Fabio Matteocci

List of Publications by Year
in descending order

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76	4,317	182225 30	182931 54
papers	citations	h-index	g-index

79	79	79	6824
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The Golden Fig: A Plasmonic Effect Study of Organic-Based Solar Cells. Nanomaterials, 2022, 12, 267.	1.9	10
2	A Photoelectrochemical Study of Hybrid Organic and Donorâ€"Acceptor Dyes as Sensitizers for Dye-Sensitized Solar Cells. Applied Sciences (Switzerland), 2022, 12, 3159.	1.3	4
3	Reverse bias breakdown and photocurrent gain in CH3NH3PbBr3 films. Applied Physics Letters, 2022, 120, .	1.5	5
4	Optically Transparent Gold Nanoparticles for DSSC Counter-Electrode: An Electrochemical Characterization. Molecules, 2022, 27, 4178.	1.7	3
5	Wide bandgap halide perovskite absorbers for semi-transparent photovoltaics: From theoretical design to modules. Nano Energy, 2022, 101, 107560.	8.2	12
6	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.	4.0	45
7	On the scaling of perovskite photovoltaics to modules and panels. , 2021, , .		0
8	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.	4.0	22
9	Methylamine Gas Treatment Affords Improving Semitransparency, Efficiency, and Stability of CH₃NH₃PbBr₃â€Based Perovskite Solar Cells. Solar Rrl, 2021, 5, 2100277.	3.1	11
10	Roadmap on organicâ€"inorganic hybrid perovskite semiconductors and devices. APL Materials, 2021, 9, .	2.2	102
11	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.	3.0	27
12	Light-induced improvement of dopant-free PTAA on performance of inverted perovskite solar cells. Solar Energy Materials and Solar Cells, 2020, 215, 110606.	3.0	36
13	Progress, highlights and perspectives on NiO in perovskite photovoltaics. Chemical Science, 2020, 11, 7746-7759.	3.7	119
14	Electro-optical modeling for the design of semitransparent mixed bromide-chloride PSCs. , 2020, , .		0
15	Ion Migrationâ€Induced Amorphization and Phase Segregation as a Degradation Mechanism in Planar Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 2000310.	10.2	103
16	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.	4.0	28
17	Automated Scalable Spray Coating of SnO₂ for the Fabrication of Lowâ€Temperature Perovskite Solar Cells and Modules. Energy Technology, 2020, 8, 1901284.	1.8	34
18	Rational Design of Photo-Electrochemical Hybrid Devices Based on Graphene and Chlamydomonas reinhardtii Light-Harvesting Proteins. Scientific Reports, 2020, 10, 3376.	1.6	9

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19	Mechanically Stacked, Two-Terminal Graphene-Based Perovskite/Silicon Tandem Solar Cell with Efficiency over 26%. Joule, 2020, 4, 865-881.	11.7	125
20	Semi-transparent triple cation Perovskite solar module exceeding 8% efficiency for BIPV applications. , 2020, , .		2
21	Nanostructured TiO₂ Grown by Low-Temperature Reactive Sputtering for Planar Perovskite Solar Cells. ACS Applied Energy Materials, 2019, 2, 6218-6229.	2.5	27
22	Stability and Dark Hysteresis Correlate in NiOâ€Based Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1901642.	10.2	69
23	Investigating the electrodeposition mechanism of anodically grown NiOOH films on transparent conductive oxides. Electrochimica Acta, 2019, 319, 175-184.	2.6	21
24	Fabrication and Morphological Characterization of High-Efficiency Blade-Coated Perovskite Solar Modules. ACS Applied Materials & Interfaces, 2019, 11, 25195-25204.	4.0	53
25	The effect of water in Carbon-Perovskite Solar Cells with optimized alumina spacer. Solar Energy Materials and Solar Cells, 2019, 197, 76-83.	3.0	26
26	Perovskite photo-detectors (PVSK-PDs) for visible light communication. Organic Electronics, 2019, 69, 220-226.	1.4	25
27	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.	1.5	32
28	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.	5.8	116
29	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.	5.2	50
30	Unveiling the Chemical Composition of Halide Perovskite Films Using Multivariate Statistical Analyses. ACS Applied Energy Materials, 2018, 1, 7174-7181.	2.5	31
31	Perovskite-Polymer Blends Influencing Microstructures, Nonradiative Recombination Pathways, and Photovoltaic Performance of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 42542-42551.	4.0	50
32	Trap states in multication mesoscopic perovskite solar cells: A deep levels transient spectroscopy investigation. Applied Physics Letters, 2018, 113, .	1.5	33
33	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.	1.7	17
34	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.	3.0	49
35	Inverted perovskite solar cells with transparent hole transporting layer based on semiconducting nickel oxide. AIP Conference Proceedings, 2018, , .	0.3	9
36	Influence of inkjet printing parameters on perovskite-based photovoltaic cells. , 2018, , .		0

