Tomas Leijtens

List of Publications by Year
in descending order

53 papers	32,351 citations	53660 45 h-index	189595 50 g-index
53 all docs	53 docs citations	53 times ranked	21571 citing authors

#	Article	IF	Citations
1	Electron-Hole Diffusion Lengths Exceeding 1 Micrometer in an Organometal Trihalide Perovskite Absorber. Science, 2013, 342, 341-344.	6.0	8,703
2	Anomalous Hysteresis in Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2014, 5, 1511-1515.	2.1	2,190
3	Overcoming ultraviolet light instability of sensitized TiO2 with meso-superstructured organometal tri-halide perovskite solar cells. Nature Communications, 2013, 4, 2885.	5.8	1,592
4	High Photoluminescence Efficiency and Optically Pumped Lasing in Solution-Processed Mixed Halide Perovskite Semiconductors. Journal of Physical Chemistry Letters, 2014, 5, 1421-1426.	2.1	1,490
5	23.6%-efficient monolithic perovskite/silicon tandem solar cells with improved stability. Nature Energy, 2017, 2, .	19.8	1,204
6	Understanding Degradation Mechanisms and Improving Stability of Perovskite Photovoltaics. Chemical Reviews, 2019, 119, 3418-3451.	23.0	1,131
7	Perovskite-perovskite tandem photovoltaics with optimized band gaps. Science, 2016, 354, 861-865.	6.0	1,107
8	Carbon Nanotube/Polymer Composites as a Highly Stable Hole Collection Layer in Perovskite Solar Cells. Nano Letters, 2014, 14, 5561-5568.	4.5	1,073
9	Stability of Metal Halide Perovskite Solar Cells. Advanced Energy Materials, 2015, 5, 1500963.	10.2	1,045
10	Recombination Kinetics in Organic-Inorganic Perovskites: Excitons, Free Charge, and Subgap States. Physical Review Applied, 2014, 2, .	1.5	1,005
11	Cesium Lead Halide Perovskites with Improved Stability for Tandem Solar Cells. Journal of Physical Chemistry Letters, 2016, 7, 746-751.	2.1	966
12	Photo-induced halide redistribution in organicâ€"inorganic perovskite films. Nature Communications, 2016, 7, 11683.	5.8	778
13	Mesoporous TiO2 single crystals delivering enhanced mobility and optoelectronic device performance. Nature, 2013, 495, 215-219.	13.7	751
14	Opportunities and challenges for tandem solar cells using metal halide perovskite semiconductors. Nature Energy, 2018, 3, 828-838.	19.8	716
15	Band Gap Tuning via Lattice Contraction and Octahedral Tilting in Perovskite Materials for Photovoltaics. Journal of the American Chemical Society, 2017, 139, 11117-11124.	6.6	570
16	Sub-150 Â°C processed meso-superstructured perovskite solar cells with enhanced efficiency. Energy and Environmental Science, 2014, 7, 1142-1147.	15.6	560
17	Lithium salts as â€œredox activeâ€• p-type dopants for organic semiconductors and their impact in solid-state dye-sensitized solar cells. Physical Chemistry Chemical Physics, 2013, 15, 2572.	1.3	557
18	The Importance of Moisture in Hybrid Lead Halide Perovskite Thin Film Fabrication. ACS Nano, 2015, 9, 9380-9393.	7.3	451

