

Lessons learned from spiro-OMeTAD and PTAA in perovskite solar cells

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Phenoxy Radical-Induced Formation of Dual-Layered Protection Film for High-Rate and Dendrite-Free Lithium-Metal Anodes. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 26718-26724.	7.2	69
2	Super Flexible Transparent Conducting Oxide-Free Organic-Inorganic Hybrid Perovskite Solar Cells with 19.01% Efficiency (Active Area = 1 cm ²). <i>Solar Rrl</i> , 2021, 5, 2100733.	3.1	10
3	Improved Efficiency of Perovskite Solar Cells with Low-Temperature-Processed Carbon by Introduction of a Doping-Free Polymeric Hole Conductor. <i>Solar Rrl</i> , 2022, 6, 2100773.	3.1	6
4	Restricting lithium-ion migration via Lewis base groups in hole transporting materials for efficient and stable perovskite solar cells. <i>Chemical Engineering Journal</i> , 2022, 433, 133534.	6.6	13
5	Role of conducting polymers in enhancing the stability and performance of perovskite solar cells: a brief review. <i>Materials Today Sustainability</i> , 2022, 17, 100090.	1.9	20
6	Intramolecular Noncovalent Interaction-Enabled Dopant-Free Hole-Transporting Materials for High-Performance Inverted Perovskite Solar Cells. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	18
7	Intramolecular Noncovalent Interaction-Enabled Dopant-Free Hole-Transporting Materials for High-Performance Inverted Perovskite Solar Cells. <i>Angewandte Chemie - International Edition</i> , 2022, 61, e202113749.	7.2	72
8	Recent Advances in Hole-Transporting Layers for Organic Solar Cells. <i>Nanomaterials</i> , 2022, 12, 443.	1.9	39
9	Fully Scalable and Stable CsPbI ₂ Br Solar Cells Realized by an All-Spray-Coating Process. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 7926-7935.	4.0	18
10	Surface reconstruction strategy improves the all-inorganic CsPbI ₂ Br ₂ based perovskite solar cells and photodetectors performance. <i>Nano Energy</i> , 2022, 94, 106960.	8.2	35
11	Inclusion of triphenylamine unit in dopant-free hole transport material for enhanced interfacial interaction in perovskite photovoltaics. <i>Dyes and Pigments</i> , 2022, 200, 110162.	2.0	10
12	Understanding the PEDOT:PSS, PTAA and P3CT-X Hole-Transport-Layer-Based Inverted Perovskite Solar Cells. <i>Polymers</i> , 2022, 14, 823.	2.0	16
13	Deciphering the Reduced Loss in High Fill Factor Inverted Perovskite Solar Cells with Methoxy-Substituted Poly(Triarylamine) as the Hole Selective Contact. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 12640-12651.	4.0	11
14	Self-Enhancement of Efficiency and Self-Attenuation of Hysteretic Behavior of Perovskite Solar Cells with Aging. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 2792-2799.	2.1	16
15	Evaporated Undoped Spiro-OMeTAD Enables Stable Perovskite Solar Cells Exceeding 20% Efficiency. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	22
16	Effect of Zn/Sn Ratio on Perovskite Solar Cell Performance Applying Off-Stoichiometric Cu ₂ ZnSnS ₄ /Carbon Hole-Collecting Electrodes. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 17296-17311.	4.0	6
17	Investigation on the Mechanism of Radical Intermediate Formation and Moderate Oxidation of Spiro-OMeTAD by the Synergistic Effect of Multisubstituted Polyoxometalates in Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 17610-17620.	4.0	11
18	Targeted Molecular Design of Functionalized Fullerenes for High-Performance and Stable Perovskite Solar Cells. <i>Small Structures</i> , 2022, 3, .	6.9	17

