Novel p-dopant toward highly efficient and stable perov

Energy and Environmental Science

11, 2985-2992

DOI: 10.1039/c8ee01500g

Citation Report

#	Article	IF	Citations
1	Hydrothermally processed CuCrO₂ nanoparticles as an inorganic hole transporting material for low-cost perovskite solar cells with superior stability. Journal of Materials Chemistry A, 2018, 6, 20327-20337.	5.2	85
2	Bifunctional Stabilization of All-Inorganic Î±-CsPbI₃ Perovskite for 17% Efficiency Photovoltaics. Journal of the American Chemical Society, 2018, 140, 12345-12348.	6.6	565
3	Large guanidinium cation enhance photovoltage for perovskite solar cells via solution-processed secondary growth technique. Solar Energy, 2018, 176, 118-125.	2.9	14
4	Multifunctional Chemical Linker Imidazoleacetic Acid Hydrochloride for 21% Efficient and Stable Planar Perovskite Solar Cells. Advanced Materials, 2019, 31, e1902902.	11.1	366
5	Suppressing the ions-induced degradation for operationally stable perovskite solar cells. Nano Energy, 2019, 64, 103962.	8.2	55
6	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
7	LiTFSIâ€Free Spiroâ€OMeTADâ€Based Perovskite Solar Cells with Power Conversion Efficiencies Exceeding 19%. Advanced Energy Materials, 2019, 9, 1901519.	10.2	85
8	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.	7.2	108
9	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.	1.6	16
10	Bismuth Telluride Interlayer for Allâ€Inorganic Perovskite Solar Cells with Enhanced Efficiency and Stability. Solar Rrl, 2019, 3, 1900233.	3.1	27
11	Multiple Roles of Cobalt Pyrazol-Pyridine Complexes in High-Performing Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2019, 10, 4675-4682.	2.1	13
12	Design rules for high mobility xanthene-based hole transport materials. Chemical Science, 2019, 10, 8360-8366.	3.7	20
13	A Mechanically Robust Conducting Polymer Network Electrode for Efficient Flexible Perovskite Solar Cells. Joule, 2019, 3, 2205-2218.	11.7	175
14	<i>p</i>-Phenylene-bridged zinc phthalocyanine-dimer as hole-transporting material in perovskite solar cells. Journal of Porphyrins and Phthalocyanines, 2019, 23, 546-553.	0.4	12
15	Hysteresis-Free Planar Perovskite Solar Cells with a Breakthrough Efficiency of 22% and Superior Operational Stability over 2000 h. ACS Applied Materials & Interfaces, 2019, 11, 39998-40005.	4.0	86
16	Inorganic CuFeO₂ Delafossite Nanoparticles as Effective Hole Transport Materials for Highly Efficient and Long-Term Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 45142-45149.	4.0	53
17	Solvent engineering of LiTFSI towards high-efficiency planar perovskite solar cells. Solar Energy, 2019, 194, 321-328.	2.9	17
18	Post-functionalization of polyvinylcarbazoles: An open route towards hole transporting materials for perovskite solar cells. Solar Energy, 2019, 193, 878-884.	2.9	8

