Efficient vacuum deposited p-i-n and n-i-p perovskite s transport layers

Energy and Environmental Science 9, 3456-3463 DOI: 10.1039/c6ee02100j

Citation Report

#	Article	IF	CITATIONS
1	Influence of mobile ions on the electroluminescence characteristics of methylammonium lead iodide perovskite diodes. Journal of Materials Chemistry A, 2016, 4, 18614-18620.	5.2	19
2	Vacuum deposited perovskite solar cells employing dopant-free triazatruxene as the hole transport material. Solar Energy Materials and Solar Cells, 2017, 163, 237-241.	3.0	54
3	Very Small Inverted Hysteresis in Vacuumâ€Deposited Mixed Organic–Inorganic Hybrid Perovskite Solar Cells. Energy Technology, 2017, 5, 1606-1611.	1.8	13
4	Efficient wide band gap double cation – double halide perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 3203-3207.	5.2	28
5	Recent advances in perovskite solar cells: efficiency, stability and lead-free perovskite. Journal of Materials Chemistry A, 2017, 5, 11462-11482.	5.2	378
6	Charge Transfer from Methylammonium Lead Iodide Perovskite to Organic Transport Materials: Efficiencies, Transfer Rates, and Interfacial Recombination. Advanced Energy Materials, 2017, 7, 1602349.	10.2	101
7	Atomic layer deposition for perovskite solar cells: research status, opportunities and challenges. Sustainable Energy and Fuels, 2017, 1, 30-55.	2.5	150
8	A Triarylamine-Based Anode Modifier for Efficient Organohalide Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 9096-9101.	4.0	10
9	Structure–Property Relations of Methylamine Vapor Treated Hybrid Perovskite CH ₃ NH ₃ PbI ₃ Films and Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 8092-8099.	4.0	44
10	It Takes Two to Tango—Double-Layer Selective Contacts in Perovskite Solar Cells for Improved Device Performance and Reduced Hysteresis. ACS Applied Materials & Interfaces, 2017, 9, 17245-17255.	4.0	107
11	Recombination in Perovskite Solar Cells: Significance of Grain Boundaries, Interface Traps, and Defect Ions. ACS Energy Letters, 2017, 2, 1214-1222.	8.8	826
12	Enhancing the c-TiO2 based perovskite solar cell performance via modification by a serial of boronic acid derivative self-assembled monolayers. Applied Surface Science, 2017, 423, 521-527.	3.1	22
13	Flexible NIR-transparent perovskite solar cells for all-thin-film tandem photovoltaic devices. Journal of Materials Chemistry A, 2017, 5, 13639-13647.	5.2	68
14	Nonradiative Losses in Metal Halide Perovskites. ACS Energy Letters, 2017, 2, 1515-1525.	8.8	290
16	Trends in Perovskite Solar Cells and Optoelectronics: Status of Research and Applications from the PSCO Conference. ACS Energy Letters, 2017, 2, 857-861.	8.8	25
17	Efficient Monolithic Perovskite/Perovskite Tandem Solar Cells. Advanced Energy Materials, 2017, 7, 1602121.	10.2	255
18	Vapor-Deposited Perovskites: The Route to High-Performance Solar Cell Production?. Joule, 2017, 1, 431-442.	11.7	274
19	Numerical simulation and experimental validation of inverted planar perovskite solar cells based on NiO x hole transport layer. Superlattices and Microstructures, 2017, 112, 383-393.	1.4	26

#	Article	IF	Citations
20	ABX3 Perovskites for Tandem Solar Cells. Joule, 2017, 1, 769-793.	11.7	176
21	Additiveâ€Assisted Crystallization Dynamics in Twoâ€Step Fabrication of Perovskite Solar Cells. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1700509.	0.8	20
22	Vapour-Deposited Cesium Lead Iodide Perovskites: Microsecond Charge Carrier Lifetimes and Enhanced Photovoltaic Performance. ACS Energy Letters, 2017, 2, 1901-1908.	8.8	128
23	From colossal magnetoresistance to solar cells: An overview on 66 years of research into perovskites. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1700394.	0.8	15
24	Superior stability for perovskite solar cells with 20% efficiency using vacuum co-evaporation. Nanoscale, 2017, 9, 12316-12323.	2.8	169
25	Perovskite solar cells on paper and the role of substrates and electrodes on performance. IEEE Electron Device Letters, 2017, 38, 1278-1281.	2.2	60
26	Efficient and Stable Perovskite Solar Cells Using Molybdenum Tris(dithiolene)s as p-Dopants for Spiro-OMeTAD. ACS Energy Letters, 2017, 2, 2044-2050.	8.8	79
27	Processing Solvent-Dependent Electronic and Structural Properties of Cesium Lead Triiodide Thin Films. Journal of Physical Chemistry Letters, 2017, 8, 4172-4176.	2.1	29
28	Interfaces in Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1700623.	10.2	276
29	Arsenene-Based Heterostructures: Highly Efficient Bifunctional Materials for Photovoltaics and Photocatalytics. ACS Applied Materials & Interfaces, 2017, 9, 42856-42861.	4.0	44
30	Large-Area, Highly Uniform Evaporated Formamidinium Lead Triiodide Thin Films for Solar Cells. ACS Energy Letters, 2017, 2, 2799-2804.	8.8	116
31	Promises and challenges of perovskite solar cells. Science, 2017, 358, 739-744.	6.0	1,510
32	Insights into optoelectronic properties of anti-solvent treated perovskite films. Journal of Materials Science: Materials in Electronics, 2017, 28, 15630-15636.	1.1	8
33	Interface passivation using ultrathin polymer–fullerene films for high-efficiency perovskite solar cells with negligible hysteresis. Energy and Environmental Science, 2017, 10, 1792-1800.	15.6	381
34	Progress on Perovskite Materials and Solar Cells with Mixed Cations and Halide Anions. ACS Applied Materials & Interfaces, 2017, 9, 30197-30246.	4.0	453
35	Progress in fullerene-based hybrid perovskite solar cells. Journal of Materials Chemistry C, 2018, 6, 2635-2651.	2.7	114
36	Vacuum Deposited Triple ation Mixedâ€Halide Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1703506.	10.2	147
37	Coating Evaporated MAPI Thin Films with Organic Molecules: Improved Stability at High Temperature and Implementation in High-Efficiency Solar Cells. ACS Energy Letters, 2018, 3, 835-839.	8.8	30

#	Article	IF	CITATIONS
38	Device simulation of inverted CH3NH3PbI3â^'xClx perovskite solar cells based on PCBM electron transport layer and NiO hole transport layer. Solar Energy, 2018, 169, 11-18.	2.9	92
39	Temperature Variation-Induced Performance Decline of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 16390-16399.	4.0	89
40	Planar Perovskite Solar Cells with High Open ircuit Voltage Containing a Supramolecular Iron Complex as Hole Transport Material Dopant. ChemPhysChem, 2018, 19, 1363-1370.	1.0	17
41	Interfacial Modification for High-Efficiency Vapor-Phase-Deposited Perovskite Solar Cells Based on a Metal Oxide Buffer Layer. Journal of Physical Chemistry Letters, 2018, 9, 1041-1046.	2.1	101
42	lmpact of C–H···X (X = F, N) and π–π Interactions on Tuning the Degree of Charge Transfer in F ₆ TNAP-Based Organic Binary Compound Single Crystals. Crystal Growth and Design, 2018, 18, 1776-1785.	1.4	40
43	Research progress on organic–inorganic halide perovskite materials and solar cells. Journal Physics D: Applied Physics, 2018, 51, 093001.	1.3	56
44	Fully Vacuum-Processed Wide Band Gap Mixed-Halide Perovskite Solar Cells. ACS Energy Letters, 2018, 3, 214-219.	8.8	91
45	Scanning Probe Microscopy Applied to Organic–Inorganic Halide Perovskite Materials and Solar Cells. Small Methods, 2018, 2, 1700295.	4.6	57
46	Enhancing moisture tolerance in efficient hybrid 3D/2D perovskite photovoltaics. Journal of Materials Chemistry A, 2018, 6, 2122-2128.	5.2	163
47	Photocurrent Spectroscopy of Perovskite Solar Cells Over a Wide Temperature Range from 15 to 350 K. Journal of Physical Chemistry Letters, 2018, 9, 263-268.	2.1	23
48	Compositionally Graded Absorber for Efficient and Stable Nearâ€Infraredâ€Transparent Perovskite Solar Cells. Advanced Science, 2018, 5, 1700675.	5.6	65
49	First-Principles Screening of All-Inorganic Lead-Free ABX ₃ Perovskites. Journal of Physical Chemistry C, 2018, 122, 7670-7675.	1.5	98
50	Maximizing and stabilizing luminescence from halide perovskites with potassium passivation. Nature, 2018, 555, 497-501.	13.7	1,336
51	Hansen theory applied to the identification of nonhazardous solvents for hybrid perovskite thin-films processing. Polyhedron, 2018, 147, 9-14.	1.0	13
52	Advances and challenges to the commercialization of organic–inorganic halide perovskite solar cell technology. Materials Today Energy, 2018, 7, 169-189.	2.5	231
53	Organic hole-transporting materials for efficient perovskite solar cells. Materials Today Energy, 2018, 7, 208-220.	2.5	100
54	Perovskite/Silicon Tandem Solar Cells: Marriage of Convenience or True Love Story? – An Overview. Advanced Materials Interfaces, 2018, 5, 1700731.	1.9	321
55	Stable Perovskite Solar Cell Architectures: Robustness against Temperature Variations Under Real World Conditions. , 2018, , .		1

