Yanfa Yan

List of Publications by Year
in descending order

503 papers	44,762 citations	1463 107 h-index	2385 198 g-index
522 all docs	522 docs citations	522 times ranked	30943 citing authors

#	Article	IF	Citations
1	Understanding the Interplay Between CdSe Thickness and Cu Doping Temperature in CdSe/CdTe Devices. IEEE Journal of Photovoltaics, 2022, 12, 11-15.	2.5	8
2	Copper iodide nanoparticles as a hole transport layer to CdTe photovoltaics: 5.5 % efficient back-illuminated bifacial CdTe solar cells. Solar Energy Materials and Solar Cells, 2022, 235, 111451.	6.2	14
3	Improving CdSeTe Devices With a Back Buffer Layer of Cu_xAlO_y. IEEE Journal of Photovoltaics, 2022, 12, 16-21.	2.5	9
4	Templated Growth and Passivation of Vertically Oriented Antimony Selenide Thin Films for Highâ€Efficiency Solar Cells in Substrate Configuration. Advanced Functional Materials, 2022, 32, 2110032.	14.9	40
5	Metastable Dion-Jacobson 2D structure enables efficient and stable perovskite solar cells. Science, 2022, 375, 71-76.	12.6	216
6	Urbach Energy and Open-Circuit Voltage Deficit for Mixed Anionâ€“Cation Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 7796-7804.	8.0	53
7	Self-Trapped Excitons and Broadband Emission in Metal Halide Perovskites. , 2022, , 37-63.		0
8	Controlling the Formation Process of Methylammoniumâ€Free Halide Perovskite Films for a Homogeneous Incorporation of Alkali Metal Cations Beneficial to Solar Cell Performance. Advanced Energy Materials, 2022, 12, .	19.5	27
9	Gradient Doping in Snâ€“Pb Perovskites by Barium Ions for Efficient Singleâ€Junction and Tandem Solar Cells. Advanced Materials, 2022, 34, e2110351.	21.0	62
10	Perovskite Solar Cells Go Bifacialâ€"Mutual Benefits for Efficiency and Durability. Advanced Materials, 2022, 34, e2106805.	21.0	31
11	Evolution of defects during the degradation of metal halide perovskite solar cells under reverse bias and illumination. Nature Energy, 2022, 7, 65-73.	39.5	158
12	Reduced Recombination and Improved Performance of CdSe/CdTe Solar Cells due to Cu Migration Induced by Light Soaking. ACS Applied Materials & Interfaces, 2022, 14, 19644-19651.	8.0	12
13	Impact of lifetime on the levelized cost of electricity from perovskite single junction and tandem solar cells. Sustainable Energy and Fuels, 2022, 6, 2718-2726.	4.9	11
14	Indium Gallium Oxide Emitters for High-Efficiency CdTe-Based Solar Cells. ACS Applied Energy Materials, 2022, 5, 5484-5489.	5.1	13
15	Carrier control in Snâ€“Pb perovskites via 2D cation engineering for all-perovskite tandem solar cells with improved efficiency and stability. Nature Energy, 2022, 7, 642-651.	39.5	121
16	Metal Halide Scintillators with Fast and Selfâ€Absorptionâ€Free Defectâ€Bound Excitonic Radioluminescence for Dynamic Xâ€Ray Imaging. Advanced Functional Materials, 2021, 31, 2007921.	14.9	78
17	Structural Properties and Stability of Inorganic CsPbI₃ Perovskites. Small Structures, 2021, 2, 2000089.	12.0	39
18	Optical and Electronic Losses Arising from Physically Mixed Interfacial Layers in Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 4923-4934.	8.0	14

#	Article	IF	Citations
19	Reconfiguring the band-edge states of photovoltaic perovskites by conjugated organic cations. Science, 2021, 371, 636-640.	12.6	184
20	Electrical doping in halide perovskites. Nature Reviews Materials, 2021, 6, 531-549.	48.7	189
21	Efficient and Stable Red Perovskite Lightâ€Emitting Diodes with Operational Stability >300 h. Advanced Materials, 2021, 33, e2008820.	21.0	119
22	Hybrid 3D Nanostructure-Based Hole Transport Layer for Highly Efficient Inverted Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 16611-16619.	8.0	10
