i>Advanced Electronic Materials</i> , 2015, 1, 1500089.	2.6	67
34	Microemulsion-based Synthesis of AgSCN Nanoparticles and Its Analogues. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2015, 641, 1510-1514.	0.6	4
35	Current-voltage characteristics of manganite-titanite perovskite junctions. <i>Beilstein Journal of Nanotechnology</i> , 2015, 6, 1467-1484.	1.5	16
36	Textile-Based Electronic Components for Energy Applications: Principles, Problems, and Perspective. <i>Nanomaterials</i> , 2015, 5, 1493-1531.	1.9	81
37	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
40	Detection of X-ray photons by solution-processed lead halide perovskites. <i>Nature Photonics</i> , 2015, 9, 444-449.	15.6	916
41	Non-ferroelectric nature of the conductance hysteresis in $\text{CH}_3\text{NH}_3\text{PbI}_3$ perovskite-based photovoltaic devices. <i>Applied Physics Letters</i> , 2015, 106, .	1.5	189
42	Thin-film $\text{Sb}_2\text{Se}_3$ photovoltaics with oriented one-dimensional ribbons and benign grain boundaries. <i>Nature Photonics</i> , 2015, 9, 409-415.	15.6	781
43	Crystal Morphologies of Organolead Trihalide in Mesoscopic/Planar Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 2292-2297.	2.1	93
44	Advances and Recent Trends in Heterogeneous Photo(Electro)-Catalysis for Solar Fuels and Chemicals. <i>Molecules</i> , 2015, 20, 6739-6793.	1.7	61

#	ARTICLE	IF	CITATIONS
45	Magnetoresistance of (CH <sub>3</sub> NH <sub>3</sub> ) <sub>3</sub> PbI <sub>3</sub> -Coated La <sub>0.67</sub> Sr <sub>0.33</sub> MnO <sub>3</sub> Granular Composites. IEEE Transactions on Magnetics, 2015, 51, 1-4.	1.2	2
46	Efficient Carrier Separation and Intriguing Switching of Bound Charges in Inorganic-Organic Lead Halide Solar Cells. Journal of Physical Chemistry Letters, 2015, 6, 2355-2362.	2.1	64
47	Exciton-phonon interaction in PbI <sub>2</sub> revealed by Raman and photoluminescence studies using excitation light overlapping the fundamental absorption edge. Materials Research Bulletin, 2015, 70, 762-772.	2.7	25
48	Photocatalytic generation of hydrogen by core-shell WO <sub>3</sub> /BiVO <sub>4</sub> nanorods with ultimate water splitting efficiency. Scientific Reports, 2015, 5, 11141.	1.6	464
49	Elucidating the Reaction Pathways in the Synthesis of Organolead Trihalide Perovskite for High-Performance Solar Cells. Scientific Reports, 2015, 5, 10557.	1.6	48
50	Tunable Optical Properties and Charge Separation in CH <sub>3</sub> NH <sub>3</sub> Sn <sub>2</sub> PbI <sub>3</sub> /TiO <sub>2</sub> -Based Planar Perovskites Cells. Journal of the American Chemical Society, 2015, 137, 8227-8236.	1.6	14
51	Smooth perovskite thin films and efficient perovskite solar cells prepared by the hybrid deposition method. Journal of Materials Chemistry A, 2015, 3, 14631-14641.	5.2	126
52	Versatility and robustness of ZnO:Cs electron transporting layer for printable organic solar cells. RSC Advances, 2015, 5, 49369-49375.	1.7	12
53	High Open Circuit Voltage in Sb <sub>2</sub> S <sub>3</sub> /Metal Oxide-Based Solar Cells. Journal of Physical Chemistry C, 2015, 119, 12904-12909.	1.5	41
54	Constructing Multifunctional Virus-Templated Nanoporous Composites for Thin Film Solar Cells: Contributions of Morphology and Optics to Photocurrent Generation. Journal of Physical Chemistry C, 2015, , 150610114441003.	1.5	14
55	Efficient photosynthesis of carbon monoxide from CO <sub>2</sub> using perovskite photovoltaics. Nature Communications, 2015, 6, 7326.	5.8	295
56	Wearable Double-Twisted Fibrous Perovskite Solar Cell. Advanced Materials, 2015, 27, 3831-3835.	11.1	184
57	Controlled Humidity Study on the Formation of Higher Efficiency Formamidinium Lead Triiodide-Based Solar Cells. Chemistry of Materials, 2015, 27, 4814-4820.	3.2	133
58	Highly Luminescent Colloidal Nanoplates of Perovskite Cesium Lead Halide and Their Oriented Assemblies. Journal of the American Chemical Society, 2015, 137, 16008-16011.	6.6	1,004
59	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. Nanotechnology, 2015, 26, 442001.	1.3	38
60	Microstructures of Organometal Trihalide Perovskites for Solar Cells: Their Evolution from Solutions and Characterization. Journal of Physical Chemistry Letters, 2015, 6, 4827-4839.	2.1	344
61	Thermodynamic regulation of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> crystal growth and its effect on photovoltaic performance of perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 19901-19906.	5.2	94
62	Effects of domain size in polycrystalline perovskite organic-inorganic hybrids investigated by spatially resolved optical spectroscopy. , 2015, , .		0

#	ARTICLE	IF	CITATIONS
63	Development of perovskite solar cells with nanophotonic front electrodes for improved light incoupling., 2015, , .		1
64	Chalcogenide Perovskites for Photovoltaics. Nano Letters, 2015, 15, 581-585.	4.5	249
65	Development of Lead Iodide Perovskite Solar Cells Using Three-Dimensional Titanium Dioxide Nanowire Architectures. ACS Nano, 2015, 9, 564-572.	7.3	125
66	Lead-Halide Perovskite Solar Cells by CH <sub>3</sub> NH <sub>3</sub> I Dripping on Pbl <sub>2</sub> â€“CH <sub>3</sub> NH <sub>3</sub> Iâ€“DMSO Precursor Layer for Planar and Porous Structures Using CuSCN Hole-Transporting Material. Journal of Physical Chemistry Letters, 2015, 6, 881-886.	2.1	78
67	Development of Labâ€“toâ€“Fab Production Equipment Across Several Length Scales for Printed Energy Technologies, Including Solar Cells. Energy Technology, 2015, 3, 293-304.	1.8	64
68	Chemical and Electronic Structure Characterization of Lead Halide Perovskites and Stability Behavior under Different Exposuresâ€“A Photoelectron Spectroscopy Investigation. Chemistry of Materials, 2015, 27, 1720-1731.	3.2	388
69	Shape Evolution and Single Particle Luminescence of Organometal Halide Perovskite Nanocrystals. ACS Nano, 2015, 9, 2948-2959.	7.3	252
70	A facile, solvent vaporâ€“fumigation-induced, self-repair recrystallization of CH <sub>3</sub> NH <sub>3</sub> Pbl <sub>3</sub> films for high-performance perovskite solar cells. Nanoscale, 2015, 7, 5427-5434.	2.8	61
71	Interfaces in Perovskite Solar Cells. Small, 2015, 11, 2472-2486.	5.2	344
72	Transforming Hybrid Organic Inorganic Perovskites by Rapid Halide Exchange. Chemistry of Materials, 2015, 27, 2181-2188.	3.2	179
73	Enhanced Photovoltaic Performance of CH <sub>3</sub> NH <sub>3</sub> Pbl <sub>3</sub> Perovskite Solar Cells through Interfacial Engineering Using Self-Assembling Monolayer. Journal of the American Chemical Society, 2015, 137, 2674-2679.	6.6	590
74	Formation of Thin Films of Organicâ€“Inorganic Perovskites for Highâ€“Efficiency Solar Cells. Angewandte Chemie - International Edition, 2015, 54, 3240-3248.	7.2	245
75	Control of organicâ€“inorganic halide perovskites in solid-state solar cells: a perspective. Science Bulletin, 2015, 60, 405-418.	4.3	39
76	Damaging Effect of Hot Metal Atoms on Organic Semiconducting Films during Top Contact Formation. Journal of Physical Chemistry C, 2015, 119, 14593-14602.	1.5	9
77	High-efficiency solution-processed perovskite solar cells with millimeter-scale grains. Science, 2015, 347, 522-525.	6.0	2,978
78	Trap States in Lead Iodide Perovskites. Journal of the American Chemical Society, 2015, 137, 2089-2096.	6.6	813
79	Nanocrystals of Cesium Lead Halide Perovskites (CsPbX <sub>3</sub> , X = Cl, Br, and I): Novel Optoelectronic Materials Showing Bright Emission with Wide Color Gamut. Nano Letters, 2015, 15, 3692-3696.	4.5	6,814
80	NiO/MAPbl <sub>3-x</sub> Cl <sub>x</sub> /PCBM: A Model Case for an Improved Understanding of Inverted Mesoscopic Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 4283-4289.	4.0	59

#	ARTICLE	IF	CITATIONS
81	Fatigue resistance of a flexible, efficient, and metal oxide-free perovskite solar cell. <i>Journal of Materials Chemistry A</i> , 2015, 3, 9241-9248.	5.2	100
82	Trap-Assisted Non-Radiative Recombination in Organic-Inorganic Perovskite Solar Cells. <i>Advanced Materials</i> , 2015, 27, 1837-1841.	11.1	684
84	High efficiency solar cells combining a perovskite and a silicon heterojunction solar cells via an optical splitting system. <i>Applied Physics Letters</i> , 2015, 106, .	1.5	119
85	Electronic Structure of $\text{CH}_3\text{NH}_3\text{PbX}_3$ Perovskites: Dependence on the Halide Moiety. <i>Journal of Physical Chemistry C</i> , 2015, 119, 1818-1825.	1.5	127
86	Whispering Gallery Mode Lasing from Hexagonal Shaped Layered Lead Iodide Crystals. <i>ACS Nano</i> , 2015, 9, 687-695.	7.3	118
87	One pot solvothermal synthesis of colloidal $\text{Cu}(\text{In}_{1-x}\text{Ga}_x)\text{Se}_2$ (CIGS) quantum dots for solar cell applications. <i>Journal of Alloys and Compounds</i> , 2015, 629, 162-166.	2.8	10
88	Fully Printable Mesoscopic Perovskite Solar Cells with Organic Silane Self-Assembled Monolayer. <i>Journal of the American Chemical Society</i> , 2015, 137, 1790-1793.	6.6	414
89	Fabrication of Planar Heterojunction Perovskite Solar Cells by Controlled Low-Pressure Vapor Annealing. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 493-499.	2.1	112
90	Fast and low temperature growth of electron transport layers for efficient perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 4909-4915.	5.2	101
91	Growth control of compact $\text{CH}_3\text{NH}_3\text{PbI}_3$ thin films via enhanced solid-state precursor reaction for efficient planar perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 9249-9256.	5.2	128
92	Morphology control of the perovskite films for efficient solar cells. <i>Dalton Transactions</i> , 2015, 44, 10582-10593.	1.6	154
93	Efficient mesoscopic perovskite solar cells based on the $\text{CH}_3\text{NH}_3\text{PbI}_2\text{Br}$ light absorber. <i>Journal of Materials Chemistry A</i> , 2015, 3, 9116-9122.	5.2	67
94	Non-Thermal Annealing Fabrication of Efficient Planar Perovskite Solar Cells with Inclusion of $\text{NH}_4\text{Cl}$ . <i>Chemistry of Materials</i> , 2015, 27, 1448-1451.	3.2	123
95	Electroluminescence from Organometallic Lead Halide Perovskite-Conjugated Polymer Diodes. <i>Advanced Electronic Materials</i> , 2015, 1, 1500008.	2.6	62
96	Room-temperature crystallization of hybrid-perovskite thin films via solvent-solvent extraction for high-performance solar cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 8178-8184.	5.2	385
97	Many-body interactions in photo-excited lead iodide perovskite. <i>Journal of Materials Chemistry A</i> , 2015, 3, 9285-9290.	5.2	144
98	Bifunctional alkyl chain barriers for efficient perovskite solar cells. <i>Chemical Communications</i> , 2015, 51, 7047-7050.	2.2	135
100	Degradation observations of encapsulated planar $\text{CH}_3\text{NH}_3\text{PbI}_3$ perovskite solar cells at high temperatures and humidity. <i>Journal of Materials Chemistry A</i> , 2015, 3, 8139-8147.	5.2	874

#	ARTICLE	IF	CITATIONS
101	Excitonic Many-Body Interactions in Two-Dimensional Lead Iodide Perovskite Quantum Wells. <i>Journal of Physical Chemistry C</i> , 2015, 119, 14714-14721.	1.5	198
102	High-performance hybrid perovskite solar cells with open circuit voltage dependence on hole-transporting materials. <i>Nano Energy</i> , 2015, 16, 428-437.	8.2	124
103	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
104	Tin oxide based dye-sensitized solid-state solar cells: surface passivation for suppression of recombination. <i>Materials Science in Semiconductor Processing</i> , 2015, 40, 890-895.	1.9	12
105	Energetics and dynamics in organic-inorganic halide perovskite photovoltaics and light emitters. <i>Nanotechnology</i> , 2015, 26, 342001.	1.3	75
106	PbI <sub>2</sub> -Based Dipping-Controlled Material Conversion for Compact Layer Free Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 18156-18162.	4.0	71
107	Recent advances in flexible perovskite solar cells. <i>Chemical Communications</i> , 2015, 51, 14696-14707.	2.2	78
108	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
109	Fluorine doped tin oxide film with high haze and transmittance prepared for dye-sensitized solar cells. <i>Japanese Journal of Applied Physics</i> , 2015, 54, 08KF03.	0.8	11
110	Efficient perovskite solar cells fabricated using an aqueous lead nitrate precursor. <i>Chemical Communications</i> , 2015, 51, 13294-13297.	2.2	76
111	Ionic transport in hybrid lead iodide perovskite solar cells. <i>Nature Communications</i> , 2015, 6, 7497.	5.8	2,154
112	Enhancing Stability of Perovskite Solar Cells to Moisture by the Facile Hydrophobic Passivation. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 17330-17336.	4.0	302
113	Fast Anion-Exchange in Highly Luminescent Nanocrystals of Cesium Lead Halide Perovskites (CsPbX <sub>3</sub> , X = Cl, Br, I). <i>Nano Letters</i> , 2015, 15, 5635-5640.	4.5	1,938
114	Vertical TiO <sub>2</sub> Nanorods as a Medium for Stable and High-Efficiency Perovskite Solar Modules. <i>ACS Nano</i> , 2015, 9, 8420-8429.	7.3	174
115	Morphological control of organic-inorganic perovskite layers by hot isostatic pressing for efficient planar solar cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 17780-17787.	5.2	29
116	Under the spotlight: The organic-inorganic hybrid halide perovskite for optoelectronic applications. <i>Nano Today</i> , 2015, 10, 355-396.	6.2	891
117	Enhanced Amplified Spontaneous Emission in Perovskites Using a Flexible Cholesteric Liquid Crystal Reflector. <i>Nano Letters</i> , 2015, 15, 4935-4941.	4.5	117
118	The optoelectronic role of chlorine in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> (Cl)-based perovskite solar cells. <i>Nature Communications</i> , 2015, 6, 7269.	5.8	404

#	ARTICLE	IF	CITATIONS
119	Dispelling clichés at the nanoscale: the true effect of polymer electrolytes on the performance of dye-sensitized solar cells. <i>Nanoscale</i> , 2015, 7, 12010-12017.	2.8	68
120	Facile route to freestanding CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> crystals using inverse solubility. <i>Scientific Reports</i> , 2015, 5, 11654.	1.6	112
121	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
122	Impact of microstructure on local carrier lifetime in perovskite solar cells. <i>Science</i> , 2015, 348, 683-686.	6.0	1,833
123	Monodentate pyrazole as a replacement of labile NCS for Ru (II) photosensitizers: Minimum electron injection free energy for dye-sensitized solar cells. <i>Dyes and Pigments</i> , 2015, 120, 93-98.	2.0	19
124	Origin of High Electronic Quality in Structurally Disordered CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> and the Passivation Effect of Cl and O at Grain Boundaries. <i>Advanced Electronic Materials</i> , 2015, 1, 1500044.	2.6	175
125	Ferroelectric solar cells based on inorganic-organic hybrid perovskites. <i>Journal of Materials Chemistry A</i> , 2015, 3, 7699-7705.	5.2	103
126	Nucleation and Crystal Growth of Organic-Inorganic Lead Halide Perovskites under Different Relative Humidity. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 9110-9117.	4.0	137
127	Recent Progress on Hole-Transporting Materials for Emerging Organometal Halide Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2015, 5, 1500213.	10.2	418
128	Ferroelectric polarization driven optical absorption and charge carrier transport in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> /TiO <sub>2</sub> -based photovoltaic cells. <i>Journal of Power Sources</i> , 2015, 291, 58-65.	4.0	10
129	Facile preparation of smooth perovskite films for efficient meso/planar hybrid structured perovskite solar cells. <i>Chemical Communications</i> , 2015, 51, 10038-10041.	2.2	49
130	Influence of deposition strategies on CdSe quantum dot-sensitized solar cells: a comparison between successive ionic layer adsorption and reaction and chemical bath deposition. <i>Journal of Materials Chemistry A</i> , 2015, 3, 12539-12549.	5.2	73
131	Perovskite solar cells prepared by flash evaporation. <i>Chemical Communications</i> , 2015, 51, 7376-7378.	2.2	99
132	Charge selective contacts, mobile ions and anomalous hysteresis in organic-inorganic perovskite solar cells. <i>Materials Horizons</i> , 2015, 2, 315-322.	6.4	366
133	CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> from non-iodide lead salts for perovskite solar cells via the formation of PbI <sub>2</sub> . <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 10369-10372.	1.3	27
134	Perovskite-fullerene hybrid materials suppress hysteresis in planar diodes. <i>Nature Communications</i> , 2015, 6, 7081.	5.8	948
135	Tin perovskite/fullerene planar layer photovoltaics: improving the efficiency and stability of lead-free devices. <i>Journal of Materials Chemistry A</i> , 2015, 3, 11631-11640.	5.2	188
136	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



#	ARTICLE	IF	CITATIONS
137	Colloidal Organohalide Perovskite Nanoplatelets Exhibiting Quantum Confinement. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 1911-1916.	2.1	358
138	Outdoor Performance and Stability under Elevated Temperatures and Long-Term Light Soaking of Triple-Layer Mesoporous Perovskite Photovoltaics. <i>Energy Technology</i> , 2015, 3, 551-555.	1.8	336
139	Nanophotonic front electrodes for perovskite solar cells. <i>Applied Physics Letters</i> , 2015, 106, .	1.5	52
140	Metal-halide perovskites for photovoltaic and light-emitting devices. <i>Nature Nanotechnology</i> , 2015, 10, 391-402.	15.6	2,604
141	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
142	Interfacial Electron Transfer Barrier at Compact $\text{TiO}_2/\text{CH}_3\text{NH}_3\text{PbI}_3$ Heterojunction. <i>Small</i> , 2015, 11, 3606-3613.	5.2	196
143	Performance enhancement of perovskite-sensitized mesoscopic solar cells using Nb-doped $\text{TiO}_2$ compact layer. <i>Nano Research</i> , 2015, 8, 1997-2003.	5.8	97
144	Temperature Dependence of the Band Gap of $\text{CH}_3\text{NH}_3\text{PbI}_3$ Stabilized with PMMA: A Modulated Surface Photovoltage Study. <i>Journal of Physical Chemistry C</i> , 2015, 119, 23968-23972.	1.5	59
145	Kinetics of Ion Transport in Perovskite Active Layers and Its Implications for Active Layer Stability. <i>Journal of the American Chemical Society</i> , 2015, 137, 13130-13137.	6.6	394
146	High-performance $\text{CH}_3\text{NH}_3\text{PbI}_3$ perovskite solar cells fabricated under ambient conditions with high relative humidity. <i>Japanese Journal of Applied Physics</i> , 2015, 54, 100305.	0.8	36
147	An electron beam evaporated $\text{TiO}_2$ layer for high efficiency planar perovskite solar cells on flexible polyethylene terephthalate substrates. <i>Journal of Materials Chemistry A</i> , 2015, 3, 22824-22829.	5.2	116
148	Additive-Modulated Evolution of $\text{HC}(\text{NH}_2)_2\text{PbI}_3$ Black Polymorph for Mesoscopic Perovskite Solar Cells. <i>Chemistry of Materials</i> , 2015, 27, 7149-7155.	3.2	197
149	Micron-scale rod-like scattering particles for light trapping in nanostructured thin film solar cells. <i>RSC Advances</i> , 2015, 5, 86050-86055.	1.7	12
150	Resolution power. <i>Nature Materials</i> , 2015, 14, 966-966.	13.3	0
151	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
152	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
153	A Liquid Junction Photoelectrochemical Solar Cell Based on p-Type $\text{MeNH}_3\text{PbI}_3$ Perovskite with 1.05 V Open-Circuit Photovoltage. <i>Journal of the American Chemical Society</i> , 2015, 137, 14758-14764.	6.6	52
154	Mesoporous scaffolds based on $\text{TiO}_2$ nanorods and nanoparticles for efficient hybrid perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 24315-24321.	5.2	29

#	ARTICLE	IF	CITATIONS
155	Goldschmidt's Rules and Strontium Replacement in Lead Halogen Perovskite Solar Cells: Theory and Preliminary Experiments on $\text{CH}_3\text{NH}_3\text{SrI}_3$ . <i>Journal of Physical Chemistry C</i> , 2015, 119, 25673-25683.	1.5	211
156	Intrinsic femtosecond charge generation dynamics in single crystal $\text{CH}_3\text{NH}_3\text{PbI}_3$ . <i>Energy and Environmental Science</i> , 2015, 8, 3700-3707.	15.6	203
157	Improved Crystallization of Perovskite Films by Optimized Solvent Annealing for High Efficiency Solar Cell. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 24008-24015.	4.0	257
158	$(\text{CH}_3\text{NH}_3)_2\text{Pb}(\text{SCN})_2\text{I}_2$ : A More Stable Structural Motif for Hybrid Halide Photovoltaics?. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 4594-4598.	2.1	117
159	Efficient Perovskite Solar Cells by Temperature Control in Single and Mixed Halide Precursor Solutions and Films. <i>Journal of Physical Chemistry C</i> , 2015, 119, 25747-25753.	1.5	55
160	Improved photovoltaic performance in perovskite solar cells based on $\text{CH}_3\text{NH}_3\text{PbI}_3$ films fabricated under controlled relative humidity. <i>RSC Advances</i> , 2015, 5, 93957-93963.	1.7	29
161	Efficient and stable large-area perovskite solar cells with inorganic charge extraction layers. <i>Science</i> , 2015, 350, 944-948.	6.0	2,007
162	Chlorine Doping Reduces Electron-Hole Recombination in Lead Iodide Perovskites: Time-Domain Ab Initio Analysis. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 4463-4469.	2.1	103
163	Extensive Penetration of Evaporated Electrode Metals into Fullerene Films: Intercalated Metal Nanostructures and Influence on Device Architecture. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 25247-25258.	4.0	40
164	Layered $\text{V}_2\text{O}_5/\text{PEDOT}$ Nanowires and Ultrathin Nanobelts Fabricated with a Silk Reelinglike Process. <i>Chemistry of Materials</i> , 2015, 27, 5813-5819.	3.2	74
165	The role of $\text{I}^-$ -bonding on the high temperature structure of the double perovskites $\text{Ba}_2\text{CaUO}_6$ and $\text{BaSrCaUO}_6$ . <i>Dalton Transactions</i> , 2015, 44, 16036-16044.	1.6	1
166	Collective Behavior of Molecular Dipoles in $\text{CH}_3\text{NH}_3\text{PbI}_3$ . <i>Journal of Physical Chemistry C</i> , 2015, 119, 19674-19680.	1.5	46
167	<i>GW</i> Band Structures and Carrier Effective Masses of $\text{CH}_3\text{NH}_3\text{PbI}_3$ and Hypothetical Perovskites of the Type $\text{APbI}_3$ : A = $\text{NH}_4$ , $\text{PH}_4$ , $\text{AsH}_4$ , and $\text{SbH}_4$ . <i>Journal of Physical Chemistry C</i> , 2015, 119, 25209-25219.	1.5	144
168	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
169	Iron sensitizer converts light to electrons with 92% yield. <i>Nature Chemistry</i> , 2015, 7, 883-889.	6.6	193
170	Doping of $\text{TiO}_2$ for sensitized solar cells. <i>Chemical Society Reviews</i> , 2015, 44, 8326-8349.	18.7	355
171	Hovering solar cells. <i>Nature Materials</i> , 2015, 14, 964-966.	13.3	16
172	Mixed perovskite based on methyl-ammonium and polymeric-ammonium for stable and reproducible solar cells. <i>Chemical Communications</i> , 2015, 51, 15430-15433.	2.2	91

#	ARTICLE	IF	CITATIONS
173	Temperature-Dependent Polarization in Field-Effect Transport and Photovoltaic Measurements of Methylammonium Lead Iodide. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 3565-3571.	2.1	105
174	Reduced surface defects of organometallic perovskite by thermal annealing for highly efficient perovskite solar cells. <i>RSC Advances</i> , 2015, 5, 75622-75629.	1.7	66
175	Environmental Mineralogy: New Challenges, New Materials. <i>Elements</i> , 2015, 11, 247-252.	0.5	10
176	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
177	Highly efficient perovskite solar cells based on mechanically durable molybdenum cathode. <i>Nano Energy</i> , 2015, 17, 131-139.	8.2	48
178	Improved performance and stability of perovskite solar cells by crystal crosslinking with alkylphosphonic acid ammonium chlorides. <i>Nature Chemistry</i> , 2015, 7, 703-711.	6.6	1,033
179	Role of microstructure in the electron-hole interaction of hybrid lead halide perovskites. <i>Nature Photonics</i> , 2015, 9, 695-701.	15.6	226
180	Rashba and Dresselhaus Effects in Hybrid Organic-Inorganic Perovskites: From Basics to Devices. <i>ACS Nano</i> , 2015, 9, 11557-11567.	7.3	304
181	Synergistic enhancement and mechanism study of mechanical and moisture stability of perovskite solar cells introducing polyethylene-imine into the CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> /HTM interface. <i>Journal of Materials Chemistry A</i> , 2015, 3, 22176-22182.	5.2	80
182	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
183	High performance planar <i>p-i-n</i> perovskite solar cells with crown-ether functionalized fullerene and LiF as double cathode buffer layers. <i>Applied Physics Letters</i> , 2015, 107, .	1.5	42
184	Controlled reaction for improved CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> transition in perovskite solar cells. <i>Dalton Transactions</i> , 2015, 44, 17841-17849.	1.6	15
185	Efficient screen printed perovskite solar cells based on mesoscopic TiO <sub>2</sub> /Al <sub>2</sub> O <sub>3</sub> /NiO/carbon architecture. <i>Nano Energy</i> , 2015, 17, 171-179.	8.2	261
186	CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite single crystals: surface photophysics and their interaction with the environment. <i>Chemical Science</i> , 2015, 6, 7305-7310.	3.7	192
187	Core/Shell Structured TiO <sub>2</sub> /CdS Electrode to Enhance the Light Stability of Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 27863-27870.	4.0	82
188	Interfacial Study To Suppress Charge Carrier Recombination for High Efficiency Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 26445-26454.	4.0	90
189	Effect of Carrier Thermalization Dynamics on Light Emission and Amplification in Organometal Halide Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 153-158.	2.1	101
190	Hybrid C <sub>3</sub> N <sub>4</sub> /Fluorine-Doped Tin Oxide Electrode Transfers Hydride for 1,4-NADH Cofactor Regeneration. <i>ChemElectroChem</i> , 2015, 2, 333-337.	1.7	19

#	ARTICLE	IF	CITATIONS
191	Integrated Perovskite/Bulk-Heterojunction toward Efficient Solar Cells. Nano Letters, 2015, 15, 662-668.	4.5	145
192	Perovskite-based solar cells: impact of morphology and device architecture on device performance. Journal of Materials Chemistry A, 2015, 3, 8943-8969.	5.2	522
193	Hole-transport materials with greatly-differing redox potentials give efficient TiO <sub>2</sub> @[CH <sub>3</sub> NH <sub>3</sub> ][PbX <sub>3</sub> ] perovskite solar cells. Physical Chemistry Chemical Physics, 2015, 17, 2335-2338.	1.3	57
194	Review of recent progress in chemical stability of perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 8970-8980.	5.2	1,609
195	Temperature-dependent hysteresis effects in perovskite-based solar cells. Journal of Materials Chemistry A, 2015, 3, 9074-9080.	5.2	121
196	Organic-inorganic halide perovskites: an ambipolar class of materials with enhanced photovoltaic performances. Journal of Materials Chemistry A, 2015, 3, 8981-8991.	5.2	109
197	Temperature induced structural, electrical and optical changes in solution processed perovskite material: Application in photovoltaics. Solar Energy Materials and Solar Cells, 2015, 132, 615-622.	3.0	60
198	Halide perovskite materials for solar cells: a theoretical review. Journal of Materials Chemistry A, 2015, 3, 8926-8942.	5.2	1,114
199	Structural and Quantitative Investigation of Perovskite Pore Filling in Mesoporous Metal Oxides. Crystals, 2016, 6, 149.	1.0	8
200	Perovskite Solar Cells: Progress and Advancements. Energies, 2016, 9, 861.	1.6	106
201	Recent Advances in Interface Engineering for Planar Heterojunction Perovskite Solar Cells. Molecules, 2016, 21, 837.	1.7	28
202	Pyrite-Based Bi-Functional Layer for Long-Term Stability and High-Performance of Organo-Lead Halide Perovskite Solar Cells. Advanced Functional Materials, 2016, 26, 5400-5407.	7.8	46
203	The Progress of Interface Design in Perovskite-Based Solar Cells. Advanced Energy Materials, 2016, 6, 1600460.	10.2	139
204	Hexaazatrinaphthylene Derivatives: Efficient Electron-Transporting Materials with Tunable Energy Levels for Inverted Perovskite Solar Cells. Angewandte Chemie, 2016, 128, 9145-9149.	1.6	19
205	Fundamentals of Photovoltaic Cells and Systems. World Scientific Series in Current Energy Issues, 2016, , 31-67.	0.1	2
206	Von Silicium zum Perowskit: Nachrichten Aus Der Chemie, 2016, 64, 617-619.	0.0	0
207	Dopant-Free Spiro-Triphenylamine/Fluorene as Hole-Transporting Material for Perovskite Solar Cells with Enhanced Efficiency and Stability. Advanced Functional Materials, 2016, 26, 1375-1381.	7.8	226
208	Stable Organic-Inorganic Perovskite Solar Cells without Hole-Conductor Layer Achieved via Cell Structure Design and Contact Engineering. Advanced Functional Materials, 2016, 26, 4866-4873.	7.8	84

#	ARTICLE	IF	CITATIONS
209	Graphene Doping Improved Device Performance of ZnMgO/PbS Colloidal Quantum Dot Photovoltaics. <i>Advanced Functional Materials</i> , 2016, 26, 1899-1907.	7.8	85
210	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
211	Identifying Fundamental Limitations in Halide Perovskite Solar Cells. <i>Advanced Materials</i> , 2016, 28, 2439-2445.	11.1	129
212	Bipolar Membrane-Assisted Solar Water Splitting in Optimal pH. <i>Advanced Energy Materials</i> , 2016, 6, 1600100.	10.2	156
213	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
214	Device simulation of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite/heterojunction crystalline silicon monolithic tandem solar cells using an n-type a-Si:H/p-type Åµc-Si <sub>3</sub> O <sub>x</sub> :H tunnel junction. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2016, 213, 1997-2002.	0.8	26
215	Thermal layer-by-layer preparation of oriented films of a Cu( <i>scp</i> ) ionic inorganic-organic hybrid material showing semiconducting and SHG properties. <i>Journal of Materials Chemistry C</i> , 2016, 4, 7077-7082.	2.7	2
216	Hexaazatrinaphthylene Derivatives: Efficient Electron-Transporting Materials with Tunable Energy Levels for Inverted Perovskite Solar Cells. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 8999-9003.	7.2	118
217	Tunable and Specific Formation of C@NiCoP Peapods with Enhanced HER Activity and Lithium Storage Performance. <i>Chemistry - A European Journal</i> , 2016, 22, 1021-1029.	1.7	66
218	Controlled Substitution of Chlorine for Iodine in Single-Crystal Nanofibers of Mixed Perovskite MAPb <sub>3-x</sub> Cl <sub>x</sub> I <sub>3-x</sub> . <i>Small</i> , 2016, 12, 3780-3787.	5.2	20
219	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
220	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
221	Lateral-Structure Single-Crystal Hybrid Perovskite Solar Cells via Piezoelectric Poling. <i>Advanced Materials</i> , 2016, 28, 2816-2821.	11.1	144
222	Bismuth Iodide Perovskite Materials for Solar Cell Applications: Electronic Structure, Optical Transitions, and Directional Charge Transport. <i>Journal of Physical Chemistry C</i> , 2016, 120, 29039-29046.	1.5	134
223	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
224	Research Update: Luminescence in lead halide perovskites. <i>APL Materials</i> , 2016, 4, .	2.2	12
225	Research Update: Behind the high efficiency of hybrid perovskite solar cells. <i>APL Materials</i> , 2016, 4, .	2.2	47
226	Color Change Effect in an Organic-Inorganic Hybrid Material Based on a Porphyrin Diacid. <i>Journal of Physical Chemistry C</i> , 2016, 120, 28363-28373.	1.5	34

#	ARTICLE	IF	CITATIONS
227	Encapsulation of Perovskite Nanocrystals into Macroscale Polymer Matrices: Enhanced Stability and Polarization. ACS Applied Materials & Interfaces, 2016, 8, 35523-35533.	4.0	398
228	Perovskite FA1-xMAxPbI3 for Solar Cells: Films Formation and Properties. Energy Procedia, 2016, 102, 87-95.	1.8	54
229	NMR longitudinal relaxation enhancement in metal halides by heteronuclear polarization exchange during magic-angle spinning. Journal of Chemical Physics, 2016, 144, 224201.	1.2	14
230	High Performance Perovskite Solar Cells through Surface Modification, Mixed Solvent Engineering and Nanobowl-Assisted Light Harvesting. MRS Advances, 2016, 1, 3175-3184.	0.5	9
231	The presence of CH3NH2 neutral species in organometal halide perovskite films. Applied Physics Letters, 2016, 108, .	1.5	50
232	Defect states in perovskite solar cells associated with hysteresis and performance. Applied Physics Letters, 2016, 109, .	1.5	69
233	High Consistency Perovskite Solar Cell with a Consecutive Compact and Mesoporous TiO <sub>2</sub> Film by One-Step Spin-Coating. ACS Applied Materials & Interfaces, 2016, 8, 35440-35446.	4.0	31
234	Probing the Soft and Nanoductile Mechanical Nature of Single and Polycrystalline Organic-Inorganic Hybrid Perovskites for Flexible Functional Devices. ACS Nano, 2016, 10, 11044-11057.	7.3	89
235	Tandem photovoltaic-photoelectrochemical GaAs/InGaAs/WO <sub>3</sub> /BiVO <sub>4</sub> device for solar hydrogen generation. Japanese Journal of Applied Physics, 2016, 55, 04ES01.	0.8	28
236	Numerical modeling of perovskite solar cells with a planar structure. IOP Conference Series: Materials Science and Engineering, 2016, 151, 012033.	0.3	14
237	Spontaneous bidirectional ordering of CH3NH3+ in lead iodide perovskites at room temperature: The origins of the tetragonal phase. Scientific Reports, 2016, 6, 244443.	1.6	37
238	Solar Electricity and Solar Fuels: Status and Perspectives in the Context of the Energy Transition. Chemistry - A European Journal, 2016, 22, 32-57.	1.7	303
239	Fabrication of Cd-Doped TiO2 Nanorod Arrays and Photovoltaic Property in Perovskite Solar Cell. Electrochimica Acta, 2016, 200, 29-36.	2.6	57
240	Hybrid organic-inorganic solar cells based on bismuth iodide and 1,6-hexanediammonium dication. Journal of Materials Chemistry A, 2016, 4, 6837-6841.	5.2	104
241	In situ Raman spectroelectrochemistry as a useful tool for detection of TiO2(anatase) impurities in TiO2(B) and TiO2(rutile). Monatshefte für Chemie, 2016, 147, 951-959.	0.9	24
242	The Effect of Humidity upon the Crystallization Process of Two-Step Spin-Coated Organic-Inorganic Perovskites. ChemPhysChem, 2016, 17, 112-118.	1.0	35
243	Resolving the Physical Origin of Octahedral Tilting in Halide Perovskites. Chemistry of Materials, 2016, 28, 4259-4266.	3.2	211
244	Oriented rutile TiO2 nanorod arrays for efficient quantum dot-sensitized solar cells with extremely high open-circuit voltage. Ceramics International, 2016, 42, 12194-12201.	2.3	11