	CITATION R	EPORT	
#	ARTICLE	IF	Citations
56	Textured interfaces in monolithic perovskite/silicon tandem solar cells: advanced light management for improved efficiency and energy yield. Energy and Environmental Science, 2018, 11, 3511-3523.	15.6	281
57	Effects of temperature and coating speed on the morphology of solution-sheared halide perovskite thin-films. Journal of Materials Chemistry A, 2018, 6, 24911-24919.	5.2	40
58	Tailored lead iodide growth for efficient flexible perovskite solar cells and thin-film tandem devices. NPG Asia Materials, 2018, 10, 1076-1085.	3.8	35
59	Anomalous Scaling Exponents in the Capacitance–Voltage Characteristics of Perovskite Thin Film Devices. Journal of Physical Chemistry C, 2018, 122, 27935-27940.	1.5	10
60	Perovskite-Polymer Blends Influencing Microstructures, Nonradiative Recombination Pathways, and Photovoltaic Performance of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 42542-42551.	4.0	50
61	Thermionic Emission–Based Interconnecting Layer Featuring Solvent Resistance for Monolithic Tandem Solar Cells with Solutionâ€Processed Perovskites. Advanced Energy Materials, 2018, 8, 1801954.	10.2	40
62	Thin-film solar cells exceeding 22% solar cell efficiency: An overview on CdTe-, Cu(In,Ga)Se2-, and perovskite-based materials. Applied Physics Reviews, 2018, 5, .	5.5	175
64	Towards Inexpensive and Stable All-Evaporated Perovskite Solar Cells for Industrial Large-Scale Fabrication. , 2018, , .		1
65	High voltage vacuum-deposited CH ₃ NH ₃ PbI ₃ –CH ₃ NH ₃ PbI ₃ tandem solar cells. Energy and Environmental Science, 2018, 11, 3292-3297.	15.6	98
66	Selfâ€Assembled Hole Transporting Monolayer for Highly Efficient Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1801892.	10.2	172
67	Efficient Photo- and Electroluminescence by Trap States Passivation in Vacuum-Deposited Hybrid Perovskite Thin Films. ACS Applied Materials & Interfaces, 2018, 10, 36187-36193.	4.0	23
68	Fabrication of efficient metal halide perovskite solar cells by vacuum thermal evaporation: A progress review. Current Opinion in Electrochemistry, 2018, 11, 130-140.	2.5	51
69	Single-Source Vacuum Deposition of Mechanosynthesized Inorganic Halide Perovskites. Chemistry of Materials, 2018, 30, 7423-7427.	3.2	67
70	Can we use <i>time-resolved</i> measurements to get <i>steady-state</i> transport data for halide perovskites?. Journal of Applied Physics, 2018, 124, .	1.1	39
71	Strategies to obtain stoichiometric perovskite by sequential vapor deposition learned by modeling the diffusion-dominated formation of perovskite films. Applied Physics Express, 2018, 11, 105501.	1.1	10
72	Influence of doped charge transport layers on efficient perovskite solar cells. Sustainable Energy and Fuels, 2018, 2, 2429-2434.	2.5	16
73	Recent Advances in Perovskite Micro―and Nanolasers. Advanced Optical Materials, 2018, 6, 1800278.	3.6	149
74	Doped Chargeâ€Transporting Layers in Planar Perovskite Solar Cells. Advanced Optical Materials, 2018, 6, 1800276.	3.6	65

#	Article	IF	CITATIONS
75	Visualization and suppression of interfacial recombination for high-efficiency large-area pin perovskite solar cells. Nature Energy, 2018, 3, 847-854.	19.8	721
76	Metal Halide Perovskites: From Crystal Formations to Lightâ€Emittingâ€Diode Applications. Small Methods, 2018, 2, 1800093.	4.6	36
77	A Facile Preparative Route of Nanoscale Perovskites over Mesoporous Metal Oxide Films and Their Applications to Photosensitizers and Light Emitters. Advanced Functional Materials, 2018, 28, 1803801.	7.8	17
78	Tin–lead halide perovskites with improved thermal and air stability for efficient all-perovskite tandem solar cells. Sustainable Energy and Fuels, 2018, 2, 2450-2459.	2.5	167
79	Energy Level Alignment at Interfaces in Metal Halide Perovskite Solar Cells. Advanced Materials Interfaces, 2018, 5, 1800260.	1.9	215
80	Determination and influence evaluation of the acoustic impedance ratio for thermal co-evaporation. Applied Physics Letters, 2018, 113, .	1.5	3
81	Opportunities and challenges for tandem solar cells using metal halide perovskite semiconductors. Nature Energy, 2018, 3, 828-838.	19.8	716
82	Manipulation of facet orientation in hybrid perovskite polycrystalline films by cation cascade. Nature Communications, 2018, 9, 2793.	5.8	189
83	Perovskite Solar Cells: Optoelectronic Simulation and Optimization. Solar Rrl, 2018, 2, 1800126.	3.1	39
84	Perovskite–Perovskite Homojunctions via Compositional Doping. Journal of Physical Chemistry Letters, 2018, 9, 2770-2775.	2.1	77
85	Deposition of methylammonium iodide <i>via</i> evaporation – combined kinetic and mass spectrometric study. RSC Advances, 2018, 8, 29899-29908.	1.7	41
86	A Combined Theoretical and Experimental Study of CH ₃ NH ₃ Pbl ₃ Containing AVAI Films Prepared via an Intramolecular Exchange Process. Journal of Physical Chemistry C, 2018, 122, 19705-19711.	1.5	2
87	Modification of the fluorinated tin oxide/electron-transporting material interface by a strong reductant and its effect on perovskite solar cell efficiency. Molecular Systems Design and Engineering, 2018, 3, 741-747.	1.7	9
88	Electrothermal Feedback and Absorption-Induced Open-Circuit-Voltage Turnover in Solar Cells. Physical Review Applied, 2018, 9, .	1.5	13
89	Low-Temperature Processable Charge Transporting Materials for the Flexible Perovskite Solar Cells. Electronic Materials Letters, 2018, 14, 657-668.	1.0	17
90	Quantifying the Composition of Methylammonium Lead Iodide Perovskite Thin Films with Infrared Spectroscopy. Journal of Physical Chemistry C, 2019, 123, 22083-22088.	1.5	5
91	High-Speed Vapor Transport Deposition of Perovskite Thin Films. ACS Applied Materials & Interfaces, 2019, 11, 32928-32936.	4.0	24
92	Roomâ€Temperature Cubic Phase Crystallization and High Stability of Vacuumâ€Deposited Methylammonium Lead Triiodide Thin Films for Highâ€Efficiency Solar Cells. Advanced Materials, 2019, 31, e1902692.	11.1	47

