Azhar Fakharuddin

List of Publications by Year
in descending order

53 papers	3,922 citations	201674 27 h-index	182427 51 g-index
53 all docs	53 docs citations	53 times ranked	5771 citing authors

#	Article	IF	Citations
1	A perspective on the production of dye-sensitized solar modules. Energy and Environmental Science, 2014, 7, 3952-3981.	30.8	381
2	Advances in hole transport materials engineering for stable and efficient perovskite solar cells. Nano Energy, 2017, 34, 271-305.	16.0	362
3	Progress, challenges and perspectives in flexible perovskite solar cells. Energy and Environmental Science, 2016, 9, 3007-3035.	30.8	345
4	Quantification of ion migration in CH₃NH₃PbI₃ perovskite solar cells by transient capacitance measurements. Materials Horizons, 2019, 6, 1497-1503.	12.2	297
5	Interfaces in Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1700623.	19.5	276
6	Perovskite light-emitting diodes. Nature Electronics, 2022, 5, 203-216.	26.0	268
7	Vertical TiO₂ Nanorods as a Medium for Stable and High-Efficiency Perovskite Solar Modules. ACS Nano, 2015, 9, 8420-8429.	14.6	174
8	Advances in solution-processed near-infrared light-emitting diodes. Nature Photonics, 2021, 15, 656-669.	31.4	136
9	Molecular materials as interfacial layers and additives in perovskite solar cells. Chemical Society Reviews, 2020, 49, 4496-4526.	38.1	130
10	Role of morphology and crystallinity of nanorod and planar electron transport layers on the performance and long term durability of perovskite solar cells. Journal of Power Sources, 2015, 283, 61-67.	7.8	106
11	Roadmap on organicâ€“inorganic hybrid perovskite semiconductors and devices. APL Materials, 2021, 9, .	5.1	102
12	Tin oxide as a photoanode for dye-sensitised solar cells: Current progress and future challenges. Journal of Power Sources, 2015, 293, 1039-1052.	7.8	101
13	Inorganic and Layered Perovskites for Optoelectronic Devices. Advanced Materials, 2019, 31, e1807095.	21.0	94
14	Reduced Efficiency Rollâ€Off and Improved Stability of Mixed 2D/3D Perovskite Light Emitting Diodes by Balancing Charge Injection. Advanced Functional Materials, 2019, 29, 1904101.	14.9	93
15	Humidity versus photo-stability of metal halide perovskite films in a polymer matrix. Physical Chemistry Chemical Physics, 2016, 18, 21629-21639.	2.8	75
16	Multiporous nanofibers of SnO₂by electrospinning for high efficiency dye-sensitized solar cells. Journal of Materials Chemistry A, 2014, 2, 17427-17434.	10.3	74
17	Fiberâ€Shaped Electronic Devices. Advanced Energy Materials, 2021, 11, 2101443.	19.5	74
18	Suppressing the Photocatalytic Activity of Zinc Oxide Electron-Transport Layer in Nonfullerene Organic Solar Cells with a Pyrene-Bodipy Interlayer. ACS Applied Materials & Interfaces, 2020, 12, 21961-21973.	8.0	57