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19	Design Strategies of Hole Transport Materials by Electronic and Steric Controls for $\text{CH}_3\text{NH}_3\text{PbI}_3$ Perovskite Solar Cells. <i>ChemSusChem</i> , 2022, , .	3.6	5
20	Efficient and Stable Perovskite Solar Cells Based on Inorganic Hole Transport Materials. <i>Nanomaterials</i> , 2022, 12, 112.	1.9	21
21	Phosphorene Nanoribbon-Augmented Optoelectronics for Enhanced Hole Extraction. <i>Journal of the American Chemical Society</i> , 2021, 143, 21549-21559.	6.6	44
22	Intrinsic Organic Semiconductors as Hole Transport Layers in $\text{CH}_3\text{NH}_3\text{PbI}_3$ Perovskite Solar Cells. <i>Solar Rrl</i> , 2022, 6, .	3.1	8
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24	Radical doped hole transporting material for high-efficiency and thermostable perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2022, 10, 10604-10613.	5.2	13
25	Triarylamine/Bithiophene Copolymer with Enhanced Quinoidal Character as Hole-Transporting Material for Perovskite Solar Cells. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	29
26	Triarylamine/Bithiophene Copolymer with Enhanced Quinoidal Character as Hole-Transporting Material for Perovskite Solar Cells. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	2
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28	Tailored Polymeric Hole-Transporting Materials Inducing High-Quality Crystallization of Perovskite for Efficient Inverted Photovoltaic Devices. <i>Small</i> , 2022, , 2106632.	5.2	6
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30	Strategies for high-performance perovskite solar cells from materials, film engineering to carrier dynamics and photon management. <i>Informa Mater Mater</i> , 2022, 4, .	8.5	27
31	PTAA as Efficient Hole Transport Materials in Perovskite Solar Cells: A Review. <i>Solar Rrl</i> , 2022, 6, .	3.1	65
32	Suppressing Glass-Transition and Lithium-Ions Migration in Hole Transport Layer by V_2O_5 Decorated Graphite Carbon Nitride Nanosheets for Thermally Stable Perovskite Solar Cells. <i>Solar Rrl</i> , 2022, 6, .	3.1	4
33	Asymmetric charge carrier transfer and transport in planar lead halide perovskite solar cells. <i>Cell Reports Physical Science</i> , 2022, 3, 100890.	2.8	9
34	Flexible perovskite solar cells: Material selection and structure design. <i>Applied Physics Reviews</i> , 2022, 9, .	5.5	19
35	Analytical Review of Spiro-OMeTAD Hole Transport Materials: Paths Toward Stable and Efficient Perovskite Solar Cells. <i>Advanced Energy and Sustainability Research</i> , 2022, 3, .	2.8	53
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38	Electronic structure and interfacial features of triphenylamine- and phenothiazine-based hole transport materials for methylammonium lead iodide perovskite solar cells. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 14993-15002.	1.3	4
39	Highly electrochemically and thermally stable donor-acceptor triphenylamine-based hole-transporting homopolymers via oxidative polymerization. <i>New Journal of Chemistry</i> , 2022, 46, 12311-12317.	1.4	2
40	Numerical study of nSi and nSiGe solar cells: Emerging microstructure nSiGe cell achieved the highest 8.55% efficiency. <i>Optical Materials</i> , 2022, 129, 112539.	1.7	7
41	Sputtering under Mild Heating Enables High-Quality ITO for Efficient Semi-Transparent Perovskite Solar Cells. <i>Journal of Renewable Materials</i> , 2022, 10, 2509-2518.	1.1	0
42	Stable Methylammonium-Free Perovskite Solar Cells and Mini-Modules with Phenothiazine Dimers as Hole-Transporting Materials. <i>Energy and Environmental Materials</i> , 2023, 6, .	7.3	2
43	Oxidative polymerization of triaryl amines: a promising route to low-cost hole transport materials for efficient perovskite solar cells. <i>Sustainable Energy and Fuels</i> , 2022, 6, 3485-3489.	2.5	2
44	Recent advances in dopant-free organic hole-transporting materials for efficient, stable and low-cost perovskite solar cells. <i>Energy and Environmental Science</i> , 2022, 15, 3630-3669.	15.6	58
45	Surface modified NiOx as an efficient hole transport layer in inverted perovskite solar cells. <i>Journal of Materials Science: Materials in Electronics</i> , 2022, 33, 18522-18532.	1.1	2
46	Negative Transient Spikes in Halide Perovskites. <i>ACS Energy Letters</i> , 2022, 7, 2602-2610.	8.8	22
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52	Thermally Stable D2h Symmetric Donor-Donor Porphyrins as Hole-Transporting Materials for Perovskite Solar Cells. <i>Angewandte Chemie</i> , 0, , .	1.6	3
53	Charge Extraction in Flexible Perovskite Solar Cell Architectures for Indoor Applications with up to 31% Efficiency. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	14
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56	Enhanced Efficiency and Stability of $n\text{-i-p}$ Perovskite Solar Cells by Incorporation of Fluorinated Graphene in the Spiro-MeTAD Hole Transport Layer. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	41
57	Reversible Phase Transition for Durable Formamidinium-Dominated Perovskite Photovoltaics. <i>Advanced Materials</i> , 2022, 34, .	11.1	7
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72	Optoelectronic simulation of a four-terminal all-inorganic $\text{CsPb}_3\text{CZTSSe}$ tandem solar cell with high power conversion efficiency. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 22746-22755.	1.3	0