#	Article	IF	CITATIONS
93	Short Photoluminescence Lifetimes in Vacuum-Deposited CH ₃ NH ₃ PbI ₃ Perovskite Thin Films as a Result of Fast Diffusion of Photogenerated Charge Carriers. Journal of Physical Chemistry Letters, 2019, 10, 5167-5172.	2.1	24
94	Scalable Fabrication of Metal Halide Perovskite Solar Cells and Modules. ACS Energy Letters, 2019, 4, 2147-2167.	8.8	161
95	Growth modes and quantum confinement in ultrathin vapour-deposited MAPbI ₃ films. Nanoscale, 2019, 11, 14276-14284.	2.8	51
96	On the origin of open-circuit voltage losses in flexible <i>n-i-p</i> perovskite solar cells. Science and Technology of Advanced Materials, 2019, 20, 786-795.	2.8	15
97	Carrier-gas assisted vapor deposition for highly tunable morphology of halide perovskite thin films. Sustainable Energy and Fuels, 2019, 3, 2447-2455.	2.5	12
98	Efficient Solution Processed CH ₃ NH ₃ PbI ₃ Perovskite Solar Cells with PolyTPD Hole Transport Layer. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 2019, 74, 665-672.	0.7	9
99	Charge Transport Layers Limiting the Efficiency of Perovskite Solar Cells: How To Optimize Conductivity, Doping, and Thickness. ACS Applied Energy Materials, 2019, 2, 6280-6287.	2.5	110
100	The Role of Surface Passivation Layer Preparation on Crystallization and Optoelectronic Performance of Hybrid Evaporated-Spincoated Perovskite Solar Cells. IEEE Journal of Photovoltaics, 2019, 9, 1428-1435.	1.5	2
101	Scalable Deposition Methods for Largeâ€area Production of Perovskite Thin Films. Energy and Environmental Materials, 2019, 2, 119-145.	7.3	153
102	lodine-rich mixed composition perovskites optimised for tin(<scp>iv</scp>) oxide transport layers: the influence of halide ion ratio, annealing time, and ambient air aging on solar cell performance. Journal of Materials Chemistry A, 2019, 7, 16947-16953.	5.2	32
103	Nonradiative Recombination in Perovskite Solar Cells: The Role of Interfaces. Advanced Materials, 2019, 31, e1902762.	11.1	422
104	Dual-Source Coevaporation of Low-Bandgap FA _{1–<i>x</i>} Cs _{<i>x</i>} Sn _{1–<i>y</i>} Pb _{<i>y</i>} I _{3< Perovskites for Photovoltaics. ACS Energy Letters, 2019, 4, 2748-2756.}	< (818) >	43
105	Boosting the ultra-stable unencapsulated perovskite solar cells by using montmorillonite/CH ₃ NH ₃ PbI ₃ nanocomposite as photoactive layer. Energy and Environmental Science, 2019, 12, 1265-1273.	15.6	53
106	Vacuum-Deposited 2D/3D Perovskite Heterojunctions. ACS Energy Letters, 2019, 4, 2893-2901.	8.8	77
107	Guideline for Optical Optimization of Planar Perovskite Solar Cells. Advanced Optical Materials, 2019, 7, 1900944.	3.6	24
108	Vacuum-deposited perovskite photovoltaics for highly efficient environmental light energy harvesting. Journal of Materials Chemistry A, 2019, 7, 3612-3617.	5.2	29
109	Highly efficient prismatic perovskite solar cells. Energy and Environmental Science, 2019, 12, 929-937.	15.6	54
110	Lattice strain causes non-radiative losses in halide perovskites. Energy and Environmental Science, 2019, 12, 596-606.	15.6	343

#	Article	IF	CITATIONS
111	Improving the Performances of Perovskite Solar Cells via Modification of Electron Transport Layer. Polymers, 2019, 11, 147.	2.0	31
112	Morphological and compositional progress in halide perovskite solar cells. Chemical Communications, 2019, 55, 1192-1200.	2.2	136
113	Doping strategies for small molecule organic hole-transport materials: impacts on perovskite solar cell performance and stability. Chemical Science, 2019, 10, 1904-1935.	3.7	279
114	Single-Source Vapor Deposition of Quantum-Cutting Yb3+:CsPb(Cl1–xBrx)3 and Other Complex Metal-Halide Perovskites. ACS Applied Energy Materials, 2019, 2, 4560-4565.	2.5	44
115	Enhancing Efficiency and Stability of Hot Casting p–i–n Perovskite Solar Cell via Dipolar Ion Passivation. ACS Applied Energy Materials, 2019, 2, 4821-4832.	2.5	49
116	Efficient All-Evaporated <i>pin</i> -Perovskite Solar Cells: A Promising Approach Toward Industrial Large-Scale Fabrication. IEEE Journal of Photovoltaics, 2019, 9, 1249-1257.	1.5	33
117	Size- and Morphology-Dependent Auger Recombination in CsPbBr ₃ Perovskite Two-Dimensional Nanoplatelets and One-Dimensional Nanorods. Nano Letters, 2019, 19, 5620-5627.	4.5	53
118	Consistent Device Simulation Model Describing Perovskite Solar Cells in Steady-State, Transient, and Frequency Domain. ACS Applied Materials & amp; Interfaces, 2019, 11, 23320-23328.	4.0	72
119	Molecular Passivation of MoO ₃ : Band Alignment and Protection of Charge Transport Layers in Vacuum-Deposited Perovskite Solar Cells. Chemistry of Materials, 2019, 31, 6945-6949.	3.2	43
120	Perovskite Grains Embraced in a Soft Fullerene Network Make Highly Efficient Flexible Solar Cells with Superior Mechanical Stability. Advanced Materials, 2019, 31, e1901519.	11.1	123
121	Efficiency of all-perovskite two-terminal tandem solar cells: A drift-diffusion study. Solar Energy, 2019, 187, 39-46.	2.9	27
122	Efficiency <i>vs.</i> stability: dopant-free hole transporting materials towards stabilized perovskite solar cells. Chemical Science, 2019, 10, 6748-6769.	3.7	191
123	Colloidal metal halide perovskite nanocrystals: a promising juggernaut in photovoltaic applications. Journal of Materials Chemistry A, 2019, 7, 14357-14379.	5.2	22
124	Tunable internal quantum well alignment in rationally designed oligomer-based perovskite films deposited by resonant infrared matrix-assisted pulsed laser evaporation. Materials Horizons, 2019, 6, 1707-1716.	6.4	48
125	Unravelling steady-state bulk recombination dynamics in thick efficient vacuum-deposited perovskite solar cells by transient methods. Journal of Materials Chemistry A, 2019, 7, 14712-14722.	5.2	31
126	Characterization of Methylammonium Lead Iodide Thin Films Fabricated by Exposure of Lead Iodide Layers to Methylammonium Iodide Vapor in a Closed Crucible Transformation Process. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800894.	0.8	5
127	Charge injection and trapping at perovskite interfaces with organic hole transporting materials of different ionization energies. APL Materials, 2019, 7, .	2.2	20
128	Boosting inverted perovskite solar cell performance by using 9,9-bis(4-diphenylaminophenyl)fluorene functionalized with triphenylamine as a dopant-free hole transporting material. Journal of Materials Chemistry A, 2019, 7, 12507-12517.	5.2	62