#	ARTICLE	IF	CITATIONS
245	Quantification of spatial inhomogeneity in perovskite solar cells by hyperspectral luminescence imaging. <i>Energy and Environmental Science</i> , 2016, 9, 2286-2294.	15.6	102
246	Tailoring band structure of ternary CdS Se1 <sup>â</sup> quantum dots for highly efficient sensitized solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2016, 155, 20-29.	3.0	58
247	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
248	Nanostructured Materials for High Efficiency Perovskite Solar Cells. <i>Nanoscience and Technology</i> , 2016, , 1-39.	1.5	3
249	Suppressed hysteresis and improved stability in perovskite solar cells with conductive organic network. <i>Nano Energy</i> , 2016, 26, 139-147.	8.2	97
250	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
251	Progress in emerging solution-processed thin film solar cells â€“ Part II: Perovskite solar cells. <i>Renewable and Sustainable Energy Reviews</i> , 2016, 62, 1012-1031.	8.2	111
252	Crystalline Mixed Halide Halobismuthates and Their Induced Second Harmonic Generation. <i>Chemistry of Materials</i> , 2016, 28, 4421-4431.	3.2	43
253	Toward Better Efficiency of Air-Stable Polyazomethine-Based Organic Solar Cells Using Time-Resolved Photoluminescence and Light-Induced Electron Spin Resonance as Verification Methods. <i>Journal of Physical Chemistry C</i> , 2016, 120, 11415-11425.	1.5	24
254	Stability of solution-processed MAPbI <sub>3</sub> and FAPbI <sub>3</sub> layers. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 13413-13422.	1.3	208
255	In situ investigation of the formation and metastability of formamidinium lead tri-iodide perovskite solar cells. <i>Energy and Environmental Science</i> , 2016, 9, 2372-2382.	15.6	79
256	A modified two-step sequential deposition method for preparing perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> solar cells. <i>RSC Advances</i> , 2016, 6, 42377-42381.	1.7	22
257	Increasing open circuit voltage by adjusting work function of hole-transporting materials in perovskite solar cells. <i>Nano Research</i> , 2016, 9, 1600-1608.	5.8	47
258	Two-dimensional modeling of TiO <sub>2</sub> nanowire based organicâ€“inorganic hybrid perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2016, 152, 111-117.	3.0	45
259	The benefits of graphene for hybrid perovskite solar cells. <i>Synthetic Metals</i> , 2016, 222, 3-16.	2.1	52
260	Pathways toward high-performance perovskite solar cells: review of recent advances in organo-metal halide perovskites for photovoltaic applications. <i>Journal of Photonics for Energy</i> , 2016, 6, 022001.	0.8	218
261	Two Dimensional Organometal Halide Perovskite Nanorods with Tunable Optical Properties. <i>Nano Letters</i> , 2016, 16, 3230-3235.	4.5	165
262	Exceptional Morphology-Preserving Evolution of Formamidinium Lead Triiodide Perovskite Thin Films via Organic-Cation Displacement. <i>Journal of the American Chemical Society</i> , 2016, 138, 5535-5538.	6.6	178

#	ARTICLE	IF	CITATIONS
263	A perovskite based plug and play AC photovoltaic device with ionic liquid induced transient opto-electronic conversion. <i>Journal of Materials Chemistry A</i> , 2016, 4, 9019-9028.	5.2	12
264	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
265	Perovskites target X-ray detection. <i>Nature Photonics</i> , 2016, 10, 288-289.	15.6	112
266	ZnO nanowalls grown at low-temperature for electron collection in high-efficiency perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2016, 154, 18-22.	3.0	46
267	Reduction of oxygen vacancy and enhanced efficiency of perovskite solar cell by doping fluorine into TiO <sub>2</sub> . <i>Journal of Alloys and Compounds</i> , 2016, 681, 191-196.	2.8	43
268	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
269	Effect of Water Vapor, Temperature, and Rapid Annealing on Formamidinium Lead Triiodide Perovskite Crystallization. <i>ACS Energy Letters</i> , 2016, 1, 155-161.	8.8	27
270	The influence of in situ deposition techniques on PbS seeded CdS/CdSe for enhancing the photovoltaic performance of quantum dot sensitized solar cells. <i>Journal of Electroanalytical Chemistry</i> , 2016, 773, 27-38.	1.9	13
271	Fabrication of self-assembly polycrystalline perovskite microwires and photodetectors. <i>Journal of Crystal Growth</i> , 2016, 454, 121-127.	0.7	28
272	Hydrogen Bonding and Stability of Hybrid Organic-Inorganic Perovskites. <i>ChemSusChem</i> , 2016, 9, 2648-2655.	3.6	109
273	Boron Subphthalocyanine Based Molecular Triad Systems for the Capture of Solar Energy. <i>Journal of Physical Chemistry A</i> , 2016, 120, 7694-7703.	1.1	10
274	Printable Solar Cells from Advanced Solution-Processible Materials. <i>CheM</i> , 2016, 1, 197-219.	5.8	68
275	Impact of sol aging on TiO <sub>2</sub> compact layer and photovoltaic performance of perovskite solar cell. <i>Science China Materials</i> , 2016, 59, 710-718.	3.5	23
276	Magnetic Manipulation of Spontaneous Emission from Inorganic CsPbBr <sub>3</sub> Perovskites Nanocrystals. <i>Advanced Optical Materials</i> , 2016, 4, 2004-2008.	3.6	14
277	Efficient perovskite solar cells using trichlorosilanes as perovskite/PCBM interface modifiers. <i>Organic Electronics</i> , 2016, 39, 1-9.	1.4	24
278	Encapsulation for long-term stability enhancement of perovskite solar cells. <i>Nano Energy</i> , 2016, 30, 162-172.	8.2	258
279	Multiple-Stage Structure Transformation of Organic-Inorganic Hybrid Perovskite $\text{CH}_3\text{NH}_3\text{PbI}_3$ <i>Physical Review X</i> , 2016, 6, .	2.8	13
280	Investigation of high efficiency methyl ammonium lead halide perovskite-Si tandem solar cell. , 2016, , .		0



#	ARTICLE	IF	CITATIONS
281	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
282	Near-Infrared Photoresponse of One-Sided Abrupt MAPbI <sub>3</sub> /TiO <sub>2</sub> Heterojunction through a Tunneling Process. <i>Advanced Functional Materials</i> , 2016, 26, 8545-8554.	7.8	23
283	Band-structure tailoring and surface passivation for highly efficient near-infrared responsive PbS quantum dot photovoltaics. <i>Journal of Power Sources</i> , 2016, 333, 107-117.	4.0	29
284	A study of hysteresis in perovskite solar cell. <i>International Journal of Nanomanufacturing</i> , 2016, 12, 380.	0.3	1
285	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
286	Methylammonium lead iodide grain boundaries exhibit depth-dependent electrical properties. <i>Energy and Environmental Science</i> , 2016, 9, 3642-3649.	15.6	47
287	Highly compact and uniform CH <sub>3</sub> NH <sub>3</sub> Sn <sub>0.5</sub> Pb <sub>0.5</sub> I <sub>3</sub> films for efficient panchromatic planar perovskite solar cells. <i>Science Bulletin</i> , 2016, 61, 1558-1562.	4.3	25
288	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
289	Insight into the Ligand-Mediated Synthesis of Colloidal CsPbBr <sub>3</sub> Perovskite Nanocrystals: The Role of Organic Acid, Base, and Cesium Precursors. <i>ACS Nano</i> , 2016, 10, 7943-7954.	7.3	713
290	Materials for Photovoltaic Solar Cells. , 2016, , 27-91.		0
291	Three-Dimensionally Homoconjugated Carbon-Bridged Oligophenylenevinylene for Perovskite Solar Cells. <i>Journal of the American Chemical Society</i> , 2016, 138, 10897-10904.	6.6	34
292	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
293	Low-temperature operation of perovskite solar cells: With efficiency improvement and hysteresis-less. <i>Nano Energy</i> , 2016, 27, 569-576.	8.2	54
294	Templated Synthesis of Uniform Perovskite Nanowire Arrays. <i>Journal of the American Chemical Society</i> , 2016, 138, 10096-10099.	6.6	101
295	Proof-of-concept for facile perovskite solar cell recycling. <i>Energy and Environmental Science</i> , 2016, 9, 3172-3179.	15.6	105
296	Enhanced Structural Stability and Photo Responsiveness of CH <sub>3</sub> NH <sub>3</sub> SnI <sub>3</sub> Perovskite via Pressure-Induced Amorphization and Recrystallization. <i>Advanced Materials</i> , 2016, 28, 8663-8668.	11.1	176
297	Exceptionally Stable CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Films in Moderate Humid Environmental Condition. <i>Advanced Science</i> , 2016, 3, 1500262.	5.6	50
298	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

#	ARTICLE	IF	CITATIONS
299	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
300	Engineering of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Crystals by Alloying Large Organic Cations for Enhanced Thermal Stability and Transport Properties. <i>Angewandte Chemie</i> , 2016, 128, 10844-10848.	1.6	18
301	Engineering of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Crystals by Alloying Large Organic Cations for Enhanced Thermal Stability and Transport Properties. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 10686-10690.	7.2	152
302	Solution processed inorganic V <sub>2</sub> O <sub>x</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
303	Heterojunction-Depleted Lead-Free Perovskite Solar Cells with Coarse-Grained Ba <sub>1-x</sub> Bi <sub>x</sub> CsSn <sub>3</sub> Thin Films. <i>Advanced Energy Materials</i> , 2016, 6, 1601130.	10.2	247
304	Solid-state NMR characterization of the structure and thermal stability of hybrid organic-inorganic compounds based on a HLaNb <sub>2</sub> O <sub>7</sub> Dionâ€“Jacobson layered perovskite. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 21903-21912.	1.3	17
305	Enhanced crystallization and stability of perovskites by a cross-linkable fullerene for high-performance solar cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 15088-15094.	5.2	70
306	Effects of water molecules on the chemical stability of MA <sub>3</sub> perovskite explored from a theoretical viewpoint. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 24526-24536.	1.3	22
307	Cooperative Effect of GO and Glucose on PEDOT:PSS for High <i>V<sub>OC</sub></i> and Hysteresis-Free Solution-Processed Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2016, 26, 6985-6994.	7.8	61
308	Nonradiative Relaxation in Real-Time Electronic Dynamics OSCF <sub>2</sub> : Organolead Triiodide Perovskite. <i>Journal of Physical Chemistry A</i> , 2016, 120, 6880-6887.	1.1	13
309	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. <i>RSC Advances</i> , 2016, 6, 78585-78594.	1.7	27
310	Potentials and challenges towards application of perovskite solar cells. <i>Science China Materials</i> , 2016, 59, 769-778.	3.5	14
311	Low-Pressure Vapor-Assisted Solution Process for Thiocyanate-Based Pseudohalide Perovskite Solar Cells. <i>ChemSusChem</i> , 2016, 9, 2620-2627.	3.6	30
312	Metal-nanostructures â€“ a modern and powerful platform to create transparent electrodes for thin-film photovoltaics. <i>Journal of Materials Chemistry A</i> , 2016, 4, 14481-14508.	5.2	77
313	Alkali Metal Halide Salts as Interface Additives to Fabricate Hysteresis-Free Hybrid Perovskite-Based Photovoltaic Devices. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 23086-23094.	4.0	28
314	Role of Polar Phonons in the Photo Excited State of Metal Halide Perovskites. <i>Scientific Reports</i> , 2016, 6, 28618.	1.6	234
315	Electronic structure and stability of the $C_{3H_3N_3}$	1.1	49
316	Flame-made ultra-porous TiO <sub>2</sub> layers for perovskite solar cells. <i>Nanotechnology</i> , 2016, 27, 505403.	1.3	11

#	ARTICLE	IF	CITATIONS
317	Solid-State Anion Exchange Reactions for Color Tuning of CsPbX <sub>3</sub> Perovskite Nanocrystals. <i>Chemistry of Materials</i> , 2016, 28, 9033-9040.	3.2	182
318	Elemental Mapping of Perovskite Solar Cells by Using Multivariate Analysis: An Insight into Degradation Processes. <i>ChemSusChem</i> , 2016, 9, 2673-2678.	3.6	21
319	Copper iodide as a potential low-cost dopant for spiro-MeOTAD in perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2016, 4, 9003-9008.	2.7	56
320	Thermally evaporated methylammonium tin triiodide thin films for lead-free perovskite solar cell fabrication. <i>RSC Advances</i> , 2016, 6, 90248-90254.	1.7	114
321	CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> : precise structural consequences of water absorption at ambient conditions. <i>Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials</i> , 2016, 72, 716-722.	0.5	37
322	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
323	Highly Efficient and Stable Perovskite Solar Cells based on a Low-Cost Carbon Cloth. <i>Advanced Energy Materials</i> , 2016, 6, 1601116.	10.2	107
324	Grazing Incidence Cross-Sectioning of Thin-Film Solar Cells via Cryogenic Focused Ion Beam: A Case Study on CIGSe. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 14994-14999.	4.0	10
325	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
326	Perovskite Luminescent Materials. <i>Topics in Current Chemistry</i> , 2016, 374, 52.	3.0	20
327	New advances in small molecule hole-transporting materials for perovskite solar cells. <i>Chinese Chemical Letters</i> , 2016, 27, 1293-1303.	4.8	22
328	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
329	Bifunctional resistive switching behavior in an organolead halide perovskite based Ag/CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Cl <sub>x</sub> /FTO structure. <i>Journal of Materials Chemistry C</i> , 2016, 4, 7824-7830.	2.7	145
330	High-Quality Whispering-Gallery-Mode Lasing from Cesium Lead Halide Perovskite Nanoplatelets. <i>Advanced Functional Materials</i> , 2016, 26, 6238-6245.	7.8	529
331	Broadband transient absorption study of photoexcitations in lead halide perovskites: Towards a multiband picture. <i>Physical Review B</i> , 2016, 93, .	1.1	47
332	Pseudomorphic Transformation of Organometal Halide Perovskite Using the Gaseous Hydrogen Halide Reaction. <i>Chemistry of Materials</i> , 2016, 28, 5530-5537.	3.2	39
333	Detection of gamma photons using solution-grown single crystals of hybrid lead halide perovskites. <i>Nature Photonics</i> , 2016, 10, 585-589.	15.6	437
334	Photovoltaic Diode Effect Induced by Positive Bias Poling of Organic Layer-Mediated Interface in Perovskite Heterostructure (CH <sub>3</sub> ) <sub>2</sub> PbI <sub>3</sub> /TiO <sub>2</sub> . <i>Advanced Materials Interfaces</i> , 2016, 3, 1600267.	1.9	9

#	ARTICLE	IF	CITATIONS
335	Effect of metal cation replacement on the electronic structure of metalorganic halide perovskites: Replacement of lead with alkaline-earth metals. <i>Physical Review B</i> , 2016, 93, .	1.1	145
336	Direct Observation of Band Structure Modifications in Nanocrystals of CsPbBr <sub>3</sub> Perovskite. <i>Nano Letters</i> , 2016, 16, 7198-7202.	4.5	82
337	Band gap tuning of nickelates for photovoltaic applications. <i>Journal Physics D: Applied Physics</i> , 2016, 49, 44LT02.	1.3	22
338	Defective TiO <sub>2</sub> with high photoconductive gain for efficient and stable planar heterojunction perovskite solar cells. <i>Nature Communications</i> , 2016, 7, 12446.	5.8	139
339	In situ observation of heat-induced degradation of perovskite solar cells. <i>Nature Energy</i> , 2016, 1, .	19.8	615
340	Towards stable and commercially available perovskite solar cells. <i>Nature Energy</i> , 2016, 1, .	19.8	941
341	Frustrated Lewis pair-mediated recrystallization of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> for improved optoelectronic quality and high voltage planar perovskite solar cells. <i>Energy and Environmental Science</i> , 2016, 9, 3770-3782.	15.6	117
342	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
343	Spatial Electron-hole Separation in a One Dimensional Hybrid Organic-Inorganic Lead Iodide. <i>Scientific Reports</i> , 2016, 6, 20626.	1.6	25
344	Semiconductor Nanowires for Energy Harvesting. <i>Semiconductors and Semimetals</i> , 2016, 94, 297-368.	0.4	9
345	Giant photostriction in organic-inorganic lead halide perovskites. <i>Nature Communications</i> , 2016, 7, 11193.	5.8	164
346	High brightness formamidinium lead bromide perovskite nanocrystal light emitting devices. <i>Scientific Reports</i> , 2016, 6, 36733.	1.6	134
347	Efficient semi-transparent planar perovskite solar cells using a "molecular glue"™. <i>Nano Energy</i> , 2016, 30, 542-548.	8.2	71
348	Doping and alloying for improved perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 17623-17635.	5.2	157
349	Modulation of PEDOT:PSS pH for Efficient Inverted Perovskite Solar Cells with Reduced Potential Loss and Enhanced Stability. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 32068-32076.	4.0	178
350	Preparation and evaluation of perovskite solar cells in the absolute atmospheric environment. , 2016, , .		1
351	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
352	Hybrid organic-inorganic perovskites: low-cost semiconductors with intriguing charge-transport properties. <i>Nature Reviews Materials</i> , 2016, 1, .	23.3	1,173

#	ARTICLE	IF	CITATIONS
353	Efficient and stable perovskite solar cells prepared in ambient air irrespective of the humidity. <i>Nature Communications</i> , 2016, 7, 11105.	5.8	488
354	Enhancing Intrinsic Stability of Hybrid Perovskite Solar Cell by Strong, yet Balanced, Electronic Coupling. <i>Scientific Reports</i> , 2016, 6, 30305.	1.6	42
355	Thin-Film Transformation of $\text{NH}_4\text{Pb}_3\text{Cl}_3$ to $\text{CH}_3\text{NH}_3\text{Pb}_3\text{Cl}_3$ Perovskite: A Methylamine-Induced Conversion-Healing Process. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 14723-14727.	7.2	83
356	Size-dependent phase transition in methylammonium lead iodide perovskite microplate crystals. <i>Nature Communications</i> , 2016, 7, 11330.	5.8	206
357	A highly hindered bithiophene-functionalized dispiro-oxepine derivative as an efficient hole transporting material for perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 18259-18264.	5.2	78
358	Thin-Film Transformation of $\text{NH}_4\text{Pb}_3\text{Cl}_3$ to $\text{CH}_3\text{NH}_3\text{Pb}_3\text{Cl}_3$ Perovskite: A Methylamine-Induced Conversion-Healing Process. <i>Angewandte Chemie</i> , 2016, 128, 14943-14947.	1.6	17
359	Origin of unusual bandgap shift and dual emission in organic-inorganic lead halide perovskites. <i>Science Advances</i> , 2016, 2, e1601156.	4.7	307
360	Low-Temperature Synthesis of Bismuth Chalcogenides: Candidate Photovoltaic Materials with Easily, Continuously Controllable Band gap. <i>Scientific Reports</i> , 2016, 6, 32664.	1.6	49
361	Single Crystal Formamidinium Lead Iodide ( $\text{FAPb}_3$ ): Insight into the Structural, Optical, and Electrical Properties. <i>Advanced Materials</i> , 2016, 28, 2253-2258.	11.1	781
362	Crosslinked Remote-Doped Hole-Extracting Contacts Enhance Stability under Accelerated Lifetime Testing in Perovskite Solar Cells. <i>Advanced Materials</i> , 2016, 28, 2807-2815.	11.1	108
363	Hole-Transporting Materials in Inverted Planar Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2016, 6, 1600474.	10.2	243
364	3,4-Phenylenedioxythiophene (PheDOT) Based Hole-Transporting Materials for Perovskite Solar Cells. <i>Chemistry - an Asian Journal</i> , 2016, 11, 1043-1049.	1.7	19
365	Anisotropic and Ultralow Phonon Thermal Transport in Organic-Inorganic Hybrid Perovskites: Atomistic Insights into Solar Cell Thermal Management and Thermoelectric Energy Conversion Efficiency. <i>Advanced Functional Materials</i> , 2016, 26, 5297-5306.	7.8	125
366	A vacuum flash-assisted solution process for high-efficiency large-area perovskite solar cells. <i>Science</i> , 2016, 353, 58-62.	6.0	1,636
367	Two-Dimensional Magnesium Phosphate Nanosheets Form Highly Thixotropic Gels That Up-Regulate Bone Formation. <i>Nano Letters</i> , 2016, 16, 4779-4787.	4.5	60
368	The control of surface texture for planar $\text{CH}_3\text{NH}_3\text{PbI}_3$ film and its effect on photovoltaic performance. <i>Journal of Materials Science: Materials in Electronics</i> , 2016, 27, 9384-9390.	1.1	3
369	Correlations between Immobilizing Ions and Suppressing Hysteresis in Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2016, 1, 266-272.	8.8	118
370	Dissociation of Methylammonium Cations in Hybrid Organic-Inorganic Perovskite Solar Cells. <i>Nano Letters</i> , 2016, 16, 4720-4725.	4.5	49

#	ARTICLE	IF	CITATIONS
371	Generalized colloidal synthesis of high-quality, two-dimensional cesium lead halide perovskite nanosheets and their applications in photodetectors. <i>Nanoscale</i> , 2016, 8, 13589-13596.	2.8	252
372	Asymmetric Cathodoluminescence Emission in $\text{CH}_3\text{NH}_3\text{PbI}_3$ Perovskite Single Crystals. <i>ACS Photonics</i> , 2016, 3, 947-952.	3.2	30
373	A new carbazole-based hole-transporting material with low dopant content for perovskite solar cells. <i>Electrochimica Acta</i> , 2016, 210, 673-680.	2.6	31
374	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
375	Ultralong Perovskite Microrods: One- versus Two-Step Synthesis and Enhancement of Hole-Transfer During Light Soaking. <i>Journal of Physical Chemistry C</i> , 2016, 120, 12273-12283.	1.5	18
376	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
377	Mechanical integrity of solution-processed perovskite solar cells. <i>Extreme Mechanics Letters</i> , 2016, 9, 353-358.	2.0	150
378	Exploration of fabrication methods for planar $\text{CH}_3\text{NH}_3\text{PbI}_3$ perovskite solar cells. <i>Nano Energy</i> , 2016, 27, 175-184.	8.2	35
379	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
380	High Performance of Planar Perovskite Solar Cells Produced from $\text{PbI}_2$ (DMSO) and $\text{PbI}_2$ (NMP) Complexes by Intramolecular Exchange. <i>Advanced Materials Interfaces</i> , 2016, 3, 1500768.	1.9	206
381	Challenges in the ambient Raman spectroscopy characterization of methylammonium lead triiodide perovskite thin films. <i>Frontiers of Optoelectronics</i> , 2016, 9, 81-86.	1.9	27
382	Perovskites for Photovoltaics in the Spotlight: Photoinduced Physical Changes and Their Implications. <i>Accounts of Chemical Research</i> , 2016, 49, 320-329.	7.6	57
383	Recent progress and challenges of organometal halide perovskite solar cells. <i>Reports on Progress in Physics</i> , 2016, 79, 026501.	8.1	107
384	Temperature dependent competition between different recombination channels in organic heterojunction solar cells. <i>Journal of Optics (United Kingdom)</i> , 2016, 18, 024007.	1.0	8
385	Relativistic electronic structure and band alignment of BiSI and BiSeI: candidate photovoltaic materials. <i>Journal of Materials Chemistry A</i> , 2016, 4, 2060-2068.	5.2	127
386	Organic-inorganic bismuth (III)-based material: A lead-free, air-stable and solution-processable light-absorber beyond organolead perovskites. <i>Nano Research</i> , 2016, 9, 692-702.	5.8	351
387	Single Cesium Lead Halide Perovskite Nanocrystals at Low Temperature: Fast Single-Photon Emission, Reduced Blinking, and Exciton Fine Structure. <i>ACS Nano</i> , 2016, 10, 2485-2490.	7.3	299
388	Investigation of formamidinium and guanidinium lead tri-iodide powders as precursors for solar cells. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2016, 204, 27-33.	1.7	53

#	ARTICLE	IF	CITATIONS
389	Computational Screening of Homovalent Lead Substitution in Organic-Inorganic Halide Perovskites. <i>Journal of Physical Chemistry C</i> , 2016, 120, 166-173.	1.5	208
390	Polar molecules modify perovskite surface to reduce recombination in perovskite solar cells. <i>RSC Advances</i> , 2016, 6, 9090-9095.	1.7	25
391	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
392	Deciphering Halogen Competition in Organometallic Halide Perovskite Growth. <i>Journal of the American Chemical Society</i> , 2016, 138, 5028-5035.	6.6	92
393	Lead-Free Halide Double Perovskites via Heterovalent Substitution of Noble Metals. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 1254-1259.	2.1	761
394	Structural Phase- and Degradation-Dependent Thermal Conductivity of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Thin Films. <i>Journal of Physical Chemistry C</i> , 2016, 120, 6394-6401.	1.5	53
395	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
396	Structural and electronic properties of dye-sensitized TiO <sub>2</sub> for solar cell applications: from single molecules to self-assembled monolayers. <i>Journal of Materials Chemistry C</i> , 2016, 4, 4346-4373.	2.7	46
397	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
398	Atomic Layer Deposited (ALD) TiO <sub>2</sub> on Fibrous Nano-Silica (KCC-1) for Photocatalysis: Nanoparticle Formation and Size Quantization Effect. <i>ACS Catalysis</i> , 2016, 6, 2770-2784.	5.5	146
399	Ferroelastic Fingerprints in Methylammonium Lead Iodide Perovskite. <i>Journal of Physical Chemistry C</i> , 2016, 120, 5724-5731.	1.5	154
400	Preparation of planar CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> thin films with controlled size using 1-ethyl-2-pyrrolidone as solvent. <i>Journal of Alloys and Compounds</i> , 2016, 671, 11-16.	2.8	13
401	Organohalide Lead Perovskites for Photovoltaic Applications. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 851-866.	2.1	159
402	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
403	Chalcogenide perovskites – an emerging class of ionic semiconductors. <i>Nano Energy</i> , 2016, 22, 129-135.	8.2	174
404	Ligand-Mediated Synthesis of Shape-Controlled Cesium Lead Halide Perovskite Nanocrystals <i>via</i> Reprecipitation Process at Room Temperature. <i>ACS Nano</i> , 2016, 10, 3648-3657.	7.3	905
405	Photochemically Driven Modulated Charge Transfer at Local Contacts between CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> and Carboxylated Multiwalled Carbon Nanotubes. <i>Journal of Physical Chemistry C</i> , 2016, 120, 3876-3881.	1.5	8
406	Parameters responsible for the degradation of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> -based solar cells on polymer substrates. <i>Nano Energy</i> , 2016, 22, 211-222.	8.2	18

#	ARTICLE	IF	CITATIONS
407	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
408	Reversible Healing Effect of Water Molecules on Fully Crystallized Metal-Halide Perovskite Film. <i>Journal of Physical Chemistry C</i> , 2016, 120, 4759-4765.	1.5	55
409	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
410	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
411	Topology analysis reveals supramolecular organisation of 96 large complex ions into one geometrical object. <i>CrystEngComm</i> , 2016, 18, 1883-1886.	1.3	5
412	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
413	Plasmonic-enhanced perovskite-graphene hybrid photodetectors. <i>Nanoscale</i> , 2016, 8, 7377-7383.	2.8	144
414	The improved efficiency of quantum-dot-sensitized solar cells with a wide spectrum and pure inorganic donor-acceptor type polyoxometalate as a collaborative cosensitizer. <i>Journal of Materials Chemistry A</i> , 2016, 4, 4125-4133.	5.2	31
415	Influence of the composition of hybrid perovskites on their performance in solar cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 4353-4364.	5.2	56
416	An efficient electron transport material of tin oxide for planar structure perovskite solar cells. <i>Journal of Power Sources</i> , 2016, 307, 891-897.	4.0	76
417	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
418	High-Quality Metal-Organic Framework Ultrathin Films for Electronically Active Interfaces. <i>Journal of the American Chemical Society</i> , 2016, 138, 2576-2584.	6.6	61
419	Novel CdS Hole-Blocking Layer for Photostable Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 4226-4232.	4.0	72
420	New insights into exciton binding and relaxation from high time resolution ultrafast spectroscopy of 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> films. <i>Journal of Materials Chemistry A</i> , 2016, 4, 3546-3553.	5.2	28
421	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
422	Exploring the electrochemical properties of hole transport materials with spiro-cores for efficient perovskite solar cells from first-principles. <i>Nanoscale</i> , 2016, 8, 6146-6154.	2.8	124
423	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
424	Cross-stacked superaligned carbon nanotube electrodes for efficient hole conductor-free perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 5569-5577.	5.2	92



#	ARTICLE	IF	CITATIONS
425	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
426	Graphene in perovskite solar cells: device design, characterization and implementation. <i>Journal of Materials Chemistry A</i> , 2016, 4, 6185-6235.	5.2	185
427	Fabrication of Efficient Formamidinium Tin Iodide Perovskite Solar Cells through SnF <sub>2</sub> •Pyrazine Complex. <i>Journal of the American Chemical Society</i> , 2016, 138, 3974-3977.	6.6	658
428	Using carbon nanodots as inexpensive and environmentally friendly sensitizers in mesoscopic solar cells. <i>Nanoscale Horizons</i> , 2016, 1, 220-226.	4.1	43
429	Thin-Film Deposition and Characterization of a Sn-Deficient Perovskite Derivative Cs <sub>2</sub> Sn <sub>6</sub> . <i>Chemistry of Materials</i> , 2016, 28, 2315-2322.	3.2	329
430	TiO <sub>2</sub> Sub-microsphere Film as Scaffold Layer for Efficient Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 8162-8167.	4.0	44
431	Effect of halide-mixing on the electronic transport properties of organometallic perovskites. <i>Solar Energy Materials and Solar Cells</i> , 2016, 148, 2-10.	3.0	25
432	Recent advancements in perovskite solar cells: flexibility, stability and large scale. <i>Journal of Materials Chemistry A</i> , 2016, 4, 6755-6771.	5.2	137
433	Transformative Evolution of Organolead Triiodide Perovskite Thin Films from Strong Room-Temperature Solid-Gas Interaction between HPbI <sub>3</sub> -CH <sub>3</sub> NH <sub>2</sub> Precursor Pair. <i>Journal of the American Chemical Society</i> , 2016, 138, 750-753.	6.6	156
434	Perovskite-organic hybrid tandem solar cells using a nanostructured perovskite layer as the light window and a PFN/doped-MoO <sub>3</sub> /MoO <sub>3</sub> multilayer as the interconnecting layer. <i>Nanoscale</i> , 2016, 8, 3638-3646.	2.8	59
435	Post-thermal annealing for enhancing photovoltaic performance of CdS/CdSe quantum dot co-sensitized TiO <sub>2</sub> electrodes. <i>Journal of Alloys and Compounds</i> , 2016, 658, 697-702.	2.8	6
436	Crystallization of a perovskite film for higher performance solar cells by controlling water concentration in methyl ammonium iodide precursor solution. <i>Nanoscale</i> , 2016, 8, 2693-2703.	2.8	100
437	Properties and solar cell applications of Pb-free perovskite films formed by vapor deposition. <i>RSC Advances</i> , 2016, 6, 2819-2825.	1.7	131
438	Pinhole-Free and Surface-Nanostructured NiO Film by Room-Temperature Solution Process for High-Performance Flexible Perovskite Solar Cells with Good Stability and Reproducibility. <i>ACS Nano</i> , 2016, 10, 1503-1511.	7.3	477
439	Manipulating Crystallization of Organolead Mixed-Halide Thin Films in Antisolvent Baths for Wide-Bandgap Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 2232-2237.	4.0	91
440	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
441	Screening procedure for structurally and electronically matched contact layers for high-performance solar cells: hybrid perovskites. <i>Journal of Materials Chemistry C</i> , 2016, 4, 1149-1158.	2.7	45
442	Efficient luminescent solar cells based on tailored mixed-cation perovskites. <i>Science Advances</i> , 2016, 2, e1501170.	4.7	1,669

#	ARTICLE	IF	CITATIONS
443	A new thermal-stable truxene-based hole-transporting material for perovskite solar cells. <i>Dyes and Pigments</i> , 2016, 125, 399-406.	2.0	36
444	Novel fuel cell with nanocomposite functional layer designed by perovskite solar cell principle. <i>Nano Energy</i> , 2016, 19, 156-164.	8.2	137
445	Health hazards of methylammonium lead iodide based perovskites: cytotoxicity studies. <i>Toxicology Research</i> , 2016, 5, 407-419.	0.9	113
446	Progress in research on the stability of organometal perovskite solar cells. <i>Solar Energy</i> , 2016, 123, 74-87.	2.9	117
447	Organometal halide perovskite thin films and solar cells by vapor deposition. <i>Journal of Materials Chemistry A</i> , 2016, 4, 6693-6713.	5.2	210
448	Can ferroelectric polarization explain the high performance of hybrid halide perovskite solar cells?. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 331-338.	1.3	69
449	Polar-solvent-free colloidal synthesis of highly luminescent alkylammonium lead halide perovskite nanocrystals. <i>Nanoscale</i> , 2016, 8, 6278-6283.	2.8	233
450	Intercalation crystallization of phase-pure $\text{HC}(\text{NH}_2)_2 \times 2 \text{PbI}_3$ upon microstructurally engineered $\text{PbI}_2$ thin films for planar perovskite solar cells. <i>Nanoscale</i> , 2016, 8, 6265-6270.	2.8	41
451	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
452	Discovering lead-free perovskite solar materials with a split-anion approach. <i>Nanoscale</i> , 2016, 8, 6284-6289.	2.8	116
453	Removing Leakage and Surface Recombination in Planar Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2017, 2, 424-430.	8.8	117
454	Patterning Multicolored Microdisk Laser Arrays of Cesium Lead Halide Perovskite. <i>Advanced Materials</i> , 2017, 29, 1604510.	11.1	182
455	Impact of iodide substitution on the physical properties and stability of cesium lead halide perovskite thin films $\text{CsPbBr}_3-x\text{I}_x$ ( $0 \leq x \leq 1$ ). <i>Journal of Alloys and Compounds</i> , 2017, 702, 404-409.	2.8	55
456	Flexible All-Inorganic Perovskite $\text{CsPbBr}_3$ Nonvolatile Memory Device. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 6171-6176.	4.0	179
457	Anisotropic moisture erosion of $\text{CH}_3\text{NH}_3\text{PbI}_3$ single crystals. <i>CrystEngComm</i> , 2017, 19, 901-904.	1.3	28
458	Highly Stable Perovskite Solar Cells Fabricated Under Humid Ambient Conditions. <i>IEEE Journal of Photovoltaics</i> , 2017, 7, 532-538.	1.5	23
459	Suppressed decomposition of organometal halide perovskites by impermeable electron-extraction layers in inverted solar cells. <i>Nature Communications</i> , 2017, 8, 13938.	5.8	259
460	Perovskite-Inspired Photovoltaic Materials: Toward Best Practices in Materials Characterization and Calculations. <i>Chemistry of Materials</i> , 2017, 29, 1964-1988.	3.2	116

#	ARTICLE	IF	CITATIONS
461	Stable Large-Area (10 <sup>2</sup> cm <sup>2</sup> ) Printable Mesoscopic Perovskite Module Exceeding 10% Efficiency. <i>Solar Rrl</i> , 2017, 1, 1600019.	8.1	272
462	Fast and Controllable Electric-Field-Assisted Reactive Deposited Stable and Annealing-Free Perovskite toward Applicable High-Performance Solar Cells. <i>Advanced Functional Materials</i> , 2017, 27, 1606156.	7.8	28
463	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
464	Depth profile by Total IBA in perovskite active layers for solar cells. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2017, 404, 211-218.	0.6	4
465	First-Principles Study of Novel Two-Dimensional (C <sub>4</sub> H <sub>9</sub> NH <sub>3</sub> ) <sub>2</sub> PbX <sub>4</sub> Perovskites for Solar Cell Absorbers. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 876-883.	2.1	61
466	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
467	Probe Decomposition of Methylammonium Lead Iodide Perovskite in N <sub>2</sub> and O <sub>2</sub> by in Situ Infrared Spectroscopy. <i>Journal of Physical Chemistry A</i> , 2017, 121, 1169-1174.	1.1	35
468	Localized holes and delocalized electrons in photoexcited inorganic perovskites: Watching each atomic actor by picosecond X-ray absorption spectroscopy. <i>Structural Dynamics</i> , 2017, 4, 044002.	0.9	61
469	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
470	Covalently Connecting Crystal Grains with Polyvinylammonium Carbochain Backbone To Suppress Grain Boundaries for Long-Term Stable Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 6064-6071.	4.0	33
471	Efficient light harvesting from flexible perovskite solar cells under indoor white light-emitting diode illumination. <i>Nano Research</i> , 2017, 10, 2130-2145.	5.8	97
472	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
473	Structure and Characterization of a Zero-Dimensional Alkali Tin Dihalides Compound Cs <sub>3</sub> Sn <sub>3</sub> F <sub>2</sub> Cl <sub>7</sub> with the [Sn <sub>2</sub> F <sub>2</sub> Cl <sub>4</sub> ] <sup>2+</sup> Clusters. <i>Inorganic Chemistry</i> , 2017, 56, 3081-3086.	1.9	9
474	The impact of Pd on the light harvesting in hybrid organic-inorganic perovskite for solar cells. <i>Nano Energy</i> , 2017, 34, 141-154.	8.2	28
475	CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> films prepared by combining 1- and 2-step deposition: how crystal growth conditions affect properties. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 7204-7214.	1.3	16
476	A deconvoluted PL approach to probe the charge carrier dynamics of the grain interior and grain boundary of a perovskite film for perovskite solar cell applications. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 9143-9148.	1.3	49
477	Synthesis and characterization of NaSbS <sub>2</sub> thin film for potential photodetector and photovoltaic application. <i>Chinese Chemical Letters</i> , 2017, 28, 881-887.	4.8	21
478	Efficient and Stable Perovskite Solar Cells Prepared in Ambient Air Based on Surface-Modified Perovskite Layer. <i>Journal of Physical Chemistry C</i> , 2017, 121, 6546-6553.	1.5	84

