

Pablo P Boix

List of Publications by Year in descending order

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103
papers

14,862
citations

22099

59
h-index

30010

103
g-index

105
all docs

105
docs citations

105
times ranked

16302
citing authors

#	ARTICLE	IF	CITATIONS
1	Perovskite Materials for Light-Emitting Diodes and Lasers. <i>Advanced Materials</i> , 2016, 28, 6804-6834.	11.1	1,188
2	Lead-Free Halide Perovskite Solar Cells with High Photocurrents Realized Through Vacancy Modulation. <i>Advanced Materials</i> , 2014, 26, 7122-7127.	11.1	942
3	High Efficiency Solid-State Sensitized Solar Cell-Based on Submicrometer Rutile TiO_2 Nanorod and $\text{CH}_3\text{NH}_3\text{PbI}_3$ Perovskite Sensitizer. <i>Nano Letters</i> , 2013, 13, 2412-2417.	4.5	908
4	Formamidinium-Containing Metal-Halide: An Alternative Material for Near-IR Absorption Perovskite Solar Cells. <i>Journal of Physical Chemistry C</i> , 2014, 118, 16458-16462.	1.5	657
5	Flexible, low-temperature, solution processed ZnO-based perovskite solid state solar cells. <i>Chemical Communications</i> , 2013, 49, 11089.	2.2	553
6	Band-gap tuning of lead halide perovskites using a sequential deposition process. <i>Journal of Materials Chemistry A</i> , 2014, 2, 9221-9225.	5.2	494
7	Inorganic Halide Perovskites for Efficient Light-Emitting Diodes. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 4360-4364.	2.1	482
8	Lead-Free MA_2CuCl_4 Hybrid Perovskites. <i>Inorganic Chemistry</i> , 2016, 55, 1044-1052.	1.9	457
9	Formamidinium tin-based perovskite with low E_g for photovoltaic applications. <i>Journal of Materials Chemistry A</i> , 2015, 3, 14996-15000.	5.2	449
10	Laminated Carbon Nanotube Networks for Metal Electrode-Free Efficient Perovskite Solar Cells. <i>ACS Nano</i> , 2014, 8, 6797-6804.	7.3	427
11	Current progress and future perspectives for organic/inorganic perovskite solar cells. <i>Materials Today</i> , 2014, 17, 16-23.	8.3	349
12	Surface Recombination and Collection Efficiency in Perovskite Solar Cells from Impedance Analysis. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 5105-5113.	2.1	346
13	Impact of Anionic Br Substitution on Open Circuit Voltage in Lead Free Perovskite ($\text{CsSn}_{3-x}\text{Br}_x$) Solar Cells. <i>Journal of Physical Chemistry C</i> , 2015, 119, 1763-1767.	1.5	332
14	Simultaneous determination of carrier lifetime and electron density-of-states in P3HT:PCBM organic solar cells under illumination by impedance spectroscopy. <i>Solar Energy Materials and Solar Cells</i> , 2010, 94, 366-375.	3.0	326
15	Identifying and suppressing interfacial recombination to achieve high open-circuit voltage in perovskite solar cells. <i>Energy and Environmental Science</i> , 2017, 10, 1207-1212.	15.6	288
16	Vapor-Deposited Perovskites: The Route to High-Performance Solar Cell Production?. <i>Joule</i> , 2017, 1, 431-442.	11.7	274
17	Perovskite Solar Cells: Beyond Methylammonium Lead Iodide. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 898-907.	2.1	266
18	Nanostructuring Mixed-Dimensional Perovskites: A Route Toward Tunable, Efficient Photovoltaics. <i>Advanced Materials</i> , 2016, 28, 3653-3661.	11.1	251