#	Article	IF	CITATIONS
129	How far does the defect tolerance of lead-halide perovskites range? The example of Bi impurities introducing efficient recombination centers. Journal of Materials Chemistry A, 2019, 7, 23838-23853.	5.2	57
130	Ultrastable and Reversible Fluorescent Perovskite Films Used for Flexible Instantaneous Display. Advanced Functional Materials, 2019, 29, 1900730.	7.8	60
131	Vapor Exchange Deposition of an Air-Stable Lead Iodide Adduct on 19% Efficient 1.8 cm ² Perovskite Solar Cells. ACS Applied Energy Materials, 2019, 2, 2506-2514.	2.5	19
132	Comparing the Calculated Fermi Level Splitting with the Open-Circuit Voltage in Various Perovskite Cells. ACS Energy Letters, 2019, 4, 855-860.	8.8	19
133	Planar Perovskite Solar Cells with High Efficiency and Fill Factor Obtained Using Two-Step Growth Process. ACS Applied Materials & Interfaces, 2019, 11, 15680-15687.	4.0	18
134	Resolving the detrimental interface in co-evaporated MAPbI3 perovskite solar cells by hybrid growth method. Organic Electronics, 2019, 69, 329-335.	1.4	7
135	The Effect of Electrostatic Interaction on nâ€Type Doping Efficiency of Fullerene Derivatives. Advanced Electronic Materials, 2019, 5, 1800959.	2.6	15
136	Metallated Macrocyclic Derivatives as a Hole – Transporting Materials for Perovskite Solar Cells. Chemical Record, 2019, 19, 2157-2177.	2.9	23
137	Performance and stability of co-evaporated vapor deposited perovskite solar cells. Journal of Materials Science: Materials in Electronics, 2019, 30, 5487-5494.	1.1	28
138	Halide Perovskite Photovoltaics: Background, Status, and Future Prospects. Chemical Reviews, 2019, 119, 3036-3103.	23.0	2,009
139	Vacuum co-deposited CH3NH3PbI3 films by controlling vapor pressure for efficient planar perovskite solar cells. Solar Energy, 2019, 181, 339-344.	2.9	26
140	Assessing the energy offset at the electron donor/acceptor interface in organic solar cells through radiative efficiency measurements. Energy and Environmental Science, 2019, 12, 3556-3566.	15.6	69
141	Ruthenium pentamethylcyclopentadienyl mesitylene dimer: a sublimable n-dopant and electron buffer layer for efficient n–i–p perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 25796-25801.	5.2	6
142	Self-formed PbI2-DMSO adduct for highly efficient and stable perovskite solar cells. Applied Physics Letters, 2019, 115, .	1.5	9
143	Conformal monolayer contacts with lossless interfaces for perovskite single junction and monolithic tandem solar cells. Energy and Environmental Science, 2019, 12, 3356-3369.	15.6	519
144	Control of Crystal Growth toward Scalable Fabrication of Perovskite Solar Cells. Advanced Functional Materials, 2019, 29, 1807047.	7.8	111
145	Effects of Masking on Open-Circuit Voltage and Fill Factor in Solar Cells. Joule, 2019, 3, 16-26.	11.7	64
146	Ultrafast Charge Separation in Two-Dimensional CsPbBr ₃ Perovskite Nanoplatelets. Journal of Physical Chemistry Letters, 2019, 10, 566-573.	2.1	71

#	Article	IF	CITATIONS
147	Unraveling the Impact of Halide Mixing on Perovskite Stability. Journal of the American Chemical Society, 2019, 141, 3515-3523.	6.6	116
148	All-Inorganic Perovskite CsPbI2Br Through Co-evaporation for Planar Heterojunction Solar Cells. Electronic Materials Letters, 2019, 15, 56-60.	1.0	27
149	Synthetic Approaches for Halide Perovskite Thin Films. Chemical Reviews, 2019, 119, 3193-3295.	23.0	454
150	Perovskite Nanoparticles: Synthesis, Properties, and Novel Applications in Photovoltaics and LEDs. Small Methods, 2019, 3, 1800231.	4.6	77
151	Phosphomolybdic acid as an efficient hole injection material in perovskite optoelectronic devices. Dalton Transactions, 2019, 48, 30-34.	1.6	13
152	Organic-cation-mixed (FA,MA)PbI3 through sequential vapor growth for planar perovskite solar cells. Solar Energy, 2019, 178, 56-60.	2.9	19
153	Efficiency Enhancement and Hysteresis Mitigation by Manipulation of Grain Growth Conditions in Hybrid Evaporated–Spin-coated Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 722-729.	4.0	16
154	A review on the classification of organic/inorganic/carbonaceous hole transporting materials for perovskite solar cell application. Arabian Journal of Chemistry, 2020, 13, 2526-2557.	2.3	150
155	All-vacuum deposited and thermally stable perovskite solar cells with F4-TCNQ/CuPc hole transport layer. Nanotechnology, 2020, 31, 065401.	1.3	14
156	A Review on Reducing Grain Boundaries and Morphological Improvement of Perovskite Solar Cells from Methodology and Materialâ€Based Perspectives. Small Methods, 2020, 4, 1900569.	4.6	56
157	Use of Hydrogen Molybdenum Bronze in Vacuumâ€Deposited Perovskite Solar Cells. Energy Technology, 2020, 8, 1900734.	1.8	4
158	Efficient Perovskite Solar Cells with a Novel Aggregationâ€Induced Emission Molecule as Holeâ€Transport Material. Solar Rrl, 2020, 4, 1900189.	3.1	14
159	FAPb 0.5 Sn 0.5 I 3 : A Narrow Bandgap Perovskite Synthesized through Evaporation Methods for Solar Cell Applications. Solar Rrl, 2020, 4, 1900283.	3.1	24
160	Conformal perovskite films on 100Âcm2 textured silicon surface using two-step vacuum process. Thin Solid Films, 2020, 693, 137694.	0.8	17
161	Preparation and Characterization of Mixed Halide MAPbl _{3â^'<i>x</i>} Cl _{<i>x</i>} Perovskite Thin Films by Threeâ€Source Vacuum Deposition. Energy Technology, 2020, 8, 1900784.	1.8	12
162	Tumorâ€Derived Peptidoglycan Recognition Protein 2 Predicts Survival and Antitumor Immune Responses in Hepatocellular Carcinoma. Hepatology, 2020, 71, 1626-1642.	3.6	20
163	Synergistic Coassembly of Highly Wettable and Uniform Holeâ€Extraction Monolayers for Scalingâ€up Perovskite Solar Cells. Advanced Functional Materials, 2020, 30, 1909509.	7.8	41
164	The Role of the Interfaces in Perovskite Solar Cells. Advanced Materials Interfaces, 2020, 7, 1901469.	1.9	239

#	Article	IF	CITATIONS
165	Slot-die coating of perovskite solar cells: An overview. Materials Today Communications, 2020, 22, 100808.	0.9	100
166	Effect of absorber layer, hole transport layer thicknesses, and its doping density on the performance of perovskite solar cells by device simulation. Solar Energy, 2020, 196, 177-182.	2.9	193
167	Current-voltage analysis: lessons learned from hysteresis. , 2020, , 81-108.		9
168	Thermally Stable Passivation toward High Efficiency Inverted Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 3336-3343.	8.8	19
169	Historical Analysis of Highâ€Efficiency, Largeâ€Area Solar Cells: Toward Upscaling of Perovskite Solar Cells. Advanced Materials, 2020, 32, e2002202.	11.1	103
170	Design of Perovskite Thermally Coâ€Evaporated Highly Efficient Miniâ€Modules with High Geometrical Fill Factors. Solar Rrl, 2020, 4, 2000473.	3.1	29
171	Toward ideal hole transport materials: a review on recent progress in dopant-free hole transport materials for fabricating efficient and stable perovskite solar cells. Energy and Environmental Science, 2020, 13, 4057-4086.	15.6	241
172	Control over Crystal Size in Vapor Deposited Metal-Halide Perovskite Films. ACS Energy Letters, 2020, 5, 710-717.	8.8	72
173	Vacuum-Deposited Multication Tin–Lead Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 2755-2761.	2.5	16
174	Pressing challenges of halide perovskite thin film growth. APL Materials, 2020, 8, .	2.2	42
175	Potassium Acetate-Based Treatment for Thermally Co-Evaporated Perovskite Solar Cells. Coatings, 2020, 10, 1163.	1.2	9
176	Numerical study of a highly efficient light trapping nanostructure of perovskite solar cell on a textured silicon substrate. Scientific Reports, 2020, 10, 18699.	1.6	28
177	The Future of Perovskite Photovoltaics—Thermal Evaporation or Solution Processing?. Advanced Energy Materials, 2020, 10, 2003073.	10.2	135
178	Controllable deposition of organic metal halide perovskite films with wafer-scale uniformity by single source flash evaporation. Scientific Reports, 2020, 10, 18781.	1.6	6
179	An optimized lead-free formamidinium Sn-based perovskite solar cell design for high power conversion efficiency by SCAPS simulation. Optical Materials, 2020, 108, 110213.	1.7	107
180	Deposition Kinetics and Compositional Control of Vacuum-Processed CH ₃ NH ₃ Pbl ₃ Perovskite. Journal of Physical Chemistry Letters, 2020, 11, 6852-6859.	2.1	43
181	A Comparison of the Structure and Properties of Opaque and Semi-Transparent NIP/PIN-Type Scalable Perovskite Solar Cells. Energies, 2020, 13, 3794.	1.6	13