#	ARTICLE	IF	CITATIONS
19	Controlled Redox of Lithium-Ion Endohedral Fullerene for Efficient and Stable Metal Electrode-Free Perovskite Solar Cells. Journal of the American Chemical Society, 2019, 141, 16553-16558.	6.6	61
20	Two-Dimensional Model for Perovskite Nanorod Solar Cells: A Dark Case Study. IEEE Journal of Photovoltaics, 2019, 9, 1668-1677.	1.5	2
21	Protocol for Quantifying the Doping of Organic Hole-Transport Materials. ACS Energy Letters, 2019, 4, 2547-2551.	8.8	23
22	Morphological and compositional progress in halide perovskite solar cells. Chemical Communications, 2019, 55, 1192-1200.	2.2	136
23	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
24	Metal organic framework doped Spiro-OMeTAD with increased conductivity for improving perovskite solar cell performance. Solar Energy, 2019, 188, 380-385.	2.9	24
25	Influence of a Hole-Transport Layer on Light-Induced Degradation of Mixed Organicâ€"Inorganic Halide Perovskite Solar Cells. ACS Applied Energy Materials, 2019, 2, 5039-5049.	2.5	34
26	Beyond efficiency: phenothiazine, a new commercially viable substituent for hole transport materials in perovskite solar cells. Journal of Materials Chemistry C, 2019, 7, 8593-8598.	2.7	15
27	Numerical Study of Cu₂O, SrCu₂O₂, and CuAlO₂ as Holeâ€Transport Materials for Application in Perovskite Solar Cells. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1900337.	0.8	40
28	Metal Oxide Charge Transport Layers for Efficient and Stable Perovskite Solar Cells. Advanced Functional Materials, 2019, 29, 1900455.	7.8	186
29	Efficiency<i>vs.</i>stability: dopant-free hole transporting materials towards stabilized perovskite solar cells. Chemical Science, 2019, 10, 6748-6769.	3.7	191
30	Compositional, Processing, and Interfacial Engineering of Nanocrystal- and Quantum-Dot-Based Perovskite Solar Cells. Chemistry of Materials, 2019, 31, 6387-6411.	3.2	82
31	High performance and stable perovskite solar cells using vanadic oxide as a dopant for spiro-OMeTAD. Journal of Materials Chemistry A, 2019, 7, 13256-13264.	5.2	81
32	Inorganic Quantum Dot Materials and their Applications in â€œOrganicâ€•Hybrid Solar Cells. Israel Journal of Chemistry, 2019, 59, 720-728.	1.0	4
33	Power output stabilizing feature in perovskite solar cells at operating condition: Selective contact-dependent charge recombination dynamics. Nano Energy, 2019, 61, 126-131.	8.2	35
34	Cesium lead based inorganic perovskite quantum-dots as interfacial layer for highly stable perovskite solar cells with exceeding 21% efficiency. Nano Energy, 2019, 60, 557-566.	8.2	121
35	Detecting and identifying reversible changes in perovskite solar cells by electrochemical impedance spectroscopy. RSC Advances, 2019, 9, 33436-33445.	1.7	29
36	Understanding Degradation Mechanisms and Improving Stability of Perovskite Photovoltaics. Chemical Reviews, 2019, 119, 3418-3451.	23.0	1,131

#	Article	IF	Citations
37	Siteâ€selective Synthesis of Î²â€[70]PCBMâ€like Fullerenes: Efficient Application in Perovskite Solar Cells. Chemistry - A European Journal, 2019, 25, 3224-3228.	1.7	37
38	Additive Engineering for Efficient and Stable Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1902579.	10.2	477
39	Inhibited aggregation of lithium salt in spiro-OMeTAD toward highly efficient perovskite solar cells. Nano Energy, 2020, 70, 104483.	8.2	64
40	Efficient mesoscopic perovskite solar cells from emulsion-based bottom-up self-assembled TiO2 microspheres. Journal of Materials Science: Materials in Electronics, 2020, 31, 1969-1975.	1.1	0
41	Fine modification of reactively sputtered NiOX hole transport layer for application in all-inorganic CsPbI2Br perovskite solar cells. Solar Energy, 2020, 196, 521-529.	2.9	32
42	Alkaline-earth bis(trifluoromethanesulfonimide) additives for efficient and stable perovskite solar cells. Nano Energy, 2020, 69, 104412.	8.2	54
43	New Strategies for Defect Passivation in Highâ€Efficiency Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1903090.	10.2	237
44	Chemical Approaches for Stabilizing Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1903249.	10.2	132
45	The application of transition metal complexes in hole-transporting layers for perovskite solar cells: Recent progress and future perspectives. Coordination Chemistry Reviews, 2020, 406, 213143.	9.5	50
46	Insights into the Mechanism of Solid-State Metal Organic Complexes as Controllable and Stable p-Type Dopants in Efficient Planar Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 546-555.	4.0	15
47	Dopant-Free Hole-Transport Materials with Germanium Compounds Bearing Pseudohalide and Chalcogenide Moieties for Perovskite Solar Cells. Inorganic Chemistry, 2020, 59, 15154-15166.	1.9	2
48	Barrier Designs in Perovskite Solar Cells for Longâ€Term Stability. Advanced Energy Materials, 2020, 10, 2001610.	10.2	84
49	Stabilizing Organicâ€"Inorganic Lead Halide Perovskite Solar Cells With Efficiency Beyond 20%. Frontiers in Chemistry, 2020, 8, 592.	1.8	30
50	Understanding the Degradation of Spiroâ€OMeTADâ€Based Perovskite Solar Cells at High Temperature. Solar Rrl, 2020, 4, 2000305.	3.1	53
51	CuCrO2 Nanoparticles Incorporated into PTAA as a Hole Transport Layer for 85 Â°C and Light Stabilities in Perovskite Solar Cells. Nanomaterials, 2020, 10, 1669.	1.9	33
52	Metal-Organic Framework Materials for Perovskite Solar Cells. Polymers, 2020, 12, 2061.	2.0	45
53	Low-temperature carbon-based electrodes in perovskite solar cells. Energy and Environmental Science, 2020, 13, 3880-3916.	15.6	149
54	Importance of tailoring lattice strain in halide perovskite crystals. NPG Asia Materials, 2020, 12, .	3.8	88