#	ARTICLE	IF	CITATIONS
479	Highly efficient and stable perovskite solar cell prepared from an in situ pre-wetted $\text{PbI}_2$ nano-sheet array film. <i>Sustainable Energy and Fuels</i> , 2017, 1, 1056-1064.	2.5	8
480	Benign Interfacial Iodine Vacancies in Perovskite Solar Cells. <i>Journal of Physical Chemistry C</i> , 2017, 121, 5905-5913.	1.5	36
481	Photoinduced Stark Effects and Mechanism of Ion Displacement in Perovskite Solar Cell Materials. <i>ACS Nano</i> , 2017, 11, 2823-2834.	7.3	47
482	Efficient perovskite solar cells employing a solution-processable copper phthalocyanine as a hole-transporting material. <i>Science China Chemistry</i> , 2017, 60, 423-430.	4.2	32
483	Alleviating hysteresis and improving device stability of perovskite solar cells via alternate voltage sweeps. <i>Chinese Physics B</i> , 2017, 26, 018401.	0.7	5
484	Polymer strategies in perovskite solar cells. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2017, 55, 549-568.	2.4	27
485	Chemically diverse and multifunctional hybrid organic-inorganic perovskites. <i>Nature Reviews Materials</i> , 2017, 2, .	23.3	867
486	Atomic layer deposition for perovskite solar cells: research status, opportunities and challenges. <i>Sustainable Energy and Fuels</i> , 2017, 1, 30-55.	2.5	150
487	Effect of precursor components on the photovoltaic performance of $\text{MA}_{1-x}\text{FA}_x\text{Pb}_{3-y}\text{Br}_y$ films prepared via a one-step method. <i>Inorganic Chemistry Frontiers</i> , 2017, 4, 850-859.	3.0	6
488	Two-Dimensional Materials for Halide Perovskite-Based Optoelectronic Devices. <i>Advanced Materials</i> , 2017, 29, 1605448.	11.1	284
489	Highly efficient and stable inverted planar solar cells from $(\text{FAI})_x(\text{MABr})_{1-x}\text{PbI}_2$ perovskites. <i>Nano Energy</i> , 2017, 35, 62-70.	8.2	32
490	Low-Dimensional-Networked Metal Halide Perovskites: The Next Big Thing. <i>ACS Energy Letters</i> , 2017, 2, 889-896.	8.8	367
491	Inhibition of a structural phase transition in one-dimensional organometal halide perovskite nanorods grown inside porous silicon nanotube templates. <i>Physical Review B</i> , 2017, 95, .	1.1	14
492	Solution-Processed $\text{Cu}(\text{In}, \text{Ga})(\text{S}, \text{Se})_2$ Nanocrystal as Inorganic Hole-Transporting Material for Efficient and Stable Perovskite Solar Cells. <i>Nanoscale Research Letters</i> , 2017, 12, 159.	3.1	38
493	Three-Photon Absorption Induced Photoluminescence in Organo-Lead Mixed Halide Perovskites. <i>Journal of Electronic Materials</i> , 2017, 46, 3622-3626.	1.0	7
494	Recent progress of dopant-free organic hole-transporting materials in perovskite solar cells. <i>Journal of Semiconductors</i> , 2017, 38, 011005.	2.0	22
495	Low-temperature processed ultrathin $\text{TiO}_2$ for efficient planar heterojunction perovskite solar cells. <i>Electrochimica Acta</i> , 2017, 231, 77-84.	2.6	31
496	High-Performance Regular Perovskite Solar Cells Employing Low-Cost Poly(ethylenedioxythiophene) as a Hole-Transporting Material. <i>Scientific Reports</i> , 2017, 7, 42564.	1.6	52

#	ARTICLE	IF	CITATIONS
497	Spatially resolved studies of the phases and morphology of methylammonium and formamidinium lead tri-halide perovskites. <i>Nanoscale</i> , 2017, 9, 3222-3230.	2.8	44
498	Achieving Large-Area Planar Perovskite Solar Cells by Introducing an Interfacial Compatibilizer. <i>Advanced Materials</i> , 2017, 29, 1606363.	11.1	153
499	Coherent Nanotwins and Dynamic Disorder in Cesium Lead Halide Perovskite Nanocrystals. <i>ACS Nano</i> , 2017, 11, 3819-3831.	7.3	246
500	The modulation of opto-electronic properties of CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> crystal. <i>Journal of Materials Science: Materials in Electronics</i> , 2017, 28, 11053-11058.	1.1	12
501	Designing of blue, green, and red CsPbX <sub>3</sub> perovskite-codoped flexible films with water resistant property and elimination of anion-exchange for tunable white light emission. <i>Chemical Communications</i> , 2017, 53, 5400-5403.	2.2	100
502	The air and thermal stabilities of lead-free perovskite variant Cs <sub>2</sub> SnI <sub>6</sub> powder. <i>Materials Letters</i> , 2017, 199, 50-52.	1.3	59
503	Efficient Light Management by Textured Nanoimprinted Layers for Perovskite Solar Cells. <i>ACS Photonics</i> , 2017, 4, 1232-1239.	3.2	103
504	A Printable Organic Electron Transport Layer for Low-Temperature-Processed, Hysteresis-Free, and Stable Planar Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2017, 7, 1700226.	10.2	46
505	Controlled Growth of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Using a Dynamically Dispensed Spin-Coating Method: Improving Efficiency with a Reproducible PbI <sub>2</sub> Blocking Layer. <i>ChemSusChem</i> , 2017, 10, 2677-2684.	3.6	17
506	High-Mobility p-Type Organic Semiconducting Interlayer Enhancing Efficiency and Stability of Perovskite Solar Cells. <i>Advanced Science</i> , 2017, 4, 1700025.	5.6	36
507	Highly efficient fluorescent and colorimetric sensing of organic amine vapors based on organometal halide perovskite nanostructures. <i>Analytical Methods</i> , 2017, 9, 3804-3809.	1.3	20
508	Luminescent manganese-doped CsPbCl <sub>3</sub> perovskite quantum dots. <i>Scientific Reports</i> , 2017, 7, 45906.	1.6	78
509	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
510	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
511	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
512	Scalable perovskite/CIGS thin-film solar module with power conversion efficiency of 17.8%. <i>Journal of Materials Chemistry A</i> , 2017, 5, 9897-9906.	5.2	47
513	Perovskite Tandem Solar Cells. <i>Advanced Energy Materials</i> , 2017, 7, 1602761.	10.2	193
514	Tailoring Organic Cation of 2D Air-Stable Organometal Halide Perovskites for Highly Efficient Planar Solar Cells. <i>Advanced Energy Materials</i> , 2017, 7, 1700162.	10.2	312

#	ARTICLE	IF	CITATIONS
515	Dual function of a high-contrast hydrophobic-hydrophilic coating for enhanced stability of perovskite solar cells in extremely humid environments. <i>Nano Research</i> , 2017, 10, 3885-3895.	5.8	23
516	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
517	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
518	High-Temperature Short-Time Annealing Process for High-Performance Large-Area Perovskite Solar Cells. <i>ACS Nano</i> , 2017, 11, 6057-6064.	7.3	142
519	Plasma-assisted atomic layer deposition of TiO <sub>2</sub> compact layers for flexible mesostructured perovskite solar cells. <i>Solar Energy</i> , 2017, 150, 447-453.	2.9	37
520	Model development of monolithic tandem silicon-perovskite solar cell by SCAPS simulation. <i>AIP Conference Proceedings</i> , 2017, , .	0.3	13
521	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
522	Preparation of Waterproof Organometal Halide Perovskite Photonic Crystal Beads. <i>Angewandte Chemie</i> , 2017, 129, 6648-6652.	1.6	6
523	Efficient hole-conductor-free, fully printable mesoscopic perovskite solar cells with carbon electrode based on ultrathin graphite. <i>Carbon</i> , 2017, 120, 71-76.	5.4	77
524	Fast oxygen diffusion and iodide defects mediate oxygen-induced degradation of perovskite solar cells. <i>Nature Communications</i> , 2017, 8, 15218.	5.8	917
525	Preparation of Waterproof Organometal Halide Perovskite Photonic Crystal Beads. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 6548-6552.	7.2	32
526	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
527	Efficient planar perovskite solar cells using solution-processed amorphous WO <sub>3</sub> /fullerene C <sub>60</sub> as electron extraction layers. <i>Organic Electronics</i> , 2017, 46, 253-262.	1.4	51
528	The effect of illumination on the formation of metal halide perovskite films. <i>Nature</i> , 2017, 545, 208-212.	13.7	242
529	Environmental benefits of reduced electricity use exceed impacts from lead use for perovskite based tandem solar cell. <i>Renewable Energy</i> , 2017, 111, 906-913.	4.3	38
530	Controlling crystal growth by chloride-assisted synthesis: Towards optimized charge transport in hybrid halide perovskites. <i>Solar Energy Materials and Solar Cells</i> , 2017, 166, 269-275.	3.0	8
531	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
532	New Insight into the Formation of Hybrid Perovskite Nanowires via Structure Directing Adducts. <i>Chemistry of Materials</i> , 2017, 29, 587-594.	3.2	68

#	ARTICLE	IF	CITATIONS
533	Configuration-centered photovoltaic applications of metal halide perovskites. <i>Journal of Materials Chemistry A</i> , 2017, 5, 902-909.	5.2	18
534	Vacancy dipole interactions and the correlation with monovalent cation dependent ion movement in lead halide perovskite solar cell materials. <i>Nano Energy</i> , 2017, 38, 537-543.	8.2	43
535	Perovskite solar cells: An integrated hybrid lifecycle assessment and review in comparison with other photovoltaic technologies. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 80, 1321-1344.	8.2	240
536	Novel Integration of Perovskite Solar Cell and Supercapacitor Based on Carbon Electrode for Hybridizing Energy Conversion and Storage. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 22361-22368.	4.0	81
537	Self-encapsulated semi-transparent perovskite solar cells with water-soaked stability and metal-free electrode. <i>Organic Electronics</i> , 2017, 48, 308-313.	1.4	18
538	Morphology and structure improvement of the hybrid CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite film via external doping. <i>Thin Solid Films</i> , 2017, 636, 296-301.	0.8	4
539	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
540	Recent Progress on Integrated Energy Conversion and Storage Systems. <i>Advanced Science</i> , 2017, 4, 1700104.	5.6	162
541	Solution processed double-decked V <sub>2</sub> O <sub>x</sub> /PEDOT:PSS film serves as the hole transport layer of an inverted planar perovskite solar cell with high performance. <i>RSC Advances</i> , 2017, 7, 26202-26210.	1.7	23
542	Properties of cesium tin iodide (Cs-Sn-I) systems after annealing under different atmospheres. <i>Materials Chemistry and Physics</i> , 2017, 197, 27-35.	2.0	22
543	Energy transfer from colloidal nanocrystals to strongly absorbing perovskites. <i>Nanoscale</i> , 2017, 9, 8695-8702.	2.8	6
544	Fully inorganic Trihalide Perovskite Nanocrystals: A New Research Frontier of Optoelectronic Materials. <i>Advanced Materials</i> , 2017, 29, 1700775.	11.1	230
545	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. <i>Ceramics International</i> , 2017, 43, 12534-12539.	2.3	15
546	Efficient electron transfer layer based on Al <sub>2</sub> O <sub>3</sub> passivated TiO <sub>2</sub> nanorod arrays for high performance evaporation-route deposited FAPbI <sub>3</sub> perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2017, 170, 187-196.	3.0	31
547	The Emergence of the Mixed Perovskites and Their Applications as Solar Cells. <i>Advanced Energy Materials</i> , 2017, 7, 1700491.	10.2	120
548	Theoretical Treatment of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Solar Cells. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 15806-15817.	7.2	107
549	Theoretische Abhandlung über CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perowskit-Solarzellen. <i>Angewandte Chemie</i> , 2017, 129, 16014-16026.	1.6	5
550	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

#	ARTICLE	IF	CITATIONS
551	The Nature of Ion Conduction in Methylammonium Lead Iodide: A Multimethod Approach. <i>Angewandte Chemie</i> , 2017, 129, 7863-7867.	1.6	18
552	The Nature of Ion Conduction in Methylammonium Lead Iodide: A Multimethod Approach. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 7755-7759.	7.2	213
553	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
554	Exploring spin-orbital coupling effects on photovoltaic actions in Sn and Pb based perovskite solar cells. <i>Nano Energy</i> , 2017, 38, 297-303.	8.2	42
555	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
556	Moisture-stable Perovskite Material with 1,3-Propanediaminium Cation for Solar Cell Application. <i>Chemistry Letters</i> , 2017, 46, 1227-1229.	0.7	3
557	Novel integration of carbon counter electrode based perovskite solar cell with thermoelectric generator for efficient solar energy conversion. <i>Nano Energy</i> , 2017, 38, 457-466.	8.2	40
558	A $\text{PbI}_{2-x}\text{Cl}_x$ seed layer for obtaining efficient planar-heterojunction perovskite solar cells via an interdiffusion process. <i>Nanoscale</i> , 2017, 9, 9396-9403.	2.8	15
559	Electronic properties and lattice configurations of $\text{Au}/\text{CH}_3\text{NH}_3\text{PbI}_3$ interface. <i>Modern Physics Letters B</i> , 2017, 31, 1750199.	1.0	3
560	Direct Experimental Evidence of Halide Ionic Migration under Bias in $\text{CH}_3\text{NH}_3\text{PbI}_3$ -Based Perovskite Solar Cells Using GD-OES Analysis. <i>ACS Energy Letters</i> , 2017, 2, 943-949.	8.8	60
561	Local Polar Fluctuations in Lead Halide Perovskite Crystals. <i>Physical Review Letters</i> , 2017, 118, 136001.	2.9	489
562	<i>In Situ</i> Preparation of Metal Halide Perovskite Nanocrystal Thin Films for Improved Light-Emitting Devices. <i>ACS Nano</i> , 2017, 11, 3957-3964.	7.3	151
563	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
564	Mechanical signatures of degradation of the photovoltaic perovskite $\text{CH}_3\text{NH}_3\text{PbI}_3$ upon water vapor exposure. <i>Applied Physics Letters</i> , 2017, 110, .	1.5	38
565	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
566	Enhanced Performance and Photostability of Perovskite Solar Cells by Introduction of Fluorescent Carbon Dots. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 14518-14524.	4.0	76
567	Triple-cation mixed-halide perovskites: towards efficient, annealing-free and air-stable solar cells enabled by $\text{Pb}(\text{SCN})_2$ additive. <i>Scientific Reports</i> , 2017, 7, 46193.	1.6	109
568	$\text{FAPb}_{1-x}\text{Sn}_x\text{I}_3$ 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



#	ARTICLE	IF	CITATIONS
569	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
570	Hybrid Organic-Inorganic Perovskite Memory with Long-Term Stability in Air. <i>Scientific Reports</i> , 2017, 7, 673.	1.6	82
571	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
572	Poly(4-vinylpyridine)-Based Interfacial Passivation to Enhance Voltage and Moisture Stability of Lead Halide Perovskite Solar Cells. <i>ChemSusChem</i> , 2017, 10, 2473-2479.	3.6	157
573	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
574	Electronic and defect properties of $(\text{CH}_3\text{NH}_3)_2\text{Pb}(\text{SCN})_2\text{I}_2$ analogues for photovoltaic applications. <i>Journal of Materials Chemistry A</i> , 2017, 5, 7845-7853.	5.2	43
576	Enhancing Efficiency and Stability of Perovskite Solar Cells through Nb-Doping of $\text{TiO}_2$ at Low Temperature. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 10752-10758.	4.0	181
577	Temperature-Dependent Electric Field Poling Effects in $\text{CH}_3\text{NH}_3\text{PbI}_3$ Optoelectronic Devices. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 1429-1435.	2.1	10
578	Effect of fluorine doped $\text{TiO}_2$ on the property of perovskite solar cell. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017, 182, 012001.	0.3	1
579	Enhancement of thermal stability for perovskite solar cells through cesium doping. <i>RSC Advances</i> , 2017, 7, 17473-17479.	1.7	178
580	The Rise of Highly Efficient and Stable Perovskite Solar Cells. <i>Accounts of Chemical Research</i> , 2017, 50, 487-491.	7.6	282
581	Direct observation of dramatically enhanced hole formation in a perovskite-solar-cell material spiro-OMeTAD by Li-TFSI doping. <i>Applied Physics Letters</i> , 2017, 110, .	1.5	53
582	Correlation of annealing time with crystal structure, composition, and electronic properties of $\text{CH}_3\text{NH}_3\text{PbI}_3\text{Cl}_x$ mixed-halide perovskite films. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 828-836.	1.3	40
583	Dual Interfacial Modifications Enable High Performance Semitransparent Perovskite Solar Cells with Large Open Circuit Voltage and Fill Factor. <i>Advanced Energy Materials</i> , 2017, 7, 1602333.	10.2	209
584	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
585	Mesostructured perovskite solar cells based on highly ordered $\text{TiO}_2$ network scaffold via anodization of Ti thin film. <i>Nanotechnology</i> , 2017, 28, 055403.	1.3	7
586	Crystal and electronic structures of substituted halide perovskites based on density functional calculation and molecular dynamics. <i>Chemical Physics</i> , 2017, 485-486, 22-28.	0.9	12
587	Stability issues pertaining large area perovskite and dye-sensitized solar cells and modules. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 033001.	1.3	42

#	ARTICLE	IF	CITATIONS
588	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
589	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
590	Planar Heterojunction Perovskite Solar Cells with TiO <sub>2</sub> Scaffold in Perovskite Film. <i>Electrochimica Acta</i> , 2017, 227, 180-184.	2.6	16
591	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
592	Mixed-Organic-Cation (FA) <sub>x</sub> (MA) <sub>1-x</sub> PbI <sub>3</sub> Planar Perovskite Solar Cells with 16.48% Efficiency via a Low-Pressure Vapor-Assisted Solution Process. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 2449-2458.	4.0	98
593	A multifunctional poly-N-vinylcarbazole interlayer in perovskite solar cells for high stability and efficiency: a test with new triazatruxene-based hole transporting materials. <i>Journal of Materials Chemistry A</i> , 2017, 5, 1913-1918.	5.2	83
594	Rapid crystallization in ambient air for planar heterojunction perovskite solar cells. <i>Electronic Materials Letters</i> , 2017, 13, 72-76.	1.0	19
595	Successive surface engineering of TiO <sub>2</sub> compact layers via dual modification of fullerene derivatives affording hysteresis-suppressed high-performance perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 1724-1733.	5.2	77
596	Ultrathin Buffer Layers of SnO <sub>2</sub> by Atomic Layer Deposition: Perfect Blocking Function and Thermal Stability. <i>Journal of Physical Chemistry C</i> , 2017, 121, 342-350.	1.5	118
597	A perylene diimide based polymer: a dual function interfacial material for efficient perovskite solar cells. <i>Materials Chemistry Frontiers</i> , 2017, 1, 1079-1086.	3.2	51
598	CuGaO <sub>2</sub> : A Promising Inorganic Hole–Transporting Material for Highly Efficient and Stable Perovskite Solar Cells. <i>Advanced Materials</i> , 2017, 29, 1604984.	11.1	282
599	Room-Temperature Engineering of All-Inorganic Perovskite Nanocrystals with Different Dimensionalities. <i>Chemistry of Materials</i> , 2017, 29, 8978-8982.	3.2	174
600	Fermi level alignment by copper doping for efficient ITO/perovskite junction solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 25211-25219.	5.2	53
601	Impact of Wide-Ranging Nanoscale Chemistry on Band Structure at Cu(In, Ga)Se <sub>2</sub> Grain Boundaries. <i>Scientific Reports</i> , 2017, 7, 14163.	1.6	21
602	Molecular Insights into Early Nuclei and Interfacial Mismatch during Vapor Deposition of Hybrid Perovskites on Titanium Dioxide Substrate. <i>Crystal Growth and Design</i> , 2017, 17, 6201-6211.	1.4	7
603	Synthesis of ultrasmall CsPbBr <sub>3</sub> nanoclusters and their transformation to highly deep-blue-emitting nanoribbons at room temperature. <i>Nanoscale</i> , 2017, 9, 17248-17253.	2.8	42
604	Evolution characteristics of perovskite solar cells in air and vacuum environments. <i>Optik</i> , 2017, 150, 111-116.	1.4	4
605	Theoretical and experimental study on spectra, electronic structure and photoelectric properties of three nature dyes used for solar cells. <i>Journal of Molecular Liquids</i> , 2017, 247, 193-206.	2.3	12

#	ARTICLE	IF	CITATIONS
606	Guanidinium thiocyanate selective Ostwald ripening induced large grain for high performance perovskite solar cells. <i>Nano Energy</i> , 2017, 41, 476-487.	8.2	184
607	Effects of Spin States on Photovoltaic Actions in Organo-Metal Halide Perovskite Solar Cells Based on Circularly Polarized Photoexcitation. <i>ACS Photonics</i> , 2017, 4, 2821-2827.	3.2	18
608	Improved performance of pure formamidinium lead iodide perovskite light-emitting diodes by moisture treatment. <i>Journal of Materials Chemistry C</i> , 2017, 5, 11121-11127.	2.7	8
609	Light Soaking Phenomena in Organic-Inorganic Mixed Halide Perovskite Single Crystals. <i>ACS Photonics</i> , 2017, 4, 2813-2820.	3.2	31
610	Electrical Heating-Assisted Multiple Coating Method for Fabrication of High-Performance Perovskite Fiber Solar Cells by Thickness Control. <i>Advanced Materials Interfaces</i> , 2017, 4, 1700833.	1.9	16
611	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
612	Organometal Trihalide Perovskites with Intriguing Ferroelectric and Piezoelectric Properties. <i>Advanced Functional Materials</i> , 2017, 27, 1702207.	7.8	37
613	Carbon Nanotubes versus Graphene as Flexible Transparent Electrodes in Inverted Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 5395-5401.	2.1	141
614	Enhanced Efficiency of Perovskite Solar Cells by using Core-Ultrathin Shell Structure Ag@SiO <sub>2</sub> Nanowires as Plasmonic Antennas. <i>Advanced Electronic Materials</i> , 2017, 3, 1700169.	2.6	24
615	Influence of the nature of the anchoring group on electron injection processes at dye-titania interfaces. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 29389-29401.	1.3	18
616	Thinning $\text{CsPbBr}_3$ perovskite down to monolayers: Cs-dependent stability. <i>Physical Review B</i> , 2017, 96, .	2.6	26
617	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
618	Electronic structure of organic-inorganic lanthanide iodide perovskite solar cell materials. <i>Journal of Materials Chemistry A</i> , 2017, 5, 23131-23138.	5.2	28
619	Ligand-Free, Quantum-Confined Cs <sub>2</sub> Sn <sub>6</sub> Perovskite Nanocrystals. <i>Chemistry of Materials</i> , 2017, 29, 7901-7907.	3.2	98
620	Unraveling the Impact of Rubidium Incorporation on the Transport-Recombination Mechanisms in Highly Efficient Perovskite Solar Cells by Small-Perturbation Techniques. <i>Journal of Physical Chemistry C</i> , 2017, 121, 24903-24908.	1.5	42
621	Gas-Induced Formation/Transformation of Organic-Inorganic Halide Perovskites. <i>ACS Energy Letters</i> , 2017, 2, 2166-2176.	8.8	51
622	Scaffold-reinforced perovskite compound solar cells. <i>Energy and Environmental Science</i> , 2017, 10, 2500-2508.	15.6	77
623	Impact of fullerene derivative isomeric purity on the performance of inverted planar perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 19485-19490.	5.2	33

#	ARTICLE	IF	CITATIONS
624	Pressure-induced dramatic changes in organic-inorganic halide perovskites. <i>Chemical Science</i> , 2017, 8, 6764-6776.	3.7	74
625	Cu <sub>2</sub> xGeS <sub>3</sub> : a new hole transporting material for stable and efficient perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 19884-19891.	5.2	17
626	Ultralong Radiative States in Hybrid Perovskite Crystals: Compositions for Submillimeter Diffusion Lengths. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 4386-4390.	2.1	83
627	Graphene-Based Electron Transport Layers in Perovskite Solar Cells: A Step Up for an Efficient Carrier Collection. <i>Advanced Energy Materials</i> , 2017, 7, 1701349.	10.2	85
628	Reduction of intrinsic defects in hybrid perovskite films via precursor purification. <i>Chemical Communications</i> , 2017, 53, 10548-10551.	2.2	25
629	Room temperature nanoparticulate interfacial layers for perovskite solar cells <i>via</i> solvothermal synthesis. <i>Journal of Materials Chemistry A</i> , 2017, 5, 20381-20389.	5.2	33
630	Enhanced efficiency and stability of inverted perovskite solar cells by interfacial engineering with alkyl bisphosphonic molecules. <i>RSC Advances</i> , 2017, 7, 42105-42112.	1.7	13
631	Electronic and optical properties of the wurtzite-ZnO/CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> interface: first-principles calculations. <i>Journal of Materials Science</i> , 2017, 52, 13841-13851.	1.7	10
632	Fluorinated fused nonacyclic interfacial materials for efficient and stable perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 21414-21421.	5.2	59
633	Good Vibrations: Locking of Octahedral Tilting in Mixed-Cation Iodide Perovskites for Solar Cells. <i>ACS Energy Letters</i> , 2017, 2, 2424-2429.	8.8	126
634	A Rising Star: Truxene as a Promising Hole Transport Material in Perovskite Solar Cells. <i>Journal of Physical Chemistry C</i> , 2017, 121, 21729-21739.	1.5	32
635	Fluorine Functionalized Graphene Nano Platelets for Highly Stable Inverted Perovskite Solar Cells. <i>Nano Letters</i> , 2017, 17, 6385-6390.	4.5	106
636	Unlocking the Single-Domain Epitaxy of Halide Perovskites. <i>Advanced Materials Interfaces</i> , 2017, 4, 1701003.	1.9	29
637	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
638	Hysteresis-free perovskite solar cells made of potassium-doped organometal halide perovskite. <i>Scientific Reports</i> , 2017, 7, 12183.	1.6	229
639	Improved performance of hole-transporting layer-free perovskite solar cells by using graphene oxide sheets as the nucleation centers. <i>RSC Advances</i> , 2017, 7, 45320-45326.	1.7	9
640	Interpenetration of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> and TiO <sub>2</sub> improves perovskite solar cells while TiO <sub>2</sub> expansion leads to degradation. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 21407-21413.	1.3	8
641	Unraveling the High Open Circuit Voltage and High Performance of Integrated Perovskite/Organic Bulk-Heterojunction Solar Cells. <i>Nano Letters</i> , 2017, 17, 5140-5147.	4.5	78

#	ARTICLE	IF	CITATIONS
642	Towards All-Inorganic Transport Layers for Wide-Bandgap Formamidinium Lead Bromide-Based Planar Photovoltaics. <i>Energy Technology</i> , 2017, 5, 1800-1806.	1.8	8
643	Investigation of Thermally Induced Degradation in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Solar Cells using In-situ Synchrotron Radiation Analysis. <i>Scientific Reports</i> , 2017, 7, 4645.	1.6	177
644	Recent advances in interfacial engineering of perovskite solar cells. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 373002.	1.3	129
645	Homogenous Alloys of Formamidinium Lead Triiodide and Cesium Tin Triiodide for Efficient Ideal-Bandgap Perovskite Solar Cells. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 12658-12662.	7.2	69
646	Synthesis of Cesium Lead Halide Perovskite Quantum Dots. <i>Journal of Chemical Education</i> , 2017, 94, 1150-1156.	1.1	51
647	In situ investigation of halide incorporation into perovskite solar cells. <i>MRS Communications</i> , 2017, 7, 575-582.	0.8	7
648	Updating the road map to metal-halide perovskites for photovoltaics. <i>Journal of Materials Chemistry A</i> , 2017, 5, 17135-17150.	5.2	33
649	Cation Exchange-Induced Dimensionality Construction: From Monolayered to Multilayered 2D Single Crystal Halide Perovskites. <i>Advanced Materials Interfaces</i> , 2017, 4, 1700441.	1.9	38
650	Homogenous Alloys of Formamidinium Lead Triiodide and Cesium Tin Triiodide for Efficient Ideal-Bandgap Perovskite Solar Cells. <i>Angewandte Chemie</i> , 2017, 129, 12832-12836.	1.6	3
651	Silicon-Based Inorganic-Organic Hybrid Nanocomposites for Optoelectronic Applications. <i>Energy Technology</i> , 2017, 5, 1795-1799.	1.8	9
652	Synergic Interface Optimization with Green Solvent Engineering in Mixed Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2017, 7, 1700576.	10.2	240
653	Precise Characterization of Performance Metrics of Organic Solar Cells. <i>Small Methods</i> , 2017, 1, 1700159.	4.6	11
654	Emerging Semitransparent Solar Cells: Materials and Device Design. <i>Advanced Materials</i> , 2017, 29, 1700192.	11.1	200
655	Optical Analysis of Planar Multicrystalline Perovskite Solar Cells. <i>Advanced Optical Materials</i> , 2017, 5, 1700151.	3.6	51
656	Metal Oxides as Efficient Charge Transporters in Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2017, 7, 1602803.	10.2	147
657	Cradle-to-Grave Life Cycle Assessment of Solid-State Perovskite Solar Cells. , 2017, , .		2
658	Fabrication of high-performance and low-hysteresis lead halide perovskite solar cells by utilizing a versatile alcohol-soluble bispyridinium salt as an efficient cathode modifier. <i>Journal of Materials Chemistry A</i> , 2017, 5, 17943-17953.	5.2	26
659	Enhancing the Photovoltaic Performance of Perovskite Solar Cells with a Down-Conversion Eu-Complex. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 26958-26964.	4.0	80

#	ARTICLE	IF	CITATIONS
660	From colossal magnetoresistance to solar cells: An overview on 66 years of research into perovskites. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2017, 214, 1700394.	0.8	15
661	Van der Waals Interactions and Anharmonicity in the Lattice Vibrations, Dielectric Constants, Effective Charges, and Infrared Spectra of the Organic-Inorganic Halide Perovskite $\text{CH}_3\text{NH}_3\text{PbI}_3$ . <i>Journal of Physical Chemistry C</i> , 2017, 121, 18459-18471.	1.5	24
662	Role of Ionic Functional Groups on Ion Transport at Perovskite Interfaces. <i>Advanced Energy Materials</i> , 2017, 7, 1701235.	10.2	37
663	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
664	Interface Engineering of Perovskite Solar Cells with Air Plasma Treatment for Improved Performance. <i>ChemPhysChem</i> , 2017, 18, 2939-2946.	1.0	21
665	Advances in Small Perovskite-Based Lasers. <i>Small Methods</i> , 2017, 1, 1700163.	4.6	268
666	Hybridization of Single Nanocrystals of $\text{Cs}_4\text{PbBr}_6$ and $\text{CsPbBr}_3$ . <i>Journal of Physical Chemistry C</i> , 2017, 121, 19490-19496.	1.5	68
667	Contact Engineering: Electrode Materials for Highly Efficient and Stable Perovskite Solar Cells. <i>Solar Rrl</i> , 2017, 1, 1700082.	3.1	50
668	Photoelectrochemical Solar Cells with Semiconductor Nanoparticles and Liquid Electrolytes: a Review. <i>Theoretical and Experimental Chemistry</i> , 2017, 53, 145-179.	0.2	7
669	The End-of-Life of Perovskite PV. <i>Joule</i> , 2017, 1, 29-46.	11.7	82
670	The Temperature Effect on the Working Characteristics of Solar Cells Based on Organometal Halide Perovskite Crystals. <i>Journal of Physics: Conference Series</i> , 2017, 877, 012043.	0.3	4
671	Environmentally-friendly synthesis of highly luminescent cesium lead halide perovskite nanocrystals using Sn-based halide precursors. <i>Inorganica Chimica Acta</i> , 2017, 467, 251-255.	1.2	8
672	Growth of $\text{MAPbBr}_3$ perovskite crystals and its interfacial properties with Al and Ag contacts for perovskite solar cells. <i>Optical Materials</i> , 2017, 73, 50-55.	1.7	16
673	Efficient quasi-mesoscopic perovskite solar cells using Li-doped hierarchical $\text{TiO}_2$ as scaffold of scattered distribution. <i>Chemical Engineering Journal</i> , 2017, 330, 947-955.	6.6	43
674	A comparative study on the electronic and optical properties of $\text{Sb}_2\text{Se}_3$ thin film. <i>Semiconductors</i> , 2017, 51, 1615-1624.	0.2	25
675	Response to Comment "On the Existence of Excitonic Signatures in the Optical Response of Metal-Organic Frameworks". <i>Advanced Materials</i> , 2017, 29, 1705261.	11.1	3
676	Colloidal $\text{CsPbX}_3$ (X = Br, I, Cl) NCs: Morphology controlling, composition evolution, and photoluminescence shift. <i>Journal of Luminescence</i> , 2017, 190, 397-402.	1.5	35
677	Photon Energy-Dependent Hysteresis Effects in Lead Halide Perovskite Materials. <i>Journal of Physical Chemistry C</i> , 2017, 121, 26180-26187.	1.5	26

#	ARTICLE	IF	CITATIONS
678	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. Nano Letters, 2017, 17, 7724-7730.	4.5	19
679	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. Journal of Physical Chemistry Letters, 2017, 8, 5840-5847.	2.1	31
680	Effects of core moiety and substituted positions in phenothiazine-based hole transporting materials towards high thermal stability and good hole mobility. Tetrahedron, 2017, 73, 7115-7121.	1.0	12
681	Surface State Density Determines the Energy Level Alignment at Hybrid Perovskite/Electron Acceptors Interfaces. ACS Applied Materials & Interfaces, 2017, 9, 41546-41552.	4.0	89
682	Superlinear emission in bare perovskite: amplified spontaneous emission in disordered film versus single crystal lasing. Materials Today: Proceedings, 2017, 4, S12-S18.	0.9	2
683	Humidity resistant fabrication of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite solar cells and modules. Nano Energy, 2017, 39, 60-68.	8.2	197
684	Mechanisms of Lithium Intercalation and Conversion Processes in Organic-Inorganic Halide Perovskites. ACS Energy Letters, 2017, 2, 1818-1824.	8.8	111
685	Enhanced photovoltaic performance and stability in mixed-cation perovskite solar cells via compositional modulation. Electrochimica Acta, 2017, 247, 460-467.	2.6	41
686	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
687	2D halide perovskite-based van der Waals heterostructures: contact evaluation and performance modulation. 2D Materials, 2017, 4, 035009.	2.0	23
688	Electronic and gap properties of lead-free perfect and mixed hybrid halide perovskites: An ab-initio study. Computational Materials Science, 2017, 138, 92-98.	1.4	24
689	Grid-connected isolated PV microinverters: A review. Renewable and Sustainable Energy Reviews, 2017, 67, 1065-1080.	8.2	147
690	Photocurrent hysteresis related to ion motion in metal-organic perovskites. Science China Chemistry, 2017, 60, 396-404.	4.2	19
691	Organic and perovskite solar cells: Working principles, materials and interfaces. Journal of Colloid and Interface Science, 2017, 488, 373-389.	5.0	163
692	Light Illumination Induced Photoluminescence Enhancement and Quenching in Lead Halide Perovskite. Solar Rrl, 2017, 1, 1600001.	3.1	109
693	Investigation on the high pressure annealing induced re-crystallization mechanism of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> film. Journal of Alloys and Compounds, 2017, 694, 1365-1370.	2.8	7
694	Spiro[fluorene-9,9'-xanthene]-based hole transporting materials for efficient perovskite solar cells with enhanced stability. Materials Chemistry Frontiers, 2017, 1, 100-110.	3.2	84
695	Decomposition and Cell Failure Mechanisms in Lead Halide Perovskite Solar Cells. Inorganic Chemistry, 2017, 56, 92-101.	1.9	117

#	ARTICLE	IF	CITATIONS
696	<i>In situ</i> sulfurization to generate Sb <sub>2</sub> (Se <sub>1-x</sub> S <sub>x</sub> ) <sub>3</sub> alloyed films and their application for photovoltaics. <i>Progress in Photovoltaics: Research and Applications</i> , 2017, 25, 113-122.	1.4	70
697	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
698	Visible-Light Ultrasensitive Solution-Prepared Layered Organic-Inorganic Hybrid Perovskite Field-Effect Transistor. <i>Advanced Optical Materials</i> , 2017, 5, 1600539.	3.6	78
699	The Effect of Thermal Annealing on Charge Transport in Organolead Halide Perovskite Microplate Field-Effect Transistors. <i>Advanced Materials</i> , 2017, 29, 1601959.	11.1	91
700	Amorphous hole-transporting layer in slot-die coated perovskite solar cells. <i>Nano Energy</i> , 2017, 31, 210-217.	8.2	142
701	Main-Group Halide Semiconductors Derived from Perovskite: Distinguishing Chemical, Structural, and Electronic Aspects. <i>Inorganic Chemistry</i> , 2017, 56, 11-25.	1.9	45
702	Photo-Induced Morphology Changes at the RuO <sub>2</sub> (110)/TiO <sub>2</sub> (110) Surface: A Scanning Tunneling Microscopy Study. <i>Topics in Catalysis</i> , 2017, 60, 533-541.	1.3	4
703	A Monolithically Integrated InGaN Nanowire/Si Tandem Photoanode Approaching the Ideal Bandgap Configuration of 1.75/1.13 eV. <i>Advanced Energy Materials</i> , 2017, 7, 1600952.	10.2	38
704	Enhancing the efficiency of planar heterojunction perovskite solar cells via interfacial engineering with 3-aminopropyl trimethoxy silane hydrolysate. <i>Royal Society Open Science</i> , 2017, 4, 170980.	1.1	15
705	Recent advances of flexible hybrid perovskite solar cells. <i>Journal of the Korean Physical Society</i> , 2017, 71, 593-607.	0.3	16
706	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
707	Wide-angle polarization-free plasmon-enhanced light absorption in perovskite films using silver nanowires. <i>Optics Express</i> , 2017, 25, 3594.	1.7	7
708	One-Dimensional Electron Transport Layers for Perovskite Solar Cells. <i>Nanomaterials</i> , 2017, 7, 95.	1.9	41
709	Effects of Aromatic Ammoniums on Methyl Ammonium Lead Iodide Hybrid Perovskite Materials. <i>Journal of Nanomaterials</i> , 2017, 2017, 1-6.	1.5	2
710	Hybrid Perovskite, CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> , for Solar Applications: An Experimental and Theoretical Analysis of Substitution in A and B Sites. <i>Journal of Nanomaterials</i> , 2017, 2017, 1-10.	1.5	8
712	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
713	Photovoltaic Systems. , 2017, , 149-160.		0
714	NREL's Cell and Module Performance group's asymptotic P <sub>max</sub> protocol for perovskite devices. , 2017, , .		7