#	Article	IF	Citations
183	Hybrid Vapor-Solution Sequentially Deposited Mixed-Halide Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 8257-8265.	2.5	21
184	Co-Evaporated p-i-n Perovskite Solar Cells beyond 20% Efficiency: Impact of Substrate Temperature and Hole-Transport Layer. ACS Applied Materials & Interfaces, 2020, 12, 39261-39272.	4.0	79
185	Effect of solvent vapour annealing on bismuth triiodide film for photovoltaic applications and its optoelectronic properties. Journal of Materials Chemistry C, 2020, 8, 12173-12180.	2.7	19
186	Nearâ€Infraredâ€Transparent Perovskite Solar Cells and Perovskiteâ€Based Tandem Photovoltaics. Small Methods, 2020, 4, 2000395.	4.6	63
187	Perovskite Solar Cells: Stable under Space Conditions. Solar Rrl, 2020, 4, 2000447.	3.1	14
188	Doping in inorganic perovskite for photovoltaic application. Nano Energy, 2020, 78, 105354.	8.2	53
189	Growth mechanism of CH ₃ NH ₃ I in a vacuum processed perovskite. Nanoscale Advances, 2020, 2, 3906-3911.	2.2	4
190	Efficient Vacuum-Deposited Perovskite Solar Cells with Stable Cubic FA _{1–<i>x</i>} MA _{<i>x</i>} Pbl ₃ . ACS Energy Letters, 2020, 5, 3053-3061.	8.8	49
191	Efficiency progress of inverted perovskite solar cells. Energy and Environmental Science, 2020, 13, 3823-3847.	15.6	210
192	Choose Your Own Adventure: Fabrication of Monolithic Allâ€Perovskite Tandem Photovoltaics. Advanced Materials, 2020, 32, e2003312.	11.1	39
193	Elucidating the Roles of Hole Transport Layers in pâ€iâ€n Perovskite Solar Cells. Advanced Electronic Materials, 2020, 6, 2000149.	2.6	11
194	Monolithic Perovskite Tandem Solar Cells: A Review of the Present Status and Advanced Characterization Methods Toward 30% Efficiency. Advanced Energy Materials, 2020, 10, 1904102.	10.2	321
195	Tapered Crossâ€6ection Photoelectron Spectroscopy of Stateâ€ofâ€theâ€Art Mixed Ion Perovskite Solar Cells: Band Bending Profile in the Dark, Photopotential Profile Under Open Circuit Illumination, and Band Diagram. Advanced Functional Materials, 2020, 30, 1910679.	7.8	19
196	Doping strategies of organic n-type materials in perovskite solar cells: a chemical perspective. Sustainable Energy and Fuels, 2020, 4, 3264-3281.	2.5	10
197	Molecular materials as interfacial layers and additives in perovskite solar cells. Chemical Society Reviews, 2020, 49, 4496-4526.	18.7	130
198	Interaction engineering in organic–inorganic hybrid perovskite solar cells. Materials Horizons, 2020, 7, 2208-2236.	6.4	35
199	Perovskites fabricated on textured silicon surfaces for tandem solar cells. Communications Chemistry, 2020, 3, .	2.0	31
200	Understanding of perovskite crystal growth and film formation in scalable deposition processes. Chemical Society Reviews, 2020, 49, 1653-1687.	18.7	364

#	Article	IF	CITATIONS
201	Effect of structural and temperature variations on perovskite/Mg2Si based monolithic tandem solar cell structure. Applied Physics A: Materials Science and Processing, 2020, 126, 1.	1.1	25
202	FAPb _{0.5} Sn _{0.5} I ₃ : A Narrow Bandgap Perovskite Synthesized through Evaporation Methods for Solar Cell Applications. Solar Rrl, 2020, 4, 2070024.	3.1	9
203	Light-induced charge transfer at the CH ₃ NH ₃ PbI ₃ /TiO ₂ interface—a low-temperature photo-electron paramagnetic resonance assay. JPhys Photonics, 2020, 2, 014007.	2.2	2
204	The phototransport in halide perovskites: From basic physics to applications. Journal of Applied Physics, 2020, 127, 085103.	1.1	5
205	Interfacial and structural modifications in perovskite solar cells. Nanoscale, 2020, 12, 5719-5745.	2.8	39
206	High voltage vacuum-processed perovskite solar cells with organic semiconducting interlayers. RSC Advances, 2020, 10, 6640-6646.	1.7	13
207	Vapor-Phase Formation of a Hole-Transporting Thiophene Polymer Layer for Evaporated Perovskite Solar Cells. ACS Applied Materials & amp; Interfaces, 2020, 12, 6496-6502.	4.0	12
208	Quantifying Charge arrier Mobilities and Recombination Rates in Metal Halide Perovskites from Timeâ€Resolved Microwave Photoconductivity Measurements. Advanced Energy Materials, 2020, 10, 1903788.	10.2	43
209	Epitaxial growth of CH3NH3PbI3 on rubrene single crystal. APL Materials, 2020, 8, .	2.2	11
210	Thermally evaporated methylammonium-free perovskite solar cells. Journal of Materials Chemistry C, 2020, 8, 7725-7733.	2.7	42
211	Highly Efficient Thermally Co-evaporated Perovskite Solar Cells and Mini-modules. Joule, 2020, 4, 1035-1053.	11.7	257
212	Perovskite hybrid evaporation/ spin coating method: From band gap tuning to thin film deposition on textures. Thin Solid Films, 2020, 704, 137970.	0.8	22
213	The growth of methylammonium lead iodide perovskites by close space vapor transport. RSC Advances, 2020, 10, 16125-16131.	1.7	11
214	Performance optimization of CH3NH3Pb(I1-xBrx)3 based perovskite solar cells by comparing different ETL materials through conduction band offset engineering. Optical Materials, 2020, 105, 109897.	1.7	74
215	Efficient Interconnection in Perovskite Tandem Solar Cells. Small Methods, 2020, 4, 2000093.	4.6	43
216	Device physics of back-contact perovskite solar cells. Energy and Environmental Science, 2020, 13, 1753-1765.	15.6	58
217	A naphthalene diimide side-chain polymer as an electron-extraction layer for stable perovskite solar cells. Materials Chemistry Frontiers, 2021, 5, 450-457.	3.2	11
218	Strategies from small-area to scalable fabrication for perovskite solar cells. Journal of Energy Chemistry, 2021, 57, 567-586.	7.1	17