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76	<i>Spiro</i>OMeTAD as Redox Mediator and Singlet Oxygen Scavenger in Lithium-Oxygen Batteries. <i>Batteries and Supercaps</i> , 2022, 5, .	2.4	2
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87	New additive as Li ⁺ source for charge transfer improvement at triple-cation perovskite/Spiro-OMeTAD interface. <i>Organic Electronics</i> , 2023, 113, 106674.	1.4	1
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89	Recent progress in perovskite solar cells: from device to commercialization. <i>Science China Chemistry</i> , 2022, 65, 2369-2416.	4.2	53
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100	Engineering Stable Lead-Free Tin Halide Perovskite Solar Cells: Lessons from Materials Chemistry. <i>Advanced Materials</i> , 2023, 35, .	11.1	13
101	Thermally Stable Perovskite Solar Cells by All-Vacuum Deposition. <i>ACS Applied Materials & Interfaces</i> , 2023, 15, 772-781.	4.0	7
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103	Spiro-OMeTAD versus PTAA for single-walled carbon nanotubes electrode in perovskite solar cells. <i>Carbon</i> , 2023, 205, 321-327.	5.4	6
104	Wide-Bandgap Perovskite Solar Cell Using a Fluoride-Assisted Surface Gradient Passivation Strategy. <i>Angewandte Chemie - International Edition</i> , 2023, 62, .	7.2	41
105	Green-solvent Processable Dopant-free Hole Transporting Materials for Inverted Perovskite Solar Cells. <i>Angewandte Chemie</i> , 2023, 135, .	1.6	0
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107	Evaporated Self-Assembled Monolayer Hole Transport Layers: Lossless Interfaces in Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2023, 13, .	10.2	30
108	Phthalocyanines, porphyrins and other porphyrinoids as components of perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2023, 11, 7885-7919.	2.7	11

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115	Recent Advances and Challenges toward Efficient Perovskite/Organic Integrated Solar Cells. <i>Energies</i> , 2023, 16, 266.	1.6	6
116	Surface treatment of PTAA hole transport layer for inverted perovskite solar cells. <i>Journal of Physics: Conference Series</i> , 2023, 2431, 012045.	0.3	1
117	p-I Conjugated Polyelectrolytes Toward Universal Electrode Interlayer Materials for Diverse Optoelectronic Devices. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	7
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123	Open-circuit and short-circuit loss management in wide-gap perovskite p-i-n solar cells. <i>Nature Communications</i> , 2023, 14, .	5.8	32
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128	Soft robotics towards sustainable development goals and climate actions. <i>Frontiers in Robotics and AI</i> , 0, 10, .	2.0	3
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131	Tailoring Molecularâ€Scale Contact at the Perovskite/Polymeric Holeâ€Transporting Material Interface for Efficient Solar Cells. <i>Advanced Materials</i> , 2023, 35, .	11.1	4
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133	Recent Advances in Wide-Bandgap Organicâ€Inorganic Halide Perovskite Solar Cells and Tandem Application. <i>Nano-Micro Letters</i> , 2023, 15, .	14.4	41
134	Controlling Molecular Orientation of Small Molecular Dopant-Free Hole-Transport Materials: Toward Efficient and Stable Perovskite Solar Cells. <i>Molecules</i> , 2023, 28, 3076.	1.7	3
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