Yiliang Wu

List of Publications by Year
in descending order

42 papers	4,247 citations	172386 29 h-index	289141 40 g-index
42 all docs	42 docs citations	42 times ranked	5203 citing authors

#	ARTICLE	IF	CITATIONS
1	Rubidium Multication Perovskite with Optimized Bandgap for Perovskiteâ€Silicon Tandem with over 26% Efficiency. Advanced Energy Materials, 2017, 7, 1700228.	10.2	443
2	A Universal Doubleâ€Side Passivation for High Openâ€Circuit Voltage in Perovskite Solar Cells: Role of Carbonyl Groups in Poly(methyl methacrylate). Advanced Energy Materials, 2018, 8, 1801208.	10.2	387
3	Interface passivation using ultrathin polymerâ€“fullerene films for high-efficiency perovskite solar cells with negligible hysteresis. Energy and Environmental Science, 2017, 10, 1792-1800.	15.6	381
4	Nanoscale localized contacts for high fill factors in polymer-passivated perovskite solar cells. Science, 2021, 371, 390-395.	6.0	270
5	Mechanically-stacked perovskite/CIGS tandem solar cells with efficiency of 23.9% and reduced oxygen sensitivity. Energy and Environmental Science, 2018, 11, 394-406.	15.6	209
6	Monolithic perovskite/silicon-homojunction tandem solar cell with over 22% efficiency. Energy and Environmental Science, 2017, 10, 2472-2479.	15.6	178
7	Conductive and Stable Magnesium Oxide Electronâ€Selective Contacts for Efficient Silicon Solar Cells. Advanced Energy Materials, 2017, 7, 1601863.	10.2	174
8	Efficient Indiumâ€Doped TiO<i>_x</i> Electron Transport Layers for Highâ€Performance Perovskite Solar Cells and Perovskiteâ€Silicon Tandems. Advanced Energy Materials, 2017, 7, 1601768.	10.2	167
9	Hysteresis phenomena in perovskite solar cells: the many and varied effects of ionic accumulation. Physical Chemistry Chemical Physics, 2017, 19, 3094-3103.	1.3	159
10	High-Efficiency Silicon Heterojunction Solar Cells: Materials, Devices and Applications. Materials Science and Engineering Reports, 2020, 142, 100579.	14.8	139
11	Centimetre-scale perovskite solar cells with fill factors of more than 86 per cent. Nature, 2022, 601, 573-578.	13.7	137
12	Structural engineering using rubidium iodide as a dopant under excess lead iodide conditions for high efficiency and stable perovskites. Nano Energy, 2016, 30, 330-340.	8.2	133
13	Doubleâ€Sided Surface Passivation of 3D Perovskite Film for Highâ€Efficiency Mixedâ€Dimensional Perovskite Solar Cells. Advanced Functional Materials, 2020, 30, 1907962.	7.8	130
14	In situ recombination junction between p-Si and TiO ₂ enables high-efficiency monolithic perovskite/Si tandem cells. Science Advances, 2018, 4, eaau9711.	4.7	122
15	Light and Electrically Induced Phase Segregation and Its Impact on the Stability of Quadruple Cation High Bandgap Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 26859-26866.	4.0	114
16	High Efficiency Perovskiteâ€Silicon Tandem Solar Cells: Effect of Surface Coating versus Bulk Incorporation of 2D Perovskite. Advanced Energy Materials, 2020, 10, 1903553.	10.2	110
17	Identifying the Cause of Voltage and Fill Factor Losses in Perovskite Solar Cells by Using Luminescence Measurements. Energy Technology, 2017, 5, 1827-1835.	1.8	103
18	Origin of Efficiency and Stability Enhancement in Highâ€Performing Mixed Dimensional 2Dâ€3D Perovskite Solar Cells: A Review. Advanced Functional Materials, 2022, 32, 2009164.	7.8	96