23	Low-energy room-temperature optical switching in mixed-dimensionality nanoscale perovskite heterojunctions. Science Advances, 2021, 7, .	10.3	41
24	Influence of Post-selenization Temperature on the Performance of Substrate-Type Sb₂Se₃ Solar Cells. ACS Applied Energy Materials, 2021, 4, 4313-4318.	5.1	32
25	Enabling bifacial thin film devices by developing a back surface field using CuxAlOy. Nano Energy, 2021, 83, 105827.	16.0	32
26	High-Photovoltage All-Perovskite Tandem Solar Cells for Photovoltaic-Electrolysis Water-Splitting Applications. , 2021, , .		1
27	Temperature-dependency of ferroelectric behavior in CH3NH3PbI3 perovskite films measured by the Sawyerâ€“Tower method. MRS Advances, 2021, 6, 613-617.	0.9	1
28	Low-temperature and effective ex situ group V doping for efficient polycrystalline CdSeTe solar cells. Nature Energy, 2021, 6, 715-722.	39.5	31
29	Life Cycle Assessment of Perovskite/Silicon Tandem Solar Cells Coupled with Solar Flow Battery Systems. , 2021, , .		1
30	On the design and performance of InGaN/Si double-junction photocathodes. Applied Physics Letters, 2021, 118, .	3.3	6
31	Fabricating Efficient CdTe Solar Cells: The Effect of Cu Precursor. , 2021, , .		2
32	Understanding the Interplay between CdSe Thickness and Cu Doping Temperature in CdSe/CdTe Devices. , 2021, , .		6
33	Optimizing the Selenization of Sb2Se3 Absorbers to Improve the Film Quality and Solar Cell Performances. , 2021, , .		0
34	Determining the Limiting Interface for Thin Film Solar Cells Using Intensity Dependent Front and Back Illuminated Device Performance. , 2021, , .		0
35	Mitigating ion migration in perovskite solar cells. Trends in Chemistry, 2021, 3, 575-588.	8.5	81
36	Protecting Perovskite Solar Cells against Moisture-Induced Degradation with Sputtered Inorganic Barrier Layers. ACS Applied Energy Materials, 2021, 4, 7571-7578.	5.1	20

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37	A Nanocrystal Catalyst Incorporating a Surface Bound Transition Metal to Induce Photocatalytic Sequential Electron Transfer Events. Journal of the American Chemical Society, 2021, 143, 11361-11369.	13.7	47
38	Impact of Humidity and Temperature on the Stability of the Optical Properties and Structure of MAPbI3, MA0.7FA0.3PbI3 and (FAPbI3)0.95(MAPbBr3)0.05 Perovskite Thin Films. Materials, 2021, 14, 4054.	2.9	10
39	Unraveling the surface state of photovoltaic perovskite thin film. Matter, 2021, 4, 2417-2428.	10.0	22
40	Effects of Cu Precursor on the Performance of Efficient CdTe Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 38432-38440.	8.0	15
41	Superior photo-carrier diffusion dynamics in organic-inorganic hybrid perovskites revealed by spatiotemporal conductivity imaging. Nature Communications, 2021, 12, 5009.	12.8	10
42	Optical properties of thin film Sb2Se3 and identification of its electronic losses in photovoltaic devices. Solar Energy, 2021, 228, 38-44.	6.1	11
43	Assessing the true power of bifacial perovskite solar cells under concurrent bifacial illumination. Sustainable Energy and Fuels, 2021, 5, 2865-2870.	4.9	17
44	Metastable Dion-Jacobson 2D structure enables efficient and stable perovskite solar cells. Science, 2021, , eabj2637.	12.6	2
45	Interface modification of sputtered NiO_x as the hole-transporting layer for efficient inverted planar perovskite solar cells. Journal of Materials Chemistry C, 2020, 8, 1972-1980.	5.5	66
46	High Remaining Factors in the Photovoltaic Performance of Perovskite Solar Cells after High-Fluence Electron Beam Irradiations. Journal of Physical Chemistry C, 2020, 124, 1330-1336.	3.1	30