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19	Impedance spectroscopy characterisation of highly efficient silicon solar cells under different light illumination intensities. <i>Energy and Environmental Science</i> , 2009, 2, 678.	15.6	241
20	High efficiency electrospun TiO ₂ nanofiber based hybrid organic-inorganic perovskite solar cell. <i>Nanoscale</i> , 2014, 6, 1675-1679.	2.8	185
21	Novel cobalt/nickel-tungsten-sulfide catalysts for electrocatalytic hydrogen generation from water. <i>Energy and Environmental Science</i> , 2013, 6, 2452.	15.6	182
22	Novel hole transporting materials based on triptycene core for high efficiency mesoscopic perovskite solar cells. <i>Chemical Science</i> , 2014, 5, 2702-2709.	3.7	180
23	Hole Transport and Recombination in All-Solid Sb ₂ S ₃ -Sensitized TiO ₂ Solar Cells Using CuSCN As Hole Transporter. <i>Journal of Physical Chemistry C</i> , 2012, 116, 1579-1587.	1.5	175
24	From Flat to Nanostructured Photovoltaics: Balance between Thickness of the Absorber and Charge Screening in Sensitized Solar Cells. <i>ACS Nano</i> , 2012, 6, 873-880.	7.3	170
25	A swivel-cruciform thiophene based hole-transporting material for efficient perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2014, 2, 6305-6309.	5.2	167
26	Determination of gap defect states in organic bulk heterojunction solar cells from capacitance measurements. <i>Applied Physics Letters</i> , 2009, 95, .	1.5	162
27	Vacuum Deposited Triple-Cation Mixed-Halide Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2018, 8, 1703506.	10.2	147
28	High performance PbS Quantum Dot Sensitized Solar Cells exceeding 4% efficiency: the role of metal precursors in the electron injection and charge separation. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 13835.	1.3	143
29	PEDOT Nanotube Arrays as High Performing Counter Electrodes for Dye Sensitized Solar Cells. Study of the Interactions Among Electrolytes and Counter Electrodes. <i>Advanced Energy Materials</i> , 2011, 1, 781-784.	10.2	142
30	Influence of the Intermediate Density-of-States Occupancy on Open-Circuit Voltage of Bulk Heterojunction Solar Cells with Different Fullerene Acceptors. <i>Journal of Physical Chemistry Letters</i> , 2010, 1, 2566-2571.	2.1	140
31	Hole-Transporting Small Molecules Based on Thiophene Cores for High Efficiency Perovskite Solar Cells. <i>ChemSusChem</i> , 2014, 7, 3420-3425.	3.6	139
32	Iron Pyrite Thin Film Counter Electrodes for Dye-Sensitized Solar Cells: High Efficiency for Iodine and Cobalt Redox Electrolyte Cells. <i>ACS Nano</i> , 2014, 8, 10597-10605.	7.3	138
33	Role of ZnO Electron-Selective Layers in Regular and Inverted Bulk Heterojunction Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2011, 2, 407-411.	2.1	121
34	Facile Water-based Spray Pyrolysis of Earth-Abundant Cu ₂ FeSnS ₄ Thin Films as an Efficient Counter Electrode in Dye-Sensitized Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 17661-17667.	4.0	114
35	How the Charge-Neutrality Level of Interface States Controls Energy Level Alignment in Cathode Contacts of Organic Bulk-Heterojunction Solar Cells. <i>ACS Nano</i> , 2012, 6, 3453-3460.	7.3	113
36	Impedance analysis of perovskite solar cells: a case study. <i>Journal of Materials Chemistry A</i> , 2019, 7, 12191-12200.	5.2	109

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37	Fluorine Treatment of TiO ₂ for Enhancing Quantum Dot Sensitized Solar Cell Performance. <i>Journal of Physical Chemistry C</i> , 2011, 115, 14400-14407.	1.5	105
38	Interfacial Modification for High-Efficiency Vapor-Phase-Deposited Perovskite Solar Cells Based on a Metal Oxide Buffer Layer. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 1041-1046.	2.1	101
39	Crystalline Fe ₂ O ₃ /Fe ₂ TiO ₅ heterojunction nanorods with efficient charge separation and hole injection as photoanode for solar water oxidation. <i>Nano Energy</i> , 2016, 22, 310-318.	8.2	100
40	Photoanodes Based on Nanostructured WO ₃ for Water Splitting. <i>ChemPhysChem</i> , 2012, 13, 3025-3034.	1.0	99
41	High voltage vacuum-deposited CH ₃ NH ₃ Pb ₃ CH ₃ NH ₃ Pb ₃ tandem solar cells. <i>Energy and Environmental Science</i> , 2018, 11, 3292-3297.	15.6	98
42	Effect of Organic and Inorganic Passivation in Quantum-Dot-Sensitized Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 1519-1525.	2.1	96
43	Unravelling the Effects of Cl Addition in Single Step CH ₃ NH ₃ Pb ₃ Perovskite Solar Cells. <i>Chemistry of Materials</i> , 2015, 27, 2309-2314.	3.2	96
44	Silicon Decorated with Amorphous Cobalt Molybdenum Sulfide Catalyst as an Efficient Photocathode for Solar Hydrogen Generation. <i>ACS Nano</i> , 2015, 9, 3829-3836.	7.3	91
45	Carbon nanotubes as an efficient hole collector for high voltage methylammonium lead bromide perovskite solar cells. <i>Nanoscale</i> , 2016, 8, 6352-6360.	2.8	88
46	Towards high efficiency thin film solar cells. <i>Progress in Materials Science</i> , 2017, 87, 246-291.	16.0	85
47	An Equivalent Circuit for Perovskite Solar Cell Bridging Sensitized to Thin Film Architectures. <i>Joule</i> , 2019, 3, 2535-2549.	11.7	83
48	Oxygen doping-induced photogeneration loss in P3HT:PCBM solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2012, 100, 185-191.	3.0	82
49	Colloidal PbS and PbSeS Quantum Dot Sensitized Solar Cells Prepared by Electrophoretic Deposition. <i>Journal of Physical Chemistry C</i> , 2012, 116, 16391-16397.	1.5	81
50	Revealing the Role of TiO ₂ Surface Treatment of Hematite Nanorods Photoanodes for Solar Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 16960-16966.	4.0	81
51	Perovskite Perovskite Homojunctions via Compositional Doping. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 2770-2775.	2.1	77
52	Perovskite Nanoparticles: Synthesis, Properties, and Novel Applications in Photovoltaics and LEDs. <i>Small Methods</i> , 2019, 3, 1800231.	4.6	77
53	Incorporation of Cl into sequentially deposited lead halide perovskite films for highly efficient mesoporous solar cells. <i>Nanoscale</i> , 2014, 6, 13854-13860.	2.8	76
54	Atomically Altered Hematite for Highly Efficient Perovskite Tandem Water Splitting Devices. <i>ChemSusChem</i> , 2017, 10, 2449-2456.	3.6	71

