

Effect of Different Hole Transport Materials on Recombination in  
CH<sub>3</sub>NH<sub>3</sub>PbI<sub>3</sub> Perovskite Solar Cells

Journal of Physical Chemistry Letters

4, 1532-1536

DOI: 10.1021/jz400638x

Citation Report

#	ARTICLE	IF	CITATIONS
1	The Swift Surge of Perovskite Photovoltaics. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 2597-2598.	2.1	80
2	Sequential deposition as a route to high-performance perovskite-sensitized solar cells. <i>Nature</i> , 2013, 499, 316-319.	13.7	8,542
3	Using a two-step deposition technique to prepare perovskite (CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> ) for thin film solar cells based on ZrO <sub>2</sub> and TiO <sub>2</sub> mesostructures. <i>RSC Advances</i> , 2013, 3, 18762.	1.7	405
4	Charge Transport and Recombination in Perovskite (CH <sub>3</sub> NH <sub>3</sub> )PbI <sub>3</sub> Sensitized TiO <sub>2</sub> Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 2880-2884.	2.1	284
5	Perovskites: The Emergence of a New Era for Low-Cost, High-Efficiency Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 3623-3630.	2.1	2,483
6	A perspective of mesoscopic solar cells based on metal chalcogenide quantum dots and organometal-halide perovskites. <i>NPG Asia Materials</i> , 2013, 5, e68-e68.	3.8	143
7	Perovskites and their Potential use in Solar Energy Applications. <i>Science Progress</i> , 2014, 97, 279-287.	1.0	12
8	CHAPTER 7. Perovskite Solar Cells. <i>RSC Energy and Environment Series</i> , 0, , 242-257.	0.2	3
9	Perovskite-based low-cost and high-efficiency hybrid halide solar cells. <i>Photonics Research</i> , 2014, 2, 111.	3.4	89
10	Mixed solvents for the optimization of morphology in solution-processed, inverted-type perovskite/fullerene hybrid solar cells. <i>Nanoscale</i> , 2014, 6, 6679.	2.8	275
11	Novel hole transporting materials with a linear $\pi$ -conjugated structure for highly efficient perovskite solar cells. <i>Chemical Communications</i> , 2014, 50, 5829.	2.2	132
12	Hybrid perovskites for photovoltaics: Insights from first principles. <i>Physical Review B</i> , 2014, 89, .	1.1	191
13	Organometal Halide Perovskites for Transformative Photovoltaics. <i>Journal of the American Chemical Society</i> , 2014, 136, 3713-3714.	6.6	41
14	Investigating charge dynamics in halide perovskite-sensitized mesostructured solar cells. <i>Energy and Environmental Science</i> , 2014, 7, 1889-1894.	15.6	151
15	A swivel-cruciform thiophene based hole-transporting material for efficient perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2014, 2, 6305-6309.	5.2	167
16	Effect of Annealing Temperature on Film Morphology of Organic-Inorganic Hybrid Perovskite Solid-State Solar Cells. <i>Advanced Functional Materials</i> , 2014, 24, 3250-3258.	7.8	850
17	Current progress and future perspectives for organic/inorganic perovskite solar cells. <i>Materials Today</i> , 2014, 17, 16-23.	8.3	349
18	Perovskite-Based Hybrid Solar Cells Exceeding 10% Efficiency with High Reproducibility Using a Thin Film Sandwich Approach. <i>Advanced Materials</i> , 2014, 26, 2041-2046.	11.1	637