47	Origin of Broad-Band Emission and Impact of Structural Dimensionality in Tin-Alloyed Ruddlesdenâ€“Popper Hybrid Lead Iodide Perovskites. ACS Energy Letters, 2020, 5, 347-352.	17.4	55
48	Charge Compensating Defects in Methylammonium Lead Iodide Perovskite Suppressed by Formamidinium Inclusion. Journal of Physical Chemistry Letters, 2020, 11, 121-128.	4.6	15
49	Low-bandgap mixed tinâ€“lead iodide perovskites with reduced methylammonium for simultaneous enhancement of solar cell efficiency and stability. Nature Energy, 2020, 5, 768-776.	39.5	165
50	Arylammonium-Assisted Reduction of the Open-Circuit Voltage Deficit in Wide-Bandgap Perovskite Solar Cells: The Role of Suppressed Ion Migration. ACS Energy Letters, 2020, 5, 2560-2568.	17.4	131
51	Simple descriptor derived from symbolic regression accelerating the discovery of new perovskite catalysts. Nature Communications, 2020, 11, 3513.	12.8	184
52	InGaN/Si Double-Junction Photocathode for Unassisted Solar Water Splitting. ACS Energy Letters, 2020, 5, 3741-3751.	17.4	49
53	A Multi-functional Molecular Modifier Enabling Efficient Large-Area Perovskite Light-Emitting Diodes. Joule, 2020, 4, 1977-1987.	24.0	111
54	Narrow-Bandgap Mixed Lead/Tin-Based 2D Dionâ€“Jacobson Perovskites Boost the Performance of Solar Cells. Journal of the American Chemical Society, 2020, 142, 15049-15057.	13.7	103

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55	Effects of post-deposition CdCl2 annealing on electronic properties of CdTe solar cells. Solar Energy, 2020, 211, 938-948.	6.1	9
56	Semi-transparent p-type barium copper sulfide as a back contact interface layer for cadmium telluride solar cells. Solar Energy Materials and Solar Cells, 2020, 218, 110764.	6.2	10
57	Back-Surface Passivation of CdTe Solar Cells Using Solution-Processed Oxidized Aluminum. ACS Applied Materials & Interfaces, 2020, 12, 51337-51343.	8.0	15
58	CuSCN as the Back Contact for Efficient ZMO/CdTe Solar Cells. Materials, 2020, 13, 1991.	2.9	13
59	The 2020 photovoltaic technologies roadmap. Journal Physics D: Applied Physics, 2020, 53, 493001.	2.8	274
60	Interaction engineering in organicâ€“inorganic hybrid perovskite solar cells. Materials Horizons, 2020, 7, 2208-2236.	12.2	35
61	Sputtered indium tin oxide as a recombination layer formed on the tunnel oxide/poly-Si passivating contact enabling the potential of efficient monolithic perovskite/Si tandem solar cells. Solar Energy Materials and Solar Cells, 2020, 210, 110482.	6.2	33
62	Influence of Charge Transport Layers on Capacitance Measured in Halide Perovskite Solar Cells. Joule, 2020, 4, 644-657.	24.0	69
63	Effects of intrinsic and atmospherically induced defects in narrow bandgap (FASnI3)<i>x</i>(MAPbI3)1â^’<i>x</i> perovskite films and solar cells. Journal of Chemical Physics, 2020, 152, 064705.	3.0	26
64	Correlating Hysteresis and Stability with Organic Cation Composition in the Two-Step Solution-Processed Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 10588-10596.	8.0	27
65	In Situ Tin(II) Complex Antisolvent Process Featuring Simultaneous Quasiâ€Coreâ€“Shell Structure and Heterojunction for Improving Efficiency and Stability of Lowâ€Bandgap Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1903013.	19.5	31
66	Is Cs₂TiBr₆ a promising Pb-free perovskite for solar energy applications?. Journal of Materials Chemistry A, 2020, 8, 4049-4054.	10.3	62
67	Maximize CdTe solar cell performance through copper activation engineering. Nano Energy, 2020, 73, 104835.	16.0	35
68	Ultrafast Control of Excitonic Rashba Fine Structure by Phonon Coherence in the Metal Halide Perovskite <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>CH</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mr Physical Review Letters, 2020, 124, 157401.	7.8	32
