

Tomas Leijtens

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2066382/publications.pdf>

Version: 2024-02-01

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	Enabling Flexible All-Perovskite Tandem Solar Cells. <i>Joule</i> , 2019, 3, 2193-2204.	11.7	331
2	Long-Range Charge Extraction in Back-Contact Perovskite Architectures via Suppressed Recombination. <i>Joule</i> , 2019, 3, 1301-1313.	11.7	68
3	Stability of Tin-Lead Halide Perovskite Solar Cells. , 2019, , .		0
4	Design of low bandgap tin-lead halide perovskite solar cells to achieve thermal, atmospheric and operational stability. <i>Nature Energy</i> , 2019, 4, 939-947.	19.8	235
5	Understanding Degradation Mechanisms and Improving Stability of Perovskite Photovoltaics. <i>Chemical Reviews</i> , 2019, 119, 3418-3451.	23.0	1,131
6	Compositional Engineering for Efficient Wide Band Gap Perovskites with Improved Stability to Photoinduced Phase Segregation. <i>ACS Energy Letters</i> , 2018, 3, 428-435.	8.8	344
7	Barrier Design to Prevent Metal-Induced Degradation and Improve Thermal Stability in Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2018, 3, 1772-1778.	8.8	182
8	Interfacial Effects of Tin Oxide Atomic Layer Deposition in Metal Halide Perovskite Photovoltaics. <i>Advanced Energy Materials</i> , 2018, 8, 1800591.	10.2	62
9	Encapsulating perovskite solar cells to withstand damp heat and thermal cycling. <i>Sustainable Energy and Fuels</i> , 2018, 2, 2398-2406.	2.5	231
10	Tin-lead halide perovskites with improved thermal and air stability for efficient all-perovskite tandem solar cells. <i>Sustainable Energy and Fuels</i> , 2018, 2, 2450-2459.	2.5	167
11	Opportunities and challenges for tandem solar cells using metal halide perovskite semiconductors. <i>Nature Energy</i> , 2018, 3, 828-838.	19.8	716
12	23.6%-efficient monolithic perovskite/silicon tandem solar cells with improved stability. <i>Nature Energy</i> , 2017, 2, .	19.8	1,204
13	Defect-Assisted Photoinduced Halide Segregation in Mixed-Halide Perovskite Thin Films. <i>ACS Energy Letters</i> , 2017, 2, 1416-1424.	8.8	437
14	Towards enabling stable lead halide perovskite solar cells; interplay between structural, environmental, and thermal stability. <i>Journal of Materials Chemistry A</i> , 2017, 5, 11483-11500.	5.2	319
15	The Potential of Multijunction Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2017, 2, 2506-2513.	8.8	272
16	Mechanism of Tin Oxidation and Stabilization by Lead Substitution in Tin Halide Perovskites. <i>ACS Energy Letters</i> , 2017, 2, 2159-2165.	8.8	351
17	Band Gap Tuning via Lattice Contraction and Octahedral Tilting in Perovskite Materials for Photovoltaics. <i>Journal of the American Chemical Society</i> , 2017, 139, 11117-11124.	6.6	570
18	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

#	ARTICLE	IF	CITATIONS
19	Carrier trapping and recombination: the role of defect physics in enhancing the open circuit voltage of metal halide perovskite solar cells. <i>Energy and Environmental Science</i> , 2016, 9, 3472-3481.	15.6	409
20	Cross-Linkable, Solvent-Resistant Fullerene Contacts for Robust and Efficient Perovskite Solar Cells with Increased J_{SC} and V_{OC} . <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 25896-25904.	4.0	45
21	Minimal Effect of the Hole-Transport Material Ionization Potential on the Open-Circuit Voltage of Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2016, 1, 556-560.	8.8	115
22	Photo-induced halide redistribution in organic-inorganic perovskite films. <i>Nature Communications</i> , 2016, 7, 11683.	5.8	778
23	Perovskite-perovskite tandem photovoltaics with optimized band gaps. <i>Science</i> , 2016, 354, 861-865.	6.0	1,107
24	Thermal and Environmental Stability of Semi-transparent Perovskite Solar Cells for Tandems Enabled by a Solution-Processed Nanoparticle Buffer Layer and Sputtered ITO Electrode. <i>Advanced Materials</i> , 2016, 28, 3937-3943.	11.1	419
25	Hydrophobic Organic Hole Transporters for Improved Moisture Resistance in Metal Halide Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 5981-5989.	4.0	184
26	Cesium Lead Halide Perovskites with Improved Stability for Tandem Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 746-751.	2.1	966
27	Stability of Metal Halide Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2015, 5, 1500963.	10.2	1,045
28	Mapping Electric Field-Induced Switchable Poling and Structural Degradation in Hybrid Lead Halide Perovskite Thin Films. <i>Advanced Energy Materials</i> , 2015, 5, 1500962.	10.2	225
29	C_{60} as an Efficient n-Type Compact Layer in Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 2399-2405.	2.1	324
30	Novel low cost hole transporting materials for efficient organic-inorganic perovskite solar cells. , 2015, , .		1
31	The Importance of Moisture in Hybrid Lead Halide Perovskite Thin Film Fabrication. <i>ACS Nano</i> , 2015, 9, 9380-9393.	7.3	451
32	The Role of Hole Transport between Dyes in Solid-State Dye-Sensitized Solar Cells. <i>Journal of Physical Chemistry C</i> , 2015, 119, 18975-18985.	1.5	35
33	Employing PEDOT as the p-Type Charge Collection Layer in Regular Organic-Inorganic Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 1666-1673.	2.1	96
34	Dye Monolayers Used as the Hole Transporting Medium in Dye-Sensitized Solar Cells. <i>Advanced Materials</i> , 2015, 27, 5889-5894.	11.1	19
35	Modulating the Electron-Hole Interaction in a Hybrid Lead Halide Perovskite with an Electric Field. <i>Journal of the American Chemical Society</i> , 2015, 137, 15451-15459.	6.6	61
36	The Importance of Perovskite Pore Filling in Organometal Mixed Halide Sensitized TiO_2 -Based Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 1096-1102.	2.1	221