#	Article	IF	Citations
19	Monolithic Perovskite/Si Tandem Solar Cells: Pathways to Over 30% Efficiency. Advanced Energy Materials, 2020, 10, 1902840.	10.2	87
20	On the Origin of Hysteresis in Perovskite Solar Cells. Advanced Functional Materials, 2016, 26, 6807-6813.	7.8	74
21	Inverted Hysteresis in CH₃NH₃PbI₃ Solar Cells: Role of Stoichiometry and Band Alignment. Journal of Physical Chemistry Letters, 2017, 8, 2672-2680.	2.1	71
22	How reliable are efficiency measurements of perovskite solar cells? The first inter-comparison, between two accredited and eight non-accredited laboratories. Journal of Materials Chemistry A, 2017, 5, 22542-22558.	5.2	70
23	Transient Photovoltage in Perovskite Solar Cells: Interaction of Trap-Mediated Recombination and Migration of Multiple Ionic Species. Journal of Physical Chemistry C, 2018, 122, 11270-11281.	1.5	66
24	Light and elevated temperature induced degradation (LeTID) in perovskite solar cells and development of stable semi-transparent cells. Solar Energy Materials and Solar Cells, 2018, 188, 27-36.	3.0	43
25	Improved Reproducibility for Perovskite Solar Cells with 1 cm² Active Area by a Modified Two-Step Process. ACS Applied Materials & Interfaces, 2017, 9, 5974-5981.	4.0	41
26	Ultrathin Ta₂O₅ electron-selective contacts for high efficiency InP solar cells. Nanoscale, 2019, 11, 7497-7505.	2.8	38
27	Combined Bulk and Surface Passivation in Dimensionally Engineered 2Dâ€3D Perovskite Films via Chlorine Diffusion. Advanced Functional Materials, 2021, 31, 2104251.	7.8	37
28	A bottomâ€up cost analysis of siliconâ€“perovskite tandem photovoltaics. Progress in Photovoltaics: Research and Applications, 2021, 29, 401-413.	4.4	35
29	In Situ Formation of Mixedâ€Dimensional Surface Passivation Layers in Perovskite Solar Cells with Dualâ€Isomer Alkylammonium Cations. Small, 2020, 16, e2005022.	5.2	34
30	Efficient and stable wide bandgap perovskite solar cells through surface passivation with long alkyl chain organic cations. Journal of Materials Chemistry A, 2021, 9, 18454-18465.	5.2	32
31	On the Use of Luminescence Intensity Images for Quantified Characterization of Perovskite Solar Cells: Spatial Distribution of Series Resistance. Advanced Energy Materials, 2018, 8, 1701522.	10.2	29
32	Metal halide perovskite: a game-changer for photovoltaics and solar devices via a tandem design. Science and Technology of Advanced Materials, 2018, 19, 53-75.	2.8	28
33	A Twoâ€Stage Annealing Strategy for Crystallization Control of CH₃NH₃PbI₃ Films toward Highly Reproducible Perovskite Solar Cells. Small, 2018, 14, e1800181.	5.2	23
34	27.6% Perovskite/câ€Si Tandem Solar Cells Using Industrial Fabricated TOPCon Device. Advanced Energy Materials, 2022, 12, .	10.2	22
35	Impact of Perovskite/Silicon Tandem Module Design on Hot-Spot Temperature. ACS Applied Energy Materials, 2018, 1, 3025-3029.	2.5	17
36	The Impact of Mobile Ions on the Steady-State Performance of Perovskite Solar Cells. Journal of Physical Chemistry C, 2020, 124, 219-229.	1.5	13

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37	A Stepâ€byâ€Step Optimization of the câ€Si Bottom Cell in Monolithic Perovskite/câ€Si Tandem Devices. Solar Rrl, 2018, 2, 1800193.	3.1	10
38	30% Enhancement of Efficiency in Layered 2D Perovskites Absorbers by Employing Homoâ€Tandem Structures. Solar Rrl, 2019, 3, 1900083.	3.1	10
39	Spatially and Spectrally Resolved Absorptivity: New Approach for Degradation Studies in Perovskite and Perovskite/Silicon Tandem Solar Cells. Advanced Energy Materials, 2020, 10, 1902901.	10.2	9
40	Investigation of the temperature dependence of the optical properties of thermal transfer fluids for hybrid CPV-T systems. AIP Conference Proceedings, 2013, , .	0.3	4
41	Impact of Light on the Thermal Stability of Perovskite Solar Cells and Development of Stable Semi-transparent Cells. , 2018, , .		2
42	Tandem Solar Cells: Spatially and Spectrally Resolved Absorptivity: New Approach for Degradation Studies in Perovskite and Perovskite/Silicon Tandem Solar Cells (Adv. Energy Mater. 4/2020). Advanced Energy Materials, 2020, 10, 2070016.	10.2	0