69	Cryogenic spatialâ€“temporal imaging of surface photocarrier dynamics in MAPbI3 films at the single grain level. AIP Advances, 2020, 10, .	1.3	2
70	Lead chloride perovskites for p -type transparent conductors: A critical theoretical reevaluation. Physical Review Materials, 2020, 4, .	2.4	8
71	Non-contacting optical probing of photovoltaic device performance. , 2020, , .		1
72	Solution Processed CuCl treatment for efficient CdS/CdTe Solar Cells. , 2020, , .		1

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73	Lead-Free Metal Halide Perovskites for Solar Cell Applications: A Theoretical Perspective. , 2020, , .		0
74	Incorporation of Arsenic in CdSe/CdTe Solar Cells During Close Spaced Sublimation of CdTe:As. , 2020, , .		3
75	Role of Surface Recombination Velocity and Initial Fermi Level Offset on Bifacial Thin Film Devices. , 2020, , .		0
76	21.1% Efficient Space Perovskite/Si Four-Terminal Tandem Solar Cells. , 2020, , .		3
77	Open-circuit Voltage Exceeding 840 mV for All-Sputtered CdS/CdTe Devices. , 2020, , .		5
78	Oxide perovskites, double perovskites and derivatives for electrocatalysis, photocatalysis, and photovoltaics. Energy and Environmental Science, 2019, 12, 442-462.	30.8	433
79	Measurement of band offsets and shunt resistance in CdTe solar cells through temperature and intensity dependence of open circuit voltage and photoluminescence. Solar Energy, 2019, 189, 389-397.	6.1	9
80	A dithieno[3,2-b:2â€²,3â€²-d]pyrrole-cored four-arm hole transporting material for over 19% efficiency dopant-free perovskite solar cells. Journal of Materials Chemistry C, 2019, 7, 9455-9459.	5.5	23
81	Dithieno[3,2â€b:2â€²,3â€²â€d]pyrrolâ€Cored Hole Transport Material Enabling Over 21% Efficiency Dopantâ€Free Perovskite Solar Cells. Advanced Functional Materials, 2019, 29, 1904300.	14.9	114
82	Dithieno[3,2â€b:2â€²,3â€²â€d]pyrrole Cored pâ€Type Semiconductors Enabling 20â€‰% Efficiency Dopantâ€Free Perovskite Solar Cells. Angewandte Chemie - International Edition, 2019, 58, 13717-13721.	13.8	108
83	Dithieno[3,2â€b:2â€²,3â€²â€d]pyrrole Cored pâ€Type Semiconductors Enabling 20â€‰% Efficiency Dopantâ€Free Perovskite Solar Cells. Angewandte Chemie, 2019, 131, 13855-13859.	2.0	16
84	Buffer/absorber interface recombination reduction and improvement of back-contact barrier height in CdTe solar cells. Thin Solid Films, 2019, 685, 385-392.	1.8	15
85	Bimolecular Additives Improve Wide-Band-Gap Perovskites for Efficient Tandem Solar Cells with CIGS. Joule, 2019, 3, 1734-1745.	24.0	227
86	Influences of buffer material and fabrication atmosphere on the electrical properties of CdTe solar cells. Progress in Photovoltaics: Research and Applications, 2019, 27, 1115-1123.	8.1	24
87	Spontaneous low-temperature crystallization of Î±-FAPbI3 for highly efficient perovskite solar cells. Science Bulletin, 2019, 64, 1608-1616.	9.0	58
88	Achieving High-Quality Snâ€“Pb Perovskite Films on Complementary Metal-Oxide-Semiconductor-Compatible Metal/Silicon Substrates for Efficient Imaging Array. ACS Nano, 2019, 13, 11800-11808.	14.6	40
89	Perovskiteâ€"a Perfect Top Cell for Tandem Devices to Break the Sâ€“Q Limit. Advanced Science, 2019, 6, 1801704.	11.2	80
90	A Cu₃PS₄ nanoparticle hole selective layer for efficient inverted perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 4604-4610.	10.3	29

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91	Irradiance and temperature considerations in the design and deployment of high annual energy yield perovskite/CIGS tandems. Sustainable Energy and Fuels, 2019, 3, 1841-1851.	4.9	30