#	Article	IF	Citations
55	Molecular Weight Effects of Biscarbazole-Based Hole Transport Polymers on the Performance of Solid-State Dye-Sensitized Solar Cells. Nanomaterials, 2020, 10, 2516.	1.9	5
56	Reduced Graphene Oxide Improves Moisture and Thermal Stability of Perovskite Solar Cells. Cell Reports Physical Science, 2020, 1, 100053.	2.8	24
57	Stabilization of Highly Efficient and Stable Phaseâ€Pure FAPbI₃ Perovskite Solar Cells by Molecularly Tailored 2Dâ€Overlayers. Angewandte Chemie - International Edition, 2020, 59, 15688-15694.	7.2	201
58	Self-driving laboratory for accelerated discovery of thin-film materials. Science Advances, 2020, 6, eaaz8867.	4.7	306
59	Stabilization of Highly Efficient and Stable Phaseâ€Pure FAPbI₃ Perovskite Solar Cells by Molecularly Tailored 2Dâ€Overlayers. Angewandte Chemie, 2020, 132, 15818-15824.	1.6	17
60	FAPbI₃â€Based Perovskite Solar Cells Employing Hexylâ€Based Ionic Liquid with an Efficiency Over 20% and Excellent Longâ€Term Stability. Advanced Functional Materials, 2020, 30, 2002964.	7.8	172
61	Highly efficient, stable and hysteresisâ€'less planar perovskite solar cell based on chemical bath treated Zn2SnO4 electron transport layer. Nano Energy, 2020, 75, 105038.	8.2	77
62	Low-Temperature Synthesized Nb-Doped TiO₂ Electron Transport Layer Enabling High-Efficiency Perovskite Solar Cells by Band Alignment Tuning. ACS Applied Materials & Interfaces, 2020, 12, 15175-15182.	4.0	29
63	Defect-Tolerant Sodium-Based Dopant in Charge Transport Layers for Highly Efficient and Stable Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 1198-1205.	8.8	33
64	Reducing energy loss and stabilising the perovskite/poly (3-hexylthiophene) interface through a polyelectrolyte interlayer. Journal of Materials Chemistry A, 2020, 8, 6546-6554.	5.2	30
65	Revealing the Mechanism of Doping of <i>spiro</i>-MeOTAD via Zn Complexation in the Absence of Oxygen and Light. ACS Energy Letters, 2020, 5, 1271-1277.	8.8	29
66	Additive-free, Cost-Effective Hole-Transporting Materials for Perovskite Solar Cells Based on Vinyl Triarylamines. ACS Applied Materials & Interfaces, 2020, 12, 32994-33003.	4.0	17
67	Cyclopentadithiophene-Based Hole-Transporting Material for Highly Stable Perovskite Solar Cells with Stabilized Efficiencies Approaching 21%. ACS Applied Energy Materials, 2020, 3, 7456-7463.	2.5	26
68	Detrimental Effect of Unreacted PbI₂ on the Longâ€Term Stability of Perovskite Solar Cells. Advanced Materials, 2020, 32, e1905035.	11.1	256
69	Boosting the efficiency and stability of perovskite solar cells through facile molecular engineering approaches. Solar Energy, 2020, 199, 136-142.	2.9	33
70	Impact of peripheral groups on novel asymmetric phthalocyanine-based hole-transporting materials for perovskite solar cells. Dyes and Pigments, 2020, 177, 108301.	2.0	8
71	Inverted Planar Perovskite Solar Cells Based on NiO_x Nano Film with Enhanced Efficiency and Stability. Journal of Nanoscience and Nanotechnology, 2020, 20, 1892-1898.	0.9	5
72	Highly Efficient CsPbBr₃ Planar Perovskite Solar Cells via Additive Engineering with NH₄SCN. ACS Applied Materials & Interfaces, 2020, 12, 10579-10587.	4.0	80

