M Shahiduzzaman

List of Publications by Year
in descending order

69 papers	1,333 citations	279487 23 h-index	395343 33 g-index
69 all docs	69 docs citations	69 times ranked	1215 citing authors

#	Article	IF	Citations
1	Defect Study and Modelling of SnX3-Based Perovskite Solar Cells with SCAPS-1D. Nanomaterials, 2021, 11, 1218.	1.9	81
2	The benefits of ionic liquids for the fabrication of efficient and stable perovskite photovoltaics. Chemical Engineering Journal, 2021, 411, 128461.	6.6	70
3	Perovskite/perovskite planar tandem solar cells: A comprehensive guideline for reaching energy conversion efficiency beyond 30%. Nano Energy, 2021, 79, 105400.	8.2	69
4	Low-Temperature-Processed Brookite-Based TiO₂ Heterophase Junction Enhances Performance of Planar Perovskite Solar Cells. Nano Letters, 2019, 19, 598-604.	4.5	61
5	Ionic liquid-assisted growth of methylammonium lead iodide spherical nanoparticles by a simple spin-coating method and photovoltaic properties of perovskite solar cells. RSC Advances, 2015, 5, 77495-77500.	1.7	60
6	Spray Pyrolyzed TiO2 Embedded Multi-Layer Front Contact Design for High-Efficiency Perovskite Solar Cells. Nano-Micro Letters, 2021, 13, 36.	14.4	50
7	Improved Reproducibility and Intercalation Control of Efficient Planar Inorganic Perovskite Solar Cells by Simple Alternate Vacuum Deposition of PbI₂ and CsI. ACS Omega, 2017, 2, 4464-4469.	1.6	49
8	Ionic Liquid-Assisted MAPbI₃ Nanoparticle-Seeded Growth for Efficient and Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 21194-21206.	4.0	47
9	Metal Oxide Compact Electron Transport Layer Modification for Efficient and Stable Perovskite Solar Cells. Materials, 2020, 13, 2207.	1.3	42
10	Compact TiO₂/Anatase TiO₂ Single-Crystalline Nanoparticle Electron-Transport Bilayer for Efficient Planar Perovskite Solar Cells. ACS Sustainable Chemistry and Engineering, 2018, 6, 12070-12078.	3.2	39
11	Electrical and Optical Properties of Nickelâ€Oxide Films for Efficient Perovskite Solar Cells. Small Methods, 2020, 4, 2000454.	4.6	37
12	Annealing effects on CsPbI₃-based planar heterojunction perovskite solar cells formed by vacuum deposition method. Japanese Journal of Applied Physics, 2017, 56, 04CS11.	0.8	35
13	Double-layer CsI intercalation into an MAPbI3 framework for efficient and stable perovskite solar cells. Nano Energy, 2021, 86, 106135.	8.2	33
14	Viscosity effect of ionic liquid-assisted controlled growth of CH3NH3PbI3 nanoparticle-based planar perovskite solar cells. Organic Electronics, 2017, 48, 147-153.	1.4	30
15	Interface engineering of compact-TiOx in planar perovskite solar cells using low-temperature processable high-mobility fullerene derivative. Solar Energy Materials and Solar Cells, 2018, 178, 1-7.	3.0	29
16	Oblique Electrostatic Inkjet-Deposited TiO2 Electron Transport Layers for Efficient Planar Perovskite Solar Cells. Scientific Reports, 2019, 9, 19494.	1.6	29
17	Enhanced Photovoltaic Performance of Perovskite Solar Cells via Modification of Surface Characteristics Using a Fullerene Interlayer. Chemistry Letters, 2015, 44, 1735-1737.	0.7	28
18	Efficiency enhancement of CIGS solar cell by cubic silicon carbide as prospective buffer layer. Solar Energy, 2021, 224, 271-278.	2.9	28