92	Wide-bandgap, low-bandgap, and tandem perovskite solar cells. Semiconductor Science and Technology, 2019, 34, 093001.	2.0	89
93	Parametric Optical Property Database for CdSe1âˆ’xSx Alloys. Electronic Materials Letters, 2019, 15, 500-504.	2.2	6
94	Solutionâ€processed copper (I) thiocyanate (CuSCN) for highly efficient CdSe/CdTe thinâ€film solar cells. Progress in Photovoltaics: Research and Applications, 2019, 27, 665-672.	8.1	37
95	Carrier lifetimes of >1 Î¼s in Sn-Pb perovskites enable efficient all-perovskite tandem solar cells. Science, 2019, 364, 475-479.	12.6	781
96	Achieving a high open-circuit voltage in inverted wide-bandgap perovskite solar cells with a graded perovskite homojunction. Nano Energy, 2019, 61, 141-147.	16.0	152
97	Low-reflection, (110)-orientation-preferred CsPbBr₃ nanonet films for application in high-performance perovskite photodetectors. Nanoscale, 2019, 11, 9302-9309.	5.6	38
98	Eliminating S-Kink To Maximize the Performance of MgZnO/CdTe Solar Cells. ACS Applied Energy Materials, 2019, 2, 2896-2903.	5.1	60
99	Improving Performance and Stability of Planar Perovskite Solar Cells through Grain Boundary Passivation with Block Copolymers. Solar Rrl, 2019, 3, 1900078.	5.8	40
100	From Lead Halide Perovskites to Leadâ€Free Metal Halide Perovskites and Perovskite Derivatives. Advanced Materials, 2019, 31, e1803792.	21.0	621
101	Lowâ€Bandgap Mixed Tinâ€Lead Perovskites and Their Applications in Allâ€Perovskite Tandem Solar Cells. Advanced Functional Materials, 2019, 29, 1808801.	14.9	133
102	Trifluoroacetate induced small-grained CsPbBr3 perovskite films result in efficient and stable light-emitting devices. Nature Communications, 2019, 10, 665.	12.8	350
103	A new metalâ€“organic open framework enabling facile synthesis of carbon encapsulated transition metal phosphide/sulfide nanoparticle electrocatalysts. Journal of Materials Chemistry A, 2019, 7, 7168-7178.	10.3	50
104	Atmospherically induced defects in (FASnI₃)_{0.6}(MAPbI<sub>3âˆ’3<i>x</i>) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 175102.	2.8	7
105	Operando Microscopy Characterization of Perovskite Solar Cells. , 2019, , .		1
106	Defect Analysis in CSS and Sputtered CdSexTe1-x Thin Films. , 2019, , .		1
107	Optoelectronic Characterization of Emerging Solar Absorber Cu₃AsS₄. , 2019, , .		3
108	ZnTe Back Buffer Layer to Enhance the Efficiency of CdS/CdTe Solar Cells. , 2019, , .		5

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109	Cost analysis of thin film tandem solar cells using real world energy yield modelling. , 2019, , .		0
110	Get rid of S-kink in MZO/CdTe Solar Cells by Performing CdCl₂ Annealing without Oxygen. , 2019, , .		2
111	Effects of Fabrication Atmosphere on Bulk and Back Interface Defects of CdTe Solar Cells with CdS and MgZnO Buffers. , 2019, , .		1
112	Monolithic Two-Terminal All-Perovskite Tandem Solar Cells with Power Conversion Efficiency Exceeding 21%. , 2019, , .		3
113	Hole-Induced Spontaneous Mutual Annihilation of Dislocation Pairs. Journal of Physical Chemistry Letters, 2019, 10, 7421-7425.	4.6	0
114	Helicity-dependent terahertz photocurrent and phonon dynamics in hybrid metal halide perovskites. Journal of Chemical Physics, 2019, 151, 244706.	3.0	16
115	Efficient sky-blue perovskite light-emitting diodes via photoluminescence enhancement. Nature Communications, 2019, 10, 5633.	12.8	267
116	Reducing Saturationâ€Current Density to Realize Highâ€Efficiency Lowâ€Bandgap Mixed Tinâ€"Lead Halide Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1803135.	19.5	255