#	Article	IF	CITATIONS
219	Insights into Large‣cale Fabrication Methods in Perovskite Photovoltaics. Advanced Energy and Sustainability Research, 2021, 2, 2000046.	2.8	27
220	Cross-linkable fullerene interfacial contacts for enhancing humidity stability of inverted perovskite solar cells. Rare Metals, 2021, 40, 1691-1697.	3.6	8
221	Efficient, Hysteresisâ€Free, and Flexible Inverted Perovskite Solar Cells Using Allâ€Vacuum Processing. Solar Rrl, 2021, 5, .	3.1	33
222	Physical vapor deposition of the halide perovskite CsBi2Br7. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	0.9	3
223	Recent progress in meniscus coating for large-area perovskite solar cells and solar modules. Sustainable Energy and Fuels, 2021, 5, 1926-1951.	2.5	11
224	Assigning ionic properties in perovskite solar cells; a unifying transient simulation/experimental study. Sustainable Energy and Fuels, 2021, 5, 3578-3587.	2.5	6
225	Device simulation of CH3NH3PbI3 perovskite solar cell with high efficiency. AIP Conference Proceedings, 2021, , .	0.3	7
226	Co-evaporation of CH ₃ NH ₃ PbI ₃ : How Growth Conditions Impact Phase Purity, Photostriction, and Intrinsic Stability. ACS Applied Materials & amp; Interfaces, 2021, 13, 2642-2653.	4.0	14
227	Crystal Reorientation and Amorphization Induced by Stressing Efficient and Stable P–I–N Vacuumâ€Processed MAPbI ₃ Perovskite Solar Cells. Advanced Energy and Sustainability Research, 2021, 2, 2000065.	2.8	20
228	Perovskite solar cells as modern nano tools and devices in solar power energy. , 2021, , 377-427.		5
229	High-throughput large-area vacuum deposition for high-performance formamidine-based perovskite solar cells. Energy and Environmental Science, 2021, 14, 3035-3043.	15.6	121
230	Perovskite solar cells. , 2021, , 249-281.		5
231	Inverted planer perovskite solar cells fabricated by all vapor phase process. Japanese Journal of Applied Physics, 2021, 60, SBBF10.	0.8	6
232	Recent Progress on Patterning Strategies for Perovskite Lightâ€Emitting Diodes toward a Fullâ€Color Display Prototype. Small Science, 2021, 1, 2000050.	5.8	39
233	Simple and Efficient Perovskite Solar Cells with Multiâ€Functional Mixed Interfacial Layers. Advanced Materials Interfaces, 2021, 8, 2002007.	1.9	3
234	Identification of the dominant recombination process for perovskite solar cells based on machine learning. Cell Reports Physical Science, 2021, 2, 100346.	2.8	21
235	Surface structure of quasi-2D perovskite PEA _{2m} MA _{nâ^`2m} Pb _n I _{3n} (n ≫ m). Applied Physics Express, 2021, 14, 031006.	1.1	0
236	Efficient Wide-Bandgap Mixed-Cation and Mixed-Halide Perovskite Solar Cells by Vacuum Deposition. ACS Energy Letters, 2021, 6, 827-836.	8.8	81

#	Article	IF	CITATIONS
237	Tailored Designâ€ofâ€Experiments Approach for Device Performance Prediction and Optimization of Flashâ€Evaporated Organic–Inorganic Halide Perovskiteâ€Based Photodetectors. Advanced Materials Technologies, 2021, 6, 2001131.	3.0	5
238	Surface Passivation of Triple-Cation Perovskite via Organic Halide-Saturated Antisolvent for Inverted Planar Solar Cells. ACS Applied Energy Materials, 2021, 4, 3297-3309.	2.5	13
239	Tin Oxide Electronâ€Selective Layers for Efficient, Stable, and Scalable Perovskite Solar Cells. Advanced Materials, 2021, 33, e2005504.	11.1	196
240	Polymer strategies for high-efficiency and stable perovskite solar cells. Nano Energy, 2021, 82, 105712.	8.2	64
241	Perovskite random lasers: a tunable coherent light source for emerging applications. Nanotechnology, 2021, 32, 282001.	1.3	26
242	Limits to Electrical Mobility in Lead-Halide Perovskite Semiconductors. Journal of Physical Chemistry Letters, 2021, 12, 3607-3617.	2.1	45
243	Insights into Microscopic Crystal Growth Dynamics of CH ₃ NH ₃ PbI ₃ under a Laser Deposition Process Revealed by <i>In Situ</i> X-ray Diffraction. ACS Applied Materials & Interfaces, 2021, 13, 22559-22566.	4.0	3
244	Mechanism and Timescales of Reversible pâ€Doping of Methylammonium Lead Triiodide by Oxygen. Advanced Materials, 2021, 33, e2100211.	11.1	17
245	Solvent Engineering as a Vehicle for High Quality Thin Films of Perovskites and Their Device Fabrication. Small, 2021, 17, e2008145.	5.2	53
246	Polymeric Dopant-Free Hole Transporting Materials for Perovskite Solar Cells: Structures and Concepts towards Better Performances. Polymers, 2021, 13, 1652.	2.0	24
247	The selection strategy of ammonium-group organic salts in vapor deposited perovskites: From dimension regulation to passivation. Nano Energy, 2021, 84, 105893.	8.2	19
248	Crystallographically Oriented Hybrid Perovskites via Thermal Vacuum Codeposition. Solar Rrl, 2021, 5, 2100191.	3.1	8
249	High-Voltage Hybrid Organic-Inorganic Perovskite Solar Cells. , 2021, , .		1
250	Molecular designing of triphenylamine-based hole-transporting materials for perovskite solar cells. Solar Energy, 2021, 221, 536-544.	2.9	19
251	A Physics-Based Analytical Model for Current–Voltage Characteristics of Perovskite Solar Cells Incorporating Bulk Recombination. Energies, 2021, 14, 3868.	1.6	1
252	Emerging Indoor Photovoltaic Technologies for Sustainable Internet of Things. Advanced Energy Materials, 2021, 11, 2100698.	10.2	117
253	Single-Source Pulsed Laser Deposition of MAPbI3. , 2021, , .		1
254	Efficient Thermally Evaporated γâ€CsPbl ₃ Perovskite Solar Cells. Advanced Energy Materials, 2021, 11, 2100299.	10.2	35

#	Article	IF	CITATIONS
255	Importance of methylammonium iodide partial pressure and evaporation onset for the growth of co-evaporated methylammonium lead iodide absorbers. Scientific Reports, 2021, 11, 15299.	1.6	15
256	Scalable Blade Coating: A Technique Accelerating the Commercialization of Perovskiteâ€Based Photovoltaics. Energy Technology, 2021, 9, 2100204.	1.8	9
257	Pathways toward 30% Efficient Singleâ€Junction Perovskite Solar Cells and the Role of Mobile Ions. Solar Rrl, 2021, 5, 2100219.	3.1	48
258	Coâ€Evaporated MAPbI ₃ with Graded Fermi Levels Enables Highly Performing, Scalable, and Flexible pâ€iâ€n Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2103252.	7.8	40
259	Coâ€Evaporated Formamidinium Lead Iodide Based Perovskites with 1000 h Constant Stability for Fully Textured Monolithic Perovskite/Silicon Tandem Solar Cells. Advanced Energy Materials, 2021, 11, 2101460.	10.2	102
260	From Groundwork to Efficient Solar Cells: On the Importance of the Substrate Material in Coâ€Evaporated Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2104482.	7.8	51
261	Perovskite/silicon tandem photovoltaics: Technological disruption without business disruption. Applied Physics Letters, 2021, 119, .	1.5	22
262	Recent Advances in Flexible Perovskite Lightâ€Emitting Diodes. Advanced Materials Interfaces, 2021, 8, 2100441.	1.9	28
263	Lightâ€Emitting Perovskite Solar Cells: A Tale of Two States. Energy Technology, 2021, 9, 2100394.	1.8	0
264	Reduced Recombination Losses in Evaporated Perovskite Solar Cells by Postfabrication Treatment. Solar Rrl, 2021, 5, 2100400.	3.1	5
265	Strategies and methods for fabricating high quality metal halide perovskite thin films for solar cells. Journal of Energy Chemistry, 2021, 60, 300-333.	7.1	31
266	Toward Commercialization of Efficient and Stable Perovskite Solar Modules. Solar Rrl, 2022, 6, 2100600.	3.1	16
267	Fluorinated Cross-linkable and Dopant-free hole transporting materials for efficient and stable perovskite solar cells. Chemical Engineering Journal, 2021, 422, 130124.	6.6	26
268	Optimization of lead-free perovskite solar cells in normal-structure with <mmi:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.svg"><mml:mrow><mml:msub><mml:mtext>WO</mml:mtext><mml:mn>3</mml:mn></mml:msub> and water-free PEDOT: PSS composite for hole transport layer by SCAPS-1D simulation. Optical</mml:mrow></mmi:math 	x a ml:mrd/	b ‰₂
269	Materials, 2021, 120, 111992. Molecular dopants: Tools to control the electronic structure of metal halide perovskite interfaces. Applied Physics Reviews, 2021, 8, .	5.5	8
270	Crystalline quality control in sequential vapor deposited perovskite film toward high efficiency and large scale solar cells. Solar Energy Materials and Solar Cells, 2021, 233, 111382.	3.0	10
271	A strategic review on processing routes towards scalable fabrication of perovskite solar cells. Journal of Energy Chemistry, 2022, 64, 538-560.	7.1	33
272	Ligand-bridged charge extraction and enhanced quantum efficiency enable efficient n–i–p perovskite/silicon tandem solar cells. Energy and Environmental Science, 2021, 14, 4377-4390.	15.6	79

