Fabio Matteocci

List of Publications by Year
in descending order

76	4,317	147801 31	161849 54
papers	citations	h-index	g-index

79	79	79	5821
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	In situ observation of heat-induced degradation of perovskite solar cells. Nature Energy, 2016, 1, .	39.5	615
2	Perovskite solar cells and large area modules (100Âcm 2) based on an air flow-assisted PbI 2 blade coating deposition process. Journal of Power Sources, 2015, 277, 286-291.	7.8	332
3	Encapsulation for long-term stability enhancement of perovskite solar cells. Nano Energy, 2016, 30, 162-172.	16.0	258
4	Flexible Perovskite Photovoltaic Modules and Solar Cells Based on Atomic Layer Deposited Compact Layers and UVâ€Irradiated TiO₂ Scaffolds on Plastic Substrates. Advanced Energy Materials, 2015, 5, 1401808.	19.5	241
5	Fewâ€Layer MoS₂ Flakes as Active Buffer Layer for Stable Perovskite Solar Cells. Advanced Energy Materials, 2016, 6, 1600920.	19.5	207
6	High efficiency CH3NH3PbI(3â^'x)Clx perovskite solar cells with poly(3-hexylthiophene) hole transport layer. Journal of Power Sources, 2014, 251, 152-156.	7.8	179
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	Solid-state solar modules based on mesoscopic organometal halide perovskite: a route towards the up-scaling process. Physical Chemistry Chemical Physics, 2014, 16, 3918.	2.8	158
9	Gold and iodine diffusion in large area perovskite solar cells under illumination. Nanoscale, 2017, 9, 4700-4706.	5.6	133
10	Mechanically Stacked, Two-Terminal Graphene-Based Perovskite/Silicon Tandem Solar Cell with Efficiency over 26%. Joule, 2020, 4, 865-881.	24.0	125
11	Progress, highlights and perspectives on NiO in perovskite photovoltaics. Chemical Science, 2020, 11, 7746-7759.	7.4	119
12	Laser-Patterning Engineering for Perovskite Solar Modules With 95% Aperture Ratio. IEEE Journal of Photovoltaics, 2017, 7, 1674-1680.	2.5	116
13	Efficient fully laser-patterned flexible perovskite modules and solar cells based on low-temperature solution-processed SnO2/mesoporous-TiO2 electron transport layers. Nano Research, 2018, 11, 2669-2681.	10.4	116
14	High efficiency photovoltaic module based on mesoscopic organometal halide perovskite. Progress in Photovoltaics: Research and Applications, 2016, 24, 436-445.	8.1	112
15	Highâ€Efficiency Perovskite Solar Cell Based on Poly(3â€Hexylthiophene): Influence of Molecular Weight and Mesoscopic Scaffold Layer. ChemSusChem, 2017, 10, 3854-3860.	6.8	112
16	Interface and Composition Analysis on Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 26176-26183.	8.0	107
17	Ion Migrationâ€Induced Amorphization and Phase Segregation as a Degradation Mechanism in Planar Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 2000310.	19.5	103
18	Roadmap on organicâ€“inorganic hybrid perovskite semiconductors and devices. APL Materials, 2021, 9, .	5.1	102