#	ARTICLE	IF	CITATIONS
37	High Photoluminescence Efficiency and Optically Pumped Lasing in Solution-Processed Mixed Halide Perovskite Semiconductors. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 1421-1426.	2.1	1,490
38	Towards Long-Term Photostability of Solid-State Dye Sensitized Solar Cells. <i>Advanced Energy Materials</i> , 2014, 4, 1301667.	10.2	51
39	Observation of Annealing-Induced Doping in TiO ₂ Mesoporous Single Crystals for Use in Solid State Dye Sensitized Solar Cells. <i>Journal of Physical Chemistry C</i> , 2014, 118, 1821-1827.	1.5	19
40	Sub-150 °C processed meso-superstructured perovskite solar cells with enhanced efficiency. <i>Energy and Environmental Science</i> , 2014, 7, 1142-1147.	15.6	560
41	Enhanced Hole Extraction in Perovskite Solar Cells Through Carbon Nanotubes. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 4207-4212.	2.1	156
42	Recombination Kinetics in Organic-Inorganic Perovskites: Excitons, Free Charge, and Subgap States. <i>Physical Review Applied</i> , 2014, 2, .	1.5	1,005
43	Carbon Nanotube/Polymer Composites as a Highly Stable Hole Collection Layer in Perovskite Solar Cells. <i>Nano Letters</i> , 2014, 14, 5561-5568.	4.5	1,073
44	Lessons Learned: From Dye-Sensitized Solar Cells to All-Solid-State Hybrid Devices. <i>Advanced Materials</i> , 2014, 26, 4013-4030.	11.1	144
45	Anomalous Hysteresis in Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 1511-1515.	2.1	2,190
46	Electronic Properties of Meso-Superstructured and Planar Organometal Halide Perovskite Films: Charge Trapping, Photodoping, and Carrier Mobility. <i>ACS Nano</i> , 2014, 8, 7147-7155.	7.3	370
47	Modeling the effect of ionic additives on the optical and electronic properties of a dye-sensitized TiO ₂ heterointerface: absorption, charge injection and aggregation. <i>Journal of Materials Chemistry A</i> , 2013, 1, 14675.	5.2	41
48	Overcoming ultraviolet light instability of sensitized TiO ₂ with meso-superstructured organometal tri-halide perovskite solar cells. <i>Nature Communications</i> , 2013, 4, 2885.	5.8	1,592
49	Electron-Hole Diffusion Lengths Exceeding 1 Micrometer in an Organometal Trihalide Perovskite Absorber. <i>Science</i> , 2013, 342, 341-344.	6.0	8,703
50	Lithium salts as redox active p-type dopants for organic semiconductors and their impact in solid-state dye-sensitized solar cells. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 2572.	1.3	557
51	Mesoporous TiO ₂ single crystals delivering enhanced mobility and optoelectronic device performance. <i>Nature</i> , 2013, 495, 215-219.	13.7	751
52	Charge Density Dependent Mobility of Organic Hole Transporters and Mesoporous TiO ₂ Determined by Transient Mobility Spectroscopy: Implications to Dye-Sensitized and Organic Solar Cells. <i>Advanced Materials</i> , 2013, 25, 3227-3233.	11.1	217
53	Hole Transport Materials with Low Glass Transition Temperatures and High Solubility for Application in Solid-State Dye-Sensitized Solar Cells. <i>ACS Nano</i> , 2012, 6, 1455-1462.	7.3	309