#	Article	IF	Citations
73	How far are we from attaining 10-year lifetime for metal halide perovskite solar cells?. Materials Science and Engineering Reports, 2020, 140, 100545.	14.8	67
74	p-Doping of a Hole Transport Material via a Poly(ionic liquid) for over 20% Efficiency and Hysteresis-Free Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 1393-1401.	2.5	60
75	Multifunctional Enhancement for Highly Stable and Efficient Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2005776.	7.8	273
76	Stable and Efficient Methylammoniumâ€, Cesiumâ€, and Bromideâ€Free Perovskite Solar Cells by Inâ€Situ Interlayer Formation. Advanced Functional Materials, 2021, 31, 2007520.	7.8	34
77	Poly(<i>N</i>,<i>N</i>â€²â€bisâ€4â€butylphenylâ€<i>N</i>,<i>N</i>â€²â€bisphenyl)benzidineâ€Based Interfacial Passivation Strategy Promoting Efficiency and Operational Stability of Perovskite Solar Cells in Regular Architecture. Advanced Materials, 2021, 33, e2006087.	11.1	128
78	A synchronous defect passivation strategy for constructing high-performance and stable planar perovskite solar cells. Chemical Engineering Journal, 2021, 413, 127387.	6.6	40
79	Lessons learned from spiro-OMeTAD and PTAA in perovskite solar cells. Energy and Environmental Science, 2021, 14, 5161-5190.	15.6	255
80	Colloidal quantum dots and metal halide perovskite hybridization for solar cell stability and performance enhancement. Journal of Materials Chemistry A, 2021, 9, 15522-15541.	5.2	8
81	Efficient and Stable Perovskite Solar Cells Enabled by Dicarboxylic Acid-Supported Perovskite Crystallization. Journal of Physical Chemistry Letters, 2021, 12, 997-1004.	2.1	69
82	Excellent Intrinsic Longâ€Term Thermal Stability of Coâ€Evaporated MAPbI₃ Solar Cells at 85 Â°C. Advanced Functional Materials, 2021, 31, 2100557.	7.8	36
83	Novel (Xâ€DADAD) n Polymers with Phenylene and Fluorene Blocks as Promising Electronic Materials for Organic and Perovskite Solar Cells. Physica Status Solidi (A) Applications and Materials Science, 2021, 218, 2000816.	0.8	2
84	Elucidating Mechanisms behind Ambient Storage-Induced Efficiency Improvements in Perovskite Solar Cells. ACS Energy Letters, 2021, 6, 925-933.	8.8	52
85	Efficient Inverted Perovskite Solar Cells Enabled by Dopant-Free Hole-Transporting Materials Based on Dibenzofulvene-Bridged Indacenodithiophene Core Attaching Varying Alkyl Chains. ACS Applied Materials & Interfaces, 2021, 13, 13254-13263.	4.0	19
86	Organic Ammonium Halide Modulators as Effective Strategy for Enhanced Perovskite Photovoltaic Performance. Advanced Science, 2021, 8, 2004593.	5.6	57
87	The Role of Pioneering Hole Transporting Materials in New Generation Perovskite Solar Cells. European Journal of Inorganic Chemistry, 2021, 2021, 4251-4264.	1.0	5
88	A Review of Integrated Systems Based on Perovskite Solar Cells and Energy Storage Units: Fundamental, Progresses, Challenges, and Perspectives. Advanced Science, 2021, 8, 2100552.	5.6	19
89	Understanding the Effects of Fluorine Substitution in Lithium Salt on Photovoltaic Properties and Stability of Perovskite Solar Cells. ACS Energy Letters, 2021, 6, 2218-2228.	8.8	51
90	Nonhalide Materials for Efficient and Stable Perovskite Solar Cells. Small Methods, 2021, 5, e2100311.	4.6	21