117	Atomistic Mechanism of Broadband Emission in Metal Halide Perovskites. Journal of Physical Chemistry Letters, 2019, 10, 501-506.	4.6	190
118	The Effects of Hydrogen Iodide Back Surface Treatment on CdTe Solar Cells. Solar Rrl, 2019, 3, 1800304.	5.8	29
119	Unraveling the Impact of Halide Mixing on Perovskite Stability. Journal of the American Chemical Society, 2019, 141, 3515-3523.	13.7	116
120	Bandgap Engineering of Stable Leadâ€Free Oxide Double Perovskites for Photovoltaics. Advanced Materials, 2018, 30, e1705901.	21.0	57
121	Effective Carrierâ€Concentration Tuning of SnO₂ Quantum Dot Electronâ€Selective Layers for Highâ€Performance Planar Perovskite Solar Cells. Advanced Materials, 2018, 30, e1706023.	21.0	333
122	Self-Powered All-Inorganic Perovskite Microcrystal Photodetectors with High Detectivity. Journal of Physical Chemistry Letters, 2018, 9, 2043-2048.	4.6	123
123	Solution-Processed Nb-Substituted BaBiO₃ Double Perovskite Thin Films for Photoelectrochemical Water Reduction. Chemistry of Materials, 2018, 30, 1017-1031.	6.7	45
124	Roles of Pseudo-Closed s² Orbitals for Different Intrinsic Hole Generation between Tlâ€"Bi and Inâ€"Bi Bromide Double Perovskites. Journal of Physical Chemistry Letters, 2018, 9, 258-262.	4.6	27
125	Barium Bismuth Niobate Double Perovskite/Tungsten Oxide Nanosheet Photoanode for Highâ€Performance Photoelectrochemical Water Splitting. Advanced Energy Materials, 2018, 8, 1701655.	19.5	62
126	A New Hole Transport Material for Efficient Perovskite Solar Cells With Reduced Device Cost. Solar Rrl, 2018, 2, 1700175.	5.8	31

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127	Four-Terminal All-Perovskite Tandem Solar Cells Achieving Power Conversion Efficiencies Exceeding 23%. ACS Energy Letters, 2018, 3, 305-306.	17.4	219
128	Double Coating for the Enhancement of the Performance in a MA_{0.7}FA_{0.3}PbBr₃ Photodetector. ACS Photonics, 2018, 5, 2100-2105.	6.6	9
129	Enhanced Grain Size and Crystallinity in CH3NH3PbI3 Perovskite Films by Metal Additives to the Single-Step Solution Fabrication Process. MRS Advances, 2018, 3, 3237-3242.	0.9	26
130	Stability, Electronic and Optical Properties of M₄Mâ€²X₄ (M = Ga or In, Mâ€² = Si,) Tj ETQq0 0 0 rgBT /Overlo 10360-10364.	3.1	7
131	Stable and efficient CdS/Sb2Se3 solar cells prepared by scalable close space sublimation. Nano Energy, 2018, 49, 346-353.	16.0	130
132	Controllable Multinary Alloy Electrodeposition for Thin-Film Solar Cell Fabrication: A Case Study of Kesterite Cu2ZnSnS4. IScience, 2018, 1, 55-71.	4.1	21
133	Effect of non-stoichiometric solution chemistry on improving the performance of wide-bandgap perovskite solar cells. Materials Today Energy, 2018, 7, 232-238.	4.7	31
134	Energy Payback Time (EPBT) and Energy Return on Energy Invested (EROI) of Perovskite Tandem Photovoltaic Solar Cells. IEEE Journal of Photovoltaics, 2018, 8, 305-309.	2.5	58
135	Room-temperature fabrication of a delafossite CuCrO₂hole transport layer for perovskite solar cells. Journal of Materials Chemistry A, 2018, 6, 469-477.	10.3	91
136	A Versatile Optical Model Applied to CdTe and CdSe<inf>1â€"y</inf> Te<inf>y</inf> Alloys: Sensitivity to Film Composition and Relative Defect Density. , 2018, , .		1
137	Electrical Impedance Characterization of CdTe Thin Film Solar Cells with Hydrogen Iodide Back Surface Etching. , 2018, , .		2
138	Excess charge-carrier induced instability of hybrid perovskites. Nature Communications, 2018, 9, 4981.	12.8	159
139	Efficient two-terminal all-perovskite tandem solar cells enabled by high-quality low-bandgap absorber layers. Nature Energy, 2018, 3, 1093-1100.	39.5	422
140	All-Perovskite Tandem Solar Cell Showing Unprecedentedly High Open-Circuit Voltage. Joule, 2018, 2, 2206-2207.	24.0	4