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19	Novel Mesoporous Superstructured Solar Cells with a High Efficiency Exceeding 12%. <i>Advanced Materials</i> , 2014, 26, 2102-2104.	11.1	31
20	A Simple 3,4-Ethylenedioxythiophene Based Hole-Transporting Material for Perovskite Solar Cells. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 4085-4088.	7.2	379
21	Highly ordered mesoporous carbon for mesoscopic CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> /TiO <sub>2</sub> heterojunction solar cell. <i>Journal of Materials Chemistry A</i> , 2014, 2, 8607.	5.2	88
22	Lead-free solid-state organic-inorganic halide perovskite solar cells. <i>Nature Photonics</i> , 2014, 8, 489-494.	15.6	2,410
23	Organohalide lead perovskites for photovoltaic applications. <i>Energy and Environmental Science</i> , 2014, 7, 2448-2463.	15.6	1,220
24	Rutile TiO <sub>2</sub> -based perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2014, 2, 9251.	5.2	188
25	Sub-Nanometer Conformal TiO <sub>2</sub> Blocking Layer for High Efficiency Solid-State Perovskite Absorber Solar Cells. <i>Advanced Materials</i> , 2014, 26, 4309-4312.	11.1	148
26	Titanium Dioxide Nanomaterials for Photovoltaic Applications. <i>Chemical Reviews</i> , 2014, 114, 10095-10130.	23.0	669
27	CH <sub>3</sub> NH <sub>3</sub> Cl-Assisted One-Step Solution Growth of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> : Structure, Charge-Carrier Dynamics, and Photovoltaic Properties of Perovskite Solar Cells. <i>Journal of Physical Chemistry C</i> , 2014, 118, 9412-9418.	1.5	516
28	Recombination Study of Combined Halides (Cl, Br, I) Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 1628-1635.	2.1	384
29	Cesium-doped methylammonium lead iodide perovskite light absorber for hybrid solar cells. <i>Nano Energy</i> , 2014, 7, 80-85.	8.2	459
30	Mesoscopic TiO <sub>2</sub> /CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite solar cells with new hole-transporting materials containing butadiene derivatives. <i>Chemical Communications</i> , 2014, 50, 6931.	2.2	163
31	Advancements in perovskite solar cells: photophysics behind the photovoltaics. <i>Energy and Environmental Science</i> , 2014, 7, 2518-2534.	15.6	694
32	Quantum Dot Solar Cells: Hole Transfer as a Limiting Factor in Boosting the Photoconversion Efficiency. <i>Langmuir</i> , 2014, 30, 5716-5725.	1.6	126
33	High efficiency CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3-x</sub> Cl <sub>x</sub> perovskite solar cells with poly(3-hexylthiophene) hole transport layer. <i>Journal of Power Sources</i> , 2014, 251, 152-156.	4.0	179
34	Structure of Methylammonium Lead Iodide Within Mesoporous Titanium Dioxide: Active Material in High-Performance Perovskite Solar Cells. <i>Nano Letters</i> , 2014, 14, 127-133.	4.5	282
35	High efficiency perovskite solar cells: from complex nanostructure to planar heterojunction. <i>Journal of Materials Chemistry A</i> , 2014, 2, 5994-6003.	5.2	246
36	Unravelling the mechanism of photoinduced charge transfer processes in lead iodide perovskite solar cells. <i>Nature Photonics</i> , 2014, 8, 250-255.	15.6	648

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37	Impedance Spectroscopic Analysis of Lead Iodide Perovskite-Sensitized Solid-State Solar Cells. <i>ACS Nano</i> , 2014, 8, 362-373.	7.3	663
38	Solid-State Mesostructured Perovskite $\text{CH}_3\text{NH}_3\text{PbI}_3$ Solar Cells: Charge Transport, Recombination, and Diffusion Length. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 490-494.	2.1	275
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41	Organolead Halide Perovskite: New Horizons in Solar Cell Research. <i>Journal of Physical Chemistry C</i> , 2014, 118, 5615-5625.	1.5	616
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45	Perovskite solar cells with a planar heterojunction structure prepared using room-temperature solution processing techniques. <i>Nature Photonics</i> , 2014, 8, 133-138.	15.6	2,425
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50	Improved Morphology Control Using a Modified Two-Step Method for Efficient Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 18751-18757.	4.0	62
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52	Modeling of Lead Halide Perovskites for Photovoltaic Applications. <i>Journal of Physical Chemistry C</i> , 2014, 118, 28344-28349.	1.5	143
53	Surface Photovoltage Spectroscopy Study of Organo-Lead Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 2408-2413.	2.1	90
54	On the Uniqueness of Ideality Factor and Voltage Exponent of Perovskite-Based Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 4115-4121.	2.1	73