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19	Optoelectronic properties of electron beam-deposited NiOx thin films for solar cell application. Results in Physics, 2020, 17, 103122.	2.0	26
20	Effects of oxygen concentration variation on the structural and optical properties of reactive sputtered WOx thin film. Solar Energy, 2021, 222, 202-211.	2.9	26
21	Interfacial modification of the electron collecting layer of low-temperature solution-processed organometallic halide photovoltaic cells using an amorphous perylenediimide. Solar Energy Materials and Solar Cells, 2017, 160, 294-300.	3.0	25
22	A single-phase brookite TiO₂ nanoparticle bridge enhances the stability of perovskite solar cells. Sustainable Energy and Fuels, 2020, 4, 2009-2017.	2.5	25
23	Near field control for enhanced photovoltaic performance and photostability in perovskite solar cells. Nano Energy, 2021, 89, 106388.	8.2	25
24	Design and Modelling of Eco-Friendly CH3NH3SnI3-Based Perovskite Solar Cells with Suitable Transport Layers. Energies, 2021, 14, 7200.	1.6	25
25	Performance analysis of tungsten disulfide (WS2) as an alternative buffer layer for CdTe solar cell through numerical modeling. Optical Materials, 2021, 120, 111296.	1.7	24
26	Improved Nanophotonic Front Contact Design for Highâ€Performance Perovskite Singleâ€Junction and Perovskite/Perovskite Tandem Solar Cells. Solar Rrl, 2021, 5, 2100509.	3.1	23
27	Low-temperature treated anatase TiO2 nanophotonic-structured contact design for efficient triple-cation perovskite solar cells. Chemical Engineering Journal, 2021, 426, 131831.	6.6	22
28	Air-stable perovskite photovoltaic cells with low temperature deposited NiOx as an efficient hole-transporting material. Optical Materials Express, 2020, 10, 1801.	1.6	19
29	Muntingia calabura Leaves Mediated Green Synthesis of CuO Nanorods: Exploiting Phytochemicals for Unique Morphology. Materials, 2021, 14, 6379.	1.3	19
30	Thermal Control of PbI₂ Film Growth for Two-Step Planar Perovskite Solar Cells. Crystal Growth and Design, 2019, 19, 5320-5325.	1.4	18
31	It is an Allâ€Rounder! On the Development of Metal Halide Perovskiteâ€Based Fluorescent Sensors and Radiation Detectors. Advanced Optical Materials, 2021, 9, 2101276.	3.6	18
32	Sexithiophene-Based Photovoltaic Cells with High Light Absorption Coefficient via Crystalline Polymorph Control. Journal of Physical Chemistry C, 2017, 121, 19699-19704.	1.5	16
33	Low-Temperature Processed TiOx Electron Transport Layer for Efficient Planar Perovskite Solar Cells. Nanomaterials, 2020, 10, 1676.	1.9	13
34	Identifying Molecular Orientation in a Bulk Heterojunction Film by Infrared Reflection Absorption Spectroscopy. ACS Omega, 2018, 3, 5678-5684.	1.6	12
35	Shape-controlled CH₃NH₃PbI₃ nanoparticles for planar heterojunction perovskite solar cells. Japanese Journal of Applied Physics, 2016, 55, 02BF05.	0.8	11
36	Molecular orientation control of semiconducting molecules using a metal layer formed by wet processing. Organic Electronics, 2018, 63, 47-51.	1.4	11

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37	Enhancing spectral response towards high-performance dye-sensitised solar cells by multiple dye approach: A comprehensive review. Applied Materials Today, 2021, 25, 101204.	2.3	11
38	Degradation mechanism for planar heterojunction perovskite solar cells. Japanese Journal of Applied Physics, 2016, 55, 04ES07.	0.8	10
39	Study on Properties of Low-Temperature-Prepared Zinc Oxide-Based Inverted Organic Solar Cells and Improvement of their Photodurability. ACS Applied Energy Materials, 2021, 4, 6385-6390.	2.5	10
40	Platinum counter electrodes for dye-sensitized solar cells prepared by one-step dipping process. Japanese Journal of Applied Physics, 2019, 58, 124001.	0.8	9
41	Ionic liquid infused starch-cellulose derivative based quasi-solid dye-sensitized solar cell: exploiting the rheological properties of natural polymers. Cellulose, 2021, 28, 5545.	2.4	9
42	Impact of Ar Flow Rates on Micro-Structural Properties of WS2 Thin Film by RF Magnetron Sputtering. Nanomaterials, 2021, 11, 1635.	1.9	9
43	Influence of coating steps of perovskite on low-temperature amorphous compact TiO<i> _x </i> upon the morphology, crystallinity, and photovoltaic property correlation in planar perovskite solar cells. Japanese Journal of Applied Physics, 2018, 57, 03EJ06.	0.8	8
44	Switchable Crystal Phase and Orientation of Evaporated Zinc Phthalocyanine Films for Efficient Organic Photovoltaics. Journal of Physical Chemistry C, 2020, 124, 21338-21345.	1.5	7
45	Investigation of Degradation Mechanism of Y6â€Based Inverted Organic Solar Cells and Their Utilization in Durable Nearâ€Infrared Photodetection. Macromolecular Rapid Communications, 2022, 43, e2100718.	2.0	7
46	Effect of Selective Lateral Chromium Doping by RF Magnetron Sputtering on the Structural, and Opto-Electrical Properties of Nickel Oxide. Applied Sciences (Switzerland), 2021, 11, 11546.	1.3	7
47	Naphthalene diimide-incorporated helical thienoacene: a helical molecule with high electron mobility, good solubility, and thermally stable solid phase. Chemical Communications, 2020, 56, 12343-12346.	2.2	6
48	Study on photo-degradation of inverted organic solar cells caused by generation of potential barrier between PEDOT:PSS and PBDB-Ts. Sustainable Energy and Fuels, 2021, 5, 3092-3096.	2.5	6
49	Growth and reaction mechanism of solution-processed Cu2ZnSnSe4 thin films for realising efficient photovoltaic applications. Journal of Alloys and Compounds, 2022, 900, 163457.	2.8	6
50	Reproducible perovskite solar cells using a simple solvent-mediated solâˆ’gel synthesized NiO _x hole transport layer. Applied Physics Express, 2022, 15, 015504.	1.1	6
51	Substrate-driven switchable molecular orientation in bulk heterojunction films identified using infrared reflection absorption spectroscopy. Molecular Systems Design and Engineering, 2020, 5, 559-564.	1.7	5
52	Nanophotonic-structured front contact for high-performance perovskite solar cells. Science China Materials, 2022, 65, 1727-1740.	3.5	5
53	Interpenetrating heterojunction photovoltaic cells based on C60 nano-crystallized thin films. Organic Electronics, 2016, 38, 107-114.	1.4	4
54	Planar heterojunction type perovskite solar cells based on TiOxcompact layer fabricated by chemical bath deposition. , 2016, , .		4