#	Article	IF	Citations
19	Stability and Dark Hysteresis Correlate in NiOâ€Based Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1901642.	19.5	69
20	Role of pH and pigment concentration for natural dye-sensitized solar cells treated with anthocyanin extracts of common fruits. Journal of Photochemistry and Photobiology A: Chemistry, 2016, 316, 24-30.	3.9	66
21	Fabrication and Morphological Characterization of High-Efficiency Blade-Coated Perovskite Solar Modules. ACS Applied Materials & Interfaces, 2019, 11, 25195-25204.	8.0	53
22	A crystal engineering approach for scalable perovskite solar cells and module fabrication: a full out of glove box procedure. Journal of Materials Chemistry A, 2018, 6, 659-671.	10.3	50
23	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
24	Low temperature, solution-processed perovskite solar cells and modules with an aperture area efficiency of 11%. Solar Energy Materials and Solar Cells, 2018, 185, 136-144.	6.2	49
25	Beneficial Effect of Electron-Withdrawing Groups on the Sensitizing Action of Squaraines for p-Type Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2016, 120, 16340-16353.	3.1	48
26	Air-Processed Infrared-Annealed Printed Methylammonium-Free Perovskite Solar Cells and Modules Incorporating Potassium-Doped Graphene Oxide as an Interlayer. ACS Applied Materials & Interfaces, 2021, 13, 11741-11754.	8.0	45
27	Blocking layer optimisation of poly(3-hexylthiopene) based Solid State Dye Sensitized Solar Cells. Organic Electronics, 2013, 14, 1882-1890.	2.6	38
28	Light-induced improvement of dopant-free PTAA on performance of inverted perovskite solar cells. Solar Energy Materials and Solar Cells, 2020, 215, 110606.	6.2	36
29	Automated Scalable Spray Coating of SnO₂ for the Fabrication of Lowâ€Temperature Perovskite Solar Cells and Modules. Energy Technology, 2020, 8, 1901284.	3.8	34
30	Trap states in multication mesoscopic perovskite solar cells: A deep levels transient spectroscopy investigation. Applied Physics Letters, 2018, 113, .	3.3	33
31	Closing the Cell-to-Module Efficiency Gap: A Fully Laser Scribed Perovskite Minimodule With 16% Steady-State Aperture Area Efficiency. IEEE Journal of Photovoltaics, 2018, 8, 151-155.	2.5	32
32	Unveiling the Chemical Composition of Halide Perovskite Films Using Multivariate Statistical Analyses. ACS Applied Energy Materials, 2018, 1, 7174-7181.	5.1	31
33	Fabrication and Characterization of Mesoscopic Perovskite Photodiodes. IEEE Nanotechnology Magazine, 2016, 15, 255-260.	2.0	29
34	Easy Strategy to Enhance Thermal Stability of Planar PSCs by Perovskite Defect Passivation and Low-Temperature Carbon-Based Electrode. ACS Applied Materials & Interfaces, 2020, 12, 32536-32547.	8.0	28
35	Nanostructured TiO₂ Grown by Low-Temperature Reactive Sputtering for Planar Perovskite Solar Cells. ACS Applied Energy Materials, 2019, 2, 6218-6229.	5.1	27
36	Anodically electrodeposited NiO nanoflakes as hole selective contact in efficient air processed p-i-n perovskite solar cells. Solar Energy Materials and Solar Cells, 2020, 205, 110288.	6.2	27

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37	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
38	The effect of water in Carbon-Perovskite Solar Cells with optimized alumina spacer. Solar Energy Materials and Solar Cells, 2019, 197, 76-83.	6.2	26
39	Perovskite photo-detectors (PVSK-PDs) for visible light communication. Organic Electronics, 2019, 69, 220-226.	2.6	25
40	Light-Stable Methylammonium-Free Inverted Flexible Perovskite Solar Modules on PET Exceeding 10.5% on a 15.7 cm² Active Area. ACS Applied Materials & Interfaces, 2021, 13, 29576-29584.	8.0	22
41	Elemental Mapping of Perovskite Solar Cells by Using Multivariate Analysis: An Insight into Degradation Processes. ChemSusChem, 2016, 9, 2673-2678.	6.8	21
42	Investigating the electrodeposition mechanism of anodically grown NiOOH films on transparent conductive oxides. Electrochimica Acta, 2019, 319, 175-184.	5.2	21
43	Anthocyanic pigments from elicited in vitro grown shoot cultures of Vaccinium corymbosum L., cv. Brigitta Blue, as photosensitizer in natural dye-sensitized solar cells (NDSSC). Journal of Photochemistry and Photobiology B: Biology, 2018, 188, 69-76.	3.8	17
44	Solid state dye solar cell modules. Journal of Power Sources, 2014, 246, 361-364.	7.8	16
45	Wide bandgap halide perovskite absorbers for semi-transparent photovoltaics: From theoretical design to modules. Nano Energy, 2022, 101, 107560.	16.0	12
46	Methylamine Gas Treatment Affords Improving Semitransparency, Efficiency, and Stability of CH₃NH₃PbBr₃â€Based Perovskite Solar Cells. Solar Rrl, 2021, 5, 2100277.	5.8	11
47	The Golden Fig: A Plasmonic Effect Study of Organic-Based Solar Cells. Nanomaterials, 2022, 12, 267.	4.1	10
48	Inverted perovskite solar cells with transparent hole transporting layer based on semiconducting nickel oxide. AIP Conference Proceedings, 2018, , .	0.4	9
49	Rational Design of Photo-Electrochemical Hybrid Devices Based on Graphene and Chlamydomonas reinhardtii Light-Harvesting Proteins. Scientific Reports, 2020, 10, 3376.	3.3	9
50	Spray deposition of exfoliated MoS2 flakes as hole transport layer in perovskite-based photovoltaics. , 2015, , .		5
51	Reverse bias breakdown and photocurrent gain in CH3NH3PbBr3 films. Applied Physics Letters, 2022, 120, .	3.3	5
52	Pigments for natural dye-sensitized solar cells from in vitro grown shoot cultures. Journal of Photonics for Energy, 2017, 7, 025503.	1.3	4
53	A Photoelectrochemical Study of Hybrid Organic and Donorâ€"Acceptor Dyes as Sensitizers for Dye-Sensitized Solar Cells. Applied Sciences (Switzerland), 2022, 12, 3159.	2.5	4
54	Effects of thermal stress on hybrid perovskite solar cells with different encapsulation techniques. , 2017, , .		3