#	Article	IF	Citations
91	Progress of Perovskite Solar Modules. Advanced Energy and Sustainability Research, 2021, 2, 2000051.	2.8	19
92	Stable and efficient perovskite solar cell using hydrophobic tris(pentafluorophenyl)phosphine as a hole dopant. IOP Conference Series: Earth and Environmental Science, 2021, 781, 042025.	0.2	0
93	A brief review of hole transporting materials commonly used in perovskite solar cells. Rare Metals, 2021, 40, 2712-2729.	3.6	138
94	Molecularly Engineered Interfaces in Metal Halide Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2021, 12, 4882-4901.	2.1	21
95	Spiro-OMeTAD doped with cumene hydroperoxide for perovskite solar cells. Electrochemistry Communications, 2021, 126, 107020.	2.3	7
96	Inorganic copper-based hole transport materials for perovskite photovoltaics: Challenges in normally structured cells, advances in photovoltaic performance and device stability. Solar Energy Materials and Solar Cells, 2021, 224, 111011.	3.0	25
97	A novel dopant for spiro-OMeTAD towards efficient and stable perovskite solar cells. Science China Materials, 2021, 64, 2915-2925.	3.5	7
98	Protecting Perovskite Solar Cells against Moisture-Induced Degradation with Sputtered Inorganic Barrier Layers. ACS Applied Energy Materials, 2021, 4, 7571-7578.	2.5	20
99	Dipole evoked hole-transporting material p-doping by utilizing organic salt for perovskite solar cells. Nano Energy, 2021, 85, 106018.	8.2	32
100	Polymerâ€Based Antiâ€Solvent Engineering to Fabricate Stable and Efficient Tripleâ€Cation Perovskite Solar Cells. ChemistrySelect, 2021, 6, 7254-7261.	0.7	14
101	Synthesis and characterization of poly(vinyl carbazole-co-ethoxy ethyl methacrylate) and its nanocomposites. Materials Today: Proceedings, 2021, 50, 325-325.	0.9	0
102	Dopant Engineering for Spiroâ€OMeTAD Holeâ€Transporting Materials towards Efficient Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2102124.	7.8	67
103	A Perspective on the Commercial Viability of Perovskite Solar Cells. Solar Rrl, 2021, 5, 2100401.	3.1	33
104	A carbazole-based dopant-free hole-transport material for perovskite solar cells by increasing the molecular conjugation. Organic Electronics, 2021, 96, 106244.	1.4	2
105	Mini-Review on Efficiency and Stability of Perovskite Solar Cells with Spiro-OMeTAD Hole Transport Layer: Recent Progress and Perspectives. Energy & Fuels, 2021, 35, 18915-18927.	2.5	45
106	Interfaces and Interfacial Layers in Inorganic Perovskite Solar Cells. Angewandte Chemie, 2021, 133, 26644-26657.	1.6	14
107	Interfaces and Interfacial Layers in Inorganic Perovskite Solar Cells. Angewandte Chemie - International Edition, 2021, 60, 26440-26453.	7.2	69
108	Chromium trioxide modified spiro-OMeTAD for highly efficient and stable planar perovskite solar cells. Journal of Energy Chemistry, 2021, 61, 386-394.	7.1	17