#	ARTICLE	IF	CITATIONS
715	Reversible light-mediated compositional and structural transitions between CsPbBr <sub>3</sub> and CsPb <sub>2</sub> Br <sub>5</sub> nanosheets. <i>Chemical Communications</i> , 2018, 54, 2804-2807.	2.2	54
716	Yttrium-doped TiO <sub>2</sub> nanorod arrays and application in perovskite solar cells for enhanced photocurrent density. <i>Thin Solid Films</i> , 2018, 651, 117-123.	0.8	17
717	Synthesis by Low Temperature Solution Processing of Ferroelectric Perovskite Oxide Thin Films as Candidate Materials for Photovoltaic Applications. , 2018, , 45-81.		2
718	First principles investigation of half-metallicity and spin gapless semiconductor in CH <sub>3</sub> NH <sub>3</sub> Cr x Pb <sup>1+3</sup> mixed perovskites. <i>Applied Physics A: Materials Science and Processing</i> , 2018, 124, 1.	1.1	7
719	Evolution of organometal halide solar cells. <i>Journal of Photochemistry and Photobiology C: Photochemistry Reviews</i> , 2018, 35, 74-107.	5.6	32
720	Accurate Measurement of New Type Non-silicon Solar Cells's™ Photoelectric Conversion Efficiency. <i>Journal of Physics: Conference Series</i> , 2018, 972, 012017.	0.3	1
721	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
722	Perovskite seeding growth of formamidinium-lead-iodide-based perovskites for efficient and stable solar cells. <i>Nature Communications</i> , 2018, 9, 1607.	5.8	309
723	Material challenges for solar cells in the twenty-first century: directions in emerging technologies. <i>Science and Technology of Advanced Materials</i> , 2018, 19, 336-369.	2.8	162
724	Fully doctor-bladed planar heterojunction perovskite solar cells under ambient condition. <i>Organic Electronics</i> , 2018, 58, 153-158.	1.4	69
725	Surface Instability of Sn-Based Hybrid Perovskite Thin Film, CH <sub>3</sub> NH <sub>3</sub> SnI <sub>3</sub> : The Origin of Its Material Instability. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 2293-2297.	2.1	45
726	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
727	A review of perovskite solar cells with a focus on wire-shaped devices. <i>Renewable Energy Focus</i> , 2018, 25, 17-23.	2.2	9
728	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
729	Oxygen- and Water-Induced Energetics Degradation in Organometal Halide Perovskites. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 16225-16230.	4.0	66
730	Determination of the structural phase and octahedral rotation angle in halide perovskites. <i>Applied Physics Letters</i> , 2018, 112, .	1.5	38
731	Electric-Field-Induced Dynamic Electronic Junctions in Hybrid Organic-Inorganic Perovskites for Optoelectronic Applications. <i>ACS Omega</i> , 2018, 3, 1445-1450.	1.6	21
732	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

#	ARTICLE	IF	CITATIONS
733	Electronic Properties of Cs-Based Halide Perovskites: An Ab Initio Study. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2018, 215, 1700941.	0.8	6
734	Electronic and gap properties of Sb and Bi based halide perovskites: An ab-initio study. <i>Computational Condensed Matter</i> , 2018, 14, 161-166.	0.9	14
735	Temperature-dependent photoluminescence of CsPbX <sub>3</sub> nanocrystal films. <i>Journal of Luminescence</i> , 2018, 198, 350-356.	1.5	72
736	Structural and compositional characteristics of vacuum deposited methylammonium lead halide perovskite layers in dependence on background pressure and substrate temperature. <i>Thin Solid Films</i> , 2018, 650, 51-57.	0.8	6
737	Largely enhanced $V_{OC}$ 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
738	Cesium Titanium(IV) Bromide Thin Films Based Stable Lead-free Perovskite Solar Cells. <i>Joule</i> , 2018, 2, 558-570.	11.7	403
739	Energetics of oxygen-octahedra rotations in perovskite oxides from first principles. <i>Physical Review B</i> , 2018, 97, .	1.1	32
740	Self-assembly monolayers boosting organic-inorganic halide perovskite solar cell performance. <i>Journal of Materials Research</i> , 2018, 33, 387-400.	1.2	38
741	Revealing the detailed path of sequential deposition for metal halide perovskite formation. <i>Science Advances</i> , 2018, 4, e1701402.	4.7	85
742	Spectral Studies of Lead-Free Organic-Inorganic Hybrid Solid-State Perovskites CH <sub>3</sub> NH <sub>3</sub> Bi <sub>2/3</sub> I <sub>3</sub> and CH <sub>3</sub> NH <sub>3</sub> Pb <sub>1/2</sub> Bi <sub>1/3</sub> I <sub>3</sub> : Potential Photo Absorbers. <i>ChemistrySelect</i> , 2018, 3, 794-800.	0.7	5
743	Octadecylamine-Functionalized Single-Walled Carbon Nanotubes for Facilitating the Formation of a Monolithic Perovskite Layer and Stable Solar Cells. <i>Advanced Functional Materials</i> , 2018, 28, 1705545.	7.8	73
744	Synthesis of active absorber layer by dip-coating method for perovskite solar cell. <i>Journal of Molecular Structure</i> , 2018, 1158, 229-233.	1.8	12
745	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
746	Design Principles for the Atomic and Electronic Structure of Halide Perovskite Photovoltaic Materials: Insights from Computation. <i>Chemistry - A European Journal</i> , 2018, 24, 8708-8716.	1.7	26
747	Methodologies toward Highly Efficient Perovskite Solar Cells. <i>Small</i> , 2018, 14, e1704177.	5.2	315
748	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
749	Nanoporous p-type NiOx electrode for p-i-n inverted perovskite solar cell toward air stability. <i>Materials Today</i> , 2018, 21, 483-500.	8.3	99
750	Thermochromic halide perovskite solar cells. <i>Nature Materials</i> , 2018, 17, 261-267.	13.3	630

#	ARTICLE	IF	CITATIONS
751	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
752	Perovskite Thin Film Synthesised from Sputtered Lead Sulphide. <i>Scientific Reports</i> , 2018, 8, 1563.	1.6	56
753	Halide Perovskites for Applications beyond Photovoltaics. <i>Small Methods</i> , 2018, 2, 1700310.	4.6	94
754	Grain Boundary Modification via F4TCNQ To Reduce Defects of Perovskite Solar Cells with Excellent Device Performance. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 1909-1916.	4.0	115
755	Chlorine-Incorporation-Induced Formation of the Layered Phase for Antimony-Based Lead-Free Perovskite Solar Cells. <i>Journal of the American Chemical Society</i> , 2018, 140, 1019-1027.	6.6	241
756	Hexamethylenetetramine-mediated growth of grain-boundary-passivation CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> for highly reproducible and stable perovskite solar cells. <i>Journal of Power Sources</i> , 2018, 377, 103-109.	4.0	30
757	Enhanced Two-Photon-Pumped Emission from In Situ Synthesized Nonblinking CsPbBr <sub>3</sub> /SiO <sub>2</sub> Nanocrystals with Excellent Stability. <i>Advanced Optical Materials</i> , 2018, 6, 1700997.	3.6	116
758	Chemical Stabilization of Perovskite Solar Cells with Functional Fulleropyrrolidines. <i>ACS Central Science</i> , 2018, 4, 216-222.	5.3	12
759	Thermal engineering of lead-free nanostructured CH <sub>3</sub> NH <sub>3</sub> SnCl <sub>3</sub> perovskite material for thin-film solar cell. <i>Journal of Nanoparticle Research</i> , 2018, 20, 1.	0.8	44
760	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
761	The Dawn of Lead-Free Perovskite Solar Cell: Highly Stable Double Perovskite Cs <sub>2</sub> AgBiBr <sub>6</sub> Film. <i>Advanced Science</i> , 2018, 5, 1700759.	5.6	363
762	Two-photon absorption and upconversion luminescence of colloidal CsPbX <sub>3</sub> quantum dots. <i>Optical Materials</i> , 2018, 75, 880-886.	1.7	45
763	Thermal Stability of Mixed Cation Metal Halide Perovskites in Air. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 5485-5491.	4.0	123
765	Synthesis and characterization of Mn-doped CsPb(Cl/Br) <sub>3</sub> perovskite nanocrystals with controllable dual-color emission. <i>RSC Advances</i> , 2018, 8, 1940-1947.	1.7	30
766	Improving the Optoelectronic Properties of Mesoporous TiO <sub>2</sub> by Cobalt Doping for High-Performance Hysteresis-free Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 3571-3580.	4.0	78
767	Efficiency enhancement of perovskite solar cells using structural and morphological improvement of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> absorber layers. <i>Materials Research Express</i> , 2018, 5, 016412.	0.8	20
768	Cesium Lead Halide Inorganic-Based Perovskite-Sensitized Solar Cell for Photo-Supercapacitor Application under High Humidity Condition. <i>ACS Applied Energy Materials</i> , 2018, 1, 692-699.	2.5	52
769	Tunable optical properties and stability of lead free all inorganic perovskites (Cs <sub>2</sub> Sn <sub>x</sub> Cl <sub>6-x</sub> ). <i>Journal of Materials Chemistry A</i> , 2018, 6, 2577-2584.	5.2	55

#	ARTICLE	IF	CITATIONS
770	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
771	Interface engineering of perovskite solar cells with multifunctional polymer interlayer toward improved performance and stability. <i>Journal of Power Sources</i> , 2018, 378, 483-490.	4.0	51
772	Hydrogen evolution with CsPbBr <sub>3</sub> perovskite nanocrystals under visible light in solution. <i>Materials Today Communications</i> , 2018, 16, 90-96.	0.9	30
773	Introducing paired electric dipole layers for efficient and reproducible perovskite solar cells. <i>Energy and Environmental Science</i> , 2018, 11, 1742-1751.	15.6	76
774	<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> . <i>Chemical Communications</i> , 2018, 54, 5434-5437.	2.2	19
775	Reflectivity Effects on Pump-Probe Spectra of Lead Halide Perovskites: Comparing Thin Films versus Nanocrystals. <i>ACS Nano</i> , 2018, 12, 5719-5725.	7.3	35
776	Effect of Size Non-uniformity on Performance of a Plasmonic Perovskite Solar Cell: an Array of Embedded Plasmonic Nanoparticles with the Gaussian Distribution Radiuses. <i>Plasmonics</i> , 2018, 13, 2305-2312.	1.8	28
777	Metal replacement in perovskite solar cell materials: chemical bonding effects and optoelectronic properties. <i>Sustainable Energy and Fuels</i> , 2018, 2, 1430-1445.	2.5	78
778	Carbon based perovskite solar cells constructed by screen-printed components. <i>Electrochimica Acta</i> , 2018, 276, 261-267.	2.6	41
779	Electron extraction mechanism in low hysteresis perovskite solar cells using single crystal TiO <sub>2</sub> nanorods. <i>Solar Energy</i> , 2018, 167, 251-257.	2.9	10
780	High throughput two-step ultrasonic spray deposited CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> thin film layer for solar cell application. <i>Journal of Power Sources</i> , 2018, 390, 270-277.	4.0	28
781	Aliovalent Doping of Lead Halide Perovskites: Exploring the CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> (CH <sub>3</sub> NH <sub>3</sub> ) <sub>3</sub> SbI <sub>3</sub> Nanocrystalline Phase Space. <i>Journal of Physical Chemistry C</i> , 2018, 122, 14082-14090.		
782	Composition-Dependent Degradation of Hybrid and Inorganic Lead Perovskites in Ambient Conditions. <i>Topics in Catalysis</i> , 2018, 61, 1201-1208.	1.3	21
783	The effect of Sr <sub>2</sub> substitution on perovskite film formation and its photovoltaic properties via two different deposition methods. <i>Inorganic Chemistry Frontiers</i> , 2018, 5, 1354-1364.	3.0	15
784	Pb-Sn-Cu Ternary Organometallic Halide Perovskite Solar Cells. <i>Advanced Materials</i> , 2018, 30, e1800258.	11.1	106
785	Enhanced photovoltaic performance and reduced hysteresis in perovskite-ICBA-based solar cells. <i>Organic Electronics</i> , 2018, 58, 6-11.	1.4	20
786	Long Electron-Hole Diffusion Length in High-Quality Lead-Free Double Perovskite Films. <i>Advanced Materials</i> , 2018, 30, e1706246.	11.1	242
787	Progress towards highly stable and lead-free perovskite solar cells. <i>Materials for Renewable and Sustainable Energy</i> , 2018, 7, 1.	1.5	31

#	ARTICLE	IF	CITATIONS
788	Highly Efficient Visible Colloidal Lead-Halide Perovskite Nanocrystal Light-Emitting Diodes. <i>Nano Letters</i> , 2018, 18, 3157-3164.	4.5	199
789	Extended Absorption Window and Improved Stability of Cesium-Based Triple-Cation Perovskite Solar Cells Passivated with Perfluorinated Organics. <i>ACS Energy Letters</i> , 2018, 3, 1068-1076.	8.8	44
790	Atomic and Electronic Structure of Two-Dimensional Inorganic Halide Perovskites $A_{n+1}M_nX_{3n+1}$ ( $n = 1-6$ , $A = \text{Cs}$ , $M = \text{Pb}$ ) <i>npj Quantum Materials</i> , 2018, 3, 122, 7464-7473.	1.5	31
791	Computational Study of Structural and Electronic Properties of Lead-Free $\text{CsM}_3$ Perovskites ( $M = \text{Ge}$ , $\text{Sn}$ , $\text{Pb}$ , $\text{Mg}$ , $\text{Ca}$ , $\text{Sr}$ , and $\text{Ba}$ ). <i>Journal of Physical Chemistry C</i> , 2018, 122, 7838-7848.	1.5	62
792	Copper-Substituted Lead Perovskite Materials Constructed with Different Halides for Working $(\text{CH}_3\text{NH}_3)_2\text{CuX}_4$ -Based Perovskite Solar Cells from Experimental and Theoretical View. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 11699-11707.	4.0	171
793	Lead-free, air-stable hybrid organic-inorganic perovskite resistive switching memory with ultrafast switching and multilevel data storage. <i>Nanoscale</i> , 2018, 10, 8578-8584.	2.8	136
794	First-Principles Modeling of Bismuth Doping in the $\text{MAPb}_3$ Perovskite. <i>Journal of Physical Chemistry C</i> , 2018, 122, 14107-14112.	1.5	64
795	Highly Stable Organo-Lead Halide Perovskites Synthesized Through Green Self-Assembly Process. <i>Solar Rrl</i> , 2018, 2, 1800052.	3.1	56
796	Revealing the Formation Mechanism of $\text{CsPbBr}_3$ Perovskite Nanocrystals Produced via a Slowed-Down Microwave-Assisted Synthesis. <i>Angewandte Chemie</i> , 2018, 130, 5935-5939.	1.6	12
797	Revealing the Formation Mechanism of $\text{CsPbBr}_3$ Perovskite Nanocrystals Produced via a Slowed-Down Microwave-Assisted Synthesis. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 5833-5837.	7.2	109
798	Revealing the Self-Degradation Mechanisms in Methylammonium Lead Iodide Perovskites in Dark and Vacuum. <i>ChemPhysChem</i> , 2018, 19, 1507-1513.	1.0	56
799	Halogen in materials design: Fluoroammonium lead triiodide ( $\text{FNH}_3\text{PbI}_3$ ) perovskite as a newly discovered dynamical bandgap semiconductor in 3D. <i>International Journal of Quantum Chemistry</i> , 2018, 118, e25621.	1.0	2
800	Perovskite Solar Absorbers: Materials by Design. <i>Small Methods</i> , 2018, 2, 1700316.	4.6	95
801	Crystallisation behaviour of $\text{CH}_3\text{NH}_3\text{PbI}_3$ films: The benefits of sub-second flash lamp annealing. <i>Thin Solid Films</i> , 2018, 653, 204-214.	0.8	11
802	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
803	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
804	Mesoscopic Oxide Double Layer as Electron Specific Contact for Highly Efficient and UV Stable Perovskite Photovoltaics. <i>Nano Letters</i> , 2018, 18, 2428-2434.	4.5	116
805	Strong Exciton-Photon Coupling and Lasing Behavior in All-Inorganic $\text{CsPbBr}_3$ Micro/Nanowire Fabry-Pérot Cavity. <i>ACS Photonics</i> , 2018, 5, 2051-2059.	3.2	145

#	ARTICLE	IF	CITATIONS
806	Nano-structured TiO <sub>2</sub> /ZnO nanocomposite for dye-sensitized solar cells application: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2018, 81, 2264-2270.	8.2	123
807	Recent progress in perovskite solar cells. <i>Renewable and Sustainable Energy Reviews</i> , 2018, 81, 2812-2822.	8.2	153
808	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
809	Transparent and flexible photodetectors based on CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite nanoparticles. <i>Applied Surface Science</i> , 2018, 434, 375-381.	3.1	27
810	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
811	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
812	Stability of Molecular Devices: Halide Perovskite Solar Cells. <i>Green Chemistry and Sustainable Technology</i> , 2018, , 477-531.	0.4	1
813	Molecular Interlayers in Hybrid Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2018, 8, 1701544.	10.2	80
814	All-Inorganic Metal Halide Perovskite Nanostructures: From Photophysics to Light-Emitting Applications. <i>Small Methods</i> , 2018, 2, 1700252.	4.6	83
815	Comparing Titania-Based Architectures for Perovskite Solar Cells: A Combined Optical-Electronic Loss Analysis. <i>Small Methods</i> , 2018, 2, 1700275.	4.6	3
816	Thermally stable propanethiol ligand exchanged Ag nanoparticles for enhanced dispersion in perovskite solar cells via an effective incorporation method. <i>Journal of Industrial and Engineering Chemistry</i> , 2018, 61, 71-77.	2.9	8
817	Amine treatment induced perovskite nanowire network in perovskite solar cells: efficient surface passivation and carrier transport. <i>Nanotechnology</i> , 2018, 29, 065401.	1.3	25
818	High performance planar perovskite solar cells based on CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> -x(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
819	Manufacturing Techniques of Perovskite Solar Cells. <i>Energy, Environment, and Sustainability</i> , 2018, , 341-364.	0.6	14
820	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
821	Bandgap Optimization of Perovskite Semiconductors for Photovoltaic Applications. <i>Chemistry - A European Journal</i> , 2018, 24, 2305-2316.	1.7	103
822	Revealing the Chemistry between Band Gap and Binding Energy for Lead-Tin-Based Trihalide Perovskite Solar Cell Semiconductors. <i>ChemSusChem</i> , 2018, 11, 449-463.	3.6	27
823	CH <sub>3</sub> NH <sub>3</sub> I treatment temperature of 70 °C in low-pressure vapor-assisted deposition for mesoscopic perovskite solar cells. <i>Chemical Physics Letters</i> , 2018, 691, 444-448.	1.2	4

#	ARTICLE	IF	CITATIONS
824	Frontiers, opportunities, and challenges in perovskite solar cells: A critical review. Journal of Photochemistry and Photobiology C: Photochemistry Reviews, 2018, 35, 1-24.	5.6	329
825	Cation engineering on lead iodide perovskites for stable and high-performance photovoltaic applications. Journal of Energy Chemistry, 2018, 27, 1017-1039.	7.1	37
826	Nanocrystals of halide perovskite: Synthesis, properties, and applications. Journal of Energy Chemistry, 2018, 27, 622-636.	7.1	43
827	Photoelectrochemically Active and Environmentally Stable CsPbBr <sub>3</sub> /TiO <sub>2</sub> Core/Shell Nanocrystals. Advanced Functional Materials, 2018, 28, 1704288.	7.8	413
828	Perovskite Solar Cells with ZnO Electron-Transporting Materials. Advanced Materials, 2018, 30, 1703737.	11.1	319
829	Interactions between molecules and perovskites in halide perovskite solar cells. Solar Energy Materials and Solar Cells, 2018, 175, 1-19.	3.0	66
830	Reducing Carrier Density in Formamidinium Tin Perovskites and Its Beneficial Effects on Stability and Efficiency of Perovskite Solar Cells. ACS Energy Letters, 2018, 3, 46-53.	8.8	158
831	Theoretical investigations on crystal crosslinking in perovskite solar cells. Journal of Materials Chemistry C, 2018, 6, 234-241.	2.7	14
832	Basic Concepts of the Photochemistry of Semiconductor Nanoparticles. Lecture Notes in Quantum Chemistry II, 2018, , 1-37.	0.3	1
833	Semiconductor-Based Liquid-Junction Photoelectrochemical Solar Cells. Lecture Notes in Quantum Chemistry II, 2018, , 161-240.	0.3	0
834	Bromobismuthates: Cation-induced structural diversity and Hirshfeld surface analysis of cation-anion contacts. Polyhedron, 2018, 139, 282-288.	1.0	52
835	Aqueous-Containing Precursor Solutions for Efficient Perovskite Solar Cells. Advanced Science, 2018, 5, 1700484.	5.6	66
836	Cost Effective Perovskite Solar Cell with Inorganic Hole-Transporting Material. , 2018, , .		0
837	A new method to discover the reaction mechanism of perovskite nanocrystals. Dalton Transactions, 2018, 47, 16218-16224.	1.6	28
838	Addition of adamantylammonium iodide to hole transport layers enables highly efficient and electroluminescent perovskite solar cells. Energy and Environmental Science, 2018, 11, 3310-3320.	15.6	137
839	Isolation of methylammonium room temperature reactive polyiodide melt into a new starch complex. Mendeleev Communications, 2018, 28, 242-244.	0.6	3
840	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. Journal of Physical Chemistry C, 2018, 122, 27340-27349.	1.5	28
841	Study on mesoporous layer of flexible solar cell based on perovskite structure. Modern Physics Letters B, 2018, 32, 1840068.	1.0	0

#	ARTICLE	IF	CITATIONS
842	Resonant Silicon Nanoparticles for Enhanced Light Harvesting in Halide Perovskite Solar Cells. Journal of Physics: Conference Series, 2018, 1092, 012038.	0.3	1
843	All-in-one photosynthetic assemblies for solar fuels. Materials Today Energy, 2018, 10, 368-379.	2.5	2
844	Ab Initio Study of Optoelectronic and Magnetic Properties of Ternary Chromium Chalcogenides. Advances in Materials Science and Engineering, 2018, 2018, 1-6.	1.0	2
845	High-performance lead-free two-dimensional perovskite photo transistors assisted by ferroelectric dielectrics. Journal of Materials Chemistry C, 2018, 6, 12714-12720.	2.7	39
846	Hole-Transporting Materials Incorporating Carbazole into Spiro-Core for Highly Efficient Perovskite Solar Cells. Advanced Functional Materials, 2019, 29, 1807094.	7.8	93
847	The two faces of capacitance: New interpretations for electrical impedance measurements of perovskite solar cells and their relation to hysteresis. Journal of Applied Physics, 2018, 124, .	1.1	110
848	Robust Stability of Efficient Lead-Free Formamidinium Tin Iodide Perovskite Solar Cells Realized by Structural Regulation. Journal of Physical Chemistry Letters, 2018, 9, 6999-7006.	2.1	117
849	Fullerene derivative anchored SnO <sub>2</sub> for high-performance perovskite solar cells. Energy and Environmental Science, 2018, 11, 3463-3471.	15.6	205
850	Titanium Dioxide Modifications for Energy Conversion: Learnings from Dye-Sensitized Solar Cells. , 2018, , .		3
851	MoS <sub>2</sub> Quantum Dot/Graphene Hybrids for Advanced Interface Engineering of a CH <sub>3</sub> NH <sub>3</sub> Pb <sub>3</sub> Perovskite Solar Cell with an Efficiency of over 20%. ACS Nano, 2018, 12, 10736-10754.	7.3	201
852	High-Quality Sequential Vapor-Deposited Cs <sub>2</sub> AgBiBr <sub>6</sub> Thin Films for Lead-Free Perovskite Solar Cells. Solar Rrl, 2018, 2, 1800217.	3.1	138
853	Nanostructured TiO <sub>2</sub> Films with a Mixed Phase for Perovskite Solar Cells. Russian Journal of Physical Chemistry B, 2018, 12, 663-668.	0.2	10
854	Metallic tin substitution of organic lead perovskite films for efficient solar cells. Journal of Materials Chemistry A, 2018, 6, 20224-20232.	5.2	24
855	Flexible ITO films with atomically flat surfaces for high performance flexible perovskite solar cells. Nanoscale, 2018, 10, 20587-20598.	2.8	58
856	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
857	Effects of Hydroiodic Acid Concentration on the Properties of CsPbI <sub>3</sub> Perovskite Solar Cells. ACS Omega, 2018, 3, 11937-11944.	1.6	83
858	Efficient carrier multiplication in CsPbI <sub>3</sub> perovskite nanocrystals. Nature Communications, 2018, 9, 4199.	5.8	101
859	Impact of iodine antisite (IPb) defects on the electronic properties of the (110) CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> surface. Journal of Chemical Physics, 2018, 149, 164704.	1.2	17



#	ARTICLE	IF	CITATIONS
860	Excitonic States in Semiconducting Two-Dimensional Perovskites. ACS Applied Energy Materials, 2018, 1, 6361-6367.	2.5	31
861	Proton Migration in Hybrid Lead Iodide Perovskites: From Classical Hopping to Deep Quantum Tunneling. Journal of Physical Chemistry Letters, 2018, 9, 6536-6543.	2.1	15
862	Solution-Processed "Silver-Bismuth-Iodine" Ternary Thin Films for Lead-Free Photovoltaic Absorbers. Journal of Visualized Experiments, 2018, , .	0.2	1
863	Efficient CdTe Nanocrystal/TiO <sub>2</sub> Hetero-Junction Solar Cells with Open Circuit Voltage Breaking 0.8 V by Incorporating A Thin Layer of CdS Nanocrystal. Nanomaterials, 2018, 8, 614.	1.9	7
865	Recent advances of low-dimensional materials in lasing applications. FlatChem, 2018, 10, 22-38.	2.8	14
866	Facile Solution Spin-Coating SnO <sub>2</sub> Thin Film Covering Cracks of TiO <sub>2</sub> Hole Blocking Layer for Perovskite Solar Cells. Coatings, 2018, 8, 314.	1.2	19
867	Effect of Tetraethylenepentamine on Silver Conductive Adhesive. Jom, 2018, 70, 1800-1804.	0.9	3
868	Bulk inversion asymmetry effect on band structure and optical transition of a new class all-inorganic cubic perovskite nanoplatelet. AIP Advances, 2018, 8, .	0.6	3
869	Resonant Silicon Nanoparticles for Enhanced Light Harvesting in Halide Perovskite Solar Cells. Advanced Optical Materials, 2018, 6, 1800576.	3.6	40
870	Room Temperature Processing of Inorganic Perovskite Films to Enable Flexible Solar Cells. IScience, 2018, 6, 272-279.	1.9	44
871	Long-Term Stability of Perovskite Solar Cells under Different Growth Conditions: A Defect-Controlled Water Diffusion Mechanism. Journal of Physical Chemistry Letters, 2018, 9, 5386-5391.	2.1	17
872	Determination of the miscibility gap in the solid solutions series of methylammonium lead iodide/chloride. Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2018, 74, 445-449.	0.5	11
873	Adjusting the Introduction of Cations for Highly Efficient and Stable Perovskite Solar Cells Based on (FAPbI <sub>3</sub> ) <sub>0.9</sub> (FAPbBr <sub>3</sub> ) <sub>0.1</sub> . ChemSusChem, 2018, 11, 2436-2443.	3.6	18
874	Rapid route to efficient, scalable, and robust perovskite photovoltaics in air. Energy and Environmental Science, 2018, 11, 2102-2113.	15.6	43
875	Development of Mixed Cation Cs <sub>x</sub> Rb <sub>1-x</sub> PbX <sub>3</sub> Perovskite Quantum Dots and Their Full Color Film with High Stability and Wide Color Gamut. Advanced Optical Materials, 2018, 6, 1800295.	3.6	43
876	A General Strategy for In Situ Growth of All Inorganic CsPbX <sub>3</sub> (X = Br, I, and Cl) Perovskite Nanocrystals in Polymer Fibers toward Significantly Enhanced Water/Thermal Stabilities. Advanced Optical Materials, 2018, 6, 1800346.	3.6	110
877	Caesium for Perovskite Solar Cells: An Overview. Chemistry - A European Journal, 2018, 24, 12183-12205.	1.7	138
878	Electrical, Optical, and Structural Characteristics of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Light Emitting Diodes. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1701014.	0.8	3

#	ARTICLE	IF	CITATIONS
879	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
880	Nb-Doping TiO <sub>2</sub> Electron Transporting Layer for Efficient Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2018, 1, 2576-2581.	2.5	26
881	Synthesis and optical properties of lead-free cesium germanium halide perovskite quantum rods. <i>RSC Advances</i> , 2018, 8, 18396-18399.	1.7	126
882	Impact of magnetic fields on the morphology of hybrid perovskite films for solar cells. <i>AIP Advances</i> , 2018, 8, .	0.6	4
883	Application of facile solution-processed ternary sulfide Ag <sub>8</sub> SnS <sub>6</sub> as light absorber in thin film solar cells. <i>Science China Materials</i> , 2018, 61, 1549-1556.	3.5	18
884	D- and D-Typed Hole Transport Materials for Efficient Perovskite Solar Cells: Tuning Photovoltaic Properties via the Acceptor Group. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 19697-19703.	4.0	101
885	Understanding the temperature-dependent charge transport, structural variation and photoluminescent properties in methylammonium lead halide perovskite single crystals. <i>Journal of Materials Chemistry C</i> , 2018, 6, 6556-6564.	2.7	13
886	Solar light harvesting with multinary metal chalcogenide nanocrystals. <i>Chemical Society Reviews</i> , 2018, 47, 5354-5422.	18.7	177
887	Flexible Wire-Shaped Perovskite Photodetector via Joule Heating for Improved Crystallization and Performance. <i>Advanced Materials Interfaces</i> , 2018, 5, 1800082.	1.9	14
888	Defect Engineering of Earth-Abundant Solar Absorbers BiSI and BiSeI. <i>Chemistry of Materials</i> , 2018, 30, 3827-3835.	3.2	68
889	Halogen-free guanidinium-based perovskite solar cell with enhanced stability. <i>RSC Advances</i> , 2018, 8, 17365-17372.	1.7	15
890	Synthesis and characterization of new organic-inorganic hybrid compounds based on Sb, with a perovskite like structure. <i>Polyhedron</i> , 2018, 151, 299-305.	1.0	9
891	Tetrathienoanthracene and Tetrathienylbenzene Derivatives as Hole-Transporting Materials for Perovskite Solar Cell. <i>Advanced Energy Materials</i> , 2018, 8, 1800681.	10.2	51
892	Fast Charge Extraction in Perovskite-Based Core-Shell Nanowires. <i>ACS Nano</i> , 2018, 12, 7206-7212.	7.3	10
893	Planar FAPbBr <sub>3</sub> Solar Cells with Power Conversion Efficiency above 10%. <i>ACS Energy Letters</i> , 2018, 3, 1808-1814.	8.8	41
894	All-Inorganic Perovskite Nanocrystals: Microscopy Insights in Structure and Optical Properties. <i>Advanced Optical Materials</i> , 2018, 6, 1800289.	3.6	24
895	Photonics and Optoelectronics of 2D Metal-Halide Perovskites. <i>Small</i> , 2018, 14, e1800682.	5.2	168
896	Ion Migration in Hybrid Perovskites. , 2018, , 163-196.		10

#	ARTICLE	IF	CITATIONS
897	Fabrication and Life Time of Perovskite Solar Cells. , 2018, , 231-287.		7
898	Perovskite Photovoltaics. , 2018, , 447-480.		7
899	Efficient Moisture-Resistant Perovskite Solar Cell With Nanostructure Featuring 3D Amine Motif. Solar Rrl, 2018, 2, 1800069.	3.1	13
900	Origin of the stability of two-dimensional perovskites: a first-principles study. Journal of Materials Chemistry A, 2018, 6, 14949-14955.	5.2	79
901	High-performance pseudo-halide perovskite nanowire networks for stable and fast-response photodetector. Nano Energy, 2018, 51, 324-332.	8.2	53
902	Nanotechnology Pathways to Next-Generation Photovoltaics. Nanostructure Science and Technology, 2018, , 1-36.	0.1	1
903	Ytterbium-doped fiber laser passively mode locked by evanescent field interaction with $\text{CH}_3\text{NH}_3\text{Sn}_3$ perovskite saturable absorber. Journal Physics D: Applied Physics, 2018, 51, 375106.	1.3	25
904	Unraveling Photostability of Mixed Cation Perovskite Films in Extreme Environment. Advanced Optical Materials, 2018, 6, 1800262.	3.6	58
905	Lead-free halide double perovskite-polymer composites for flexible X-ray imaging. Journal of Materials Chemistry C, 2018, 6, 11961-11967.	2.7	96
906	Preparations of Organo-Lead Halide Perovskite Layers in Humid Air Atmosphere and their Characteristics. Journal of Physics: Conference Series, 2018, 1057, 012007.	0.3	0
907	Engineered Nanomaterials for Renewable Energy. , 2018, , 829-845.		2
908	Energy Level Alignment at Interfaces in Metal Halide Perovskite Solar Cells. Advanced Materials Interfaces, 2018, 5, 1800260.	1.9	215
909	Defect Engineering toward Highly Efficient and Stable Perovskite Solar Cells. Advanced Materials Interfaces, 2018, 5, 1800326.	1.9	40
910	Spray-Pyrolyzed ZnO as Electron Selective Contact for Long-Term Stable Planar $\text{CH}_3\text{NH}_3\text{Pb}_3$ Perovskite Solar Cells. ACS Applied Energy Materials, 2018, 1, 4057-4064.	2.5	18
911	Semiconductor Nanotechnology. Nanostructure Science and Technology, 2018, , .	0.1	7
912	Largest highly efficient $203 \text{ Å} \times 203 \text{ mm}^2$ $\text{CH}_3\text{NH}_3\text{Pb}_3$ perovskite solar modules. Japanese Journal of Applied Physics, 2018, 57, 08RE11.	0.8	45
913	Formamidinium lead iodide perovskite: Structure, shape and optical tuning via hydrothermal method. Materials Letters, 2018, 231, 16-19.	1.3	15
914	Divalent Anionic Doping in Perovskite Solar Cells for Enhanced Chemical Stability. Advanced Materials, 2018, 30, e1800973.	11.1	50

#	ARTICLE	IF	CITATIONS
915	Atomic Layer Deposited TiO <sub>2</sub> –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
916	Mixed A-Cation Perovskites for Solar Cells: Atomic-Scale Insights Into Structural Distortion, Hydrogen Bonding, and Electronic Properties. <i>Chemistry of Materials</i> , 2018, 30, 5194-5204.	3.2	127
917	Famatinite Cu <sub>3</sub> SbS <sub>4</sub> nanocrystals as hole transporting material for efficient perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2018, 6, 7989-7993.	2.7	20
918	Lead-less mesoscopic perovskite solar cells with enhanced photovoltaic performance by strontium chloride substitution. <i>Ceramics International</i> , 2018, 44, 18863-18870.	2.3	19
919	Manipulation of facet orientation in hybrid perovskite polycrystalline films by cation cascade. <i>Nature Communications</i> , 2018, 9, 2793.	5.8	189
920	When Crystals Go Nano – The Role of Advanced X-ray Total Scattering Methods in Nanotechnology. <i>European Journal of Inorganic Chemistry</i> , 2018, 2018, 3789-3803.	1.0	27
921	Lord of The Crowns: A New Precious in the Kingdom of Clustomesogens. <i>Angewandte Chemie</i> , 2018, 130, 11866-11870.	1.6	2
922	Lord of The Crowns: A New Precious in the Kingdom of Clustomesogens. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 11692-11696.	7.2	20
923	Toward Eco-friendly and Stable Perovskite Materials for Photovoltaics. <i>Joule</i> , 2018, 2, 1231-1241.	11.7	224
924	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
925	A Modular Microfluidic Technology for Systematic Studies of Colloidal Semiconductor Nanocrystals. <i>Journal of Visualized Experiments</i> , 2018, , .	0.2	2
926	Keeping up standards. <i>Nature Photonics</i> , 2018, 12, 117-117.	15.6	3
927	TiO <sub>2</sub> /TNO homojunction introduced in a dye-sensitized solar cell with a novel TNO transparent conductive oxide film. <i>Journal of the American Ceramic Society</i> , 2018, 101, 5071-5079.	1.9	3
928	Enhancement of phase transition temperature from 57 °C to 90 °C for CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite via SnCl <sub>2</sub> doping. <i>Materials Chemistry and Physics</i> , 2018, 219, 82-89.	2.0	3
929	Observation of the growth of MAPbBr <sub>3</sub> single-crystalline thin film based on space-limited method. <i>Journal of Crystal Growth</i> , 2018, 501, 27-33.	0.7	20
930	Solution-processed resistive switching memory devices based on hybrid organic–inorganic materials and composites. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 23837-23846.	1.3	68
931	Experimental and Theoretical Investigation of the Photoelectrical Properties of Tetrabromophenol Blue- and Bromoxylene Blue-Based Solar Cells. <i>Journal of Nanomaterials</i> , 2018, 2018, 1-13.	1.5	4
932	Impact of Environmental Stresses Onto Transport Properties of Hybrid Perovskite Investigated by Steady State Photocurrent Grating and Steady State Photocurrent Techniques. <i>Solar Rrl</i> , 2018, 2, 1800192.	3.1	7