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55	Thin film deposition method for ZnO nanosheets using low-temperature microwave-excited atmospheric pressure plasma jet. Thin Solid Films, 2019, 674, 58-63.	0.8	4
56	Dopant-Free Mexylaminotriazine Molecular Glass Hole Transport Layer for Perovskite Solar Cells. ACS Applied Energy Materials, 0, , .	2.5	4
57	Platinum leaf counter electrodes for dye-sensitized solar cells. Japanese Journal of Applied Physics, 2020, 59, SDDC07.	0.8	3
58	Selective Extraction of Nonfullerene Acceptors from Bulk-Heterojunction Layer in Organic Solar Cells for Detailed Analysis of Microstructure. Materials, 2021, 14, 2107.	1.3	3
59	Paste Aging Spontaneously Tunes TiO₂ Nanoparticles into Reproducible Electrosprayed Photoelectrodes. ACS Applied Materials & Interfaces, 2021, 13, 53758-53766.	4.0	3
60	Electro-spray deposited TiO2 bilayer films and their recyclable photocatalytic self-cleaning strategy. Scientific Reports, 2022, 12, 1582.	1.6	3
61	Local Cross-Coupling Activity of Azide-Hexa(ethylene glycol)-Terminated Self-Assembled Monolayers Investigated by Atomic Force Microscopy. Langmuir, 2021, 37, 14688-14696.	1.6	3
62	Chemical Synthesis of Binary Solid Solution Bismuthâ€"Antimony Nanoparticles with Control of Composition and Morphology. Chemistry Letters, 2014, 43, 615-617.	0.7	2
63	Low-cost molecular glass hole transport material for perovskite solar cells. Japanese Journal of Applied Physics, 2021, 60, SBBF12.	0.8	2
64	Synthesis of brookite-type TiO₂ nanoparticles by emulsion-assisted hydrothermal method using titanium glycolate complex. Journal of the Ceramic Society of Japan, 2021, 129, 720-724.	0.5	2
65	Planar heterojunction perovskite solar cells fabricated by wet process. , 2017, , .		0
66	Highly Efficient Planar Perovskite Solar Cells Exploiting a Compact TiO<inf>2</inf>/Anatase TiO<inf>2</inf> Single Crystalline Nanoparticles Electron Transport Bilayer. , 2018, , .		0
67	Efficient Planar Perovskite Solar Cells with Entire Low-Temperature Processes via Brookite TiO2 Nanoparticle Electron Transport Layer. , 2019, , .		0
68	Use of n-type amorphous silicon films as an electron transport layer in the perovskite solar cells. Japanese Journal of Applied Physics, 2022, 61, SB1012.	0.8	0
69	Influence of the TiO2 Compact Electron Transport Layer on the Planar Perovskite Solar Cell Performance. , 2020, , .		0