#	ARTICLE	IF	CITATIONS
19	Defect-Assisted Photoinduced Halide Segregation in Mixed-Halide Perovskite Thin Films. ACS Energy Letters, 2017, 2, 1416-1424.	8.8	437
20	Thermal and Environmental Stability of Semiâ€Transparent Perovskite Solar Cells for Tandems Enabled by a Solutionâ€Processed Nanoparticle Buffer Layer and Sputtered ITO Electrode. Advanced Materials, 2016, 28, 3937-3943.	11.1	419
21	Carrier trapping and recombination: the role of defect physics in enhancing the open circuit voltage of metal halide perovskite solar cells. Energy and Environmental Science, 2016, 9, 3472-3481.	15.6	409
22	Electronic Properties of Meso-Superstructured and Planar Organometal Halide Perovskite Films: Charge Trapping, Photodoping, and Carrier Mobility. ACS Nano, 2014, 8, 7147-7155.	7.3	370
23	Mechanism of Tin Oxidation and Stabilization by Lead Substitution in Tin Halide Perovskites. ACS Energy Letters, 2017, 2, 2159-2165.	8.8	351
24	Compositional Engineering for Efficient Wide Band Gap Perovskites with Improved Stability to Photoinduced Phase Segregation. ACS Energy Letters, 2018, 3, 428-435.	8.8	344
25	Enabling Flexible All-Perovskite Tandem Solar Cells. Joule, 2019, 3, 2193-2204.	11.7	331
26	C₆₀ as an Efficient n-Type Compact Layer in Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2015, 6, 2399-2405.	2.1	324
27	Towards enabling stable lead halide perovskite solar cells; interplay between structural, environmental, and thermal stability. Journal of Materials Chemistry A, 2017, 5, 11483-11500.	5.2	319
28	Hole Transport Materials with Low Glass Transition Temperatures and High Solubility for Application in Solid-State Dye-Sensitized Solar Cells. ACS Nano, 2012, 6, 1455-1462.	7.3	309
29	The Potential of Multijunction Perovskite Solar Cells. ACS Energy Letters, 2017, 2, 2506-2513.	8.8	272
30	Design of low bandgap tinâ€“lead halide perovskite solar cells to achieve thermal, atmospheric and operational stability. Nature Energy, 2019, 4, 939-947.	19.8	235
31	Encapsulating perovskite solar cells to withstand damp heat and thermal cycling. Sustainable Energy and Fuels, 2018, 2, 2398-2406.	2.5	231
32	Mapping Electric Fieldâ€Induced Switchable Poling and Structural Degradation in Hybrid Lead Halide Perovskite Thin Films. Advanced Energy Materials, 2015, 5, 1500962.	10.2	225
33	The Importance of Perovskite Pore Filling in Organometal Mixed Halide Sensitized TiO₂-Based Solar Cells. Journal of Physical Chemistry Letters, 2014, 5, 1096-1102.	2.1	221
34	Charge Density Dependent Mobility of Organic Holeâ€Transporters and Mesoporous TiO₂ Determined by Transient Mobility Spectroscopy: Implications to Dyeâ€Sensitized and Organic Solar Cells. Advanced Materials, 2013, 25, 3227-3233.	11.1	217
35	Hydrophobic Organic Hole Transporters for Improved Moisture Resistance in Metal Halide Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 5981-5989.	4.0	184
36	Barrier Design to Prevent Metal-Induced Degradation and Improve Thermal Stability in Perovskite Solar Cells. ACS Energy Letters, 2018, 3, 1772-1778.	8.8	182

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37	Tinâ€“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
38	Enhanced Hole Extraction in Perovskite Solar Cells Through Carbon Nanotubes. Journal of Physical Chemistry Letters, 2014, 5, 4207-4212.	2.1	156
39	Lessons Learned: From Dyeâ€Sensitized Solar Cells to Allâ€Solidâ€State Hybrid Devices. Advanced Materials, 2014, 26, 4013-4030.	11.1	144
40	Minimal Effect of the Hole-Transport Material Ionization Potential on the Open-Circuit Voltage of Perovskite Solar Cells. ACS Energy Letters, 2016, 1, 556-560.	8.8	115
41	Employing PEDOT as the p-Type Charge Collection Layer in Regular Organicâ€“Inorganic Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2015, 6, 1666-1673.	2.1	96
42	Long-Range Charge Extraction in Back-Contact Perovskite Architectures via Suppressed Recombination. Joule, 2019, 3, 1301-1313.	11.7	68
43	Interfacial Effects of Tin Oxide Atomic Layer Deposition in Metal Halide Perovskite Photovoltaics. Advanced Energy Materials, 2018, 8, 1800591.	10.2	62
44	Modulating the Electronâ€“Hole Interaction in a Hybrid Lead Halide Perovskite with an Electric Field. Journal of the American Chemical Society, 2015, 137, 15451-15459.	6.6	61
45	Towards Longâ€Term Photostability of Solidâ€State Dye Sensitized Solar Cells. Advanced Energy Materials, 2014, 4, 1301667.	10.2	51
46	Cross-Linkable, Solvent-Resistant Fullerene Contacts for Robust and Efficient Perovskite Solar Cells with Increased <i>J</i>_{SC} and <i>V</i>_{OC}. ACS Applied Materials & Interfaces, 2016, 8, 25896-25904.	4.0	45
47	Modeling the effect of ionic additives on the optical and electronic properties of a dye-sensitized TiO2 heterointerface: absorption, charge injection and aggregation. Journal of Materials Chemistry A, 2013, 1, 14675.	5.2	41
48	The Role of Hole Transport between Dyes in Solid-State Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2015, 119, 18975-18985.	1.5	35
49	Observation of Annealing-Induced Doping in TiO₂ Mesoporous Single Crystals for Use in Solid State Dye Sensitized Solar Cells. Journal of Physical Chemistry C, 2014, 118, 1821-1827.	1.5	19
50	Dye Monolayers Used as the Hole Transporting Medium in Dyeâ€Sensitized Solar Cells. Advanced Materials, 2015, 27, 5889-5894.	11.1	19
51	Thermal and environmental stability of semi-transparent perovskite solar cells for tandems by a solution-processed nanoparticle buffer layer and sputtered ITO electrode. , 2016, , .		2
52	Novel low cost hole transporting materials for efficient organic-inorganic perovskite solar cells. , 2015, , .		1
53	Stability of Tin-Lead Halide Perovskite Solar Cells. , 2019, , .		0