#	Article	IF	CITATIONS
273	Progress in blade-coating method for perovskite solar cells toward commercialization. Journal of Renewable and Sustainable Energy, 2021, 13, .	0.8	17
274	Toward Perovskite Solar Cell Commercialization: A Perspective and Research Roadmap Based on Interfacial Engineering. Advanced Materials, 2018, 30, e1800455.	11.1	332
275	Effect of the Device Architecture on the Performance of FA _{0.85} MA _{0.15} PbBr _{0.45} I _{2.55} Planar Perovskite Solar Cells. Advanced Materials Interfaces, 2019, 6, 1801667.	1.9	15
276	Light Absorption and Recycling in Hybrid Metal Halide Perovskite Photovoltaic Devices. Advanced Energy Materials, 2020, 10, 1903653.	10.2	28
277	Perovskite Photovoltaics: From Laboratory to Industry. Springer Series in Optical Sciences, 2020, , 219-255.	0.5	9
278	Scalable fabrication and coating methods for perovskite solar cells and solar modules. Nature Reviews Materials, 2020, 5, 333-350.	23.3	568
279	Seed crystal free growth of high-quality double cation – double halide perovskite single crystals for optoelectronic applications. Journal of Materials Chemistry C, 2020, 8, 8275-8283.	2.7	7
280	Roadmap on organic–inorganic hybrid perovskite semiconductors and devices. APL Materials, 2021, 9, .	2.2	102
281	Nanophotonic light management for perovskite–silicon tandem solar cells. Journal of Photonics for Energy, 2018, 8, 1.	0.8	40
282	Efficient Vacuum Deposited P-I-N Perovskite Solar Cells by Front Contact Optimization. Frontiers in Chemistry, 2019, 7, 936.	1.8	16
283	Triple-cation perovskite solar cells fabricated by a hybrid PVD/blade coating process using green solvents. Journal of Materials Chemistry A, 2021, 9, 26680-26687.	5.2	17
284	Designs from single junctions, heterojunctions to multijunctions for high-performance perovskite solar cells. Chemical Society Reviews, 2021, 50, 13090-13128.	18.7	91
285	Orders of Recombination in Complete Perovskite Solar Cells – Linking Timeâ€Resolved and Steadyâ€State Measurements. Advanced Energy Materials, 2021, 11, 2101823.	10.2	31
286	Vapor deposition of metal halide perovskite thin films: Process control strategies to shape layer properties. APL Materials, 2021, 9, .	2.2	37
288	Recent advancement in inorganic-organic electron transport layers in perovskite solar cell: current status and future outlook. Materials Today Chemistry, 2021, 22, 100595.	1.7	17
289	Single-source flash sublimation of metal-halide semiconductors. , 2019, , .		3
290	Perovskite Materials in Photovoltaics. Materials Horizons, 2020, , 175-207.	0.3	1
291	Low Temperature, Vacuumâ€Processed Bismuth Triiodide Solar Cells with Organic Smallâ€Molecule Hole Transport Bilayer. Energy Technology, 2021, 9, 2100661.	1.8	2

#	Article	IF	CITATIONS
292	Mechanistic Insights into the Role of the Bis(trifluoromethanesulfonyl)imide Ion in Coevaporated p–i–n Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, , .	4.0	2
293	Ternary-source vapor-phase deposition of CH ₃ NH ₃ PbI ₃ polycrystalline thin films using CH ₃ NH ₂ and HI gas sources with PbI ₂ solid source. Japanese Journal of Applied Physics, 2021, 60, 015505.	0.8	0
295	Perovskite Solar Mini-Modules. Europhysics News, 2021, 52, 16-19.	0.1	0
296	Passivating contacts for high-efficiency silicon-based solar cells: From single-junction to tandem architecture. Nano Energy, 2022, 92, 106712.	8.2	30
298	Vacuum-evaporated lead halide perovskite LEDs [Invited]. Optical Materials Express, 2022, 12, 256.	1.6	6
299	Dopant Free Triphenylamineâ€Based Hole Transport Materials with Excellent Photovoltaic Properties for Highâ€Performance Perovskite Solar Cells. Energy Technology, 2022, 10, 2100838.	1.8	34
300	Lowâ€Temperature Atomic Layer Deposited Electron Transport Layers for Coâ€Evaporated Perovskite Solar Cells. Solar Rrl, 2022, 6, 2100842.	3.1	16
301	Inner Filter Effect as a Boon in Perovskite Sensing Systems to Achieve Higher Sensitivity Levels. ACS Applied Materials & Interfaces, 2021, 13, 57264-57273.	4.0	16
303	Film Fabrication of Perovskites and their Derivatives for Photovoltaic Applications via Chemical Vapor Deposition. ACS Applied Energy Materials, 2022, 5, 5434-5448.	2.5	7
304	Optimization of a Pb-free all-perovskite tandem solar cell with 30.85% efficiency. Optical Materials, 2022, 123, 111891.	1.7	18
305	Impact of fluorine substitution in organic functional materials for perovskite solar cell. Dyes and Pigments, 2022, 198, 110029.	2.0	22
306	C ₆₀ Thin Films in Perovskite Solar Cells: Efficient or Limiting Charge Transport Layer?. ACS Applied Energy Materials, 2022, 5, 1646-1655.	2.5	6
307	Monolithic Perovskite‣ilicon Tandem Solar Cells: From the Lab to Fab?. Advanced Materials, 2022, 34, e2106540.	11.1	92
308	Understanding Performance Limiting Interfacial Recombination in <i>pin</i> Perovskite Solar Cells. Advanced Energy Materials, 2022, 12, .	10.2	95
309	Efficiency and Stability Enhancement of Perovskite Solar Cells Utilizing a Thiol Ligand and MoS ₂ (100) Nanosheet Surface Modification. ACS Applied Energy Materials, 2021, 4, 14080-14092.	2.5	4
310	Simple approach for an electron extraction layer in an all-vacuum processed n-i-p perovskite solar cell. Energy Advances, 2022, 1, 252-257.	1.4	1
311	Advancements in organic small molecule hole-transporting materials for perovskite solar cells: past and future. Journal of Materials Chemistry A, 2022, 10, 5044-5081.	5.2	69
312	Quadruple-Cation Wide-Bandgap Perovskite Solar Cells with Enhanced Thermal Stability Enabled by Vacuum Deposition. ACS Energy Letters, 2022, 7, 1355-1363.	8.8	24