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55	Optically Transparent Gold Nanoparticles for DSSC Counter-Electrode: An Electrochemical Characterization. Molecules, 2022, 27, 4178.	3.8	3
56	Mesoscopic perovskite solar cells and modules. , 2014, , .		2
57	Solar Cells: Few-Layer MoS2Flakes as Active Buffer Layer for Stable Perovskite Solar Cells (Adv. Energy) Tj ETQq1 1 0.784314 rgBT /Ov	19.5	2
58	Semi-transparent triple cation Perovskite solar module exceeding 8% efficiency for BIPV applications. , 2020, , .		2
59	Perovskite and a-Si:H/c-Si tandem solar cell. , 2015, , .		1
60	Sodium Diffusion from P1 Lines Passivates Perovskite Solar Modules. , 0, , .		1
61	Long-Term Stability of Large Area Perovskite Solar Cell under Thermal Stress. , 0, , .		1
62	Device architectures with nanocrystalline mesoporous scaffolds and thin compact layers for flexible perovskite solar cells and modules. , 2015, , .		0
63	Fabrication and characterization of printed perovskite-based photodiodes. , 2015, , .		0
64	Perovskite photovoltaics: From lab cells to modules. , 2015, , .		0
65	Electro-optical modeling for the design of semitransparent mixed bromide-chloride PSCs. , 2020, , .		0
66	Polyurethanes as low cost and efficient encapsulants for Perovskite Solar Cells. , 0, , .		0
67	Improved Stability of Inverted Perovskite Solar Cells with ITO Buffer Layer.. , 0, , .		0
68	Scaling Up of Perovskite Solar Modules: from materials to design optimization. , 0, , .		0
69	On the scaling of perovskite photovoltaics to modules and panels. , 2021, , .		0
70	Influence of inkjet printing parameters on perovskite-based photovoltaic cells. , 2018, , .		0
71	HCl-assisted two-step method for enhancing the performance of perovskite solar cells fabricated in air. , 2018, , .		0
72	Mechanically Stacked, Two-Terminal Graphene-Based Perovskite/Silicon Tandem Solar Cell with a Stabilized Efficiency of 25.9%. SSRN Electronic Journal, 0, , .	0.4	0

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73	Halide perovskite modules and panels. , 0, , .		0
74	Room-Temperature Sputtered Indium Tin Oxide Barrier Layer for High Stability Perovskite Solar Cells and Modules: A Holistic Approach. , 0, , .		0
75	Opportunities of wide band gap semi-transparent perovskite solar cells and modules in BIPV. , 0, , .		0
76	Flexible Blade-coated Perovskite Solar Cells with a Non-hazardous Solvent System Fabricated in Ambient Air. , 0, , .		0