#	ARTICLE	IF	CITATIONS
933	Solvent engineering for high conversion yields of layered raw materials into large-scale freestanding hybrid perovskite nanowires. <i>Nanoscale</i> , 2018, 10, 17722-17729.	2.8	27
934	Improved Moisture Stability of 2D Hybrid Perovskite (HOOC-CH <sub>2</sub> -NH <sub>3</sub> ) <sub>2</sub> PbI <sub>4</sub> by Dehydration Condensation between Organic Components. <i>ACS Applied Energy Materials</i> , 2018, 1, 2502-2511.	2.5	13
935	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
936	Composition Engineering in Two-Dimensional Pb-Sn-Alloyed Perovskites for Efficient and Stable Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 21343-21348.	4.0	23
937	Pushing the Envelope: Achieving an Open-Circuit Voltage of 1.18 V for Unalloyed MAPbI <sub>3</sub> Perovskite Solar Cells of a Planar Architecture. <i>Advanced Functional Materials</i> , 2018, 28, 1801237.	7.8	26
938	Grain-Boundary Patches by In Situ Conversion to Enhance Perovskite Solar Cells Stability. <i>Advanced Materials</i> , 2018, 30, e1800544.	11.1	224
939	Improved performance and stability of perovskite solar cells by incorporating gamma-aminobutyric acid in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> . <i>Journal of Materials Chemistry A</i> , 2018, 6, 12370-12379.	5.2	14
940	Macroporosity Enhancement of Scaffold Oxide Layers Using Self-Assembled Polymer Beads for Photovoltaic Applications. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2018, 215, 1700946.	0.8	0
941	Insights in Perovskite Solar Cell Fabrication: Unraveling the Hidden Challenges of Each Layer. <i>IEEE Journal of Photovoltaics</i> , 2018, 8, 1029-1038.	1.5	5
942	Predominant Stable MAPbI <sub>3</sub> Films Deposited via Chemical Vapor Deposition: Stability Studies in Illuminated and Darkened States Coupled with Temperature under an Open-Air Atmosphere. <i>ACS Applied Energy Materials</i> , 2018, 1, 3301-3312.	2.5	16
943	The influence of secondary solvents on the morphology of a spiro-MeOTAD hole transport layer for lead halide perovskite solar cells. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 294001.	1.3	23
944	Enhancement of Stability and Photocatalytic Performance on Hybrid Perovskite with Aniline. <i>ChemNanoMat</i> , 2018, 4, 1054-1058.	1.5	9
945	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
946	Fiber-Type Solar Cells, Nanogenerators, Batteries, and Supercapacitors for Wearable Applications. <i>Advanced Science</i> , 2018, 5, 1800340.	5.6	108
947	Nanocrystalline Pyrite for Photovoltaic Applications. <i>ChemistrySelect</i> , 2018, 3, 6488-6524.	0.7	25
948	Multi-Color Excitonic Emissions in Chemical Dip-Coated Organolead Mixed-Halide Perovskite. <i>ChemistrySelect</i> , 2018, 3, 6525-6530.	0.7	3
949	BODIPY-Based Conjugated Polymers for Use as Dopant-Free Hole Transporting Materials for Durable Perovskite Solar Cells: Selective Tuning of HOMO/LUMO Levels. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 23254-23262.	4.0	49
950	Epitaxial growth of horizontally aligned single-crystal arrays of perovskite. <i>Science China Materials</i> , 2019, 62, 59-64.	3.5	5

#	ARTICLE	IF	CITATIONS
951	Perovskite-based lasers. , 2019, , 41-74.		5
952	Interface studies by simulation on methylammonium lead iodide based planar perovskite solar cells for high efficiency. Solar Energy, 2019, 190, 104-111.	2.9	24
953	Effect of Surface Ligand on Charge Separation and Recombination at CsPb <sub>3</sub> Perovskite Quantum Dot/TiO <sub>2</sub> Interfaces. Journal of Physical Chemistry C, 2019, 123, 21415-21421.	1.5	14
954	Lattice Expansion in Hybrid Perovskites: Effect on Optoelectronic Properties and Charge Carrier Dynamics. Journal of Physical Chemistry Letters, 2019, 10, 5000-5007.	2.1	60
955	Optical Applications of Nanomaterials. Advanced Structured Materials, 2019, , 1-29.	0.3	5
956	A facile route to surface passivation of both the positive and negative defects in perovskite solar cells via a self-organized passivation layer from fullerene. Solar Energy, 2019, 190, 264-271.	2.9	9
957	Study of Possible Ways of Improving the Morphology of Layers of the Solar Radiation Absorber in Perovskite-Based Cells. Applied Solar Energy (English Translation of Geliotekhnika), 2019, 55, 8-11.	0.2	1
958	Band Gap Engineering in Cs <sub>2</sub> (Na <sub>x</sub> )Ag <sub>1-x</sub> BiCl <sub>6</sub> Double Perovskite Nanocrystals. Journal of Physical Chemistry Letters, 2019, 10, 5173-5181.	2.1	109
959	Phenethylammonium bismuth halides: from single crystals to bulky-organic cation promoted thin-film deposition for potential optoelectronic applications. Journal of Materials Chemistry A, 2019, 7, 20733-20741.	5.2	38
960	Mechanochemical synthesis of three double perovskites: Cs <sub>2</sub> AgBiBr <sub>6</sub> , (CH <sub>3</sub> NH <sub>3</sub> ) <sub>2</sub> TlBiBr <sub>6</sub> and Cs <sub>2</sub> AgSbBr <sub>6</sub> . Nanoscale, 2019, 11, 16650-16657.	2.8	65
961	A New Organic Interlayer Spacer for Stable and Efficient 2D Ruddlesden-Popper Perovskite Solar Cells. Nano Letters, 2019, 19, 5237-5245.	4.5	76
962	Stabilizing halide perovskite surfaces for solar cell operation with wide-bandgap lead oxysalts. Science, 2019, 365, 473-478.	6.0	723
963	Carbon-based integrated devices for efficient photo-energy conversion and storage. , 2019, , 357-374.		2
964	Independent Memcapacitive Switching Triggered by Bromide Ion Migration for Quaternary Information Storage. Advanced Materials, 2019, 31, e1806424.	11.1	38
965	Aggregation of molecular halide perovskite Cs <sub>4</sub> PbX <sub>6</sub> : A first-principles investigation. Chemical Physics Letters, 2019, 732, 136653.	1.2	7
966	A sequential condensation route as a versatile platform for low cost and efficient hole transport materials in perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 21867-21873.	5.2	16
967	Variation of Interfacial Interactions in PC <sub>61</sub> BM-like Electron-Transporting Compounds for Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 34408-34415.	4.0	29
968	A crystal-growth boundary-fusion strategy to prepare high-quality MAPbI <sub>3</sub> films for excellent Vis-NIR photodetectors. Nano Energy, 2019, 64, 103914.	8.2	30

#	ARTICLE	IF	CITATIONS
969	Phase change, band gap energy and electrical resistivity of Mg doped TiO <sub>2</sub> multilayer thin films for dye sensitized solar cells applications. <i>Ceramics International</i> , 2019, 45, 21436-21439.	2.3	17
970	Cesium Oleate Passivation for Stable Perovskite Photovoltaics. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 27882-27889.	4.0	12
971	Tunable thiocyanate-doped perovskite microstructure via water-ethanol additives for stable solar cells at ambient conditions. <i>Solar Energy Materials and Solar Cells</i> , 2019, 200, 110029.	3.0	11
972	Relativistic DFT-1/2 Calculations Combined with a Statistical Approach for Electronic and Optical Properties of Mixed Metal Hybrid Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 4245-4251.	2.1	20
973	Perturbation-Induced Seeding and Crystallization of Hybrid Perovskites over Surface-Modified Substrates for Optoelectronic Devices. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 27727-27734.	4.0	12
974	Boosting the efficiency of quasi two-dimensional perovskite solar cells via an interfacial layer of metallic nanoparticles. <i>Organic Electronics</i> , 2019, 74, 190-196.	1.4	14
975	Thermodynamic Stability and Structural Insights for CH <sub>3</sub> NH <sub>3</sub> Pb <sub>1-x</sub> Sn <sub>x</sub> I <sub>3</sub> , CH <sub>3</sub> NH <sub>3</sub> Pb <sub>1-x</sub> GexI <sub>3</sub> , and CH <sub>3</sub> NH <sub>3</sub> Pb <sub>1-x</sub> SnxI <sub>3</sub> Hybrid Perovskite Alloys: A Statistical Approach from First Principles Calculations. <i>Scientific Reports</i> , 2019, 9, 11061.	1.6	14
976	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
977	Modulation of Ni <sup>3+</sup> and crystallization of dopant-free NiO <sub>x</sub> hole transporting layer for efficient p-i-n perovskite solar cells. <i>Electrochimica Acta</i> , 2019, 319, 41-48.	2.6	22
978	Single Halide Perovskite/Semiconductor Core/Shell Quantum Dots with Ultrastability and Nonblinking Properties. <i>Advanced Science</i> , 2019, 6, 1900412.	5.6	131
979	Improvement of Cs <sub>2</sub> AgBiBr <sub>6</sub> double perovskite solar cell by rubidium doping. <i>Organic Electronics</i> , 2019, 74, 204-210.	1.4	84
980	Fully low-temperature processed carbon-based perovskite solar cells using thermally evaporated cadmium sulfide as efficient electron transport layer. <i>Organic Electronics</i> , 2019, 74, 152-160.	1.4	14
981	Spectrally Tunable and Stable Electroluminescence Enabled by Rubidium Doping of CsPbBr <sub>3</sub> Nanocrystals. <i>Advanced Optical Materials</i> , 2019, 7, 1901440.	3.6	51
982	Atomic-Level Microstructure of Efficient Formamidinium-Based Perovskite Solar Cells Stabilized by 5-Ammonium Valeric Acid Iodide Revealed by Multinuclear and Two-Dimensional Solid-State NMR. <i>Journal of the American Chemical Society</i> , 2019, 141, 17659-17669.	6.6	104
983	Characterization and analysis of FA <sub>x</sub> Cs(1-x)Pb(I <sub>y</sub> Br(1-y)) <sub>3</sub> perovskite solar cells with thickness controlled transport layers for performance optimization. <i>AIP Advances</i> , 2019, 9, .	0.6	5
984	Biomimetic Synchronized Motion of Two Interacting Macrocycles in [3]Rotaxane-Based Molecular Shuttles. <i>Angewandte Chemie</i> , 2019, 131, 15280-15285.	1.6	16
985	Progress on Nanomaterials for Photoelectrochemical Solar Cells: from Titania to Perovskites. <i>E3S Web of Conferences</i> , 2019, 125, 14015.	0.2	1
986	Environmentally Robust Memristor Enabled by Lead-Free Double Perovskite for High-Performance Information Storage. <i>Small</i> , 2019, 15, e1905731.	5.2	123

#	ARTICLE	IF	CITATIONS
987	Mixed-Solvent Polarity-Assisted Phase Transition of Cesium Lead Halide Perovskite Nanocrystals with Improved Stability at Room Temperature. <i>Nanomaterials</i> , 2019, 9, 1537.	1.9	8
988	Surface Engineering of Graphene. <i>Carbon Nanostructures</i> , 2019, , .	0.1	5
989	Structures and Properties of Higher-Degree Aggregates of Methylammonium Iodide toward Halide Perovskite Solar Cells. <i>Russian Journal of Physical Chemistry A</i> , 2019, 93, 2250-2255.	0.1	1
990	Advances in molecular engineering of organic-inorganic/inorganic halide perovskites: Photochemical properties behind the energy conversion ability. <i>Solar Energy</i> , 2019, 194, 51-60.	2.9	14
991	Enhanced Efficiencies of Perovskite Solar Cells by Incorporating Silver Nanowires into the Hole Transport Layer. <i>Micromachines</i> , 2019, 10, 682.	1.4	13
992	The Effect of Annealing Pressure on Perovskite Films and Its Thin-Film Field-Effect Transistors' Performance. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2019, 216, 1900434.	0.8	5
993	All-Solution-Processed Organic-Inorganic Hybrid Perovskite Light-Emitting Diodes under Ambient Air. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2019, 216, 1900642.	0.8	13
994	Elucidating the effect of shunt losses on the performance of mesoporous perovskite solar cells. <i>Solar Energy</i> , 2019, 193, 956-961.	2.9	56
995	Morphology control of the perovskite thin films via the surface modification of nickel oxide nanoparticles layer using a bidentate chelating ligand 2,2'-Bipyridine. <i>Synthetic Metals</i> , 2019, 258, 116197.	2.1	8
996	Direct numerical simulation of a three-dimensional spatially evolving compressible mixing layer laden with particles. II. Turbulence anisotropy and growth rate. <i>Physics of Fluids</i> , 2019, 31, 083303.	1.6	17
997	Assessment of the exact-exchange-only Kohn-Sham method for the calculation of band structures for transition metal oxide and metal halide perovskites. <i>Physical Review B</i> , 2019, 100, .	1.1	5
998	Enhanced moisture stability of MAPbI <sub>3</sub> perovskite solar cells through Barium doping. <i>Solar Energy</i> , 2019, 190, 396-404.	2.9	35
999	Differential Response of the Photoluminescence and Photocurrent of Polycrystalline 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> to the Exposure to Oxygen and Nitrogen. <i>ACS Applied Electronic Materials</i> , 2019, 1, 2007-2017.	2.0	11
1000	2D-3D heterostructure enables scalable coating of efficient low-bandgap Sn-Pb mixed perovskite solar cells. <i>Nano Energy</i> , 2019, 66, 104099.	8.2	63
1001	Global discovery of stable and non-toxic hybrid organic-inorganic perovskites for photovoltaic systems by combining machine learning method with first principle calculations. <i>Nano Energy</i> , 2019, 66, 104070.	8.2	48
1002	Bandgap engineering in Mn <sub>3</sub> TeO <sub>6</sub> : giant irreversible bandgap reduction triggered by pressure. <i>Chemical Communications</i> , 2019, 55, 12000-12003.	2.2	7
1003	Temperature-Dependent Thermal Decomposition Pathway of Organic-Inorganic Halide Perovskite Materials. <i>Chemistry of Materials</i> , 2019, 31, 8515-8522.	3.2	83
1004	Improving performance and moisture stability of perovskite solar cells through interface engineering with polymer-2D MoS <sub>2</sub> nanohybrid. <i>Solar Energy</i> , 2019, 193, 95-101.	2.9	30



#	ARTICLE	IF	CITATIONS
1005	Design of High-Performance Mixed-Dimensional Perovskite by Incorporating Different Halogenated Cesium Sources. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 17507-17514.	3.2	6
1006	Thermochromic Lead-Free Halide Double Perovskites. <i>Advanced Functional Materials</i> , 2019, 29, 1807375.	7.8	120
1007	Novel optoelectronic rotors based on orthorhombic CsPb(Br/I) <sub>3</sub> nanorods. <i>Nanoscale</i> , 2019, 11, 3117-3122.	2.8	14
1008	Unveiling lasing mechanism in CsPbBr <sub>3</sub> microsphere cavities. <i>Nanoscale</i> , 2019, 11, 3145-3153.	2.8	71
1009	Improving the light harvesting and colour range of methyl ammonium lead tri-bromide (MAPbBr <sub>3</sub> ) perovskite solar cells through co-sensitisation with organic dyes. <i>Chemical Communications</i> , 2019, 55, 35-38.	2.2	16
1010	Magneto-open-circuit voltage in organic-inorganic halide perovskite solar cells. <i>Applied Physics Letters</i> , 2019, 114, .	1.5	2
1011	Towards truly wearable energy harvesters with full structural integrity of fiber materials. <i>Nano Energy</i> , 2019, 58, 365-374.	8.2	69
1012	Liberating Researchers from the Glovebox: A Universal Thermal Radiation Protocol Toward Efficient Fully Air-Processed Perovskite Solar Cells. <i>Solar Rrl</i> , 2019, 3, 1800324.	3.1	21
1013	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
1014	Using easily prepared carbon nanodots to improve hole transport capacity of perovskite solar cells. <i>Materials Today Energy</i> , 2019, 12, 161-167.	2.5	25
1015	Doping strategies for small molecule organic hole-transport materials: impacts on perovskite solar cell performance and stability. <i>Chemical Science</i> , 2019, 10, 1904-1935.	3.7	279
1016	Enhancing electron transport via graphene quantum dot/SnO <sub>2</sub> composites for efficient and durable flexible perovskite photovoltaics. <i>Journal of Materials Chemistry A</i> , 2019, 7, 1878-1888.	5.2	67
1017	All-inorganic cesium lead halide perovskite nanocrystals: synthesis, surface engineering and applications. <i>Journal of Materials Chemistry C</i> , 2019, 7, 757-789.	2.7	193
1018	Halide perovskites for resistive random-access memories. <i>Journal of Materials Chemistry C</i> , 2019, 7, 5226-5234.	2.7	90
1019	Surface Plasmon Resonance Enhancement of PbS Quantum Dot-Sensitized Solar Cells. <i>INAE Letters</i> , 2019, 4, 131-137.	1.0	1
1020	A study of electromagnetic light propagation in a perovskite-based solar cell via a computational modelling approach. <i>Bulletin of Materials Science</i> , 2019, 42, .	0.8	20
1022	Efficient Planar Perovskite Solar Cells via a Sputtered Cathode. <i>Solar Rrl</i> , 2019, 3, 1900209.	3.1	14
1023	Lead-Free Tin-Based Perovskite Solar Cells: Strategies Toward High Performance. <i>Solar Rrl</i> , 2019, 3, 1900213.	3.1	44

#	ARTICLE	IF	CITATIONS
1024	Transformation of 3D cubic CsPbBr <sub>3</sub> nanocrystals to massive gold-embedded perovskite platelets using surfactant coated gold nanoclusters. <i>Materials Letters</i> , 2019, 253, 109-112.	1.3	1
1025	Structural Diversity in Cesium Bismuth Halide Nanocrystals. <i>Chemistry of Materials</i> , 2019, 31, 4685-4697.	3.2	80
1026	Metal halide perovskites under compression. <i>Journal of Materials Chemistry A</i> , 2019, 7, 16089-16108.	5.2	42
1027	3D-printed continuous flow reactor for high yield synthesis of CH <sub>3</sub> NH <sub>3</sub> PbX <sub>3</sub> (X = Br, I) nanocrystals. <i>Journal of Materials Chemistry C</i> , 2019, 7, 9167-9174.	2.7	22
1028	Controllable Growth of Lead-Free All-Inorganic Perovskite Nanowire Array with Fast and Stable Near-Infrared Photodetection. <i>Journal of Physical Chemistry C</i> , 2019, 123, 17566-17573.	1.5	78
1029	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
1030	A Generalized Crystallization Protocol for Scalable Deposition of High-Quality Perovskite Thin Films for Photovoltaic Applications. <i>Advanced Science</i> , 2019, 6, 1901067.	5.6	97
1031	Epitaxial Stabilization of Tetragonal Cesium Tin Iodide. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 32076-32083.	4.0	28
1032	Screening Ferroelastic Transitions in Switchable Cyano-Bridged Perovskites: [CH <sub>3</sub> C(NH <sub>2</sub> ) <sub>2</sub> ] <sub>2</sub> [KM(CN) <sub>6</sub> ], M = Cr <sup>3+</sup> , Fe <sup>3+</sup> , Co <sup>3+</sup> . <i>Crystal Structure Characterization, Dielectric Properties, <sup>1</sup>H NMR, and Quasielastic Neutron Scattering Studies</i> . <i>Crystal Growth and Design</i> , 2019, 19, 4526-4537.	1.4	19
1033	Engineering of the Back Contact between PCBM and Metal Electrode for Planar Perovskite Solar Cells with Enhanced Efficiency and Stability. <i>Advanced Optical Materials</i> , 2019, 7, 1900542.	3.6	24
1034	Luminescent inorganic-organic hybrid semiconductor materials for energy-saving lighting applications. <i>EnergyChem</i> , 2019, 1, 100008.	10.1	76
1035	Cation Alloying Delocalizes Polarons in Lead Halide Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 3516-3524.	2.1	33
1036	One-Dimensional Behavior of Imidazolium Lead Iodide. <i>Journal of Physical Chemistry C</i> , 2019, 123, 16449-16455.	1.5	10
1037	The preparation of Ag <sub>3</sub> BiBr <sub>6</sub> films and their preliminary use for solution processed photovoltaics. <i>SN Applied Sciences</i> , 2019, 1, 1.	1.5	5
1038	A New Class of Bifunctional Perovskites BaMX <sub>4</sub> (M = Co, Ni, Fe, Mn; X = F, Cl, Br, I): An n-Type Semiconductor with Combined Multiferroic and Photovoltaic Properties. <i>Journal of Physical Chemistry C</i> , 2019, 123, 14303-14311.	1.5	1
1039	2D-3D Mixed Organic-Inorganic Perovskite Layers for Solar Cells with Enhanced Efficiency and Stability Induced by <i>n</i> -Propylammonium Iodide Additives. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 29753-29764.	4.0	83
1040	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
1041	Synthesis, optical characterization, and simulation of organo-metal halide perovskite materials. <i>Optik</i> , 2019, 191, 100-108.	1.4	14

#	ARTICLE	IF	CITATIONS
1042	Enhanced stability and photovoltage for inverted perovskite solar cells <i>via</i> precursor engineering. Journal of Materials Chemistry A, 2019, 7, 15880-15886.	5.2	22
1043	Improved environmental stability of HTM free perovskite solar cells by a modified deposition route. Chemical Papers, 2019, 73, 2667-2678.	1.0	8
1044	In Situ Observation of Crystallization Dynamics and Grain Orientation in Sequential Deposition of Metal Halide Perovskites. Advanced Functional Materials, 2019, 29, 1902319.	7.8	53
1045	Synthesis, Characterization, and Morphological Control of Cs <sub>2</sub> CuCl <sub>4</sub> Nanocrystals. Journal of Physical Chemistry C, 2019, 123, 16951-16956.	1.5	38
1046	Improved Stability and Photodetector Performance of CsPbI <sub>3</sub> Perovskite Quantum Dots by Ligand Exchange with Aminoethanethiol. Advanced Functional Materials, 2019, 29, 1902446.	7.8	206
1047	Compositional, Processing, and Interfacial Engineering of Nanocrystal- and Quantum-Dot-Based Perovskite Solar Cells. Chemistry of Materials, 2019, 31, 6387-6411.	3.2	82
1048	Applications of 3D Potassium-Ion Pre-Intercalated Graphene for Perovskite and Dye-Sensitized Solar Cells. Industrial & Engineering Chemistry Research, 2019, 58, 8743-8749.	1.8	12
1049	Putting the Squeeze on Lead Iodide Perovskites: Pressure-Induced Effects To Tune Their Structural and Optoelectronic Behavior. Chemistry of Materials, 2019, 31, 4063-4071.	3.2	87
1050	Improving the Stability of Metal Halide Perovskite Quantum Dots by Encapsulation. Advanced Materials, 2019, 31, e1900682.	11.1	270
1051	Improvement of quantum and power conversion efficiency through electron transport layer modification of ZnO/perovskite/PEDOT: PSS based organic heterojunction solar cell. Solar Energy, 2019, 185, 439-444.	2.9	16
1052	Structural origins, tunable photoluminescence governed by impurities and white-light irradiation in transparent Pr <sup>3+</sup> :BaTiO <sub>3</sub> glass-ceramics. CrystEngComm, 2019, 21, 3613-3618.	1.3	2
1053	Charge Trap Formation and Passivation in Methylammonium Lead Tribromide. Journal of Physical Chemistry C, 2019, 123, 13812-13817.	1.5	9
1054	Record Open-Circuit Voltage Wide-Bandgap Perovskite Solar Cells Utilizing 2D/3D Perovskite Heterostructure. Advanced Energy Materials, 2019, 9, 1803699.	10.2	325
1055	Efficient and stable carbon-based perovskite solar cells enabled by the inorganic interface of CuSCN and carbon nanotubes. Journal of Materials Chemistry A, 2019, 7, 12236-12243.	5.2	91
1056	A study of the nanostructure and efficiency of solid-state dye-sensitized solar cells based on a conducting polymer. Heliyon, 2019, 5, e01472.	1.4	7
1057	Reaction Temperature and Partial Pressure Induced Etching of Methylammonium Lead Iodide Perovskite by Trimethylaluminum. Langmuir, 2019, 35, 6522-6531.	1.6	12
1058	Prediction of the Role of Bismuth Dopants in Organic-Inorganic Lead Halide Perovskites on Photoelectric Properties and Photovoltaic Performance. Journal of Physical Chemistry C, 2019, 123, 12684-12693.	1.5	24
1059	Light-Directed Soft Mass Migration for Micro/Nanophotonics. Advanced Optical Materials, 2019, 7, 1900074.	3.6	31

#	ARTICLE	IF	CITATIONS
1060	Perovskite Solar Cells Processed by Solution Nanotechnology. , 2019, , 119-174.		0
1061	Evaluation of Mulliken Electronegativity on CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Hybrid Perovskite as a Thought-Provoking Activity. Journal of Chemical Education, 2019, 96, 974-978.	1.1	6
1062	Quasiparticle <i>i&gt;GW&lt;/i&gt; Calculations on Lead-Free Hybrid Germanium Iodide Perovskite CH<sub>3</sub>NH<sub>3</sub>GeI<sub>3</sub> for Photovoltaic Applications. ACS Omega, 2019, 4, 5661-5669.</i>	1.6	24
1063	Machine Learning Augmented Discovery of Chalcogenide Double Perovskites for Photovoltaics. Advanced Theory and Simulations, 2019, 2, 1800173.	1.3	54
1064	Data mining new energy materials from structure databases. Renewable and Sustainable Energy Reviews, 2019, 107, 554-567.	8.2	38
1065	Point defect-reduced colloidal SnO <sub>2</sub> electron transport layers for stable and almost hysteresis-free perovskite solar cells. RSC Advances, 2019, 9, 7334-7337.	1.7	10
1066	Revisit of amorphous semiconductor InGaZnO <sub>4</sub> : A new electron transport material for perovskite solar cells. Journal of Alloys and Compounds, 2019, 789, 276-281.	2.8	16
1067	Controllable Perovskite Crystallization via Antisolvent Technique Using Chloride Additives for Highly Efficient Planar Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1803587.	10.2	221
1068	Tunable Halide Perovskites for Miniaturized Solidâ€State Laser Applications. Advanced Optical Materials, 2019, 7, 1900099.	3.6	47
1069	Sequential Deposition of Highâ€Quality Photovoltaic Perovskite Layers via Scalable Printing Methods. Advanced Functional Materials, 2019, 29, 1900964.	7.8	69
1070	Significant THz-wave absorption property in mixed <i>i&gt;Î&lt;/i&gt;- and <i>i&gt;Î±&lt;/i&gt;-FAPbI<sub>3</sub> hybrid perovskite flexible thin film formed by sequential vacuum evaporation. Applied Physics Express, 2019, 12, 051003.</i></i>	1.1	17
1071	Grapheneâ€Assisted Growth of Patterned Perovskite Films for Sensitive Light Detector and Optical Image Sensor Application. Small, 2019, 15, e1900730.	5.2	53
1072	Physical properties of alkali metals-based iodides via Ab-initio calculations. Journal of Physics and Chemistry of Solids, 2019, 132, 68-75.	1.9	6
1073	Reversible Dimensionality Tuning of Hybrid Perovskites with Humidity: Visualization and Application to Stable Solar Cells. Chemistry of Materials, 2019, 31, 3111-3117.	3.2	35
1074	Significant THz absorption in CH <sub>3</sub> NH <sub>2</sub> molecular defect-incorporated organic-inorganic hybrid perovskite thin film. Scientific Reports, 2019, 9, 5811.	1.6	26
1075	Grapheneâ€quantum dot hybrid nanostructures with controlled optical and photoelectric properties for solar cell applications. Russian Chemical Reviews, 2019, 88, 370-386.	2.5	12
1076	Research progress in lead-less or lead-free three-dimensional perovskite absorber materials for solar cells. International Journal of Minerals, Metallurgy and Materials, 2019, 26, 387-403.	2.4	17
1077	A 3D Iodoplumbate Semiconducting Open Framework with Visibleâ€lightâ€induced Photocatalytic Performance. Chemistry - an Asian Journal, 2019, 14, 2086-2090.	1.7	19

#	ARTICLE	IF	CITATIONS
1078	Structure and property tunability in monolayer halide lead-free double hybrid perovskites: effects of Rashba and biaxial strain. <i>Journal of Materials Chemistry A</i> , 2019, 7, 11487-11496.	5.2	5
1079	Recent progress of the optoelectronic properties of 2D Ruddlesden-Popper perovskites. <i>Journal of Semiconductors</i> , 2019, 40, 041901.	2.0	17
1080	Mechanochemical synthesis of the lead-free double perovskite Cs <sub>2</sub> [AgIn]Br <sub>6</sub> and its optical properties. <i>JPhys Energy</i> , 2019, 1, 025003.	2.3	19
1081	Short-Chain Ligand-Passivated Stable Inorganic CsPb <sub>3</sub> Quantum Dot for All-Inorganic Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2019, 29, 1900991.	7.8	216
1082	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
1083	High efficient and long-time stable planar heterojunction perovskite solar cells with doctor-bladed carbon electrode. <i>Journal of Power Sources</i> , 2019, 424, 61-67.	4.0	13
1084	Solar- versus Thermal-Driven Catalysis for Energy Conversion. <i>Joule</i> , 2019, 3, 920-937.	11.7	153
1085	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
1086	The fabrication of homogeneous perovskite films on non-wetting interfaces enabled by physical modification. <i>Journal of Energy Chemistry</i> , 2019, 38, 192-198.	7.1	48
1087	Morphology control towards a greener, non-halogenated solvent system processed CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> film for high performance perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2019, 7, 6004-6011.	2.7	10
1089	Review Article: Atomic layer deposition of optoelectronic materials. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2019, 37, .	0.6	48
1090	Photovoltaic Materials. , 2019, , 1033-1054.		0
1091	Anodic Growth Behavior of TiO <sub>2</sub> Nanotube Arrays with Process Parameter Control. <i>Journal of Nanomaterials</i> , 2019, 2019, 1-11.	1.5	5
1092	Perovskite Photovoltaics: The Significant Role of Ligands in Film Formation, Passivation, and Stability. <i>Advanced Materials</i> , 2019, 31, e1805702.	11.1	192
1093	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
1094	Amino acid salt-driven planar hybrid perovskite solar cells with enhanced humidity stability. <i>Nano Energy</i> , 2019, 59, 481-491.	8.2	82
1095	Lead-Free Metal Halide Perovskite Nanocrystals: Challenges, Applications, and Future Aspects. <i>ChemNanoMat</i> , 2019, 5, 300-312.	1.5	74
1096	A 0D Lead-Free Hybrid Crystal with Ultralow Thermal Conductivity. <i>Advanced Functional Materials</i> , 2019, 29, 1809166.	7.8	32

#	ARTICLE	IF	CITATIONS
1097	Synthesis and encapsulation of all inorganic perovskite nanocrystals by microfluidics. Journal of Materials Science, 2019, 54, 6841-6852.	1.7	22
1098	Water-soluble Triazolium Ionic-liquid-induced Surface Self-assembly to Enhance the Stability and Efficiency of Perovskite Solar Cells. Advanced Functional Materials, 2019, 29, 1900417.	7.8	145
1099	Temperature-dependent photoluminescence of pure and Mn-doped CsPbCl <sub>3</sub> nanocrystals. Journal of Alloys and Compounds, 2019, 787, 165-172.	2.8	57
1100	Photonics and optoelectronics using nano-structured hybrid perovskite media and their optical cavities. Physics Reports, 2019, 795, 1-51.	10.3	303
1101	Bi(Sb)NCa <sub>3</sub> : Expansion of Perovskite Photovoltaics into All-Inorganic Anti-Perovskite Materials. Journal of Physical Chemistry C, 2019, 123, 6363-6369.	1.5	10
1102	Inverted Perovskite Photovoltaics Using Flame Spray Pyrolysis Solution Based CuAlO <sub>2</sub> /Cu <sup>+</sup> O Hole-Selective Contact. ACS Applied Energy Materials, 2019, 2, 2276-2287.	2.5	29
1103	Isostructural phase transition, quasielastic neutron scattering and magnetic resonance studies of a bistable dielectric ion-pair crystal [(CH <sub>3</sub> ) <sub>2</sub> NH] <sub>2</sub> KCr(CN) <sub>6</sub> . Dalton Transactions, 2019, 48, 4190-4202.	1.6	34
1104	Hybrid perovskites for device applications. , 2019, , 211-256.		13
1105	Modeling and Analysis of Novel Tandem Solar Cells. , 2019, , .		2
1106	Comparative Study on Perovskite Solar Cells Using Inorganic Transport Layers. , 2019, , .		5
1107	Novel ultra-stable and highly luminescent white light-emitting diodes from perovskite quantum dots-Polymer nanofibers through biaxial electrospinning. APL Materials, 2019, 7, .	2.2	42
1108	A sandwich-like electron transport layer to assist highly efficient planar perovskite solar cells. Nanoscale, 2019, 11, 21917-21926.	2.8	31
1109	Synergistic effect of charge separation and defect passivation using zinc porphyrin dye incorporation for efficient and stable perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 26334-26341.	5.2	44
1110	3D low toxicity Cu-Pb binary perovskite films and their photoluminescent/photovoltaic performance. Journal of Materials Chemistry A, 2019, 7, 27225-27235.	5.2	34
1111	Crystal and Band-Gap Engineering of One-Dimensional Antimony/Bismuth-Based Organic-Inorganic Hybrids. Inorganic Chemistry, 2019, 58, 16346-16353.	1.9	20
1112	Synthesis and characterization of a hybrid perovskite to be applied as an absorbent layer in solar cell. Journal of Physics: Conference Series, 2019, 1386, 012068.	0.3	2
1113	Methodologies in Spectral Tuning of DSSC Chromophores through Rational Design and Chemical-Structure Engineering. Materials, 2019, 12, 4024.	1.3	5
1114	Er and Mg co-doped TiO <sub>2</sub> nanorod arrays and improvement of photovoltaic property in perovskite solar cell. Journal of Alloys and Compounds, 2019, 771, 649-657.	2.8	25

#	ARTICLE	IF	CITATIONS
1115	The Role of Graphene and Other 2D Materials in Solar Photovoltaics. <i>Advanced Materials</i> , 2019, 31, e1802722.	11.1	268
1116	N,N-dimethylformamide vapor effect on microstructural and optical properties of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> film during solvent annealing. <i>Surface and Coatings Technology</i> , 2019, 359, 162-168.	2.2	11
1117	Zero-Dimensional Cs <sub>2</sub> Tel <sub>6</sub> Perovskite: Solution-Processed Thick Films with High X-ray Sensitivity. <i>ACS Photonics</i> , 2019, 6, 196-203.	3.2	70
1118	Structure-property relationships: Double-tail versus double-flap ruthenium complex structures for high efficiency dye-sensitized solar cells. <i>Solar Energy</i> , 2019, 177, 724-736.	2.9	15
1119	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
1120	Highly stable and efficient all-inorganic lead-free perovskite solar cells with native-oxide passivation. <i>Nature Communications</i> , 2019, 10, 16.	5.8	430
1121	Silicon solar cells: toward the efficiency limits. <i>Advances in Physics: X</i> , 2019, 4, 1548305.	1.5	188
1122	An eco-friendly flexible piezoelectric energy harvester that delivers high output performance is based on lead-free MASnI <sub>3</sub> films and MASnI <sub>3</sub> -PVDF composite films. <i>Nano Energy</i> , 2019, 57, 911-923.	8.2	94
1123	Integrating Properties Modification in the Synthesis of Metal Halide Perovskites. <i>Advanced Materials Technologies</i> , 2019, 4, 1800321.	3.0	5
1124	Rational Design of Cyclopenta[2,1-b;3,4-b']dithiophene-bridged Hole Transporting Materials for Highly Efficient and Stable Perovskite Solar Cells. <i>Energy Technology</i> , 2019, 7, 307-316.	1.8	18
1125	Conduction band engineering in semiconducting oxides (TiO <sub>2</sub> , SnO <sub>2</sub> ): Applications in perovskite photovoltaics and beyond. <i>Catalysis Today</i> , 2019, 328, 50-56.	2.2	43
1126	Reduced ion migration and enhanced photoresponse in cuboid crystals of methylammonium lead iodide perovskite. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 054001.	1.3	14
1127	Understanding Degradation Mechanisms and Improving Stability of Perovskite Photovoltaics. <i>Chemical Reviews</i> , 2019, 119, 3418-3451.	23.0	1,131
1128	Random lasing in cesium lead bromine perovskite quantum dots film. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 1084-1088.	1.1	14
1129	Electronic and optical behaviors of methylammonium and formamidinium lead trihalide perovskite materials. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 711-720.	1.1	24
1130	Tailoring Crystal Structure of FA <sub>0.83</sub> Cs <sub>0.17</sub> PbI <sub>3</sub> Perovskite Through Guanidinium Doping for Enhanced Performance and Tunable Hysteresis of Planar Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2019, 29, 1806479.	7.8	87
1131	Synergistic Crystal and Interface Engineering for Efficient and Stable Perovskite Photovoltaics. <i>Advanced Energy Materials</i> , 2019, 9, 1802646.	10.2	189
1132	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