#	Article	IF	CITATIONS
313	Insights from scalable fabrication to operational stability and industrial opportunities for perovskite solar cells and modules. Cell Reports Physical Science, 2022, 3, 100827.	2.8	16
314	Halide Perovskite Crystallization Processes and Methods in Nanocrystals, Single Crystals, and Thin Films. Advanced Materials, 2022, 34, e2200720.	11.1	50
315	Intrinsic Organic Semiconductors as Hole Transport Layers in p–i–n Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	8
316	Thermal Evaporation for Halide Perovskite Optoelectronics: Fundamentals, Progress, and Outlook. Advanced Optical Materials, 2022, 10, .	3.6	42
317	Degradation mechanism of CH3NH3PbI3 and enhancing its optical absorption through variety of doping sites. Computational Condensed Matter, 2021, 29, e00611.	0.9	3
319	Solvent-Free Method for Defect Reduction and Improved Performance of p-i-n Vapor-Deposited Perovskite Solar Cells. ACS Energy Letters, 2022, 7, 1903-1911.	8.8	33
320	Developing the Next-Generation Perovskite/Si Tandems: Toward Efficient, Stable, and Commercially Viable Photovoltaics. ACS Applied Materials & Interfaces, 2022, 14, 34262-34268.	4.0	9
321	Perovskite solar cells by vapor deposition based and assisted methods. Applied Physics Reviews, 2022, 9,	5.5	33
322	Thin films deposition of fully inorganic metal halide perovskites: A review. Materials Science in Semiconductor Processing, 2022, 147, 106721.	1.9	10
323	Review on two-terminal and four-terminal crystalline-silicon/perovskite tandem solar cells; progress, challenges, and future perspectives. Energy Reports, 2022, 8, 5820-5851.	2.5	24
324	In Silico Investigation of the Impact of Hole-Transport Layers on the Performance of CH3NH3SnI3 Perovskite Photovoltaic Cells. Crystals, 2022, 12, 699.	1.0	13
325	Efficient interconnecting layers in monolithic all-perovskite tandem solar cells. Energy and Environmental Science, 2022, 15, 3152-3170.	15.6	26
326	Advances of Commercial and Biological Materials for Electron Transport Layers in Biological Applications. Frontiers in Bioengineering and Biotechnology, 2022, 10, .	2.0	2
327	Structural and photophysical investigation of single-source evaporation of CsFAPbl ₃ and FAPbl ₃ perovskite thin films. Journal of Materials Chemistry C, 2022, 10, 10075-10082.	2.7	8
328	Insights into the evaporation behaviour of FAI: material degradation and consequences for perovskite solar cells. Sustainable Energy and Fuels, 2022, 6, 3230-3239.	2.5	15
329	Fundamental analysis of lead-free CsGeI3 perovskite solar cell. Materials Today: Proceedings, 2022, 67, 180-186.	0.9	5
330	Thick-junction perovskite X-ray detectors: processing and optoelectronic considerations. Nanoscale, 2022, 14, 9636-9647.	2.8	12
331	Effect of electrical parameters on lead-based perovskite solar cell for high-efficiency performance. Optical and Quantum Electronics, 2022, 54, .	1.5	8

#	Article	IF	CITATIONS
332	Ionic Liquid Gating in Perovskite Solar Cells with Fullerene/Carbon Nanotube Collectors. Energy Technology, 2022, 10, .	1.8	3
333	Sequential vacuum-evaporated perovskite solar cells with more than 24% efficiency. Science Advances, 2022, 8, .	4.7	118
334	Recent progress of rare earth conversion material in perovskite solar cells: A mini review. Inorganic Chemistry Communication, 2022, 143, 109731.	1.8	7
335	Revealing the Role of Methylammonium Iodide Purity on the Vaporâ€Phase Deposition Process of Perovskites. Solar Rrl, 2022, 6, .	3.1	6
336	Vacuum-Deposited Cesium Tin Iodide Thin Films with Tunable Thermoelectric Properties. ACS Applied Energy Materials, 2022, 5, 10216-10223.	2.5	10
337	Towards high-efficiency tin-based perovskite solar cell by adding co-additives. Optical and Quantum Electronics, 2022, 54, .	1.5	3
338	Narrowband Monolithic Perovskite–Perovskite Tandem Photodetectors. Advanced Optical Materials, 2022, 10, .	3.6	7
339	Low temperature preparation of W-doped In2O3 transparent electrodes for p-i-n structured perovskite solar cells. Journal of Alloys and Compounds, 2022, 926, 166827.	2.8	4
340	Advances in components engineering in vapor deposited perovskite thin film for photovoltaic application. Materials Today Advances, 2022, 16, 100277.	2.5	10
341	Configurable Organic Charge Carriers toward Stable Perovskite Photovoltaics. Chemical Reviews, 2022, 122, 14954-14986.	23.0	26
342	Versatile Hole Selective Molecules Containing a Series of Heteroatoms as Selfâ€Assembled Monolayers for Efficient pâ€iâ€n Perovskite and Organic Solar Cells. Advanced Functional Materials, 2022, 32, .	7.8	34
343	Vacuumâ€Processed Perovskite Solar Cells: Materials and Methods. Solar Rrl, 2022, 6, .	3.1	0
344	Perovskite/Perovskite Tandem Solar Cells in the Substrate Configuration with Potential for Bifacial Operation. , 2022, 4, 2638-2644.		8
345	Thermal evaporation and hybrid deposition of perovskite solar cells and mini-modules. Joule, 2022, 6, 2692-2734.	11.7	22
346	Molten Salt Strategy for Reproducible Evaporation of Efficient Perovskite Solar Cells. Advanced Functional Materials, 2023, 33, .	7.8	9
347	Thermally Stable Perovskite Solar Cells by All-Vacuum Deposition. ACS Applied Materials & Interfaces, 2023, 15, 772-781.	4.0	7
348	Performance and Stability Improvement of Inverted Perovskite Solar Cells by Interface Modification of Charge Transport Layers Using an Azulene–Pyridine Molecule. Energy Technology, 2023, 11, .	1.8	3
349	Singular Timeâ€Dependent Photoconductivity Response of MAPbI ₃ Samples Deposited by Vacuum Processing on Different Substrates. Energy Technology, 0, , 2200814.	1.8	0

ARTICLE IF CITATIONS # Multimodal photodetectors with vacuum deposited perovskite bilayers. Journal of Materials 350 2.7 2 Chemistry C, 2023, 11, 1258-1264. Recent Progress of Helicene Type Hole-Transporting Materials for Perovskite Solar Cells. Molecules, 1.7 2023, 28, 510. Metal Halide Perovskite Surfaces with Mixed Aâ€Site Cations: Atomic Structure and Device Stability. 352 7.8 6 Advanced Functional Materials, 2023, 33, . Applications of vacuum vapor deposition for perovskite solar cells: A progress review. , 2022, 1, 434-452. Recycling of halide perovskites., 2023, , 385-446. 354 0 Nanoarchitectonics of wide-bandgap perovskite films using sputtered-Pbl2 precursor and ion-exchange method. Applied Physics A: Materials Science and Processing, 2023, 129, . 1.1 Photovoltaic Devices Using Sublimed Methylammonium Lead Iodide Perovskites: Longâ€Term 356 7 3.1 Reproducible Processing. Solar Rrl, 2023, 7, . Can Alternative Module Design Help to Overcome Stability Problems of Perovskite Photovoltaics?. ACS Energy Letters, 2023, 8, 1147-1151. 8.8 Highly Efficient and Stable Self-Powered Perovskite Photodiode by Cathode-Side Interfacial 358 1.9 4 Passivation with Poly(Methyl Methacrylate). Nanomaterials, 2023, 13, 619. Review on Chemical Stability of Lead Halide Perovskite Solar Cells. Nano-Micro Letters, 2023, 15, . 14.4 29 Achieving a Highly Stable Perovskite Photodetector with a Long Lifetime Fabricated via an All-Vacuum 360 3 4.0Deposition Process. ACS Applied Materials & amp; Interfaces, 2023, 15, 21284-21295. Recent progress in the development of high-efficiency inverted perovskite solar cells. NPG Asia 3.8 38 Materials, 2023, 15, . Industrial perspectives on the upscaling of perovskite materials for photovoltaic applications and its 375 0 environmental impacts. , 2023, , 117-142. Vapor transport deposition of metal-halide perovskites solar cells., 2023, , . Templated-Seeding Renders Tailored Crystallization in Perovskite Photovoltaics: Path towards Future 394 5.20 Efficient Modules. Journal of Materials Chemistry A, O, , . Vapor phase deposition of perovskite photovoltaics: short track to commercialization?. Energy and Environmental Science, 2024, 17, 1645-1663.