Rasha A Awni

List of Publications by Year
in descending order

40 papers	1,811 citations	257450 24 h-index	377865 34 g-index
42 all docs	42 docs citations	42 times ranked	2722 citing authors

#	Article	IF	Citations
1	Understanding and Eliminating Hysteresis for Highly Efficient Planar Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1700414.	19.5	190
2	Synergistic Effects of Lead Thiocyanate Additive and Solvent Annealing on the Performance of Wide-Bandgap Perovskite Solar Cells. ACS Energy Letters, 2017, 2, 1177-1182.	17.4	190
3	Water Vapor Treatment of Low-Temperature Deposited SnO₂ Electron Selective Layers for Efficient Flexible Perovskite Solar Cells. ACS Energy Letters, 2017, 2, 2118-2124.	17.4	161
4	Arylammonium-Assisted Reduction of the Open-Circuit Voltage Deficit in Wide-Bandgap Perovskite Solar Cells: The Role of Suppressed Ion Migration. ACS Energy Letters, 2020, 5, 2560-2568.	17.4	131
5	Stable and efficient CdS/Sb2Se3 solar cells prepared by scalable close space sublimation. Nano Energy, 2018, 49, 346-353.	16.0	130
6	One-step facile synthesis of a simple carbazole-cored hole transport material for high-performance perovskite solar cells. Nano Energy, 2017, 40, 163-169.	16.0	89
7	Wide-bandgap, low-bandgap, and tandem perovskite solar cells. Semiconductor Science and Technology, 2019, 34, 093001.	2.0	89
8	Influence of Charge Transport Layers on Capacitance Measured in Halide Perovskite Solar Cells. Joule, 2020, 4, 644-657.	24.0	69
9	Interface modification of sputtered NiO_x as the hole-transporting layer for efficient inverted planar perovskite solar cells. Journal of Materials Chemistry C, 2020, 8, 1972-1980.	5.5	66
10	Electrodeposited Copperâ€“Cobaltâ€“Phosphide: A Stable Bifunctional Catalyst for Both Hydrogen and Oxygen Evolution Reactions. ACS Sustainable Chemistry and Engineering, 2019, 7, 3092-3100.	6.7	62
11	Eliminating S-Kink To Maximize the Performance of MgZnO/CdTe Solar Cells. ACS Applied Energy Materials, 2019, 2, 2896-2903.	5.1	60
12	InGaN/Si Double-Junction Photocathode for Unassisted Solar Water Splitting. ACS Energy Letters, 2020, 5, 3741-3751.	17.4	49
13	Cost-effective hole transporting material for stable and efficient perovskite solar cells with fill factors up to 82%. Journal of Materials Chemistry A, 2017, 5, 23319-23327.	10.3	40
14	Improving Performance and Stability of Planar Perovskite Solar Cells through Grain Boundary Passivation with Block Copolymers. Solar Rrl, 2019, 3, 1900078.	5.8	40
15	Templated Growth and Passivation of Vertically Oriented Antimony Selenide Thin Films for Highâ€Efficiency Solar Cells in Substrate Configuration. Advanced Functional Materials, 2022, 32, 2110032.	14.9	40
16	Solutionâ€processed copper (I) thiocyanate (CuSCN) for highly efficient CdSe/CdTe thinâ€film solar cells. Progress in Photovoltaics: Research and Applications, 2019, 27, 665-672.	8.1	37
17	Maximize CdTe solar cell performance through copper activation engineering. Nano Energy, 2020, 73, 104835.	16.0	35
18	Influence of Post-selenization Temperature on the Performance of Substrate-Type Sb₂Se₃ Solar Cells. ACS Applied Energy Materials, 2021, 4, 4313-4318.	5.1	32

#	Article	IF	Citations
19	Enabling bifacial thin film devices by developing a back surface field using CuxAlOy. Nano Energy, 2021, 83, 105827.	16.0	32
20	A New Hole Transport Material for Efficient Perovskite Solar Cells With Reduced Device Cost. Solar Rrl, 2018, 2, 1700175.	5.8	31
21	Low-temperature and effective ex situ group V doping for efficient polycrystalline CdSeTe solar cells. Nature Energy, 2021, 6, 715-722.	39.5	31
22	The Effects of Hydrogen Iodide Back Surface Treatment on CdTe Solar Cells. Solar Rrl, 2019, 3, 1800304.	5.8	29
23	Synergistic effects of thiocyanate additive and cesium cations on improving the performance and initial illumination stability of efficient perovskite solar cells. Sustainable Energy and Fuels, 2018, 2, 2435-2441.	4.9	27
24	Correlating Hysteresis and Stability with Organic Cation Composition in the Two-Step Solution-Processed Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 10588-10596.	8.0	27
25	Influences of buffer material and fabrication atmosphere on the electrical properties of CdTe solar cells. Progress in Photovoltaics: Research and Applications, 2019, 27, 1115-1123.	8.1	24
26	Effects of Cu Precursor on the Performance of Efficient CdTe Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 38432-38440.	8.0	15
27	Copper iodide nanoparticles as a hole transport layer to CdTe photovoltaics: 5.5 % efficient back-illuminated bifacial CdTe solar cells. Solar Energy Materials and Solar Cells, 2022, 235, 111451.	6.2	14
28	CuSCN as the Back Contact for Efficient ZMO/CdTe Solar Cells. Materials, 2020, 13, 1991.	2.9	13
29	Reduced Recombination and Improved Performance of CdSe/CdTe Solar Cells due to Cu Migration Induced by Light Soaking. ACS Applied Materials & Interfaces, 2022, 14, 19644-19651.	8.0	12
30	Semi-transparent p-type barium copper sulfide as a back contact interface layer for cadmium telluride solar cells. Solar Energy Materials and Solar Cells, 2020, 218, 110764.	6.2	10
31	Improving CdSeTe Devices With a Back Buffer Layer of Cu_xAlO_y. IEEE Journal of Photovoltaics, 2022, 12, 16-21.	2.5	9
32	On the design and performance of InGaN/Si double-junction photocathodes. Applied Physics Letters, 2021, 118, .	3.3	6
33	ZnTe Back Buffer Layer to Enhance the Efficiency of CdS/CdTe Solar Cells. , 2019, , .		5
34	Open-circuit Voltage Exceeding 840 mV for All-Sputtered CdS/CdTe Devices. , 2020, , .		5
35	Optical Properties of Magnesium-Zinc Oxide for Thin Film Photovoltaics. Materials, 2021, 14, 5649.	2.9	3
36	Electrical Impedance Characterization of CdTe Thin Film Solar Cells with Hydrogen Iodide Back Surface Etching. , 2018, , .		2

#	Article	IF	Citations
37	Get rid of S-kink in MZO/CdTe Solar Cells by Performing CdCl₂ Annealing without Oxygen. , 2019, , .		2
38	Fabricating Efficient CdTe Solar Cells: The Effect of Cu Precursor. , 2021, , .		2
39	Effects of Fabrication Atmosphere on Bulk and Back Interface Defects of CdTe Solar Cells with CdS and MgZnO Buffers. , 2019, , .		1
40	Temperature-dependency of ferroelectric behavior in CH3NH3PbI3 perovskite films measured by the Sawyerâ€“Tower method. MRS Advances, 2021, 6, 613-617.	0.9	1