#	Article	IF	Citations
109	Outstanding performance of electron-transport-layer-free perovskite solar cells using a novel small-molecule interlayer modified FTO substrate. Chemical Engineering Journal, 2021, 422, 130001.	6.6	22
110	Decorating hole transport material withÂâˆ’CF3 groups for highly efficient and stable perovskite solar cells. Journal of Energy Chemistry, 2021, 62, 523-531.	7.1	15
111	Controlling phase and morphology of all-dip-coating processed HC(NH2)2PbI3 perovskite layers from an aqueous halide-free lead precursor. Journal of Physics and Chemistry of Solids, 2022, 160, 110374.	1.9	26
112	Li-TFSI endohedral Metal-Organic frameworks in stable perovskite solar cells for Anti-Deliquescent and restricting ion migration. Chemical Engineering Journal, 2022, 429, 132481.	6.6	25
113	High-performance perovskite solar cells based on dopant-free hole-transporting material fabricated by a thermal-assisted blade-coating method with efficiency exceeding 21%. Chemical Engineering Journal, 2022, 427, 131609.	6.6	37
114	Graded 2D/3D (CF3-PEA)2FA0.85MA0.15Pb2I7/FA0.85MA0.15PbI3 heterojunction for stable perovskite solar cell with an efficiency over 23.0%. Journal of Energy Chemistry, 2022, 65, 480-489.	7.1	34
115	Synergetic effects of electrochemical oxidation of Spiro-OMeTAD and Li⁺ ion migration for improving the performance of nâ€“iâ€“p type perovskite solar cells. Journal of Materials Chemistry A, 2021, 9, 7575-7585.	5.2	50
116	Strategies of modifying spiro-OMeTAD materials for perovskite solar cells: a review. Journal of Materials Chemistry A, 2021, 9, 4589-4625.	5.2	149
117	Future perspectives of perovskite solar cells: Metal oxide-based inorganic hole-transporting materials. , 2021, , 181-219.		5
118	Diketopyrrolopyrrole-based single molecules in photovoltaic technologies. Journal of Materials Chemistry C, 2021, 9, 16078-16109.	2.7	15
119	New Insight into the Lewis Basic Sites in Metalâ€“Organic Framework-Doped Hole Transport Materials for Efficient and Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 5235-5244.	4.0	33
120	Modifying perovskite solar cells with l(+)-cysteine at the interface between mesoporous TiO2 and perovskite. Sustainable Energy and Fuels, 2020, 4, 878-883.	2.5	8
121	Review of Perovskite Solar Cells Using Metal-Organic Framework Materials. Ceramist, 2020, 23, 358-388.	0.0	1
122	YÃ¼ksek Verimli ve Uzun DÃ¶nem KararlÄ± Perovskit GÃ¼neÅŸ HÃ¼crelerinin Ãœretimi iÃ§in Perovskit/Spiro-OMeTAD ArayÃ¼zeyinin Thiol MolekÃ¼lleri ile Modifikasyonu. European Journal of Science and Technology, 0, , 727-735.	0.5	0
123	Self-assembly monomolecular engineering towards efficient and stable inverted perovskite solar cells. Chemical Engineering Journal, 2022, 430, 132986.	6.6	12
125	Impedance Spectroscopy of Metal Halide Perovskite Solar Cells from the Perspective of Equivalent Circuits. Chemical Reviews, 2021, 121, 14430-14484.	23.0	121
126	Lowâ€Cost Dopantâ€Free Carbazole Enamine Holeâ€Transporting Materials for Thermally Stable Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	7
127	Role of bi-layered CuSCN based hole transport films to realize highly efficient and stable perovskite solar cells. Surfaces and Interfaces, 2022, 28, 101657.	1.5	2

#	Article	IF	Citations
128	Challenges for Thermally Stable Spiro-MeOTAD toward the Market Entry of Highly Efficient Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 34220-34227.	4.0	17
129	Dual interfacial engineering to improve ultraviolet and near-infrared light harvesting for efficient and stable perovskite solar cells. Chemical Engineering Journal, 2022, 435, 134792.	6.6	7
130	Copper coordination polymers with selective hole conductivity. Journal of Materials Chemistry A, 2022, 10, 9582-9591.	5.2	9
131	Evolution of the Electronic Traps in Perovskite Photovoltaics During 1000 H at 85 Â°C. SSRN Electronic Journal, 0, , .	0.4	0
132	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
133	Selection of the ultimate perovskite solar cell materials and fabrication processes towards its industrialization: A review. Energy Science and Engineering, 2022, 10, 1478-1525.	1.9	9
134	Sustainable Green Process for Environmentally Viable Perovskite Solar Cells. ACS Energy Letters, 2022, 7, 1154-1177.	8.8	43
135	Design Strategies of Hole Transport Materials by Electronic and Steric Controls for nâ€iâ€p Perovskite Solar Cells. ChemSusChem, 2022, , .	3.6	5
136	Directly purifiable Pre-oxidation of Spiro-OMeTAD for stability enhanced perovskite solar cells with efficiency over 23%. Chemical Engineering Journal, 2022, 437, 135457.	6.6	14
137	Azide additive acting as a powerful locker for Li+ and TBP in spiro-OMeTAD toward highly efficient and stable perovskite solar cells. Nano Energy, 2022, 96, 107072.	8.2	29
138	Phosphorene Nanoribbon-Augmented Optoelectronics for Enhanced Hole Extraction. Journal of the American Chemical Society, 2021, 143, 21549-21559.	6.6	44
139	A Trifluoroethoxyl Functionalized Spiroâ€Based Holeâ€Transporting Material for Highly Efficient and Stable Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	12
140	Improved Performance of Perovskite Solar Cells by Suppressing the Energy-Level Shift of the PEDOT:PSS Hole Transport Layer. ACS Applied Energy Materials, 2021, 4, 14590-14598.	2.5	4
142	Strategies for highâ€performance perovskite solar cells from materials, film engineering to carrier dynamics and photon management. InformaÄnÃ-MateriÃ¡ly, 2022, 4, .	8.5	27
143	Advance and prospect of metal-organic frameworks for perovskite photovoltaic devices. Organic Electronics, 2022, 106, 106546.	1.4	24
144	Analytical Review of Spiroâ€OMeTAD Hole Transport Materials: Paths Toward Stable and Efficient Perovskite Solar Cells. Advanced Energy and Sustainability Research, 2022, 3, .	2.8	53
145	Charge Balance in Red QLEDs for High Efficiency and Stability via Ionic Liquid Doping. Advanced Functional Materials, 2022, 32, .	7.8	17
146	Characterization of interfaces: Lessons from the past for the future of perovskite solar cells. Journal of Semiconductors, 2022, 43, 051202.	2.0	6