#	ARTICLE	IF	CITATIONS
1133	Double-Side-Passivated Perovskite Solar Cells with Ultra-low Potential Loss. <i>Solar Rrl</i> , 2019, 3, 1800296.	3.1	89
1134	Electronic structure, magnetism properties and optical absorption of organometal halide perovskite CH <sub>3</sub> NH <sub>3</sub> XI <sub>3</sub> (X = Fe, Mn). <i>Applied Physics A: Materials Science and Processing</i> , 2019, 125, 1.	1.1	11
1135	Semimetallicity and Negative Differential Resistance from Hybrid Halide Perovskite Nanowires. <i>Advanced Functional Materials</i> , 2019, 29, 1807620.	7.8	15
1136	Enhanced efficiency and light stability of planar perovskite solar cells by diethylammonium bromide induced large-grain 2D/3D hybrid film. <i>Organic Electronics</i> , 2019, 67, 101-108.	1.4	28
1137	A Review: Thermal Stability of Methylammonium Lead Halide Based Perovskite Solar Cells. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 188.	1.3	173
1138	Synthetic Approaches for Halide Perovskite Thin Films. <i>Chemical Reviews</i> , 2019, 119, 3193-3295.	23.0	454
1139	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
1140	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
1141	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
1142	Bifunctional Organic Spacers for Formamidine-Based Hybrid Dion-Jacobson Two-Dimensional Perovskite Solar Cells. <i>Nano Letters</i> , 2019, 19, 150-157.	4.5	218
1143	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
1144	Design and Color Flexibility for Inkjet-Printed Perovskite Photovoltaics. <i>ACS Applied Energy Materials</i> , 2019, 2, 764-769.	2.5	32
1145	Tripyridine-Derivative-Derived Semiconducting Iodoargentate/Cuprate Hybrids with Excellent Visible-Light-Induced Photocatalytic Performance. <i>Chemistry - an Asian Journal</i> , 2019, 14, 269-277.	1.7	22
1146	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
1147	Effect of annealing temperature on the performance of printable carbon electrodes for perovskite solar cells. <i>Organic Electronics</i> , 2019, 65, 375-380.	1.4	35
1148	Integrated Perovskite/Bulk Heterojunction Organic Solar Cells. <i>Advanced Materials</i> , 2020, 32, e1805843.	11.1	61
1149	Mixed Halide Perovskite Solar Cells: Progress and Challenges. <i>Critical Reviews in Solid State and Materials Sciences</i> , 2020, 45, 85-112.	6.8	51
1150	Dopant-free benzothiadiazole bridged hole transport materials for highly stable and efficient perovskite solar cells. <i>Dyes and Pigments</i> , 2020, 173, 107954.	2.0	19



#	ARTICLE	IF	CITATIONS
1151	Synthesis, characterization of $((\text{CH}_3)_3\text{S})_2\text{SnI}_6$ -nCl and $((\text{CH}_3)_3\text{S})_2\text{SnI}_6$ -nBrn (n=1, 2) perovskites and use in dye-sensitized solar cells. <i>Materials Chemistry and Physics</i> , 2020, 239, 122310.	2.0	16
1152	Emerging Self-Emissive Technologies for Flexible Displays. <i>Advanced Materials</i> , 2020, 32, e1902391.	11.1	131
1153	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
1154	Emerging 2D Layered Materials for Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2020, 10, 1902253.	10.2	79
1155	To Be Higher and Stronger” Metal Oxide Electron Transport Materials for Perovskite Solar Cells. <i>Small</i> , 2020, 16, e1902579.	5.2	80
1156	Perovskite-Based Phototransistors and Hybrid Photodetectors. <i>Advanced Functional Materials</i> , 2020, 30, 1903907.	7.8	225
1157	Growth of Amorphous Passivation Layer Using Phenethylammonium Iodide for High-Performance Inverted Perovskite Solar Cells. <i>Solar Rrl</i> , 2020, 4, 1900243.	3.1	43
1158	Solution-Processed Ternary Oxides as Carrier Transport/Injection Layers in Optoelectronics. <i>Advanced Energy Materials</i> , 2020, 10, 1900903.	10.2	44
1159	Carbon counter electrode mesoscopic ambient processed & characterised perovskite for adaptive BIPV fenestration. <i>Renewable Energy</i> , 2020, 145, 2151-2158.	4.3	41
1160	Large Polaron Self-Trapped States in Three-Dimensional Metal-Halide Perovskites. , 2020, 2, 20-27.		33
1161	Modeling Thin Film Solar Cells: From Organic to Perovskite. <i>Advanced Science</i> , 2020, 7, 1901397.	5.6	38
1162	Investigating the effect of polythiocyanogen on morphology and stability of the perovskite layer and its application in the hole-transport material free perovskite solar cell. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2020, 389, 112218.	2.0	1
1163	One-step P2 scribing of organometal halide perovskite solar cells by picosecond laser of visible wavelength. <i>Applied Surface Science</i> , 2020, 505, 144408.	3.1	8
1164	$(\text{CH}_3\text{NH}_3)_3\text{Bi}_2\text{I}_9$ perovskite films fabricated via a two-stage electric-field-assisted reactive deposition method for solar cells application. <i>Electrochimica Acta</i> , 2020, 329, 135173.	2.6	8
1165	Spiro-Linked Molecular Hole-Transport Materials for Highly Efficient Inverted Perovskite Solar Cells. <i>Solar Rrl</i> , 2020, 4, 1900389.	3.1	28
1166	Defect-Passivation Using Organic Dyes for Enhanced Efficiency and Stability of Perovskite Solar Cells. <i>Solar Rrl</i> , 2020, 4, 1900529.	3.1	40
1167	Optical and electrical properties and conduction mechanism of $[(\text{CH}_3)_2\text{NH}_2]_2\text{CoCl}_4$ . <i>Applied Organometallic Chemistry</i> , 2020, 34, e5404.	1.7	17
1168	The effect of encapsulation of lithium atom on supramolecular triad complexes performance in solar cell by using theoretical approach. <i>Adsorption</i> , 2020, 26, 471-489.	1.4	11

#	ARTICLE	IF	CITATIONS
1169	Stabilization of MAPbBr <sub>3</sub> Perovskite Quantum Dots on Perovskite MOFs by a One-Step Mechanochemical Synthesis. <i>Inorganic Chemistry</i> , 2020, 59, 1436-1443.	1.9	62
1170	Supramolecular Modulation of Hybrid Perovskite Solar Cells via Bifunctional Halogen Bonding Revealed by Two-Dimensional <sup>19</sup> F Solid-State NMR Spectroscopy. <i>Journal of the American Chemical Society</i> , 2020, 142, 1645-1654.	6.6	69
1171	Designing solar-cell absorber materials through computational high-throughput screening*. <i>Chinese Physics B</i> , 2020, 29, 028803.	0.7	6
1172	Performance of WO <sub>3</sub> -Incorporated Carbon Electrodes for Ambient Mesoscopic Perovskite Solar Cells. <i>ACS Omega</i> , 2020, 5, 422-429.	1.6	44
1173	Correlating hysteresis phenomena with interfacial charge accumulation in perovskite solar cells. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 245-251.	1.3	16
1174	Precursor-Mediated Synthesis of Shape-Controlled Colloidal CsPbBr <sub>3</sub> Perovskite Nanocrystals and Their Nanofiber-Directed Self-Assembly. <i>Chemistry of Materials</i> , 2020, 32, 721-733.	3.2	37
1175	Atomistic Mechanism of the Nucleation of Methylammonium Lead Iodide Perovskite from Solution. <i>Chemistry of Materials</i> , 2020, 32, 529-536.	3.2	45
1176	Realization of BaZrS <sub>3</sub> chalcogenide perovskite thin films for optoelectronics. <i>Nano Energy</i> , 2020, 68, 104317.	8.2	83
1177	Fabrication of pyramidal (111) MAPbBr <sub>3</sub> film with low surface defect density using homogeneous quantum-dot seeds. <i>Nanoscale</i> , 2020, 12, 1366-1373.	2.8	4
1178	Double layer mesoscopic electron contact for efficient perovskite solar cells. <i>Sustainable Energy and Fuels</i> , 2020, 4, 843-851.	2.5	22
1179	Plasmonic nanoprism enhanced quasi-2D Ruddlesden-Popper layered perovskite photodetectors. <i>Journal of Materials Chemistry C</i> , 2020, 8, 1110-1117.	2.7	19
1180	Guanine-Stabilized Formamidinium Lead Iodide Perovskites. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 4691-4697.	7.2	61
1181	Crystallization Control of Ternary-Cation Perovskite Absorber in Triple-Mesoscopic Layer for Efficient Solar Cells. <i>Advanced Energy Materials</i> , 2020, 10, 1903092.	10.2	63
1182	Polarization-Dependent Photoluminescence of a Highly (100)-Oriented Perovskite Film. <i>ChemPhysChem</i> , 2020, 21, 204-211.	1.0	5
1183	Bromine Vacancy Redistribution and Metallic Ion Migration-Induced Air-Stable Resistive Switching Behavior in All-Inorganic Perovskite CsPbBr <sub>3</sub> Film-Based Memory Device. <i>Advanced Electronic Materials</i> , 2020, 6, 1900754.	2.6	21
1184	Revealing the Dynamics of Hybrid Metal Halide Perovskite Formation via Multimodal In Situ Probes. <i>Advanced Functional Materials</i> , 2020, 30, 1908337.	7.8	40
1185	Performance improvement of fully ambient air fabricated perovskite solar cells in an anti-solvent process using TiO <sub>2</sub> hollow spheres. <i>Journal of Colloid and Interface Science</i> , 2020, 562, 125-132.	5.0	16
1186	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

#	ARTICLE	IF	CITATIONS
1187	Coordinated Optical Matching of a Texture Interface Made from Demixing Blended Polymers for High-Performance Inverted Perovskite Solar Cells. <i>ACS Nano</i> , 2020, 14, 196-203.	7.3	64
1188	Improving performance of perovskites solar cells using solvent engineering, via Lewis adduct of MAI-DMSO-PbI <sub>2</sub> and incorporation of imidazolium cation. <i>Journal of Alloys and Compounds</i> , 2020, 817, 153076.	2.8	9
1189	Guanine-stabilized Formamidineium Lead Iodide Perovskites. <i>Angewandte Chemie</i> , 2020, 132, 4721-4727.	1.6	0
1190	The impact of highly excessive PbI <sub>2</sub> on the correlation of MAPbI <sub>3</sub> perovskite morphology and carrier lifetimes. <i>Journal of Materials Chemistry C</i> , 2020, 8, 14481-14489.	2.7	7
1191	Highly thermal-stable perylene-bisimide small molecules as efficient electron-transport materials for perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2020, 8, 14773-14781.	2.7	14
1192	Suppression of phase transitions and glass phase signatures in mixed cation halide perovskites. <i>Nature Communications</i> , 2020, 11, 5103.	5.8	46
1193	Zwitterionic-Surfactant-Assisted Room-Temperature Coating of Efficient Perovskite Solar Cells. <i>Joule</i> , 2020, 4, 2404-2425.	11.7	137
1194	CuGaS <sub>2</sub> quantum dots with controlled surface defects as an hole-transport material for high-efficient and stable perovskite solar cells. <i>Solar Energy</i> , 2020, 211, 55-61.	2.9	9
1195	Study of the effect of temperature on light-induced degradation in methylammonium lead iodine perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2020, 218, 110770.	3.0	11
1196	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
1197	Dopant-free hole-transporting polymers for efficient, stable, and hysteresis-less perovskite solar cells. <i>Sustainable Materials and Technologies</i> , 2020, 26, e00226.	1.7	17
1198	Improving the Performance of Printable Carbon Electrodes by Femtosecond Laser Treatment. <i>Journal of Carbon Research</i> , 2020, 6, 48.	1.4	3
1199	Progress, highlights and perspectives on NiO in perovskite photovoltaics. <i>Chemical Science</i> , 2020, 11, 7746-7759.	3.7	119
1200	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
1201	Pressure-suppressed Carrier Trapping Leads to Enhanced Emission in Two-dimensional Perovskite (HA) <sub>2</sub> (GA)Pb <sub>2</sub> I <sub>7</sub> . <i>Angewandte Chemie</i> , 2020, 132, 17686-17692.	1.6	26
1202	How the Structures and Properties of Pristine and Anion Vacancy Defective Organic-Inorganic Hybrid Double Perovskites MA <sub>2</sub> AgIn(Br) <sub>1-x</sub> I <sub>6</sub> Vary with Br Content <i>x</i> . <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 10315-10322.	2.1	6
1203	Improving stability of organometallic-halide perovskite solar cells using exfoliation two-dimensional molybdenum chalcogenides. <i>Npj 2D Materials and Applications</i> , 2020, 4, .	3.9	49
1204	Potassium iodide reduces the stability of triple-cation perovskite solar cells. <i>RSC Advances</i> , 2020, 10, 40341-40350.	1.7	27

#	ARTICLE	IF	CITATIONS
1205	Nanoparticle Wetting Agent for Gas Stream-Assisted Blade-Coated Inverted Perovskite Solar Cells and Modules. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 52678-52690.	4.0	22
1206	First-principles investigation of structural modification, fine band gap engineering, and optical response of $\text{La}_{1-x}\text{BaxGaO}_3$ for optoelectronic applications. <i>Applied Physics A: Materials Science and Processing</i> , 2020, 126, 1.	1.1	8
1207	Hybrid Perovskites with Larger Organic Cations Reveal Autocatalytic Degradation Kinetics and Increased Stability under Light. <i>Inorganic Chemistry</i> , 2020, 59, 12176-12186.	1.9	12
1208	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
1209	Unravelling the structural complexity and photophysical properties of adamantyl-based layered hybrid perovskites. <i>Journal of Materials Chemistry A</i> , 2020, 8, 17732-17740.	5.2	14
1210	Carrier Transport Limited by Trap State in $\text{Cs}_2\text{AgBiBr}_6$ Double Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 6956-6963.	2.1	27
1211	Spatial Distribution Recast for Organic Bulk Heterojunctions for High-Performance All-Inorganic Perovskite/Organic Integrated Solar Cells. <i>Advanced Energy Materials</i> , 2020, 10, 2000851.	10.2	34
1212	Third-Generation Solar Cells: Toxicity and Risk of Exposure. <i>Helvetica Chimica Acta</i> , 2020, 103, e2000074.	1.0	18
1213	Perovskite and Organic Solar Cells on a Rocket Flight. <i>Joule</i> , 2020, 4, 1880-1892.	11.7	107
1214	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
1215	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
1216	CIGS and perovskite solar cells – an overview. <i>Emerging Materials Research</i> , 2020, 9, 812-824.	0.4	9
1217	Electronic and geometrical parametrization of the role of organic/inorganic cations on the photovoltaic perovskite band gap. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 27757-27769.	1.3	7
1218	Multilevel Programming and Light-Assisted Resistive Switching in a Halide-Tunable All-Inorganic Perovskite Cube for Flexible Memory Devices. <i>ACS Applied Electronic Materials</i> , 2020, 2, 3667-3677.	2.0	38
1219	$\text{A}_2\text{AgCrCl}_6$ (A = Li, Na, K, Rb, Cs) halide double perovskites: a transition metal-based semiconducting material series with appreciable optical characteristics. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 24337-24350.	1.3	18
1220	Terahertz Antenna Array Based on a Hybrid Perovskite Structure. <i>IEEE Open Journal of Antennas and Propagation</i> , 2020, 1, 464-471.	2.5	17
1221	Efficient Nonlead Double Perovskite Solar Cell with Multiple Hole Transport Layers. <i>ACS Applied Energy Materials</i> , 2020, 3, 9594-9599.	2.5	23
1222	Enhanced Device Performances of $\text{MAFACsPb}(\text{I-x})\text{Br}$ Perovskite Solar Cells with Dual-Functional 2-Chloroethyl Acrylate Additives. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 46846-46853.	4.0	17

#	ARTICLE	IF	CITATIONS
1223	Why choosing the right partner is important: stabilization of ternary Cs <sub>y</sub> GA <sub>x</sub> FA(1- $\hat{y}$ - $\hat{x}$ )PbI <sub>3</sub> perovskites. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 20880-20890.	1.3	2
1224	Interface Modification of a Perovskite/Hole Transport Layer with Tetraphenylidibenzoperiflanthene for Highly Efficient and Stable Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 45073-45082.	4.0	12
1225	Potassium doping-induced variations in the structures and photoelectric properties of a MAPbI <sub>3</sub> perovskite and a MAPbI <sub>3</sub> /TiO <sub>2</sub> junction. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 20553-20561.	1.3	6
1226	Heterogeneous semiconductor nanowire array for sensitive broadband photodetector by crack photolithography-based micro-/nanofluidic platforms. <i>RSC Advances</i> , 2020, 10, 23712-23719.	1.7	3
1227	Dual Ion Diffusion Induced Degradation in Lead-Free Cs <sub>2</sub> AgBiBr <sub>6</sub> Double Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2020, 30, 2002342.	7.8	86
1228	Enhanced Electro-Optical Performance of Inorganic Perovskite/a-InGaZnO Phototransistors Enabled by Sn <sup>4+</sup> /Pb Binary Incorporation with a Selective Photonic Deactivation. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 58038-58048.	4.0	9
1229	Stability of organic-inorganic hybrid perovskite quasi-2D structures by modulation of alkylammonium ions. <i>Molecular Crystals and Liquid Crystals</i> , 2020, 707, 140-146.	0.4	3
1230	Fiber Electronics. , 2020, , .		4
1231	Understanding Hole Extraction of Inverted Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 56068-56075.	4.0	16
1232	Additive Engineering by Bifunctional Guanidine Sulfamate for Highly Efficient and Stable Perovskites Solar Cells. <i>Small</i> , 2020, 16, e2004877.	5.2	35
1233	Perovskite Puzzle for Revolutionary Functional Materials. <i>Frontiers in Chemistry</i> , 2020, 8, 550625.	1.8	5
1234	Efficient Solar Cells Constructed with Lead Iodide Perovskite Templated by a 3-aminopropyl trimethoxysilane and methyltrimethoxysilane Mixed Monolayer. <i>International Journal of Electrochemical Science</i> , 2020, , 5540-5551.	0.5	0
1235	Effect of graphene sheet incorporation on the physicochemical properties of nano-alumina. <i>New Journal of Chemistry</i> , 2020, 44, 9046-9052.	1.4	4
1236	Highly luminescent and ultrastable cesium lead bromide perovskite patterns generated in phosphate glass matrices. <i>Nanoscale</i> , 2020, 12, 13697-13707.	2.8	26
1237	Self-aligned concentrating immersion-lens arrays for patterning and efficiency recovery in scaffold-reinforced perovskite solar cells. <i>Applied Materials Today</i> , 2020, 20, 100704.	2.3	1
1238	Effect of preheated, delayed annealing process on the ultrafast carriers dynamics of perovskite films using ultrafast absorption spectroscopy. <i>Organic Electronics</i> , 2020, 84, 105758.	1.4	5
1239	Understanding Surface Recombination Processes Using Intensity-Modulated Photovoltage Spectroscopy on Hematite Photoanodes for Solar Water Splitting. <i>Helvetica Chimica Acta</i> , 2020, 103, e2000064.	1.0	8
1240	Engineering of Electron Extraction and Defect Passivation via Anion-Doped Conductive Fullerene Derivatives as Interlayers for Efficient Invert Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 24747-24755.	4.0	31

#	ARTICLE	IF	CITATIONS
1241	Solution-processed perovskite solar cells. <i>Journal of Central South University</i> , 2020, 27, 1104-1133.	1.2	34
1242	Encapsulation of CsPbBr <sub>3</sub> perovskite quantum dots into PPy conducting polymer: Exceptional water stability and enhanced charge transport property. <i>Applied Surface Science</i> , 2020, 526, 146735.	3.1	41
1243	Growing Poly(norepinephrine) Layer over Individual Nanoparticles To Boost Hybrid Perovskite Photocatalysts. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 27578-27586.	4.0	21
1244	Vapor-Phase Photocatalytic Overall Water Splitting Using Hybrid Methylammonium Copper and Lead Perovskites. <i>Nanomaterials</i> , 2020, 10, 960.	1.9	11
1245	Research progress on hybrid organic-inorganic perovskites for photo-applications. <i>Chinese Chemical Letters</i> , 2020, 31, 3055-3064.	4.8	52
1246	Numerical simulation studies of a fully inorganic Cs <sub>2</sub> AgBiBr <sub>6</sub> perovskite solar device. <i>Optical Materials</i> , 2020, 105, 109957.	1.7	59
1247	Simulation studies to quantify the impacts of point defects: An investigation of Cs <sub>2</sub> AgBiBr <sub>6</sub> perovskite solar devices utilizing ZnO and Cu <sub>2</sub> O as the charge transport layers. <i>Computational Materials Science</i> , 2020, 184, 109865.	1.4	33
1248	Computational study of iron perovskite CH <sub>3</sub> NH <sub>3</sub> FeI <sub>3</sub> as an alternative to the lead perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> for application in solar cells. <i>Journal of Physics Condensed Matter</i> , 2020, 32, 465501.	0.7	1
1249	Thickness-Dependence of Exciton-Exciton Annihilation in Halide Perovskite Nanoplatelets. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 5361-5366.	2.1	23
1250	Metal halide-based photodetector using one-dimensional MAPbI <sub>3</sub> micro rods. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 12109-12115.	1.1	6
1251	Multiply Charged Conjugated Polyelectrolytes as a Multifunctional Interlayer for Efficient and Scalable Perovskite Solar Cells. <i>Advanced Materials</i> , 2020, 32, e2002333.	11.1	48
1252	Electrochemically Assisted Growth of CsPbBr <sub>3</sub> Based Solar Cells Without Selective Contacts. <i>ChemElectroChem</i> , 2020, 7, 3961-3968.	1.7	7
1253	Understanding the role of Sn substitution and Pb- $\beta$ in enhancing the optical properties and solar cell efficiency of CH <sub>3</sub> (NH <sub>2</sub> ) <sub>2</sub> Pb <sub>1-x</sub> Sn <sub>x</sub> Br <sub>3</sub> . <i>Journal of Materials Chemistry C</i> , 2020, 8, 10362-10368.	2.7	13
1254	Passivation by pyridine-induced PbI <sub>2</sub> in methylammonium lead iodide perovskites. <i>RSC Advances</i> , 2020, 10, 23829-23833.	1.7	8
1255	Carbon-based HTL-free modular perovskite solar cells with improved contact at perovskite/carbon interfaces. <i>Journal of Materials Chemistry C</i> , 2020, 8, 9262-9270.	2.7	38
1256	Coordination modulated crystallization and defect passivation in high quality perovskite film for efficient solar cells. <i>Coordination Chemistry Reviews</i> , 2020, 420, 213408.	9.5	51
1257	Advances in stable and flexible perovskite solar cells. <i>Current Applied Physics</i> , 2020, 20, 720-737.	1.1	20
1258	Superionic conduction in low-dimensional-networked anti-perovskites. <i>Energy Storage Materials</i> , 2020, 28, 146-152.	9.5	27

#	ARTICLE	IF	CITATIONS
1259	Efficient defect passivation of perovskite solar cells via stitching of an organic bidentate molecule. <i>Sustainable Energy and Fuels</i> , 2020, 4, 3318-3325.	2.5	26
1260	Reducing lead toxicity in the methylammonium lead halide $\text{MAPbI}_3$ : Why Sn substitution should be preferred to Pb vacancy for optimum solar cell efficiency. <i>Physical Review B</i> , 2020, 101, .	1.1	25
1261	Conventional Solvent Oxidizes Sn(II) in Perovskite Inks. <i>ACS Energy Letters</i> , 2020, 5, 1153-1155.	8.8	127
1262	Regulating strain in perovskite thin films through charge-transport layers. <i>Nature Communications</i> , 2020, 11, 1514.	5.8	346
1263	Reducing Agents for Improving the Stability of Sn-based Perovskite Solar Cells. <i>Chemistry - an Asian Journal</i> , 2020, 15, 1524-1535.	1.7	39
1264	Reviewing and understanding the stability mechanism of halide perovskite solar cells. <i>Informa Materials</i> , 2020, 2, 1034-1056.	8.5	55
1265	Heat and Electro-Responsive Nanomaterials for Smart Windows. <i>Springer Series in Materials Science</i> , 2020, , 215-243.	0.4	1
1266	Spontaneously Self-Assembly of a 2D/3D Heterostructure Enhances the Efficiency and Stability in Printed Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2020, 10, 2000173.	10.2	126
1267	Recent advances in hybrid organic-inorganic materials with spatial architecture for state-of-the-art applications. <i>Progress in Materials Science</i> , 2020, 112, 100663.	16.0	196
1268	Recent Progresses on Metal Halide Perovskite-Based Material as Potential Photocatalyst. <i>Catalysts</i> , 2020, 10, 709.	1.6	65
1269	Metal-Free Hybrid Organic-Inorganic Perovskites for Photovoltaics. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 5938-5947.	2.1	12
1270	Improving the efficiency of perovskite solar cells by additive engineering with ditetrabutylammonium dichromate. <i>Organic Electronics</i> , 2020, 85, 105845.	1.4	5
1271	Cationic polyelectrolytes as convenient electron extraction layers in perovskite solar cells. <i>Dyes and Pigments</i> , 2020, 182, 108634.	2.0	9
1272	Enhanced Stabilization and Easy Phase Transfer of $\text{CsPbBr}_3$ Perovskite Quantum Dots Promoted by High-Affinity Polyzwitterionic Ligands. <i>Journal of the American Chemical Society</i> , 2020, 142, 12669-12680.	6.6	109
1273	Phase transitions, screening and dielectric response of $\text{CsPbBr}_3$ . <i>Journal of Materials Chemistry A</i> , 2020, 8, 14015-14022.	5.2	37
1274	Polar molecules realignment in $\text{CH}_3\text{NH}_3\text{PbI}_3$ by strain gradient. <i>Materials Letters</i> , 2020, 275, 128106.	1.3	3
1275	Recent trends in efficiency-stability improvement in perovskite solar cells. <i>Materials Today Energy</i> , 2020, 17, 100449.	2.5	43
1276	Pressure-Suppressed Carrier Trapping Leads to Enhanced Emission in Two-Dimensional Perovskite $(\text{HA})_2(\text{GA})\text{Pb}_2\text{I}_7$ . <i>Angewandte Chemie - International Edition</i> , 2020, 59, 17533-17539.	7.2	71

#	ARTICLE	IF	CITATIONS
1277	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
1278	<i>In situ</i> localized formation of cesium lead bromide nanocomposites for fluorescence micro-patterning technology achieved by organic solvent polymerization. <i>Journal of Materials Chemistry C</i> , 2020, 8, 3409-3417.	2.7	14
1279	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
1280	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
1281	Perspectives on intrinsic toughening strategies and passivation of perovskite films with organic additives. <i>Solar Energy Materials and Solar Cells</i> , 2020, 209, 110433.	3.0	25
1282	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
1283	Strategies for Improving the Stability of Tin-Based Perovskite (ASnX <sub>3</sub> ) Solar Cells. <i>Advanced Science</i> , 2020, 7, 1903540.	5.6	123
1285	Impact of peripheral groups on novel asymmetric phthalocyanine-based hole-transporting materials for perovskite solar cells. <i>Dyes and Pigments</i> , 2020, 177, 108301.	2.0	8
1286	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
1287	Color-Tunable Photoluminescence and Whispering Gallery Mode Lasing of Alloyed CsPbCl <sub>3</sub> (1-x) <sub>2</sub> Br <sub>3</sub> (x) Microstructures. <i>Advanced Materials Interfaces</i> , 2020, 7, 1902126.	1.9	5
1288	Use of Magnetic Fields for Surface Modification of Pbl <sub>2</sub> Layers to Increase the Performance of Hybrid Perovskite Solar Cells. <i>Journal of Electronic Materials</i> , 2020, 49, 3106-3113.	1.0	4
1289	Functional additives for high-performance inverted planar perovskite solar cells with exceeding 20% efficiency: Selective complexation of organic cations in precursors. <i>Nano Energy</i> , 2020, 71, 104639.	8.2	109
1290	Phase Behavior and Substitution Limit of Mixed Cesium-Formamidinium Lead Triiodide Perovskites. <i>Chemistry of Materials</i> , 2020, 32, 2282-2291.	3.2	30
1291	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
1292	Facile growth and re-crystallization of polymer-based inorganic-organic 2D hybrid composites and their applications. <i>Journal of Alloys and Compounds</i> , 2020, 829, 154550.	2.8	5
1293	Potential environmental risk of solar cells: Current knowledge and future challenges. <i>Journal of Hazardous Materials</i> , 2020, 392, 122297.	6.5	82
1294	Effects of Chlorine Mixing on Optoelectronics, Ion Migration, and Gamma-Ray Detection in Bromide Perovskites. <i>Chemistry of Materials</i> , 2020, 32, 1854-1863.	3.2	46
1295	Progress on the controllable synthesis of all-inorganic halide perovskite nanocrystals and their optoelectronic applications. <i>Journal of Semiconductors</i> , 2020, 41, 011201.	2.0	16



#	ARTICLE	IF	CITATIONS
1296	Molecular modeling and photovoltaic applications of porphyrin-based dyes: A review. <i>Journal of Saudi Chemical Society</i> , 2020, 24, 303-320.	2.4	41
1297	Nanochemical Investigation of Degradation in Organic-Inorganic Hybrid Perovskite Films Using Infrared Nanoscopy. <i>Journal of Physical Chemistry C</i> , 2020, 124, 3915-3922.	1.5	12
1298	Exposure to Pb-halide perovskite nanoparticles can deliver bioavailable Pb but does not alter endogenous gut microbiota in zebrafish. <i>Science of the Total Environment</i> , 2020, 715, 136941.	3.9	21
1299	Cation Diffusion Guides Hybrid Halide Perovskite Crystallization during the Gel Stage. <i>Angewandte Chemie</i> , 2020, 132, 6035-6043.	1.6	22
1300	$\text{PbI}_2$ -CsPbBr <sub>3</sub> Nanocrystals by Ultraviolet Light-Driven Oriented Attachment. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 913-919.	2.1	15
1301	Bismuth chalcogenide iodides Bi <sub>13</sub> S <sub>18</sub> I <sub>2</sub> and BiSI: solvothermal synthesis, photoelectric behavior, and photovoltaic performance. <i>Journal of Materials Chemistry C</i> , 2020, 8, 3821-3829.	2.7	38
1303	Room-Temperature Partial Conversion of $\text{FAPbI}_3$ Perovskite Phase via $\text{PbI}_2$ Solvation Enables High-Performance Solar Cells. <i>Advanced Functional Materials</i> , 2020, 30, 1907442.	7.8	41
1304	High-Performance Perovskite Solar Cells Using Iodine as Effective Dopant for Spiro-MeTAD. <i>Energy Technology</i> , 2020, 8, 1901171.	1.8	14
1305	Cation Diffusion Guides Hybrid Halide Perovskite Crystallization during the Gel Stage. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 5979-5987.	7.2	29
1306	Stability Improvement and Performance Reproducibility Enhancement of Perovskite Solar Cells Following (FA/MA/Cs) <sub>3</sub> PbBr <sub>3</sub> /CH <sub>3</sub> SPbBr <sub>3</sub> Dimensionality Engineering. <i>ACS Applied Energy Materials</i> , 2020, 3, 2465-2477.	2.5	44
1307	A novel TFT with organic-inorganic hybrid perovskite channel layer. <i>Organic Electronics</i> , 2020, 84, 105740.	1.4	8
1308	Performance evaluation and optimization of a perovskite solar cell-thermoelectric generator hybrid system. <i>Energy</i> , 2020, 201, 117665.	4.5	24
1309	Increasing photoluminescence yield of CsPbCl <sub>3</sub> nanocrystals by heterovalent doping with Pr <sup>3+</sup> . <i>Materials Research Bulletin</i> , 2020, 129, 110907.	2.7	12
1310	NiO@GeSe core-shell nano-rod array as a new hole transfer layer in perovskite solar cells: A numerical study. <i>Solar Energy</i> , 2020, 204, 200-207.	2.9	29
1311	In situ growth of aligned CsPbBr <sub>3</sub> nanorods in polymer fibers with tailored aspect ratios. <i>Ceramics International</i> , 2020, 46, 18352-18357.	2.3	13
1312	Advanced Raman spectroscopy of Cs <sub>2</sub> AgBiBr <sub>6</sub> double perovskites and identification of Cs <sub>3</sub> Bi <sub>2</sub> Br <sub>9</sub> secondary phases. <i>Scripta Materialia</i> , 2020, 184, 24-29.	2.6	46
1313	Origin of Amplified Spontaneous Emission Degradation in MAPbBr <sub>3</sub> Thin Films under Nanosecond-UV Laser Irradiation. <i>Journal of Physical Chemistry C</i> , 2020, 124, 10696-10704.	1.5	14
1314	Tungsten-Doped Zinc Oxide and Indium-Zinc Oxide Films as High-Performance Electron-Transport Layers in $\text{SnPbI}_3$ Perovskite Solar Cells. <i>Polymers</i> , 2020, 12, 737.	2.0	10

#	ARTICLE	IF	CITATIONS
1315	Perovskite: Name Puzzle and German-Russian Odyssey of Discovery. <i>Helvetica Chimica Acta</i> , 2020, 103, e2000061.	1.0	51
1316	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
1317	Record Photocurrent Density over $26 \mu\text{m}^2$ in Planar Perovskite Solar Cells Enabled by Antireflective Cascaded Electron Transport Layer. <i>Solar Rrl</i> , 2020, 4, 2000169.	3.1	17
1318	Optimizing Band Gap of Inorganic Halide Perovskites by Donor-Acceptor Pair Codoping. <i>Inorganic Chemistry</i> , 2020, 59, 6053-6059.	1.9	8
1319	Ultralong $\text{CH}_3\text{NH}_3\text{PbI}_3$ nanowires synthesized by a ligand-assisted reprecipitation strategy for high-performance photodetectors. <i>Journal of Materials Chemistry C</i> , 2020, 8, 7378-7383.	2.7	10
1320	Highly efficient sandwich structured Perovskite solar cell using PEDOT:PSS in room ambient conditions. <i>Materials Today: Proceedings</i> , 2021, 34, 675-678.	0.9	7
1321	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
1322	All Electro spray Printing of Carbon-Based Cost-Effective Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2021, 31, 2006803.	7.8	26
1323	Solution-processed $\text{TiO}_2$ blocking layers in printed carbon-based perovskite solar cells. <i>Applied Surface Science</i> , 2021, 536, 147888.	3.1	8
1324	Comparison of the effects of $\text{Sr}^{2+}$ and $\text{Ca}^{2+}$ substitution on the structural and electronic properties of the perovskites $\text{CH}_3\text{NH}_3\text{Pb}_{1-\text{Y}}\text{I}_3$ (Y Sr, Ca) by using the Density Functional Theory. <i>Physica B: Condensed Matter</i> , 2021, 600, 412579.	1.3	3
1325	Recent progress in low dimensional (quasi-2D) and mixed dimensional (2D/3D) tin-based perovskite solar cells. <i>Sustainable Energy and Fuels</i> , 2021, 5, 34-51.	2.5	24
1326	Recent advances in resistive random access memory based on lead halide perovskite. <i>Informa-Materials</i> , 2021, 3, 293-315.	8.5	70
1327	Hollow 3D $\text{TiO}_2$ sub-microspheres as an electron transporting layer for highly efficient perovskite solar cells. <i>Materials Today Energy</i> , 2021, 19, 100614.	2.5	12
1328	2D Hybrid Halide Perovskites: Synthesis, Properties, and Applications. <i>Solar Rrl</i> , 2021, 5, .	3.1	20
1329	Robust Inorganic Hole Transport Materials for Organic and Perovskite Solar Cells: Insights into Materials Electronic Properties and Device Performance. <i>Solar Rrl</i> , 2021, 5, 2000555.	3.1	34
1330	Asymmetrical planar acridine-based hole-transporting materials for highly efficient perovskite solar cells. <i>Chemical Engineering Journal</i> , 2021, 413, 127440.	6.6	5
1331	Preparation of $\text{CsSnBr}_3$ perovskite film and its all-inorganic solar cells with planar heterojunction. <i>Journal of Solid State Chemistry</i> , 2021, 294, 121902.	1.4	15
1332	<small>band</small> gap halide double perovskite for optoelectronic properties. <i>International Journal of Energy Research</i> , 2021, 45, 7222-7234.	2.2	15