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37	HCl-assisted two-step method for enhancing the performance of perovskite solar cells fabricated in air. , 2018, , .		0
38	Pigments for natural dye-sensitized solar cells from in vitro grown shoot cultures. Journal of Photonics for Energy, 2017, 7, 025503.	0.8	4
39	Effects of thermal stress on hybrid perovskite solar cells with different encapsulation techniques. , 2017, , .		3
40	Highâ€Efficiency Perovskite Solar Cell Based on Poly(3â€Hexylthiophene): Influence of Molecular Weight and Mesoscopic Scaffold Layer. ChemSusChem, 2017, 10, 3854-3860.	3.6	112
41	Gold and iodine diffusion in large area perovskite solar cells under illumination. Nanoscale, 2017, 9, 4700-4706.	2.8	133
42	Laser-Patterning Engineering for Perovskite Solar Modules With 95% Aperture Ratio. IEEE Journal of Photovoltaics, 2017, 7, 1674-1680.	1.5	116
43	High efficiency photovoltaic module based on mesoscopic organometal halide perovskite. Progress in Photovoltaics: Research and Applications, 2016, 24, 436-445.	4.4	112
44	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.	1.5	48
45	Encapsulation for long-term stability enhancement of perovskite solar cells. Nano Energy, 2016, 30, 162-172.	8.2	258
46	Solar Cells: Few-Layer MoS2Flakes as Active Buffer Layer for Stable Perovskite Solar Cells (Adv. Energy) Tj ETQq0 0 0 rgBT /Overlock 10 T	10.2	2
47	Elemental Mapping of Perovskite Solar Cells by Using Multivariate Analysis: An Insight into Degradation Processes. ChemSusChem, 2016, 9, 2673-2678.	3.6	21
48	Fewâ€Layer MoS₂ Flakes as Active Buffer Layer for Stable Perovskite Solar Cells. Advanced Energy Materials, 2016, 6, 1600920.	10.2	207
49	In situ observation of heat-induced degradation of perovskite solar cells. Nature Energy, 2016, 1, .	19.8	615
50	Fabrication and Characterization of Mesoscopic Perovskite Photodiodes. IEEE Nanotechnology Magazine, 2016, 15, 255-260.	1.1	29
51	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.	2.0	66
52	Perovskite and a-Si:H/c-Si tandem solar cell. , 2015, , .		1
53	Device architectures with nanocrystalline mesoporous scaffolds and thin compact layers for flexible perovskite solar cells and modules. , 2015, , .		0
54	Fabrication and characterization of printed perovskite-based photodiodes. , 2015, , .		0

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55	Spray deposition of exfoliated MoS2 flakes as hole transport layer in perovskite-based photovoltaics. , 2015, , .		5
56	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.	10.2	241
57	Vertical TiO₂ Nanorods as a Medium for Stable and High-Efficiency Perovskite Solar Modules. ACS Nano, 2015, 9, 8420-8429.	7.3	174
58	Interface and Composition Analysis on Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 26176-26183.	4.0	107
59	Perovskite photovoltaics: From lab cells to modules. , 2015, , .		0
60	Solid state perovskite solar modules by vacuum-vapor assisted sequential deposition on Nd:YVO₄ laser patterned rutile TiO₂ nanorods. Nanotechnology, 2015, 26, 494002.	1.3	26
61	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.	4.0	332
62	Mesoscopic perovskite solar cells and modules. , 2014, , .		2
63	Solid state dye solar cell modules. Journal of Power Sources, 2014, 246, 361-364.	4.0	16
64	High efficiency CH3NH3PbI(3â^'x)Clx perovskite solar cells with poly(3-hexylthiophene) hole transport layer. Journal of Power Sources, 2014, 251, 152-156.	4.0	179
65	Solid-state solar modules based on mesoscopic organometal halide perovskite: a route towards the up-scaling process. Physical Chemistry Chemical Physics, 2014, 16, 3918.	1.3	158
66	Blocking layer optimisation of poly(3-hexylthiopene) based Solid State Dye Sensitized Solar Cells. Organic Electronics, 2013, 14, 1882-1890.	1.4	38
67	Polyurethanes as low cost and efficient encapsulants for Perovskite Solar Cells. , 0, , .		0
68	Improved Stability of Inverted Perovskite Solar Cells with ITO Buffer Layer.. , 0, , .		0
69	Sodium Diffusion from P1 Lines Passivates Perovskite Solar Modules. , 0, , .		1
70	Scaling Up of Perovskite Solar Modules: from materials to design optimization. , 0, , .		0
71	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
72	Long-Term Stability of Large Area Perovskite Solar Cell under Thermal Stress. , 0, , .		1

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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