#	Article	IF	Citations
19	Pseudoâ€Halide Perovskite Solar Cells. Advanced Energy Materials, 2021, 11, 2100818.	19.5	56
20	Lithium Doping of ZnO for High Efficiency and Stability Fullerene and Non-fullerene Organic Solar Cells. ACS Applied Energy Materials, 2019, 2, 1663-1675.	5.1	52
21	Perovskite-Polymer Blends Influencing Microstructures, Nonradiative Recombination Pathways, and Photovoltaic Performance of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 42542-42551.	8.0	50
22	Research Update: Behind the high efficiency of hybrid perovskite solar cells. APL Materials, 2016, 4, .	5.1	47
23	Role of the Metal-Oxide Work Function on Photocurrent Generation in Hybrid Solar Cells. Scientific Reports, 2018, 8, 3559.	3.3	47
24	SnO2â€"TiO2 hybrid nanofibers for efficient dye-sensitized solar cells. Solar Energy, 2016, 132, 395-404.	6.1	44
25	Interface-Dependent Radiative and Nonradiative Recombination in Perovskite Solar Cells. Journal of Physical Chemistry C, 2018, 122, 10691-10698.	3.1	40
26	Robust Inorganic Hole Transport Materials for Organic and Perovskite Solar Cells: Insights into Materials Electronic Properties and Device Performance. Solar Rrl, 2021, 5, 2000555.	5.8	34
27	Standardization of photoelectrode area of dye-sensitized solar cells. RSC Advances, 2013, 3, 2683.	3.6	31
28	A Comparative Study of Lightâ€Emitting Diodes Based on Allâ€Inorganic Perovskite Nanoparticles (CsPbBr₃) Synthesized at Room Temperature and by a Hotâ€Injection Method. ChemPlusChem, 2018, 83, 294-299.	2.8	27
29	Enhanced Organic and Perovskite Solar Cell Performance through Modification of the Electron-Selective Contact with a Bodipyâ€"Porphyrin Dyad. ACS Applied Materials & Interfaces, 2020, 12, 1120-1131.	8.0	27
30	Solid state perovskite solar modules by vacuum-vapor assisted sequential deposition on Nd:YVO₄ laser patterned rutile TiO₂ nanorods. Nanotechnology, 2015, 26, 494002.	2.6	26
31	A silanol-functionalized polyoxometalate with excellent electron transfer mediating behavior to ZnO and TiO₂ cathode interlayers for highly efficient and extremely stable polymer solar cells. Journal of Materials Chemistry C, 2018, 6, 1459-1469.	5.5	25
32	Optimizing Performance and Operational Stability of CsPbI₃ Quantum-Dot-Based Light-Emitting Diodes by Interface Engineering. ACS Applied Electronic Materials, 2020, 2, 2525-2534.	4.3	24
33	Tuning optical/electrical properties of 2D/3D perovskite by the inclusion of aromatic cation. Physical Chemistry Chemical Physics, 2018, 20, 30189-30199.	2.8	22
34	Mesoporous titaniaâ€"vertical nanorod films with interfacial engineering for high performance dye-sensitized solar cells. Nanotechnology, 2015, 26, 105401.	2.6	20
35	Insights into the passivation effect of atomic layer deposited hafnium oxide for efficiency and stability enhancement in organic solar cells. Journal of Materials Chemistry C, 2018, 6, 8051-8059.	5.5	20
36	Exploiting Twoâ€Step Processed Mixed 2D/3D Perovskites for Bright Green Light Emitting Diodes. Advanced Optical Materials, 2019, 7, 1900465.	7.3	18

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37	Double Charge Transfer Dominates in Carrier Localization in Low Bandgap Sites of Heterogeneous Lead Halide Perovskites. Advanced Functional Materials, 2021, 31, 2010076.	14.9	17
38	Charge transport through split photoelectrodes in dye-sensitized solar cells. Journal of Applied Physics, 2014, 115, 164509.	2.5	15
39	Surface Band Bending Influences the Open-Circuit Voltage of Perovskite Solar Cells. ACS Applied Energy Materials, 2019, 2, 4045-4052.	5.1	15
40	Modulating defect density of NiO hole transport layer via tuning interfacial oxygen stoichiometry in perovskite solar cells. Solar Energy, 2022, 233, 326-336.	6.1	15
41	Channeling of electron transport to improve collection efficiency in mesoporous titanium dioxide dye sensitized solar cell stacks. Applied Physics Letters, 2014, 104, 053905.	3.3	13
42	One pot synthesis of multi-functional tin oxide nanostructures forÂhigh efficiency dye-sensitized solar cells. Journal of Alloys and Compounds, 2015, 646, 32-39.	5.5	13
43	Light emission from perovskite materials. APL Materials, 2020, 8, 070401.	5.1	12
44	Performance enhancement of CsPbI2Br perovskite solar cells via stoichiometric control and interface engineering. Solar Energy, 2020, 211, 654-660.	6.1	9
45	Mesoporous SnO₂ Nanoparticle-Based Electron Transport Layer for Perovskite Solar Cells. ACS Applied Nano Materials, 2022, 5, 7822-7830.	5.0	9
46	Insights into optoelectronic properties of anti-solvent treated perovskite films. Journal of Materials Science: Materials in Electronics, 2017, 28, 15630-15636.	2.2	8
47	Improving pore-filling in TiO2 nanorods and nanotubes scaffolds for perovskite solar cells via methylamine gas healing. Solar Energy, 2018, 170, 541-548.	6.1	8
48	A carbon-doped tantalum dioxyfluoride as a superior electron transport material for high performance organic optoelectronics. Nano Energy, 2020, 70, 104508.	16.0	8
49	Probing Electron Lifetime and Recombination Dynamics in Large Area Dye-Sensitized Solar Cells by Electrochemical Impedance Spectroscopy. Advanced Materials Research, 0, 925, 553-558.	0.3	7
50	Defect passivation in perovskite solar cells using an amino-functionalized BODIPY fluorophore. Sustainable Energy and Fuels, 2022, 6, 2570-2580.	4.9	7
51	Oxygen vacancies in oxidized and reduced vertically aligned Î±-MoO₃ nanoblades. Materials Advances, 2022, 3, 3571-3581.	5.4	6
52	Functionalized BODIPYs as Tailorâ€Made and Universal Interlayers for Efficient and Stable Organic and Perovskite Solar Cells. Advanced Materials Interfaces, 0, , 2102324.	3.7	3
53	Hybrid Organic/Inorganic and Perovskite Solar Cells. Green Chemistry and Sustainable Technology, 2018, , 187-227.	0.7	2