#	ARTICLE	IF	CITATIONS
1333	Carrier diffusion coefficient is independent of defects in CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> single crystals: Direct evidence. <i>Journal of Energy Chemistry</i> , 2021, 58, 441-445.	7.1	2
1334	Are There Good Alternatives to Lead Halide Perovskite Nanocrystals?. <i>Nano Letters</i> , 2021, 21, 6-9.	4.5	44
1335	Recent progress, fabrication challenges and stability issues of lead-free tin-based perovskite thin films in the field of photovoltaics. <i>Coordination Chemistry Reviews</i> , 2021, 429, 213633.	9.5	51
1336	Review on recent progress of lead-free halide perovskites in optoelectronic applications. <i>Nano Energy</i> , 2021, 80, 105526.	8.2	130
1337	New Phase Transitions Driven by Soft Phonon Modes for CsPbBr <sub>3</sub> : Density Functional Theory Study. <i>Physica Status Solidi (B): Basic Research</i> , 2021, 258, 2000289.	0.7	7
1338	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
1339	Fabrication and characterization of lead-free Cs <sub>2</sub> SnI <sub>6</sub> perovskite films for photovoltaic applications. <i>International Journal of Energy Research</i> , 2021, 45, 1720-1728.	2.2	17
1340	Structure, Morphology, and Photovoltaic Implications of Halide Alloying in Lead-Free Cs <sub>3</sub> Sb <sub>2</sub> Cl <sub>9</sub> 2D Layered Perovskites. <i>Solar Rrl</i> , 2021, 5, .	3.1	18
1341	Amplified spontaneous emission in thin films of quasi-2D BA <sub>3</sub> MA <sub>3</sub> Pb <sub>5</sub> Br <sub>16</sub> lead halide perovskites. <i>Nanoscale</i> , 2021, 13, 8893-8900.	2.8	8
1342	Light management in perovskite solar cell by incorporation of carbon quantum dots. <i>Materials Today: Proceedings</i> , 2022, 49, 2487-2490.	0.9	3
1343	A feasible process for lead-free Cs <sub>2</sub> SnI <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
1344	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
1345	Optical studies and dielectric response of [DMA] <sub>2</sub> MCl <sub>4</sub> (M = Zn and Co) and [DMA] <sub>2</sub> ZnBr <sub>4</sub> . <i>RSC Advances</i> , 2021, 11, 24526-24535.	1.7	31
1346	Electronic Structure and Optical Properties of Mixed Iodine/Bromine Lead Perovskites. To Mix or Not to Mix?. <i>Advanced Optical Materials</i> , 2021, 9, 2001832.	3.6	17
1347	Perovskite solar cells: A review of architecture, processing methods, and future prospects. , 2021, , 375-412.		6
1348	Multifunctional layered hybrid perovskites. <i>Journal of Materials Chemistry C</i> , 2021, 9, 11428-11443.	2.7	35
1349	High-performance photovoltaic application of the 2D all-inorganic Ruddlesden-Popper perovskite heterostructure Cs <sub>2</sub> PbI <sub>2</sub> Cl <sub>2</sub> /MAPbI <sub>3</sub> . <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 23703-23710.	1.3	6
1350	The spin-orbit interaction controls photoinduced interfacial electron transfer in fullerene perovskite heterojunctions: C <sub>60</sub> versus C <sub>70</sub> . <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 6536-6543.	1.3	11

#	ARTICLE	IF	CITATIONS
1351	Lead-Free Perovskite Solar Cells. , 2021, , 3263-3288.		0
1352	First-principles study of defect control in thin-film solar cell materials. Science China: Physics, Mechanics and Astronomy, 2021, 64, 1.	2.0	17
1353	Numerical study of high performance, low hysteresis, and stable perovskite solar cells with examining the optimized parameters. European Physical Journal Plus, 2021, 136, 1.	1.2	5
1354	Coordinating Solvent-Assisted Synthesis of Phase-Stable Perovskite Nanocrystals with High Yield Production for Optoelectronic Applications. Chemistry of Materials, 2021, 33, 547-553.	3.2	11
1355	Spin-Orbit Coupling Accelerates the Photoinduced Interfacial Electron Transfer in a Fullerene-Based Perovskite Heterojunction. Journal of Physical Chemistry Letters, 2021, 12, 1131-1137.	2.1	21
1356	A Perspective on Perovskite Solar Cells. Energy, Environment, and Sustainability, 2021, , 55-151.	0.6	1
1357	Molecular Devices. , 2021, , 206-240.		2
1358	All-in-one: a new approach toward robust and solution-processable copper halide hybrid semiconductors by integrating covalent, coordinate and ionic bonds in their structures. Chemical Science, 2021, 12, 3805-3817.	3.7	40
1359	Effect of SnO <sub>2</sub> Annealing Temperature on the Performance of Perovskite Solar Cells. Wujia Cailiao Xuebao/Journal of Inorganic Materials, 2021, 36, 168.	0.6	4
1360	Recent Progress in All-Inorganic Hybrid Materials for Energy Conversion Applications. , 2021, , 41-59.		0
1361	An antimony based organic-inorganic hybrid coating material with high quantum efficiency and thermal quenching effect. Chemical Communications, 2021, 57, 1754-1757.	2.2	18
1362	Simulation and investigation of perovskite/nano-pyramidal GeSe solar cell: Realizing high efficiency by controllable light trapping. Solar Energy, 2021, 214, 310-318.	2.9	19
1363	Hierarchical computational screening of layered lead-free metal halide perovskites for optoelectronic applications. Journal of Materials Chemistry A, 2021, 9, 6476-6486.	5.2	15
1364	Enhancement in the Photovoltaic Properties of Hole Transport Materials by End-Capped Donor Modifications for Solar Cell Applications. Bulletin of the Korean Chemical Society, 2021, 42, 597-610.	1.0	49
1365	Development of polyaniline/ZnO-Ru nanocomposite as a potential LPG sensing material operable at room temperature. Journal of Materials Science: Materials in Electronics, 2021, 32, 6110-6122.	1.1	4
1366	A review of experimental and computational attempts to remedy stability issues of perovskite solar cells. Heliyon, 2021, 7, e06211.	1.4	15
1367	Composition Optimization of Multifunctional CsPb(Br/I) <sub>3</sub> Perovskite Nanocrystals Glasses with High Photoluminescence Quantum Yield. Advanced Optical Materials, 2021, 9, 2002075.	3.6	13
1368	Charge Transporting Materials Grown by Atomic Layer Deposition in Perovskite Solar Cells. Energies, 2021, 14, 1156.	1.6	4

#	ARTICLE	IF	CITATIONS
1369	First demonstration of lithium, cobalt and magnesium introduced nickel oxide hole transporters for inverted methylammonium lead triiodide based perovskite solar cells. <i>Solar Energy</i> , 2021, 215, 434-442.	2.9	12
1370	Synthesis of Gram-scale Ultrastable Mn-doped 2D Perovskites for Light-emitting Diodes. <i>Advanced Materials Interfaces</i> , 2021, 8, 2002175.	1.9	10
1371	Passivation Properties and Formation Mechanism of Amorphous Halide Perovskite Thin Films. <i>Advanced Functional Materials</i> , 2021, 31, 21010330.	7.8	17
1372	Tin Halide Perovskites Going Forward: Frost Diagrams Offer Hints. , 2021, 3, 299-307.		58
1373	Imide-functionalized Triarylamine-based Donor-acceptor Polymers as Hole Transporting Layers for High-performance Inverted Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2021, 31, 2100332.	7.8	38
1374	Study on mechanical, electronic and optical properties of Pb-free double halide perovskites In <sub>2</sub> TiX <sub>6</sub> (X) Tj ETQq1 1 0.784314 ggBT /Over 0.9	0.9	1
1375	Improving the phase stability of CsPbI <sub>3</sub> nanocrystalline films via polyvinylpyrrolidone additive engineering for photodetector application. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 205501.	1.3	4
1376	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
1378	Photostrictive Effect: Characterization Techniques, Materials, and Applications. <i>Advanced Functional Materials</i> , 2021, 31, 2010706.	7.8	24
1379	Perovskite with inhomogeneous composition: Presence of the Cl-rich layer improves the device performance. <i>Chemical Physics Letters</i> , 2021, 767, 138362.	1.2	3
1380	Wide-Bandgap Halide Perovskites for Indoor Photovoltaics. <i>Frontiers in Chemistry</i> , 2021, 9, 632021.	1.8	27
1381	A review of stability and progress in tin halide perovskite solar cell. <i>Solar Energy</i> , 2021, 216, 26-47.	2.9	67
1382	Suppressed Oxidation and Photodarkening of Hybrid Tin Iodide Perovskite Achieved with Reductive Organic Small Molecule. <i>ACS Applied Energy Materials</i> , 2021, 4, 4704-4710.	2.5	10
1383	Why Hybrid Tin-Based Perovskites Simultaneously Improve the Structural Stability and Charge Carriers' Lifetime: Ab Initio Quantum Dynamics. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 16567-16575.	4.0	10
1384	Pseudo-halide anion engineering for $\text{FAPbI}_3$ perovskite solar cells. <i>Nature</i> , 2021, 592, 381-385.	13.7	2,095
1385	Ambient Air-Stable CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Solar Cells Using Dibutylethanolamine as a Morphology Controller. <i>ACS Applied Energy Materials</i> , 2021, 4, 4395-4407.	2.5	6
1386	Adsorption and Diffusion of Halogen Gas Molecules on CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Halide Perovskite Surfaces. <i>Russian Journal of Physical Chemistry A</i> , 2021, 95, 792-798.	0.1	0
1387	Tailoring the Interface in FAPbI <sub>3</sub> Planar Perovskite Solar Cells by Imidazole-graphene Quantum Dots. <i>Advanced Functional Materials</i> , 2021, 31, 2101438.	7.8	51

#	ARTICLE	IF	CITATIONS
1388	Prospects of Z-Scheme Photocatalytic Systems Based on Metal Halide Perovskites. <i>ACS Nano</i> , 2021, 15, 7860-7878.	7.3	40
1389	Structural, Electronic, and Optical Properties of the Vacancy-Ordered Bismuth Antimony Perovskites (CH <sub>3</sub> NH <sub>3</sub> ) <sub>3</sub> (Bi <sub>1-x</sub> Sbx) <sub>2</sub> I <sub>9</sub> . <i>Journal of Physical Chemistry C</i> , 2021, 125, 8938-8946.	1.5	5
1390	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
1391	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
1392	Effect of binary additives in mixed 2D/3D Sn-based perovskite solar cells. <i>Journal of Power Sources</i> , 2021, 491, 229574.	4.0	29
1393	Dopant-Free All-Organic Small-Molecule HTMs for Perovskite Solar Cells: Concepts and Structure-Property Relationships. <i>Energies</i> , 2021, 14, 2279.	1.6	18
1394	II-VI Organic-Inorganic Hybrid Nanostructures with Greatly Enhanced Optoelectronic Properties, Perfectly Ordered Structures, and Shelf Stability of Over 15 Years. <i>ACS Nano</i> , 2021, 15, 10565-10576.	7.3	9
1395	Improving the Interfacial Contact of Screen-Printed Carbon Electrodes for Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2021, 4, 5554-5559.	2.5	17
1396	Manipulation of perovskite film by bias-induced reversible lattice deformation toward tunable photoelectric performances. <i>Nano Select</i> , 0, .	1.9	0
1397	High-Light-Tolerance PbI <sub>2</sub> Boosting the Stability and Efficiency of Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 24692-24701.	4.0	21
1398	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
1399	Intrinsic and complex defect engineering of quasi-one-dimensional ribbons $Sb_2S_3$ for photovoltaics performance. <i>Physical Review Materials</i> , 2021, 5, .	0.9	9
1400	Perovskite Solar Cells: Current Trends in Graphene-Based Materials for Transparent Conductive Electrodes, Active Layers, Charge Transport Layers, and Encapsulation Layers. <i>Advanced Energy and Sustainability Research</i> , 2021, 2, 2100050.	2.8	12
1401	Nanometer-Thick Cs <sub>2</sub> SnI <sub>6</sub> Perovskite-Polyethylene Glycol Dimethacrylate Composite Films for Highly Stable Broad-Band Photodetectors. <i>ACS Applied Nano Materials</i> , 2021, 4, 5309-5318.	2.4	9
1402	Formamidinium containing tetra cation organic-inorganic hybrid perovskite solar cell. <i>Solar Energy</i> , 2021, 220, 258-268.	2.9	8
1403	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
1404	Perovskit G $\frac{1}{4}$ ne Pilleri ve Kararsızlık Problemleri Açzerine Bir Araştırma. <i>D<math>\frac{1}{4}</math>zce Üniversitesi Bilim Ve Teknoloji Dergisi</i> , 0, , 158-171.	0.2	0
1405	Water Stable Haloplumbate Modulation for Efficient and Stable Hybrid Perovskite Photovoltaics. <i>Advanced Energy Materials</i> , 2021, 11, 2101082.	10.2	21

#	ARTICLE	IF	CITATIONS
1406	Current Status of Emerging PV Technologies: A Comparative Study of Dye-Sensitized, Organic, and Perovskite Solar Cells. <i>International Journal of Photoenergy</i> , 2021, 2021, 1-19.	1.4	29
1407	Comprehensive Performance Calibration Guidance for Perovskites and Other Emerging Solar Cells. <i>Advanced Energy Materials</i> , 2021, 11, 2100728.	10.2	13
1408	Dimethyl Sulfoxide Vapor-Assisted Cs <sub>2</sub> AgBiBr <sub>6</sub> Homogenous Film Deposition for Solar Cell Application. <i>ACS Applied Energy Materials</i> , 2021, 4, 6797-6805.	2.5	20
1409	Defect tolerance in chalcogenide perovskite photovoltaic material BaZrS <sub>3</sub> . <i>Science China Materials</i> , 2021, 64, 2976-2986.	3.5	25
1410	Interface materials for perovskite solar cells. <i>Rare Metals</i> , 2021, 40, 2993-3018.	3.6	36
1411	Reducing Surface Recombination Velocity of Methylammonium-Free Mixed-Cation Mixed-Halide Perovskites via Surface Passivation. <i>Chemistry of Materials</i> , 2021, 33, 5035-5044.	3.2	33
1412	Coupled and optimized properties of a hybrid system integrating electrochemical cycles with perovskite solar cell. <i>International Journal of Energy Research</i> , 2021, 45, 18846-18856.	2.2	8
1413	Structures and Properties of the Halogenido Stannates(II) [BMIm][Sn <sub>3</sub> Cl <sub>7</sub> ] and [BMIm][Sn <sub>4</sub> Br <sub>9</sub> ]. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 0, , .	0.6	2
1414	Annealing effects on interdiffusion in layered FA-rich perovskite solar cells. <i>AIP Advances</i> , 2021, 11, .	0.6	12
1415	Synthetic approaches for thin-film halide double perovskites. <i>Matter</i> , 2021, 4, 1801-1831.	5.0	11
1416	Designing zero-dimensional dimer-type all-inorganic perovskites for ultra-fast switching memory. <i>Nature Communications</i> , 2021, 12, 3527.	5.8	38
1417	A facile gas-driven ink spray (GDIS) deposition strategy toward hole-conductor-free carbon-based perovskite solar cells. <i>Emergent Materials</i> , 2022, 5, 967-975.	3.2	11
1419	Progress towards lead-free, efficient, and stable perovskite solar cells. <i>Journal of Chemical Technology and Biotechnology</i> , 2022, 97, 810-829.	1.6	19
1420	A green strategy to synthesize two-dimensional lead halide perovskite via direct recovery of spent lead-acid battery. <i>Resources, Conservation and Recycling</i> , 2021, 169, 105463.	5.3	12
1421	Thermal Transport in Engineered Hybrid Organic-Inorganic Perovskite Metasurfaces. <i>Journal of Physical Chemistry C</i> , 2021, 125, 15134-15144.	1.5	4
1422	An experiment for novel material thin-film solar cell characterization on sounding rocket flights. <i>Review of Scientific Instruments</i> , 2021, 92, 074501.	0.6	4
1423	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
1424	Highly efficient perovskite solar cells fabricated under a 70% relative humidity atmosphere. <i>Journal of Power Sources</i> , 2021, 500, 229985.	4.0	8

#	ARTICLE	IF	CITATIONS
1425	Phase Diagram and Cation Dynamics of Mixed MA <sub>1-x</sub> FA <sub>x</sub> PbBr <sub>3</sub> Hybrid Perovskites. Chemistry of Materials, 2021, 33, 5926-5934.	3.2	16
1426	Fundamentals of Hysteresis in Perovskite Solar Cells: From Structure-Property Relationship to Neoteric Breakthroughs. Chemical Record, 2022, 22, .	2.9	11
1427	Naphthalenediimide/Formamidinium-Based Low-Dimensional Perovskites. Chemistry of Materials, 2021, 33, 6412-6420.	3.2	16
1428	Two-Dimensional Materials for Perovskite Solar Cells with Enhanced Efficiency and Stability. , 2021, 3, 1402-1416.		21
1429	Influence of Oxygen Ion Migration from Substrates on Photochemical Degradation of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Hybrid Perovskite. Energies, 2021, 14, 5062.	1.6	1
1430	Structural and Electronic Properties of Small Perovskite Nanoparticles of the Form ABX <sub>3</sub> (A = MA, Tj ETQq1 1 0.784314 rgBT <sub>5</sub> /Overlook	0.9	5
1431	Highly efficient Cesium Titanium (IV) Bromide perovskite solar cell and its point defect investigation: A computational study. Superlattices and Microstructures, 2021, 156, 106946.	1.4	13
1432	Dimension-controlled halide perovskites using templates. Nano Today, 2021, 39, 101181.	6.2	11
1433	Defect passivation and crystallization control of perovskite films for photovoltaic application. Materials Today Nano, 2021, 15, 100118.	2.3	9
1434	Grain Boundaries in Methylammonium Lead Halide Perovskites Facilitate Water Diffusion. Advanced Energy and Sustainability Research, 2021, 2, 2100087.	2.8	9
1435	A tin-based perovskite solar cell with an inverted hole-free transport layer to achieve high energy conversion efficiency by SCAPS device simulation. Optical and Quantum Electronics, 2021, 53, 1.	1.5	25
1436	Highly-efficient and stable photocatalytic activity of lead-free Cs <sub>2</sub> AgInCl <sub>6</sub> double perovskite for organic pollutant degradation. Journal of Colloid and Interface Science, 2021, 596, 376-383.	5.0	47
1437	Upscaling perovskite solar cells via the ambient deposition of perovskite thin films. Trends in Chemistry, 2021, 3, 747-764.	4.4	12
1438	Additive Engineering for Efficient and Stable MAPb <sub>3</sub> -Perovskite Solar Cells with an Efficiency of over 21%. ACS Applied Materials & Interfaces, 2021, 13, 44451-44459.	4.0	18
1439	Theoretical Study on the Contacting Interface-Dependent Band Alignments of CsPbBr <sub>3</sub> @MoS <sub>2</sub> van der Waals Heterojunctions: Spin-Orbit Coupling Does Matter. Journal of Physical Chemistry C, 2021, 125, 21678-21688.	1.5	4
1440	Experimental study and theoretical modeling of coating-speed-dependent optical properties of TiO <sub>2</sub> -graphene-oxide thin films. Results in Physics, 2021, 30, 104867.	2.0	6
1441	Numerical investigation of a new approach based on perovskite CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> absorber layer for high-efficiency solar cells. Materials Research Express, 2021, 8, 095507.	0.8	2
1442	Series Resistance Modulation for Large-Area Fully Printable Mesoscopic Perovskite Solar Cells. Solar Rrl, 2022, 6, 2100554.	3.1	13





#	ARTICLE	IF	CITATIONS
1461	Light trapping in perovskite solar cells with plasmonic core/shell nanorod array: A numerical study. Energy Reports, 2021, 7, 1404-1415.	2.5	32
1462	NaCl-passivated and Na <sup>+</sup> -doped tin oxide electron transport layers enable highly efficient planar perovskite solar cells. Journal of Physics and Chemistry of Solids, 2021, 158, 110250.	1.9	8
1463	Electronic structure and stability of the (0 0 1) surface of halide double perovskite Cs <sub>2</sub> AgBiBr <sub>6</sub> . Applied Surface Science, 2021, 570, 151223.	3.1	1
1464	Study of the effect of the thickness of the photosensitive layer of perovskite on its efficiency using SCAPS-1D software. IOP Conference Series: Materials Science and Engineering, 2021, 1035, 012032.	0.3	7
1465	Perovskite Materials in Photovoltaics. , 2021, , 1703-1724.		0
1466	Catenated compounds in Group 17 "Polyhalides. , 2021, , .		0
1467	Tunable CsPb(Br/Cl) <sub>3</sub> perovskite nanocrystals and further advancement in designing light emitting fiber membranes. Materials Advances, 2021, 2, 2700-2710.	2.6	19
1468	Photo-powered integrated supercapacitors: a review on recent developments, challenges and future perspectives. Journal of Materials Chemistry A, 2021, 9, 8248-8278.	5.2	63
1469	Conjugated-Polypyridine-Derivative-Derived Semiconductive Iodoplumbates with Tunable Architectures and Efficient Visible-Light-Induced Photocatalytic Property. Inorganic Chemistry, 2021, 60, 2105-2111.	1.9	10
1470	First evidence of macroscale single crystal ion exchange found in lead halide perovskites. EcoMat, 2020, 2, e12016.	6.8	12
1471	Perovskite Materials in Photovoltaics. , 2020, , 1-22.		1
1472	Perspective of Nanomaterials in the Performance of Solar Cells. , 2020, , 25-54.		4
1473	Fabrication and characterization of perovskite (CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> ) solar cells. SN Applied Sciences, 2020, 2, 1.	1.5	13
1474	Ionic liquids engineering for high-efficiency and stable perovskite solar cells. Chemical Engineering Journal, 2020, 398, 125594.	6.6	85
1475	Enhanced colloidal stability of perovskite quantum dots via split-ligand re-precipitation for efficient bi-functional interlayer in photovoltaic application. Journal of Industrial and Engineering Chemistry, 2020, 88, 137-147.	2.9	15
1476	Highly Crystalline and (110)-Oriented n-Type Perovskite Films with Excellent Structural Stability via Cu Doping. Crystal Growth and Design, 2021, 21, 462-470.	1.4	4
1477	Nonlinear Optics in Lead Halide Perovskites: Mechanisms and Applications. ACS Photonics, 2021, 8, 113-124.	3.2	80
1478	Organic-inorganic hybrid corrosion protection coating materials for offshore wind power devices: a mini-review and perspective. Molecular Crystals and Liquid Crystals, 2020, 710, 74-89.	0.4	2

#	ARTICLE	IF	CITATIONS
1479	Interplay between organic cations and inorganic framework and incommensurability in hybrid lead-halide perovskite $\text{CH}_3\text{NH}_3\text{PbI}_3$ . Physical Review Materials, 2017, 1, .	0.9	87
1480	Structural dynamics in hybrid halide perovskites: Bulk Rashba splitting, spin texture, and carrier localization. Physical Review Materials, 2018, 2, .	0.9	19
1481	Lattice mode symmetry analysis of the orthorhombic phase of methylammonium lead iodide using polarized Raman. Physical Review Materials, 2020, 4, .	0.9	20
1482	Crystal structure of hexakis(dimethyl sulfoxide- $\text{O}$ )manganese(II) tetraiodide. Acta Crystallographica Section E: Crystallographic Communications, 2016, 72, 1791-1793.	0.2	5
1483	Performance analysis of an efficient and stable perovskite solar cell and a comparative study of incorporating metal oxide transport layers. Journal of the Optical Society of America B: Optical Physics, 2020, 37, 1966.	0.9	28
1484	Improved light extraction in all-inorganic perovskite light-emitting devices with periodic nanostructures by nanoimprinting lithography. Optics Letters, 2020, 45, 5156.	1.7	8
1485	Enhanced efficiency of all-inorganic perovskite light-emitting diodes by using F4-TCNQ-doped PTAA as a hole-transport layer. Optics Letters, 2019, 44, 4817.	1.7	6
1486	Progress in perovskite based solar cells: scientific and engineering state of the art. Reviews on Advanced Materials Science, 2020, 59, 10-25.	1.4	9
1487	Recent Developments of Luminescent Materials. Wuli Cailiao Xuebao/Journal of Inorganic Materials, 2016, 31, 1009.	0.6	3
1488	Dye-Sensitized Solar Cells: Components Screening for Glass substrate, Counter-Electrode, Photoanode and Electrolyte. Materials Research, 2020, 23, .	0.6	8
1490	Back-Contact Perovskite Solar Cells. , 2019, 1, 1-10.		4
1491	Architectures and Applications of BODIPY-Based Conjugated Polymers. Polymers, 2021, 13, 75.	2.0	15
1492	Emerging Photovoltaic Technologies and Eco-Design—Criticisms and Potential Improvements. , 0, , .		5
1493	Recent advances in planar heterojunction organic-inorganic hybrid perovskite solar cells. Wuli Xuebao/Acta Physica Sinica, 2015, 64, 038401.	0.2	16
1494	Recent progress in research on solid organic-inorganic hybrid solar cells. Wuli Xuebao/Acta Physica Sinica, 2015, 64, 038405.	0.2	6
1495	Electro-chemo-mechanical charge carrier equilibrium at interfaces. Physical Chemistry Chemical Physics, 2021, 23, 23730-23740.	1.3	2
1496	Stabilizing orthorhombic $\text{CsSnI}_3$ perovskites with optimized electronic properties by surface ligands with inter-molecular hydrogen bond. Journal of Materials Chemistry A, 2021, 9, 24641-24649.	5.2	9
1497	Designs from single junctions, heterojunctions to multijunctions for high-performance perovskite solar cells. Chemical Society Reviews, 2021, 50, 13090-13128.	18.7	91

#	ARTICLE	IF	CITATIONS
1498	Research Progress of Hole Transport Materials Based on Spiro Aromatic-Skeleton in Perovskite Solar Cells. <i>Acta Chimica Sinica</i> , 2021, 79, 1181.	0.5	5
1499	Power Dependent Hot Carrier Cooling Dynamics in Trioctylphosphine Capped CsPbBr <sub>3</sub> Perovskite Quantum Dots Using Ultrafast Spectroscopy. <i>ChemistrySelect</i> , 2021, 6, 10165-10177.	0.7	6
1500	Printable Solar Cells from Solution Processable Materials. <i>Springer Series in Materials Science</i> , 2022, , 401-432.	0.4	1
1501	Simulating the Performance of a Formamidinium Based Mixed Cation Lead Halide Perovskite Solar Cell. <i>Materials</i> , 2021, 14, 6341.	1.3	19
1502	Modeling and characteristics of a nanostructured NiO/GeSe core-shell perovskite solar cell. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2021, 38, 3441.	0.9	2
1503	Learning about the Structural Dynamics of Semiconductor Perovskites from Electron Solvation Dynamics. <i>Journal of Physical Chemistry C</i> , 2021, 125, 23571-23586.	1.5	9
1504	A-site phase segregation in mixed cation perovskite. <i>Materials Reports Energy</i> , 2021, 1, 100064.	1.7	19
1505	Mechano-Chemical Synthesis, Structural Features and Optical Gap of Hybrid CH <sub>3</sub> NH <sub>3</sub> CdBr <sub>3</sub> Perovskite. <i>Materials</i> , 2021, 14, 6039.	1.3	2
1506	On iodo bismuthates, bismuth complexes and polyiodides with bismuth in the system Bi <sub>3</sub> /18-crown-6/I <sub>2</sub> . <i>Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences</i> , 2021, 76, 765-774.	0.3	1
1507	Bandgap Modulation of Cs <sub>2</sub> AgInX <sub>6</sub> (X = Cl and Br) Double Perovskite Nano- and Microcrystals via Cu <sup>2+</sup> Doping. <i>ACS Omega</i> , 2021, 6, 26952-26958.	1.6	14
1508	Pressure Effects on Lead-Free Metal Halide Perovskites: a Route to Design Optimized Materials for Photovoltaics. <i>Solar Rrl</i> , 2021, 5, 2100550.	3.1	15
1509	Additive-Assisted Stabilization Against Photooxidation of Organic and Hybrid Solar Cells. , 2022, , 169-193.		0
1510	Probing the microscopic mechanisms in photovoltaic degradation behaviors of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite films via photoconductive atomic force microscopy. <i>Surfaces and Interfaces</i> , 2021, 27, 101540.	1.5	1
1511	Progress on nanopatterned front electrodes for perovskite thin-film solar cells. , 2016, , .		0
1512	Chapter 6. Structural, Electronic, and Optical Properties of Lead Halide Perovskites. <i>RSC Energy and Environment Series</i> , 2016, , 177-201.	0.2	0
1515	16 Photoelectrochemical Approaches to Solar-H <sub>2</sub> Generation. <i>Green Chemistry and Chemical Engineering</i> , 2017, , 691-716.	0.0	0
1516	Organometal halide perovskite light-emitting diodes with laminated carbon nanotube electrodes. , 2017, , .		1
1517	Thin-Film Solar Cells. <i>Series in Optics and Optoelectronics</i> , 2017, , 497-538.	0.0	0

#	ARTICLE	IF	CITATIONS
1518	Photoelectrochemical Approaches to Solar-H <sub>2</sub> Generation. , 2017, , 691-716.		0
1519	Photovoltaic Materials. , 2018, , 1-22.		0
1520	Enhancement of photovoltaic performance of perovskite solar cells by introducing ZnO quantum dots in the mesoporous TiO <sub>2</sub> layer. , 2018, , .		0
1521	Enhancing the Stability and Emission of CsPbBr <sub>3</sub> Quantum Dots by Embedding in Silica Spheres. , 2018, , .		0
1522	Application of Reduced Graphene Oxide (rGO) for Stability of Perovskite Solar Cells. Carbon Nanostructures, 2019, , 203-229.	0.1	0
1523	Optical Properties of Intrinsic Excitons in Bulk Semiconductors. Graduate Texts in Physics, 2019, , 329-385.	0.1	0
1524	Photovoltaic Properties of Perovskite Solar Cells According to TiO <sub>2</sub> Particle Size. Korean Journal of Materials Research, 2019, 29, 282-287.	0.1	0
1525	Accurate Efficiency Measurements for Emerging PV: A Comparison of NREL's Steady-State Performance Calibration Protocol Between Conventional and Emerging PV Technologies. , 2019, , .		2
1526	One-dimensional modeling for optoelectrical simulation of a mesoporous perovskite solar cell. Applied Optics, 2019, 58, 7006.	0.9	0
1527	PEROVSKITE PHOTOELECTRIC CONVERTERS WITHOUT HOLE-CONDUCTING BUFFER LAYERS. Vestnik MeÅ¼dunarodnogo Universiteta Prirody, ObÅestva I Åeloveka Dubna, 2019, , 23-29.	0.0	0
1528	Current Perspectives and Advancements of Perovskite Photovoltaic Cells. Advances in Intelligent Systems and Computing, 2020, , 83-92.	0.5	0
1529	Highâ€Efficiency and Durable Inverted Perovskite Solar Cells with Thermallyâ€Induced Phaseâ€Change Electron Extraction Layer. Advanced Energy Materials, 2021, 11, 2102844.	10.2	35
1530	Multifunctional passivation agents for improving efficiency and stability of perovskite solar cells: Synergy of methyl and carbonyl groups. Applied Surface Science, 2022, 575, 151740.	3.1	13
1531	Energy performance of perovskite solar cell fabrication in Argentina. A life cycle assessment approach. Solar Energy, 2021, 230, 645-653.	2.9	9
1532	Photon-Responsive Nanomaterials for Solar Cells. Springer Series in Materials Science, 2020, , 1-63.	0.4	0
1533	Sensitivity Analysis of a Cs <sub>2</sub> AgBiBr <sub>6</sub> X-ray Image Detector. , 2020, , .		0
1534	Ab-initio study of halogen inter-substituted perovskite cesium lead halides for photovoltaic applications. Journal of Physics and Chemistry of Solids, 2022, 161, 110430.	1.9	4
1535	In-Situ polymerization of PEDOT in perovskite Thin films for efficient and stable photovoltaics. Chemical Engineering Journal, 2022, 430, 133109.	6.6	7

#	ARTICLE	IF	CITATIONS
1536	Ab-initio investigations for structural, mechanical, optoelectronic, and thermoelectric properties of Ba <sub>2</sub> SbXO <sub>6</sub> (X Nb, Ta) compounds. Journal of Alloys and Compounds, 2022, 893, 162332.	2.8	7
1537	Photovoltaics. Springer Theses, 2020, , 3-20.	0.0	0
1538	Lead-Free Perovskite Solar Cells. , 2020, , 1-26.		1
1539	Fiber Perovskite Solar Cells. , 2020, , 137-159.		0
1540	Thermomechanically-Consistent Phase-Field Modeling of Thin Film Flows. Lecture Notes in Computational Science and Engineering, 2020, , 121-129.	0.1	0
1541	Properties and applications of hybrid organic-inorganic halide perovskites thin films. , 2020, , .		4
1542	Capturing excitonic and polaronic effects in lead iodide perovskites using many-body perturbation theory. Journal of Materials Chemistry C, 2021, 9, 17113-17123.	2.7	8
1544	Ultrasonik Sprey Piroiliz YÄntemi ile Åceretilen GÅ¼neÅ SoÅYurucu CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3-x</sub> Cl <sub>x</sub> Perovskit YapÅ±sÅ±nÅ±n Optik, Morfolojik ve YapÅ±sal Åzelliklerinin Åncelenmesi. SDU Journal of Science, 0, , .	0.1	3
1545	Carrier-Specific Hot Phonon Bottleneck in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Revealed by Femtosecond XUV Absorption. Journal of the American Chemical Society, 2021, 143, 20176-20182.	6.6	16
1546	Review on Tailoring PEDOT:PSS Layer for Improved Device Stability of Perovskite Solar Cells. Nanomaterials, 2021, 11, 3119.	1.9	35
1547	Effect of Pristine Graphene on Methylammonium Lead Iodide Films and Implications on Solar Cell Performance. ACS Applied Energy Materials, 2021, 4, 13943-13951.	2.5	7
1548	Ion Migration in Perovskite Light-Emitting Diodes: Mechanism, Characterizations, and Material and Device Engineering. Advanced Materials, 2022, 34, e2108102.	11.1	85
1549	Optimizing the Aspect Ratio of Nanopatterned Mesoporous TiO <sub>2</sub> Thin-Film Layer to Improve Energy Conversion Efficiency of Perovskite Solar Cells. International Journal of Molecular Sciences, 2021, 22, 12235.	1.8	6
1550	Insights into the Adsorption of Water and Oxygen on the Cubic CsPbBr <sub>3</sub> Surfaces: A First-Principle Study. Chinese Physics B, 0, , .	0.7	1
1551	Formamidinium post-dripping on methylammonium lead iodide to achieve stable and efficient perovskite solar cells. International Journal of Energy Research, 2022, 46, 5306-5314.	2.2	7
1552	Triphenylamine-Based Conjugated Polyelectrolyte as a Hole Transport Layer for Efficient and Scalable Perovskite Solar Cells. Small, 2022, 18, e2104933.	5.2	6
1553	Highly Water-Stable Polymer-Perovskite Nanocomposites. ACS Applied Materials & Interfaces, 2021, 13, 59252-59262.	4.0	11
1554	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. Light: Science and Applications, 2021, 10, 239.	7.7	40

#	ARTICLE	IF	CITATIONS
1555	Amplified Spontaneous Emission in low dimensional lead halide perovskites: An overview. <i>Optical Materials: X</i> , 2021, 12, 100115.	0.3	1
1556	Dimer-Type Cs <sub>3</sub> Sb <sub>2</sub> I <sub>9</sub> : An Efficient Perovskite Material for Low Operating Voltage and High Stability Flexible Resistive Switching Memory. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1557	Exploring the Ruddlesdenâ€“Popper layered organicâ€“inorganic hybrid semiconducting perovskite for visible-blind ultraviolet photodetection. <i>CrystEngComm</i> , 2022, 24, 2258-2263.	1.3	2
1558	High-Performance and Selective Semi-Transparent Perovskite Solar Cells Using 3S-Structured FTO. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1559	Introducing lanthanide metalâ€“organic framework and perovskite onto pulp fibers for fluorescent anti-counterfeiting and encryption. <i>Cellulose</i> , 2022, 29, 1115-1127.	2.4	9
1560	Novel compositional engineering for ~26% efficient CZTS-perovskite tandem solar cell. <i>Optik</i> , 2022, 253, 168568.	1.4	27
1561	DFT and TDDFT investigation of four triphenylamine/phenothiazine-based molecules as potential novel organic hole transport materials for perovskite solar cells. <i>Materials Chemistry and Physics</i> , 2022, 278, 125603.	2.0	10
1562	A short review on progress in perovskite solar cells. <i>Materials Research Bulletin</i> , 2022, 149, 111700.	2.7	48
1564	Coherent Two-Dimensional and Broadband Electronic Spectroscopies. <i>Chemical Reviews</i> , 2022, 122, 4257-4321.	23.0	47
1565	Ion migration mechanism in all-inorganic Ruddlesdenâ€“Popper lead halide perovskites by first-principles calculations. <i>Physical Chemistry Chemical Physics</i> , 2021, 24, 403-410.	1.3	7
1566	Efficient and long-term photocatalytic H <sub>2</sub> evolution stability enabled by Cs <sub>2</sub> AgBiBr <sub>6</sub> /MoS <sub>2</sub> in aqueous HBr solution. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 8829-8840.	3.8	25
1567	Advanced composite glasses with metallic, perovskite, and two-dimensional nanocrystals for optoelectronic and photonic applications. <i>Nanoscale</i> , 2022, 14, 2966-2989.	2.8	27
1568	Bifunctional ionic liquid for enhancing efficiency and stability of carbon counter electrode-based MAPbI <sub>3</sub> perovskites solar cells. <i>Solar Energy</i> , 2022, 231, 1048-1060.	2.9	9
1569	Several Triazine-Based Small Molecules Assisted in the Preparation of High-Performance and Stable Perovskite Solar Cells by Trap Passivation and Heterojunction Engineering. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 6625-6637.	4.0	32
1570	The Emerging Role of Halogen Bonding in Hybrid Perovskite Photovoltaics. <i>Chemistry of Materials</i> , 2022, 34, 2495-2502.	3.2	29
1571	Antisolvents Treatment of Cs <sub>0.15</sub> FA <sub>0.85</sub> PbI <sub>3</sub> Boosting Efficiency for Perovskite Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2022, 12, 322-326.	1.5	1
1572	Influence of intrinsic defects on the structure and dynamics of the mixed Pbâ€“Sn perovskite: first-principles DFT and NAMD simulations. <i>Journal of Materials Chemistry A</i> , 2021, 10, 234-244.	5.2	11
1573	Halide Ions Distribution and Charge Dynamics in Mixedâ€“Halide Perovskites. <i>Physica Status Solidi - Rapid Research Letters</i> , 2022, 16, .	1.2	3

