

Mohammad I Hossain

List of Publications by Year in descending order

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papers

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38
docs citations

38
times ranked

975
citing authors

#	ARTICLE	IF	CITATIONS
1	Perovskite/Silicon Tandem Solar Cells: From Detailed Balance Limit Calculations to Photon Management. Nano-Micro Letters, 2019, 11, 58.	27.0	115
2	Efficient amorphous silicon solar cells: characterization, optimization, and optical loss analysis. Results in Physics, 2017, 7, 4287-4293.	4.1	69
3	Perovskite/perovskite planar tandem solar cells: A comprehensive guideline for reaching energy conversion efficiency beyond 30%. Nano Energy, 2021, 79, 105400.	16.0	69
4	Nanophotonic design of perovskite/silicon tandem solar cells. Journal of Materials Chemistry A, 2018, 6, 3625-3633.	10.3	53
5	Spray Pyrolyzed TiO ₂ Embedded Multi-Layer Front Contact Design for High-Efficiency Perovskite Solar Cells. Nano-Micro Letters, 2021, 13, 36.	27.0	50
6	Effect of back reflectors on photon absorption in thin-film amorphous silicon solar cells. Applied Nanoscience (Switzerland), 2017, 7, 489-497.	3.1	39
7	Approaching Perfect Light Incoupling in Perovskite and Silicon Thin Film Solar Cells by Moth Eye Surface Textures. Advanced Theory and Simulations, 2018, 1, 1800030.	2.8	38
8	Electrical and Optical Properties of Nickel Oxide Films for Efficient Perovskite Solar Cells. Small Methods, 2020, 4, 2000454.	8.6	37
9	Solar Driven Interfacial Steam Generation Derived from Biodegradable Luffa Sponge. Advanced Sustainable Systems, 2021, 5, 2000291.	5.3	35
10	Optics of Perovskite Solar Cell Front Contacts. ACS Applied Materials & Interfaces, 2019, 11, 14693-14701.	8.0	32
11	Rough versus planar interfaces: How to maximize the short circuit current of perovskite single and tandem solar cells. Materials Today Energy, 2019, 11, 106-113.	4.7	32
12	Influence of Perovskite Interface Morphology on the Photon Management in Perovskite/Silicon Tandem Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 15080-15086.	8.0	30
13	Tin Telluride Quantum Dots as a Novel Saturable Absorber for Q-switching and Mode Locking in Fiber Lasers. Advanced Optical Materials, 2021, 9, 2001821.	7.3	30
14	Perovskite Color Detectors: Approaching the Efficiency Limit. ACS Applied Materials & Interfaces, 2020, 12, 47831-47839.	8.0	29
15	Vertically Stacked Perovskite Detectors for Color Sensing and Color Vision. Advanced Materials Interfaces, 2020, 7, 2000459.	3.7	28
16	On the interplay of cell thickness and optimum period of silicon thin film solar cells: light trapping and plasmonic losses. Progress in Photovoltaics: Research and Applications, 2016, 24, 379-388.	8.1	27
17	Effects of oxygen concentration variation on the structural and optical properties of reactive sputtered W ₂ O ₃ thin film. Solar Energy, 2021, 222, 202-211.	6.1	26
18	Modeling of self-assembled monolayers (SAMs) of Octadecanethiol and Hexadecanethiol on gold (Au) and silver (Ag). Results in Physics, 2017, 7, 2289-2295.	4.1	25

#	ARTICLE	IF	CITATIONS
19	Near field control for enhanced photovoltaic performance and photostability in perovskite solar cells. <i>Nano Energy</i> , 2021, 89, 106388.	16.0	25
20	Femtosecond Charge Injection Dynamics at Hybrid Perovskite Interfaces. <i>ChemPhysChem</i> , 2017, 18, 2381-2389.	2.1	24
21	Non-resonant metal-oxide metasurfaces for efficient perovskite solar cells. <i>Solar Energy</i> , 2020, 198, 570-577.	6.1	23
22	Improved Nanophotonic Front Contact Design for High-Performance Perovskite Single-Junction and Perovskite/Perovskite Tandem Solar Cells. <i>Solar Rrl</i> , 2021, 5, 2100509.	5.8	23
23	Low-temperature treated anatase TiO ₂ nanophotonic-structured contact design for efficient triple-cation perovskite solar cells. <i>Chemical Engineering Journal</i> , 2021, 426, 131831.	12.7	22
24	Atomic layer deposition of metal oxides for efficient perovskite single-junction and perovskite/silicon tandem solar cells. <i>RSC Advances</i> , 2020, 10, 14856-14866.	3.6	18
25	Photoluminescence of PdS ₂ and PdSe ₂ quantum dots. <i>RSC Advances</i> , 2019, 9, 38077-38084.	3.6	13
26	Enhancing spectral response towards high-performance dye-sensitised solar cells by multiple dye approach: A comprehensive review. <i>Applied Materials Today</i> , 2021, 25, 101204.	4.3	11
27	Time and pressure dependent deformation of microcontact printed channels fabricated using self-assembled monolayers of alkanethiol on gold. <i>Journal of Science: Advanced Materials and Devices</i> , 2017, 2, 385-391.	3.1	10
28	Enhancing the energy conversion efficiency of low mobility solar cells by a 3D device architecture. <i>Journal of Materials Chemistry C</i> , 2019, 7, 10289-10296.	5.5	10
29	Sputtered WO _x thin film as the electron transport layer for efficient perovskite solar cells. <i>Applied Physics A: Materials Science and Processing</i> , 2022, 128, 1.	2.3	9
30	Maximizing the short circuit current of organic solar cells by partial decoupling of electrical and optical properties. <i>Applied Nanoscience (Switzerland)</i> , 2018, 8, 339-346.	3.1	7
31	Beyond Tristimulus Color Vision with Perovskite-Based Multispectral Sensors. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 11645-11653.	8.0	7
32	Growth and reaction mechanism of solution-processed Cu ₂ ZnSnSe ₄ thin films for realising efficient photovoltaic applications. <i>Journal of Alloys and Compounds</i> , 2022, 900, 163457.	5.5	6
33	Reproducible perovskite solar cells using a simple solvent-mediated sol-gel synthesized NiO hole transport layer. <i>Applied Physics Express</i> , 2022, 15, 015504.	2.4	6
34	Nanophotonic-structured front contact for high-performance perovskite solar cells. <i>Science China Materials</i> , 2022, 65, 1727-1740.	6.3	5
35	Reversible photochromic and photoluminescence in iodide perovskites. <i>Thin Solid Films</i> , 2021, 737, 138950.	1.8	4
36	Optics in high efficiency perovskite tandem solar cells. , 2022, , 319-345.		1

#	ARTICLE	IF	CITATIONS
37	Organometal halide perovskite photovoltaics. , 2022, , 273-317.		1