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56	Solution Chemistry Engineering toward High-Efficiency Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2014, 5, 4175-4186.	2.1	227
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64	Enabling Silicon for Solar-Fuel Production. Chemical Reviews, 2014, 114, 8662-8719.	23.0	329
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66	Rate limiting interfacial hole transfer in Sb <sub>2</sub> S <sub>3</sub> solid-state solar cells. Energy and Environmental Science, 2014, 7, 1148-1158.	15.6	97
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74	Perovskite solar cells involving poly(tetraphenylbenzidine)s: investigation of hole carrier mobility, doping effects and photovoltaic properties. <i>RSC Advances</i> , 2014, 4, 43550-43559.	1.7	30
75	AgTFSI as a Type Dopant for Efficient and Stable Solid-State Dye-Sensitized and Perovskite Solar Cells. <i>ChemSusChem</i> , 2014, 7, 3252-3256.	3.6	114
76	Zn <sub>2</sub> SnO <sub>4</sub> -Based Photoelectrodes for Organolead Halide Perovskite Solar Cells. <i>Journal of Physical Chemistry C</i> , 2014, 118, 22991-22994.	1.5	92
77	Enhanced performance with bismuth ferrite perovskite in ZnO nanorod solid state solar cells. <i>Nanoscale</i> , 2014, 6, 7072-7078.	2.8	31
78	A dopant-free hole-transporting material for efficient and stable perovskite solar cells. <i>Energy and Environmental Science</i> , 2014, 7, 2963-2967.	15.6	668
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82	Role of the crystallization substrate on the photoluminescence properties of organo-lead mixed halides perovskites. <i>APL Materials</i> , 2014, 2, .	2.2	89
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84	Slow Dynamic Processes in Lead Halide Perovskite Solar Cells. Characteristic Times and Hysteresis. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 2357-2363.	2.1	609
85	A highly efficient mesoscopic solar cell based on CH <sub>3</sub> NH <sub>3</sub> Pb <sub>3</sub> Cl <sub>x</sub> fabricated via sequential solution deposition. <i>Chemical Communications</i> , 2014, 50, 12458-12461.	2.2	87
86	HIGH-EFFICIENT SOLID-STATE PEROVSKITE SOLAR CELL WITHOUT LITHIUM SALT IN THE HOLE TRANSPORT MATERIAL. <i>Nano</i> , 2014, 09, 1440001.	0.5	34
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98	TiO <sub>2</sub> nanotube structures for the enhancement of photon utilization in sensitized solar cells. <i>Nanotechnology Reviews</i> , 2015, 4, .	2.6	5
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105	Advancements in all-solid-state hybrid solar cells based on organometal halide perovskites. <i>Materials Horizons</i> , 2015, 2, 378-405.	6.4	110
106	Interfaces in Perovskite Solar Cells. <i>Small</i> , 2015, 11, 2472-2486.	5.2	344
107	Organic-inorganic halide perovskite based solar cells "revolutionary progress in photovoltaics. <i>Inorganic Chemistry Frontiers</i> , 2015, 2, 315-335.	3.0	70
108	A facile and low-cost fabrication of TiO <sub>2</sub> compact layer for efficient perovskite solar cells. <i>Current Applied Physics</i> , 2015, 15, 574-579.	1.1	34
109	Investigation on regeneration kinetics at perovskite/oxide interface with scanning electrochemical microscopy. <i>Journal of Materials Chemistry A</i> , 2015, 3, 9216-9222.	5.2	19

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124	Stable high-performance hybrid perovskite solar cells with ultrathin polythiophene as hole-transporting layer. <i>Nano Research</i> , 2015, 8, 2474-2480.	5.8	91
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132	Effect of Mesoporous Layer upon Crystalline Properties and Device Performance on Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 1628-1637.	2.1	78
133	Effects of Molecular Configuration on Charge Diffusion Kinetics within Hole-Transporting Materials for Perovskites Solar Cells. <i>Journal of Physical Chemistry C</i> , 2015, 119, 8584-8590.	1.5	40
134	Minimizing energy losses in perovskite solar cells using plasma-treated transparent conducting layers. <i>Thin Solid Films</i> , 2015, 593, 10-16.	0.8	18
135	Simple Triphenylamine-Based Hole-Transporting Materials for Perovskite Solar Cells. <i>Electrochimica Acta</i> , 2015, 182, 733-741.	2.6	57
136	Trap-limited charge recombination in intrinsic perovskite film and meso-superstructured perovskite solar cells and the passivation effect of the hole-transport material on trap states. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 29501-29506.	1.3	36
137	Ionic Charge Transfer Complex Induced Visible Light Harvesting and Photocharge Generation in Perovskite. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 20280-20284.	4.0	19
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139	Charge Transfer Dynamics from Organometal Halide Perovskite to Polymeric Hole Transport Materials in Hybrid Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 3675-3681.	2.1	67
140	Ultrasensitive solution-processed broad-band photodetectors using CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite hybrids and PbS quantum dots as light harvesters. <i>Nanoscale</i> , 2015, 7, 16460-16469.	2.8	106
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