#	Article	IF	Citations
147	A Multifaceted Ferrocene Interlayer for Highly Stable and Efficient Lithium Doped Spiroâ€OMeTADâ€based Perovskite Solar Cells. Advanced Energy Materials, 2022, 12, .	10.2	32
148	A dopant-free 2,7-dioctyl[1]benzothieno[3,2-<i>b</i>][1]benzothiophene (C8-BTBT)-based hole transporting layer for highly stable perovskite solar cells with efficiency over 22%. Journal of Materials Chemistry A, 2022, 10, 12464-12472.	5.2	14
149	D-Ï€-D hole transport materials based on dioctylfluorene for highly efficient and stable perovskite solar cells without pre-oxidation. Dyes and Pigments, 2022, 204, 110452.	2.0	6
150	Evolution of the Electronic Traps in Perovskite Photovoltaics during 1000 h at 85 Â°C. ACS Applied Energy Materials, 2022, 5, 7192-7198.	2.5	13
152	Future Research Directions in Perovskite Solar Cells: Exquisite Photon Management and Thermodynamic Phase Stability. Advanced Materials, 2023, 35, .	11.1	7
153	Thermally Stable D2h Symmetric Donorâ€Ï€â€Donor Porphyrins as Holeâ€Transporting Materials for Perovskite Solar Cells. Angewandte Chemie, 0, , .	1.6	3
154	Oxidation of Spiro-OMeTAD in High-Efficiency Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 34303-34327.	4.0	34
155	Ion-modulated radical doping of spiro-OMeTAD for more efficient and stable perovskite solar cells. Science, 2022, 377, 495-501.	6.0	148
156	Progress on strategies to control the built-in electric field of perovskite solar cells. Chinese Science Bulletin, 2023, 68, 39-52.	0.4	2
157	Data-driven design of high-performance MASnxPb1-xI3 perovskite materials by machine learning and experimental realization. Light: Science and Applications, 2022, 11, .	7.7	19
158	Thermally Stable<i>D</i>_{2h}Symmetric Donorâ€Ï€â€Donor Porphyrins as Holeâ€Transporting Materials for Perovskite Solar Cells. Angewandte Chemie - International Edition, 2022, 61, .	7.2	25
159	Facile NaF Treatment Achieves 20% Efficient ETL-Free Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 38631-38641.	4.0	21
160	3-Chloroperoxybenzoic acid doping spiroOMeTAD for improving the performance of perovskite solar cells. Chemical Engineering Journal, 2022, 450, 138313.	6.6	29
161	Efficient Nanocrystal Photovoltaics with PTAA as Hole Transport Layer. Nanomaterials, 2022, 12, 3067.	1.9	0
162	Study of metal-Co/Zn-doped CuSCN contacts for efficient hole transport in perovskite solar cells. Optical Materials, 2022, 133, 113009.	1.7	2
163	Robust Nonspiroâ€Based Hole Conductors for Highâ€Efficiency Perovskite Solar Cells. Advanced Functional Materials, 2022, 32, .	7.8	11
164	Hole-Transporting Vanadium-Containing Oxide (V₂O_{5â€“<i>x</i>}) Interlayers Enhance Stability of Î±-FAPbI₃-Based Perovskite Solar Cells (â^¼23%). ACS Applied Materials & Interfaces, 2022, 14, 42007-42017.	4.0	9
165	Transporting holes stably under iodide invasion in efficient perovskite solar cells. Science, 2022, 377, 1227-1232.	6.0	75

