Amran Al-Ashouri

List of Publications by Year
in descending order

34 papers	4,099 citations	279701 23 h-index	454834 30 g-index
35 all docs	35 docs citations	35 times ranked	3550 citing authors

#	Article	IF	Citations
1	Monolithic perovskite/silicon tandem solar cell with >29% efficiency by enhanced hole extraction. Science, 2020, 370, 1300-1309.	6.0	1,120
2	Conformal monolayer contacts with lossless interfaces for perovskite single junction and monolithic tandem solar cells. Energy and Environmental Science, 2019, 12, 3356-3369.	15.6	519
3	Textured interfaces in monolithic perovskite/silicon tandem solar cells: advanced light management for improved efficiency and energy yield. Energy and Environmental Science, 2018, 11, 3511-3523.	15.6	281
4	Highly efficient monolithic perovskite silicon tandem solar cells: analyzing the influence of current mismatch on device performance. Sustainable Energy and Fuels, 2019, 3, 1995-2005.	2.5	208
5	Perovskiteâ€“organic tandem solar cells with indium oxide interconnect. Nature, 2022, 604, 280-286.	13.7	181
6	Selfâ€Assembled Hole Transporting Monolayer for Highly Efficient Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1801892.	10.2	172
7	21.6%-Efficient Monolithic Perovskite/Cu(In,Ga)Se₂ Tandem Solar Cells with Thin Conformal Hole Transport Layers for Integration on Rough Bottom Cell Surfaces. ACS Energy Letters, 2019, 4, 583-590.	8.8	155
8	Charge transfer rates and electron trapping at buried interfaces of perovskite solar cells. Joule, 2021, 5, 2915-2933.	11.7	140
9	An open-access database and analysis tool for perovskite solar cells based on the FAIR data principles. Nature Energy, 2022, 7, 107-115.	19.8	136
10	The Doping Mechanism of Halide Perovskite Unveiled by Alkaline Earth Metals. Journal of the American Chemical Society, 2020, 142, 2364-2374.	6.6	132
11	Perovskite/CIGS Tandem Solar Cells: From Certified 24.2% toward 30% and Beyond. ACS Energy Letters, 2022, 7, 1298-1307.	8.8	128
12	The Role of Grain Boundaries on Ionic Defect Migration in Metal Halide Perovskites. Advanced Energy Materials, 2020, 10, 1903735.	10.2	117
13	Low Temperature Synthesis of Stable Î³â€CsPbI₃ Perovskite Layers for Solar Cells Obtained by High Throughput Experimentation. Advanced Energy Materials, 2019, 9, 1900555.	10.2	108
14	Proton Radiation Hardness of Perovskite Tandem Photovoltaics. Joule, 2020, 4, 1054-1069.	11.7	104
15	Coâ€Evaporated Formamidinium Lead Iodide Based Perovskites with 1000 h Constant Stability for Fully Textured Monolithic Perovskite/Silicon Tandem Solar Cells. Advanced Energy Materials, 2021, 11, 2101460.	10.2	102
16	Perovskite Solar Cells go Outdoors: Field Testing and Temperature Effects on Energy Yield. Advanced Energy Materials, 2020, 10, 2000454.	10.2	86
17	Co-Evaporated p-i-n Perovskite Solar Cells beyond 20% Efficiency: Impact of Substrate Temperature and Hole-Transport Layer. ACS Applied Materials & Interfaces, 2020, 12, 39261-39272.	4.0	79
18	Enhanced Self-Assembled Monolayer Surface Coverage by ALD NiO in p-i-n Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 2166-2176.	4.0	77

#	Article	IF	Citations
19	Compositional and Interfacial Engineering Yield High-Performance and Stable p-i-n Perovskite Solar Cells and Mini-Modules. ACS Applied Materials & Interfaces, 2021, 13, 13022-13033.	4.0	69
20	From Bulk to Surface: Sodium Treatment Reduces Recombination at the Nickel Oxide/Perovskite Interface. Advanced Materials Interfaces, 2019, 6, 1900789.	1.9	45
21	Fully Vacuumâ€Processed Perovskite Solar Cells on Pyramidal Microtextures. Solar Rrl, 2021, 5, 2000553.	3.1	30
22	Improved Quantum Efficiency by Advanced Light Management in Nanotextured Solution-Processed Perovskite Solar Cells. ACS Photonics, 2020, 7, 2589-2600.	3.2	27
23	Protonâ€Radiation Tolerant Allâ€Perovskite Multijunction Solar Cells. Advanced Energy Materials, 2021, 11, 2102246.	10.2	25
24	Revisiting the Determination of the Valence Band Maximum and Defect Formation in Halide Perovskites for Solar Cells: Insights from Highly Sensitive Nearâ€“UV Photoemission Spectroscopy. ACS Applied Materials & Interfaces, 2021, 13, 43540-43553.	4.0	20
25	Enamineâ€Based Crossâ€Linkable Holeâ€Transporting Materials for Perovskite Solar Cells. Solar Rrl, 2021, 5, .	3.1	11
26	Hybrid Perovskite Degradation from an Optical Perspective: A Spectroscopic Ellipsometry Study from the Deep Ultraviolet to the Middle Infrared. Advanced Optical Materials, 2022, 10, 2101553.	3.6	10
27	All-electrical measurement of the triplet-singlet spin relaxation time in self-assembled quantum dots. Applied Physics Letters, 2017, 111, .	1.5	4
28	Photon Noise Suppression by a Built-in Feedback Loop. Nano Letters, 2019, 19, 135-141.	4.5	3
29	Electrical and optical simulation of perovskite/silicon tandem solar cells using Tcad-Sentaurus. , 2021, , .		3
30	Periodically Nanostructured Perovskite/Silicon Tandem Solar Cells with Power Conversion Efficiency Exceeding 26%. , 2021, , .		2
31	Highly efficient monolithic perovskite/CIGSe tandem solar cells on rough bottom cell surfaces. , 2019, , .		1
32	Enamineâ€Based Crossâ€Linkable Holeâ€Transporting Materials for Perovskite Solar Cells. Solar Rrl, 2021, 5, 2170012.	3.1	1
33	Enhanced Optical Performance in Perovskite/Silicon Tandem Solar Cells Enabled by Periodic Nanotextures. , 2021, , .		0
34	Protonâ€Radiation Tolerant Allâ€Perovskite Multijunction Solar Cells (Adv. Energy Mater. 41/2021). Advanced Energy Materials, 2021, 11, 2170164.	10.2	0