141	Efficient and stable emission of warm-white light from lead-free halide double perovskites. Nature, 2018, 563, 541-545.	27.8	1,451
142	Photovoltaic Effect in Indium(I) Iodide Thin Films. Chemistry of Materials, 2018, 30, 8226-8232.	6.7	13
143	Formamidinium + Cesium Lead Triiodide Perovskite Thin Films: Optical Properties and Devices. , 2018, , .		1
144	Impact of Epoxy Encapsulation on Device Stability of Large- Area Laser-Patterned Perovskite Solar Cells. , 2018, , .		2

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145	3D imaging compositional map in one-step growth of CH<inf>3</inf> NH<inf>3</inf> PbI<inf>3</inf>. , 2018, , .		1
146	Manufacturing Cost Analysis of Perovskite Solar Modules in Single-Junction and All-Perovskite Tandem Configurations. , 2018, , .		11
147	Optical Hall Effect of PV Device Materials. IEEE Journal of Photovoltaics, 2018, 8, 1793-1799.	2.5	12
148	Self-powered CsPbBr3 nanowire photodetector with a vertical structure. Nano Energy, 2018, 53, 880-886.	16.0	104
149	Formamidinium + cesium lead triiodide perovskites: Discrepancies between thin film optical absorption and solar cell efficiency. Solar Energy Materials and Solar Cells, 2018, 188, 228-233.	6.2	21
150	Electrical and optical characterization of CdTe solar cells with CdS and CdSe buffersâ€”A comparative study. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2018, 36, 052904.	1.2	17
151	Optical design of perovskite solar cells for applications in monolithic tandem configuration with CuInSe2 bottom cells. MRS Advances, 2018, 3, 3111-3119.	0.9	13
152	Metalâ€“Organic Framework-Derived CoWP@C Composite Nanowire Electrocatalyst for Efficient Water Splitting. ACS Energy Letters, 2018, 3, 1434-1442.	17.4	141
153	Phase Stability and Electronic Structure of Prospective Sb-Based Mixed Sulfide and Iodide 3D Perovskite (CH₃NH₃)SbSI₂. Journal of Physical Chemistry Letters, 2018, 9, 3829-3833.	4.6	24
154	Pressure-Assisted Annealing Strategy for High-Performance Self-Powered All-Inorganic Perovskite Microcrystal Photodetectors. Journal of Physical Chemistry Letters, 2018, 9, 4714-4719.	4.6	50
155	Band Tail Engineering in Kesterite Cu₂ZnSn(S,Se)₄ Thin-Film Solar Cells with 11.8% Efficiency. Journal of Physical Chemistry Letters, 2018, 9, 4555-4561.	4.6	59
156	Synergistic effects of thiocyanate additive and cesium cations on improving the performance and initial illumination stability of efficient perovskite solar cells. Sustainable Energy and Fuels, 2018, 2, 2435-2441.	4.9	27
157	Binary hole transport materials blending to linearly tune HOMO level for high efficiency and stable perovskite solar cells. Nano Energy, 2018, 51, 680-687.	16.0	59
158	Low Temperature Photoluminescence Spectroscopy of Defect and Interband Transitions in CdSexTe1-x Thin Films. MRS Advances, 2018, 3, 3293-3299.	0.9	8
159	Probing the origins of photodegradation in organicâ€“inorganic metal halide perovskites with time-resolved mass spectrometry. Sustainable Energy and Fuels, 2018, 2, 2460-2467.	4.9	84
160	Efficient and Stable Nonfullereneâ€Graded Heterojunction Inverted Perovskite Solar Cells with Inorganic Ga₂O₃ Tunneling Protective Nanolayer. Advanced Functional Materials, 2018, 28, 1804128.	14.9	76
161	Electronic Properties of <i>ns</i>² Metal Halide Perovskites for Photovoltaic Applications. Materials and Energy, 2018, , 59-94.	0.1	0
162	Employing Overlayers To Improve the Performance of Cu₂BaSnS₄ Thin Film based Photoelectrochemical Water Reduction Devices. Chemistry of Materials, 2017, 29, 916-920.	6.7	61

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