#	ARTICLE	IF	CITATIONS
1574	Importance of tin (II) acetate additives in sequential deposited fabrication of Sn-Pb-based perovskite solar cells. <i>Journal of Alloys and Compounds</i> , 2022, 904, 164050.	2.8	5
1575	Dimensionality reduction in machine learning for nonadiabatic molecular dynamics: Effectiveness of elemental sublattices in lead halide perovskites. <i>Journal of Chemical Physics</i> , 2022, 156, 054110.	1.2	4
1576	Understanding the effects of annealing temperature on the mechanical properties of layers in FAI-rich perovskite solar cells. <i>AIP Advances</i> , 2022, 12, 025104.	0.6	2
1577	Recent progress of halide perovskites for thermoelectric application. <i>Nano Energy</i> , 2022, 94, 106949.	8.2	18
1578	Multi-cation hybrid stannic oxide electron transport layer for high-efficiency perovskite solar cells. <i>Journal of Colloid and Interface Science</i> , 2022, 614, 415-424.	5.0	9
1579	Analysis of Light-Enhanced Capacitance Dispersion in Perovskite Solar Cells. <i>Advanced Materials Interfaces</i> , 2022, 9, .	1.9	11
1580	High-Polarizability Organic Ferroelectric Materials Doping for Enhancing the Built-in Electric Field of Perovskite Solar Cells Realizing Efficiency over 24%. <i>Advanced Materials</i> , 2022, 34, e2110482.	11.1	65
1581	Controlled growth of perovskite microplates arrays for functional optoelectronics. <i>Current Applied Physics</i> , 2022, 37, 27-27.	1.1	2
1582	Compelling temperature behaviour of carbon-perovskite solar cell for fenestration at various climates. <i>Chemical Engineering Journal Advances</i> , 2022, 10, 100267.	2.4	12
1583	Synergic use of two-dimensional materials to tailor interfaces in large area perovskite modules. <i>Nano Energy</i> , 2022, 95, 107019.	8.2	16
1584	2-CF3-PEAI to eliminate Pb0 traps and form a 2D perovskite layer to enhance the performance and stability of perovskite solar cells. <i>Nano Energy</i> , 2022, 95, 107036.	8.2	54
1585	Surface Engineering Enabled by Bifunctional Guanidinium Tetrafluoroborate Achieving High-Performance Inverted Perovskite Solar Cells. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1586	Phase transition model of FA cation ordering in FAPbX <sub>3</sub> (X = Br, I) hybrid perovskites. <i>Journal of Materials Chemistry C</i> , 2022, 10, 5210-5217.	2.7	3
1587	First-principles study of the defect-activity and optical properties of FAPbCl <sub>3</sub> . <i>Materials Advances</i> , 0, , .	2.6	4
1588	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
1589	Sustainable development of perovskite solar cells: keeping a balance between toxicity and efficiency. <i>Journal of Materials Chemistry A</i> , 2022, 10, 8159-8171.	5.2	19
1590	In Situ Growth of Bifunctional Modification Material for Highly Efficient Electron-Transport-Layer-Free Perovskite Solar Cells. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1591	Optical Characterization and Prediction with Neural Network Modeling of Various Stoichiometries of Perovskite Materials Using a Hyperregression Method. <i>Nanomaterials</i> , 2022, 12, 932.	1.9	3



#	ARTICLE	IF	CITATIONS
1592	Spatiotemporally Correlated Imaging of Interfacial Defects and Photocurrents in High Efficiency Triple-Cation Mixed-Halide Perovskites. <i>Small</i> , 2022, 18, e2200523.	5.2	5
1593	2D Pb-Halide Perovskites Can Self-Heal Photodamage Better than 3D Ones. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	11
1594	Electrocatalysis Goes Nuts. <i>ACS Catalysis</i> , 2022, 12, 4296-4301.	5.5	56
1595	Metal Halide Perovskite Based Heterojunction Photocatalysts. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	48
1596	Efficient Piezoelectric Energy Harvesting from a Discrete Hybrid Bismuth Bromide Ferroelectric Templated by Phosphonium Cation. <i>Chemistry - A European Journal</i> , 2022, , .	1.7	6
1597	Metal Halide Perovskite Based Heterojunction Photocatalysts. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	11
1598	Manipulating Crystallization Kinetics in High-Performance Blade-Coated Perovskite Solar Cells via Cosolvent-Assisted Phase Transition. <i>Advanced Materials</i> , 2022, 34, e2200276.	11.1	64
1599	Nanophotonic-structured front contact for high-performance perovskite solar cells. <i>Science China Materials</i> , 2022, 65, 1727-1740.	3.5	5
1600	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
1601	Progress on the stability and encapsulation techniques of perovskite solar cells. <i>Organic Electronics</i> , 2022, 106, 106515.	1.4	22
1602	Ligand-mediated CsPbBr <sub>x</sub> I <sub>3-x</sub> /SiO <sub>2</sub> quantum dots for red, stable and low-threshold amplify spontaneous emission. <i>Nanotechnology</i> , 2022, 33, 285201.	1.3	2
1603	First principles study of the structural, optoelectronic and mechanical properties of XLaS <sub>2</sub> (X Cu, Zn) for optoelectronic applications. <i>Optik</i> , 2022, 258, 168940.	1.4	1
1604	Surface treatment enabled by functional guanidinium tetrafluoroborate achieving high-performance inverted perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2022, 240, 111682.	3.0	12
1605	Structural and optoelectronic properties of the Cs <sub>2</sub> InMCl <sub>6</sub> (M: Sb, Bi, Ag) double perovskite compounds: A first-principles study. <i>Computational Condensed Matter</i> , 2022, 31, e00669.	0.9	4
1606	CuInSe <sub>2</sub> quantum dots doped MAPbI <sub>3</sub> films with reduced trap density for perovskite solar cells. <i>Journal of Alloys and Compounds</i> , 2022, 906, 164292.	2.8	9
1607	Modifying Optoelectronic Properties of Molecular Halide Perovskite Cs <sub>4</sub> PbBr <sub>6</sub> via Organic Ligands: A First-Principles Investigation. <i>Russian Journal of Physical Chemistry A</i> , 2021, 95, 2586-2591.	0.1	0
1608	The Role of Different Lanthanoid and Transition Metals in Perovskite Gas Sensors. <i>Sensors</i> , 2021, 21, 8462.	2.1	8
1609	Photothermally Enhanced Photoresponse of Bismuth Halide Perovskite by Phonon Scattering. <i>ACS Applied Electronic Materials</i> , 2022, 4, 217-224.	2.0	2

#	ARTICLE	IF	CITATIONS
1610	Multi-Level Passivation of MAPbI <sub>3</sub> Perovskite for Efficient and Stable Photovoltaics. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	36
1611	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
1612	Millimeter-Sized Clusters of Triple Cation Perovskite Enables Highly Efficient and Reproducible Roll-Fabricated Inverted Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	36
1613	Improved Performance of Perovskite Solar Cells by Suppressing the Energy-Level Shift of the PEDOT:PSS Hole Transport Layer. <i>ACS Applied Energy Materials</i> , 2021, 4, 14590-14598.	2.5	4
1614	Thermal Evaporation for Halide Perovskite Optoelectronics: Fundamentals, Progress, and Outlook. <i>Advanced Optical Materials</i> , 2022, 10, .	3.6	42
1615	Significance of the Chemical Environment of an Element in Nonadiabatic Molecular Dynamics: Feature Selection and Dimensionality Reduction with Machine Learning. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 12026-12032.	2.1	11
1616	Thermodynamic Analyses on Nanoarchitectonics of Perovskite from Lead Iodide: Arrhenius Activation Energy. <i>Journal of Inorganic and Organometallic Polymers and Materials</i> , 2022, 32, 1259-1265.	1.9	4
1617	CHAPTER 10. Deposition Techniques for Perovskite Solar Cells. <i>RSC Nanoscience and Nanotechnology</i> , 0, , 341-366.	0.2	1
1618	Perovskite-organic tandem solar cells with indium oxide interconnect. <i>Nature</i> , 2022, 604, 280-286.	13.7	181
1619	CHAPTER 9. Hybrid Solar Cells. <i>RSC Nanoscience and Nanotechnology</i> , 0, , 298-340.	0.2	0
1621	Numerical Simulation of 30% Efficient Lead-Free Perovskite CsSnGeI <sub>3</sub> -Based Solar Cells. <i>Materials</i> , 2022, 15, 3229.	1.3	25
1622	Air-Stable, Eco-Friendly $\langle \text{Cs}_3\text{Bi}_2\text{Br}_9 \rangle$ Perovskite Quantum Dots for High-Performance Information Storage. <i>Energy and Environmental Materials</i> , 2023, 6, .	7.3	11
1623	Rashba and Dresselhaus effects in two-dimensional Pb-I-based perovskites. <i>Physical Review B</i> , 2022, 105, .	1.1	7
1624	Isorecticular Postsynthetic Modification of Robust Organocopper(I) Halide Hybrids for Enhanced Broad-Band Emission and Turn-On NH <sub>3</sub> Sensing. <i>Chemistry of Materials</i> , 2022, 34, 4403-4413.	3.2	6
1625	Basic understanding of perovskite solar cells and passivation mechanism. <i>AIP Advances</i> , 2022, 12, .	0.6	13
1626	Photocatalytic materials applications for sustainable agriculture. <i>Progress in Materials Science</i> , 2022, 130, 100965.	16.0	10
1627	Simulation and fabrication of all-inorganic antimony halide perovskite-like material based Pb-free perovskite solar cells. <i>Optical Materials</i> , 2022, 128, 112374.	1.7	16
1628	II-VI based organic-inorganic hybrid structures: Brief review and perspective. <i>Journal of Luminescence</i> , 2022, 248, 118936.	1.5	3

#	ARTICLE	IF	CITATIONS
1629	Halide anions engineered ionic liquids passivation layer for highly stable inverted perovskite solar cells. <i>Journal of Colloid and Interface Science</i> , 2022, 622, 469-480.	5.0	12
1630	Recent advancements in batteries and photo-batteries using metal halide perovskites. <i>APL Materials</i> , 2022, 10, .	2.2	17
1631	Numerical simulation and fabrication of Pb-free perovskite solar cells (FTO/TiO <sub>2</sub> /Cs <sub>3</sub> Bi <sub>2</sub> I <sub>9</sub> /spiro-MeOTAD/Au). <i>Optical Materials</i> , 2022, 128, 112458.	1.7	18
1632	Recent advancement in perovskite solar cell with imidazole additive. <i>Materials Science in Semiconductor Processing</i> , 2022, 148, 106788.	1.9	7
1633	Tin-based halide perovskite materials: properties and applications. <i>Chemical Science</i> , 2022, 13, 6766-6781.	3.7	31
1634	Carbon nanomaterials-polymer composites for perovskite solar cells: preparation, properties and applications. <i>Journal of Materials Chemistry A</i> , 2022, 10, 19211-19230.	5.2	11
1635	First Principles Calculation and Experimental Verification of the Effect of Li <sup>+</sup> Doping on Photoelectric Properties of Double Perovskite Cs <sub>2</sub> SnI <sub>6</sub> . <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1636	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
1637	The Bright and Dark Shades of Transparent Conducting Perovskites: From Science to Global Market. <i>Journal of Physics: Conference Series</i> , 2022, 2267, 012030.	0.3	1
1638	2,3-Diphenylthieno[3,4- <i>b</i> ]pyrazines as Hole-Transporting Materials for Stable, High-Performance Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2022, 7, 2118-2127.	8.8	27
1639	Structural, Electronic, Elastic, Mechanical, Optical and Thermoelectric Properties of the Chalcogenide Double Perovskites A <sub>2</sub> GaNbS <sub>6</sub> (A = Ca, Sr and Ba): Insights From Density Functional Theory Calculations. <i>Annals of West Univesity of TimiÅoara Physics Series</i> , 2022, 64, 37-54.	0.0	4
1640	Construction of core-shell cesium lead bromide-silica by precipitation coating method with applications in aqueous photocatalysis. <i>Journal of Colloid and Interface Science</i> , 2022, 623, 974-984.	5.0	16
1641	Centimeter-sized lead-free iodide-based hybrid double perovskite single crystals for efficient X-ray photoresponsivity. <i>Dalton Transactions</i> , 2022, 51, 10234-10239.	1.6	4
1642	Dye-Sensitized Solar Cells. <i>Springer Handbooks</i> , 2022, , 1137-1214.	0.3	1
1643	Appropriate third monovalent A-site cation incorporation in formamidinium cesium lead iodide for defect passivation and efficiency improvement in perovskite solar cells. <i>International Journal of Energy Research</i> , 2022, 46, 15571-15588.	2.2	5
1644	Low-Temperature Hydrothermal Growth of ZnO Nanowires on AZO Substrates for FACsPb(I <sub>2</sub> ) <sub>3</sub> Perovskite Solar Cells. <i>Nanomaterials</i> , 2022, 12, 2093.	1.9	3
1645	Photoelectric Properties of Planar and Mesoporous Structured Perovskite Solar Cells. <i>Materials</i> , 2022, 15, 4300.	1.3	7
1647	Accelerated aging of all-inorganic, interface-stabilized perovskite solar cells. <i>Science</i> , 2022, 377, 307-310.	6.0	121

#	ARTICLE	IF	CITATIONS
1648	Bismuth-based organometallic-halide perovskite photo-supercapacitor utilizing novel polymer gel electrolyte for hybrid energy harvesting and storage applications. <i>Journal of Energy Storage</i> , 2022, 53, 105167.	3.9	19
1649	Fluorine-containing organic ammonium salt-doped inverted inorganic perovskite solar cells. <i>Semiconductor Science and Technology</i> , 2022, 37, 095014.	1.0	3
1650	Interface Modification via a Hydrophobic Polymer Interlayer for Highly Efficient and Stable Carbon-Based Inorganic Perovskite Solar Cells. <i>Energy &amp; Fuels</i> , 2022, 36, 7755-7762.	2.5	6
1651	Effect of Li <sup>+</sup> Doping on Photoelectric Properties of Double Perovskite Cs <sub>2</sub> SnI <sub>6</sub> : First Principles Calculation and Experimental Investigation. <i>Nanomaterials</i> , 2022, 12, 2279.	1.9	2
1652	FAPbBr <sub>3</sub> /Cs <sub>4</sub> PbBr <sub>6</sub> Core/Shell Perovskite Nanocrystals with Enhanced Stability and Emission: Implications for LEDs. <i>ACS Applied Nano Materials</i> , 0, , .	2.4	6
1653	Patterning Technologies for Metal Halide Perovskites: A Review. <i>Advanced Materials Technologies</i> , 2023, 8, .	3.0	17
1654	Probing the defects states in MAPbI <sub>3</sub> perovskite thin films through photoluminescence and photoluminescence excitation spectroscopy studies. <i>Optik</i> , 2022, 266, 169586.	1.4	2
1655	Tuning bandgap and energy stability of Organic-Inorganic halide perovskites through surface engineering. <i>Computational Materials Science</i> , 2022, 213, 111649.	1.4	1
1656	Thermally Stable D <sub>2h</sub> Symmetric Donor-acceptor Donor Porphyrins as Hole-transporting Materials for Perovskite Solar Cells. <i>Angewandte Chemie</i> , 0, , .	1.6	3
1657	Chalcogenide perovskites for photovoltaic applications: a review. <i>Journal of Nanoparticle Research</i> , 2022, 24, .	0.8	9
1658	Irreversible phase transitions of the multiferroic oxide Mn <sub>3</sub> TeO <sub>6</sub> at high pressures. <i>Applied Physics Letters</i> , 2022, 121, 044102.	1.5	0
1659	Design and efficiency enhancement of FTO/PC <sub>60</sub> /BM/CsSn <sub>0.5</sub> Ge <sub>0.5</sub> I <sub>3</sub> /Spiro-OMeTAD/Au perovskite solar cell utilizing SCAPS-1D Simulator. <i>Materials Research Express</i> , 2022, 9, 096402.	0.8	33
1660	Photo Stabilization of p-In Perovskite Solar Cells with Bathocuproine: MXene. <i>Small</i> , 2022, 18, .	5.2	8
1661	Isomeric Dithienothiophene-Based Hole Transport Materials: Role of Sulphur Atoms Positions on Photovoltaic Performance of Inverted Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	15
1662	Thermally Stable D <sub>2h</sub> Symmetric Donor-acceptor Donor Porphyrins as Hole-transporting Materials for Perovskite Solar Cells. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	25
1663	Sn/Ge Substitution in ((C <sub>n</sub> H <sub>2n+1</sub> NH <sub>3</sub> ) <sub>2</sub> PbI <sub>4</sub> ) <sub>1-x</sub> (C <sub>n</sub> H <sub>2n+1</sub> NH <sub>3</sub> ) <sub>2</sub> GeI <sub>4</sub> ) <sub>x</sub> Tj ETQq <sub>1.5</sub> 0.7843 <sub>4</sub> rgBT <i>Journal of Physical Chemistry C</i> , 2022, 126, 13957-13966.		
1664	First-principles studies on electronic and optical properties of formate-doped organic-inorganic perovskites MAPbI <sub>3</sub> . <i>Solar Energy Materials and Solar Cells</i> , 2022, 246, 111941.	3.0	5
1665	Simple harmonic oscillation model explaining MA torsional locking in surface passivated MAPbI <sub>3</sub> crystal. <i>Chemical Physics Letters</i> , 2022, 806, 139967.	1.2	2

#	ARTICLE	IF	CITATIONS
1666	A computational insight of the lead-free double perovskites $\text{Rb}_2\text{AgSbCl}_6$ and $\text{Rb}_2\text{AgSbBr}_6$ for optoelectronic and thermoelectric applications. International Journal of Energy Research, 2022, 46, 24273-24285.	2.2	7
1667	Azulene-based Hole Transport Materials with Proper Electronic Properties for Perovskite Solar Cells. Asian Journal of Organic Chemistry, 0, , .	1.3	1
1668	Recent progress towards photovoltaics' circular economy. Journal of Cleaner Production, 2022, 373, 133864.	4.6	17
1669	Evolution of the Manufacturing Technology of Photovoltaic Panels and Factors Affecting their Performance. , 2021, 67, 87-95.		0
1670	Recent advances of crosslinkable organic semiconductors in achieving solution-processed and stable optoelectronic devices. Journal of Materials Chemistry A, 2022, 10, 18542-18576.	5.2	12
1671	Strain Regulating Mechanical Stability and Photoelectric Properties of $\text{CH}_3\text{NH}_3\text{PbI}_3$ Containing the Asymmetric $\text{CH}_3\text{NH}_3$ Cations. SSRN Electronic Journal, 0, , .	0.4	0
1672	A mechanistic study of the dopant-induced breakdown in halide perovskites using solid state energy storage devices. Energy and Environmental Science, 2022, 15, 4323-4337.	15.6	3
1673	Thermal instability originating from the interface between organic-inorganic hybrid perovskites and oxide electron transport layers. Energy and Environmental Science, 2022, 15, 4836-4849.	15.6	26
1674	Decreasing toxicity and increasing photoconversion efficiency by Sn-substitution of Pb in 5-ammonium valeric acid-based two-dimensional hybrid perovskite materials. Physical Chemistry Chemical Physics, 2022, 24, 23226-23235.	1.3	3
1675	Application of ethyl acetoacetate bifocal additive for achieving high-performance perovskite solar cells. Materials Science in Semiconductor Processing, 2023, 153, 107130.	1.9	1
1676	Thermal Transport Properties of Phonons in Halide Perovskites. Advanced Materials, 2023, 35, .	11.1	3
1677	Shape-Controlled $\text{NaTaO}_3$ by Flux-Mediated Synthesis. Advanced Functional Materials, 0, , 2206641.	7.8	2
1678	Enhancement of the photovoltaic performance of perovskite solar cells via sono-synthesis of $\text{Al}$ -doped $\text{TiO}_2$ as the electron transport layer. International Journal of Energy Research, 2022, 46, 23465-23479.	2.2	5
1679	Effect of orientation of the cation $\text{CH}_3\text{NH}_3$ on exciton's mobility in $\text{CH}_3\text{NH}_3\text{PbI}_3$ . Chinese Journal of Physics, 2022, 80, 34-45.	2.0	3
1680	Bottom-Up Templated and Oriented Crystallization for Inverted Triple-Cation Perovskite Solar Cells with Stabilized Nickel-Oxide Interface. Small, 2022, 18, .	5.2	20
1681	Effect of hydrostatic pressure on the structural, elastic, and optoelectronic properties of vacancy-ordered double perovskite $\text{Cs}_2\text{PdBr}_6$ . Journal of Molecular Modeling, 2022, 28, .	0.8	4
1682	Impeded degradation of perovskite solar cells via the dual interfacial modification of siloxane. Science China Chemistry, 2022, 65, 2299-2306.	4.2	2
1683	Numerical Simulation of $\text{NH}_3(\text{CH}_2)_2\text{NH}_3\text{MnCl}_4$ Based Pb-Free Perovskite Solar Cells Via SCAPS-1D. Nanomaterials, 2022, 12, 3407.	1.9	5

#	ARTICLE	IF	CITATIONS
1684	Low-cost perovskite materials for decentralized energy generation and Department of Defense environmental impact reduction. , 2022, , .		0
1685	Structural, Electronic, and Optical Properties of Cs <sub>2</sub> SnX <sub>4</sub> (X=Cl, Br, and I) Multilayers: A Density Functional Theory Study. Physica Status Solidi (B): Basic Research, 2023, 260, .	0.7	2
1686	Mixed 2D-Dionâ€”Jacobson/3D Sn-Pb alloyed perovskites for efficient photovoltaic solar devices. Nano Research, 2023, 16, 3142-3148.	5.8	7
1687	Strain regulating mechanical stability and photoelectric properties of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> containing the asymmetric CH <sub>3</sub> NH <sub>3</sub> cations. Materials Today Communications, 2022, 33, 104527.	0.9	1
1688	Ion-exchange controlled precipitation of CsPbX <sub>3</sub> nanocrystals in glasses. Journal of the European Ceramic Society, 2022, 42, 7587-7595.	2.8	6
1689	Tailoring the thermal conductivity of two-dimensional metal halide perovskites. Materials Horizons, 2022, 9, 3087-3094.	6.4	2
1690	Inorganic frameworks of low-dimensional perovskites dictate the performance and stability of mixed-dimensional perovskite solar cells. Materials Horizons, 2023, 10, 536-546.	6.4	5
1691	Perovskiteâ€”Based Photovoltaics for Artificial Indoor Light Harvesting: A Critical Review. Solar Rrl, 2023, 7, .	3.1	3
1692	A Nontoxic NFM Solvent for High-Efficiency Perovskite Solar Cells with a Widened Processing Window. ACS Applied Materials & Interfaces, 2022, 14, 47758-47764.	4.0	4
1693	Novel broad spectral response perovskite solar cells: A review of the current status and advanced strategies for breaking the theoretical limit efficiency. Journal of Materials Science and Technology, 2023, 140, 33-57.	5.6	5
1694	Underwater Performance Analysis of Perovskite Solar Cells. Physica Status Solidi - Rapid Research Letters, 2023, 17, .	1.2	1
1695	Metal Halide Perovskite/Electrode Contacts in Chargeâ€”Transportingâ€”Layerâ€”Free Devices. Advanced Science, 2022, 9, .	5.6	11
1696	Mixology of MA <sub>1</sub> EA <sub>1</sub> PbI <sub>3</sub> Hybrid Perovskites: Phase Transitions, Cation Dynamics, and Photoluminescence. Chemistry of Materials, 2022, 34, 10104-10112.	3.2	9
1697	Two birds with one stone: Simultaneous realization of constructed 3D/2D heterojunction and p-doping of hole transport layer for highly efficient and stable perovskite solar cells. Chemical Engineering Journal, 2023, 453, 139721.	6.6	12
1698	INVESTIGATION OF METHYLAMMONIUM LEAD BROMIDE HYBRID PEROVSKITE BASED PHOTOACTIVE MATERIAL FOR THE PHOTOVOLTAIC APPLICATIONS. Digest Journal of Nanomaterials and Biostructures, 2021, 16, 205-215.	0.3	0
1699	A DFT study on the stability and optoelectronic properties of Pb/Sn/Ge-based MA <sub>2</sub> B(SCN) <sub>2</sub> I <sub>2</sub> perovskites. New Journal of Chemistry, 0, , .	1.4	0
1700	Structural and Photophysical Properties of Guanidiniumâ€”Iodideâ€”Treated Perovskite Solar Cells. Solar Rrl, 2023, 7, .	3.1	7
1701	Solar Cells. Springer Handbooks, 2023, , 699-745.	0.3	0

#	ARTICLE	IF	CITATIONS
1702	Advanced Stretchable Photodetectors: Strategies, Materials and Devices. Chemistry - A European Journal, 2023, 29, .	1.7	4
1703	Onset of vacancy-mediated high activation energy leads to large ionic conductivity in two-dimensional layered Ruddlesden-Popper halide perovskite. Physical Review Materials, 2022, 6, .	0.9	7
1704	A spectroscopic overview of the differences between the absorbing states and the emitting states in semiconductor perovskite nanocrystals. Nanoscale, 2023, 15, 2470-2487.	2.8	9
1705	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. Sustainable Energy and Fuels, 0, .	2.5	0
1706	Structural, electronic, and optoelectronic properties in hybrid system Cs <sub>2</sub> Sn(1-x)Br <sub>6</sub> : DFT-based study. Computational Materials Science, 2023, 218, 111961.	1.4	1
1707	Dimer-type Cs <sub>3</sub> Sb <sub>2</sub> I <sub>9</sub> : An efficient perovskite material for low operating voltage and high stability flexible resistive switching memory. Journal of Alloys and Compounds, 2023, 937, 168308.	2.8	11
1708	Supramolecular control in hybrid perovskite photovoltaics. Photochemistry, 2022, , 346-370.	0.2	0
1709	Highly Improved Efficiency and Stability of 2D Perovskite Solar Cells via Bifunctional Inorganic Salt KPF <sub>6</sub> Modified NiO Hole Transport Layer. Advanced Energy and Sustainability Research, 0, , 2200151.	2.8	2
1710	Synthesis, characterization, and the influence of energy of irradiation on optical properties of ZnO nanostructures. Scientific Reports, 2022, 12, .	1.6	4
1711	Phase-Controlled Strategy for High-Quality Single-Source Vapor-Deposited Cs <sub>2</sub> AgBiBr <sub>6</sub> Thin Films. ACS Applied Energy Materials, 2022, 5, 15058-15068.	2.5	4
1712	Minimizing the transport loss and degradation of perovskite optoelectronics via grain dimerization technique. EcoMat, 2023, 5, .	6.8	4
1713	Thermally and Air Stable Perovskite Solar Cells with a Hole Transporting PTAA/NiO Bilayer. Applied Sciences (Switzerland), 2022, 12, 12888.	1.3	0
1714	Effect of Organic Cation on Optical Properties of [A]Mn(H <sub>2</sub> POO) <sub>3</sub> Hybrid Perovskites. Molecules, 2022, 27, 8953.	1.7	2
1715	Caution! Static Supercell Calculations of Defect Migration in Higher Symmetry ABX <sub>3</sub> Perovskite Halides May Be Unreliable: A Case Study of Methylammonium Lead Iodide. Journal of Physical Chemistry Letters, 2022, 13, 11363-11368.	2.1	1
1716	Perylene Diimide Derivative Engineering for Covering Interfacial Defects in Indoor Perovskite Optoelectronics. Solar Rrl, 2023, 7, .	3.1	2
1717	A study of thermal stability, vibrational spectroscopy, electric response and linear and nonlinear optical properties of pure PVP polymer for solar cell and NLO devices. Optical and Quantum Electronics, 2023, 55, .	1.5	3
1718	Slowing the hot-carrier cooling by an organic small molecule in perovskite solar cells. EcoMat, 2023, 5, .	6.8	4
1719	Addressing the Role of 2D Domains in High-Dimensionality Ruddlesden-Popper Perovskite for Solar Cells. Solar Rrl, 0, , 2200860.	3.1	0

#	ARTICLE	IF	CITATIONS
1720	Photo-synaptic properties of CH <sub>3</sub> NH <sub>3</sub> Pb <sub>1-x</sub> Mn <sub>x</sub> Br <sub>2x+1</sub> hybrid perovskite thin film-based artificial synapse. <i>Ceramics International</i> , 2023, 49, 11140-11148.	2.3	3
1721	Improved photovoltaic performance and stability of perovskite solar cells with device structure of (ITO/SnO <sub>2</sub> /CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> /rGO+spiro-MeOTAD/Au). <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2023, 289, 116227.	1.7	12
1722	Lead, tin, bismuth or organics: Assessment of potential environmental and human health hazards originating from mature perovskite PV technology. <i>Solar Energy Materials and Solar Cells</i> , 2023, 252, 112177.	3.0	4
1723	A Complete Picture of Cation Dynamics in Hybrid Perovskite Materials from Solid-State NMR Spectroscopy. <i>Journal of the American Chemical Society</i> , 2023, 145, 978-990.	6.6	6
1724	Twenty-Two Percent Efficient Pb-Free All-Perovskite Tandem Solar Cells Using SCAPS-1D. <i>Nanomaterials</i> , 2023, 13, 96.	1.9	5
1725	The effect of temperature and distance of hot airflow on the quality of MAPbCl <sub>3</sub> thin films grown by sol-gel deposition. <i>Journal of Materials Science: Materials in Electronics</i> , 2023, 34, .	1.1	0
1726	Tailoring Multifunctional Self-Assembled Hole Transporting Molecules for Highly Efficient and Stable Inverted Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	17
1727	Improved performance of lead-free Perovskite solar cell incorporated with TiO <sub>2</sub> ETL and CuI HTL using SCAPs. <i>Applied Physics A: Materials Science and Processing</i> , 2023, 129, .	1.1	7
1728	Two-dimensional semiconducting Cu( <i>i</i> )/Sb( <i>iii</i> ) bimetallic hybrid iodides with a double perovskite structure and photocurrent response. <i>Nanoscale</i> , 2023, 15, 5265-5273.	2.8	1
1729	Perovskite solar cells. , 2023, , 129-156.		0
1730	Enhancement of Perovskite solar cells performance using electrochemically grown TiO <sub>2</sub> quantum dots. <i>Journal of Physics: Conference Series</i> , 2023, 2431, 012054.	0.3	0
1731	Strategies for Optimizing the Morphology of CsSnI <sub>3</sub> Perovskite Solar Cells. <i>Crystals</i> , 2023, 13, 410.	1.0	2
1732	Tin Bromido Aluminate Networks with Bright Luminescence. <i>ChemistryOpen</i> , 2023, 12, .	0.9	0
1733	Effect of CuO Added to Aluminosilicate Phosphate Geopolymer, Structure and Optical Properties Analysis. <i>Journal of Inorganic and Organometallic Polymers and Materials</i> , 2023, 33, 4127-4135.	1.9	2
1734	Transition metal dichalcogenides solar cells and integration with perovskites. <i>Nano Energy</i> , 2023, 108, 108249.	8.2	19
1735	Effect of Cu doping on structural, electronic and thermoelectric properties of double perovskite Cs <sub>2</sub> NaVCl <sub>6</sub> . <i>Computational Condensed Matter</i> , 2023, 35, e00803.	0.9	2
1736	Lead metal halide perovskite solar cells: Fabrication, advancement strategies, alternatives, and future perspectives. <i>Materials Today Communications</i> , 2023, 35, 105686.	0.9	7
1737	Quantifying electrochemical losses in perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2023, 11, 2911-2920.	2.7	1



#	ARTICLE	IF	CITATIONS
1738	Static and Dynamic Disorder in Formamidinium Lead Bromide Single Crystals. <i>Journal of Physical Chemistry Letters</i> , 2023, 14, 1288-1293.	2.1	10
1739	Biomass-Derived Materials for Interface Engineering in Organic/Perovskite Photovoltaic and Light-Emitting Devices. <i>Advanced Materials Technologies</i> , 2023, 8, .	3.0	6
1740	Passivation engineering via silica-encapsulated quantum dots for highly sensitive photodetection. , 2023, 5, .		3
1741	Surface Modification of Mesoporous TiO <sub>2</sub> with Potassium ion Enhances Photo-Voltage in Perovskite Solar Cell. , 2022, , .		0
1742	Spin-Electric Coupling in Lead Halide Perovskites. <i>Physical Review Letters</i> , 2023, 130, .	2.9	4
1743	Effective model for studying optical properties of lead halide perovskites. <i>Physical Review B</i> , 2023, 107, .	1.1	3
1744	Relieving the Ion Migration and Increasing Superoxide Resistance with Glutathione Incorporation for Efficient and Stable Perovskite Solar Cells. <i>Advanced Materials Interfaces</i> , 2023, 10, .	1.9	2
1745	UV-Blocking and Transparent Polydimethylsiloxane Film for Improving Stability of Perovskite Photovoltaics. , 2023, 1, 1208-1216.		0
1746	Surface in situ reconstruction of inorganic perovskite films enabling long carrier lifetimes and solar cells with 21% efficiency. <i>Nature Energy</i> , 2023, 8, 372-380.	19.8	76
1747	Influence of External Conditions on the Black-to-Yellow Phase Transition of CsPbI <sub>3</sub> Based on First-Principles Calculations: Pressure and Moisture. <i>Chemistry of Materials</i> , 2023, 35, 2321-2329.	3.2	3
1748	Reversible Thermochromic Bismuth Iodide Enabled by Self-Adjustment. <i>Advanced Optical Materials</i> , 2023, 11, .	3.6	4
1749	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
1750	Experimental and numerical study of different metal contacts for perovskite solar cells. <i>Cogent Engineering</i> , 2023, 10, .	1.1	1
1751	Approaching the Limits of Optoelectronic Performance in Mixed Cation Mixed Halide Perovskites by Controlling Surface Recombination. , 2020, , .		0
1752	Development of Software for the Analysis of the Current-Voltage Characteristics of Perovskite Solar Cells based on One- and Two-Diode Models. <i>Applied Solar Energy (English Translation of Tj ETQq0 0 0 rGBT /Overlock 10 Tf 50 177</i>		0
1753	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
1754	Tuning the photovoltaic performance of perovskite solar cells by simple incorporation of ZnO QDs into the mesoporous titania layer. <i>Journal of Materials Science</i> , 2023, 58, 6267-6280.	1.7	1
1755	Myth behind Metastable and Stable <i>n</i> -Hexylammonium Bromide-Based Low-Dimensional Perovskites. <i>Journal of the American Chemical Society</i> , 2023, 145, 8209-8217.	6.6	8

#	ARTICLE	IF	CITATIONS
1756	Perovskite Materials for Photovoltaics: A Review. EPJ Applied Physics, 0, , .	0.3	0
1757	Lead-free Metal Halide Perovskites for Solar Energy. , 2023, , 189-222.		0
1758	3D/1D Architecture Using a 1-Hexyl-3-methylimidazolium Lead Triiodide Interlayer for Robust and Highly Performing Perovskite Solar Cells. ACS Applied Electronic Materials, 2023, 5, 2093-2105.	2.0	4
1759	Inhibition of Ion Migration for Highly Efficient and Stable Perovskite Solar Cells. Advanced Materials, 2023, 35, .	11.1	8
1760	Self-healing perovskite solar cells based on copolymer-templated TiO <sub>2</sub> electron transport layer. Scientific Reports, 2023, 13, .	1.6	5
1761	Systematic investigation of the impact of kesterite and zinc based charge transport layers on the device performance and optoelectronic properties of ecofriendly tin (Sn) based perovskite solar cells. Solar Energy, 2023, 257, 58-87.	2.9	14
1766	Surface Passivation of FAPbI <sub>3</sub> -Rich Perovskite with Cesium Iodide Outperforms Bulk Incorporation. ACS Energy Letters, 2023, 8, 2456-2462.	8.8	14
1768	Developments of solar photovoltaics. , 2023, , 175-195.		1
1776	All Inorganic Lead-free Perovskites for Photocatalysis: Preparation and Absorption Study. , 2023, , .		0
1800	Tailoring the spontaneous emission of nanocube perovskites. , 2023, , 475-506.		0
1812	Three-dimensional lead iodide perovskites based on complex ions. Materials Advances, 0, , .	2.6	0
1831	Effect of NiO Hole Transport Layer Thickness on the Power Conversion Efficiency of Perovskite Solar Cell: A Numerical Simulation Study. Springer Proceedings in Materials, 2023, , 309-313.	0.1	0
1847	Dielectric thin film fabrication, recent developments and their applications. , 2023, , .		0
1860	Optimizing Cs <sub>2</sub> TiBr <sub>6</sub> -Based PSCs with Graphene Quantum Dots. , 0, , .		0
1861	Doping strategies for inorganic lead-free halide perovskite solar cells: progress and challenges. Physical Chemistry Chemical Physics, 2024, 26, 4794-4811.	1.3	0
1865	A review on challenges and opportunities in perovskite solar cells. AIP Conference Proceedings, 2024, , .	0.3	0