#	Article	IF	Citations
166	Perovskites: Emergence of highly efficient thirdâ€generation solar cells. International Journal of Energy Research, 2022, 46, 21856-21883.	2.2	13
167	Spiroâ€OMeTADâ€Based Hole Transport Layer Engineering toward Stable Perovskite Solar Cells. Small Methods, 2022, 6, .	4.6	21
168	High-Efficiency Perovskite Solar Cells with Sputtered Metal Contacts. ACS Applied Materials & Interfaces, 2022, 14, 50731-50738.	4.0	0
169	Î±-FAPbI3 phase stabilization using aprotic trimethylsulfonium cation for efficient perovskite solar cells. Journal of Power Sources, 2022, 551, 232207.	4.0	6
170	The effect of B-site doping in all-inorganic CsPbI_{<i>x</i>}Br_{3âˆ’<i>x</i>} absorbers on the performance and stability of perovskite photovoltaics. Energy and Environmental Science, 2023, 16, 372-403.	15.6	38
171	Improving intrinsic stability for perovskite/silicon tandem solar cells. Science China: Physics, Mechanics and Astronomy, 2023, 66, .	2.0	7
172	Comparative study of hole transporting layers commonly used in high-efficiency perovskite solar cells. Journal of Materials Science, 2022, 57, 21172-21191.	1.7	5
173	Highly Stable Supercapacitors Enabled by a New Conducting Polymer Complex PEDOT:CF₃SO_{2(<i>x</i>)}PSS_(1â€<i>x</i>)**. ChemSusChem, 2023, 16, .	3.6	2
174	Perovskite solar cells based on spiro-OMeTAD stabilized with an alkylthiol additive. Nature Photonics, 2023, 17, 96-105.	15.6	48
175	Controlled Growth of Hybrid Halide Perovskites by Crown Ether Complexation for Perovskite Solar Cells. Helvetica Chimica Acta, 2023, 106, .	1.0	2
176	Aggregation-induced emission materials: a platform for diverse energy transformation and applications. Journal of Materials Chemistry A, 2023, 11, 4850-4875.	5.2	6
177	Selective Control of Novel TiO₂ Nanorods: Excellent Building Blocks for the Electron Transport Layer of Mesoscopic Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2023, 15, 9447-9456.	4.0	7
178	Alkylammonium bis(trifluoromethylsulfonyl)imide as a dopant in the hole-transporting layer for efficient and stable perovskite solar cells. Energy and Environmental Science, 2023, 16, 2226-2238.	15.6	12
179	Device Structures of Perovskite Solar Cells: A Critical Review. Physica Status Solidi (A) Applications and Materials Science, 2023, 220, .	0.8	3
180	Experimental investigation of additive free-low-cost vinyl triarylamines based hole transport material for FAPbI₃-based perovskite solar cells to enhance efficiency and stability. Materials Research Express, 2023, 10, 044003.	0.8	2
181	Doping organic hole-transport materials for high-performance perovskite solar cells. Journal of Semiconductors, 2023, 44, 020202.	2.0	0
182	Low-cost and LiTFSI-free diphenylamine-substituted hole transporting materials for highly efficient perovskite solar cells and modules. Materials Chemistry Frontiers, 2023, 7, 2241-2250.	3.2	2
183	Efficient and Stable Carbon-Based Perovskite Solar Cells Enabled by Mixed CuPc:CuSCN Hole Transporting Layer for Indoor Applications. ACS Applied Materials & Interfaces, 2023, 15, 15486-15497.	4.0	7

#	Article	IF	Citations
184	Inhibiting Li⁺ migration by thenoyltrifluoroacetone toward efficient and stable perovskite solar cells. Inorganic Chemistry Frontiers, 2023, 10, 2294-2303.	3.0	3
185	Synergistic Ionic Liquid in Hole Transport Layers for Highly Stable and Efficient Perovskite Solar Cells. Small, 2023, 19, .	5.2	3
186	Inhibition of Ion Migration for Highly Efficient and Stable Perovskite Solar Cells. Advanced Materials, 2023, 35, .	11.1	8
210	Reinforcing built-in electric field to enable efficient carrier extraction for high-performance perovskite solar cells. Materials Chemistry Frontiers, 2024, 8, 956-985.	3.2	0
214	Crystalline porous materials in perovskite solar cells: a mutually beneficial marriage. Sustainable Energy and Fuels, 2024, 8, 1185-1207.	2.5	0