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55	Current-Voltage Characteristics of Bulk Heterojunction Organic Solar Cells: Connection Between Light and Dark Curves. <i>Advanced Energy Materials</i> , 2011, 1, 1073-1078.	10.2	67
56	Flash infrared annealing as a cost-effective and low environmental impact processing method for planar perovskite solar cells. <i>Materials Today</i> , 2019, 31, 39-46.	8.3	65
57	Loading of mesoporous titania films by CH ₃ NH ₃ PbI ₃ perovskite, single step vs. sequential deposition. <i>Chemical Communications</i> , 2015, 51, 4603-4606.	2.2	64
58	Effect of nanostructured electrode architecture and semiconductor deposition strategy on the photovoltaic performance of quantum dot sensitized solar cells. <i>Electrochimica Acta</i> , 2012, 75, 139-147.	2.6	62
59	Engineering a Cu ₂ O/NiO/Cu ₂ MoS ₄ hybrid photocathode for H ₂ generation in water. <i>Nanoscale</i> , 2014, 6, 6506-6510.	2.8	62
60	Series resistance in organic bulk-heterojunction solar devices: Modulating carrier transport with fullerene electron traps. <i>Organic Electronics</i> , 2012, 13, 2326-2332.	1.4	60
61	Effects of Frequency Dependence of the External Quantum Efficiency of Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 3099-3104.	2.1	59
62	Amplified Spontaneous Emission Properties of Solution Processed CsPbBr ₃ Perovskite Thin Films. <i>Journal of Physical Chemistry C</i> , 2017, 121, 14772-14778.	1.5	58
63	Carrier recombination losses in inverted polymer: Fullerene solar cells with ZnO hole-blocking layer from transient photovoltage and impedance spectroscopy techniques. <i>Journal of Applied Physics</i> , 2011, 109, .	1.1	57
64	Core-Shell Hematite Nanorods: A Simple Method To Improve the Charge Transfer in the Photoanode for Photoelectrochemical Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 6852-6859.	4.0	57
65	Facile Synthesis of a Furan-Arylamine Hole-Transporting Material for High-Efficiency, Mesoscopic Perovskite Solar Cells. <i>Chemistry - A European Journal</i> , 2015, 21, 15113-15117.	1.7	49
66	Open Circuit Potential Build-Up in Perovskite Solar Cells from Dark Conditions to 1 Sun. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 4640-4645.	2.1	48
67	Photocurrent enhancement in dye-sensitized photovoltaic devices with titania-graphene composite electrodes. <i>Journal of Electroanalytical Chemistry</i> , 2012, 683, 43-46.	1.9	47
68	Room-Temperature Cubic Phase Crystallization and High Stability of Vacuum-Deposited Methylammonium Lead Triiodide Thin Films for High-Efficiency Solar Cells. <i>Advanced Materials</i> , 2019, 31, e1902692.	11.1	47
69	Sb ₂ S ₃ -Sensitized Photoelectrochemical Cells: Open Circuit Voltage Enhancement through the Introduction of Poly-3-hexylthiophene Interlayer. <i>Journal of Physical Chemistry C</i> , 2012, 116, 20717-20721.	1.5	45
70	Molecular Passivation of MoO ₃ : Band Alignment and Protection of Charge Transport Layers in Vacuum-Deposited Perovskite Solar Cells. <i>Chemistry of Materials</i> , 2019, 31, 6945-6949.	3.2	43
71	Open-Circuit Voltage Limitation in Low-Bandgap Diketopyrrolopyrrole-Based Polymer Solar Cells Processed from Different Solvents. <i>Journal of Physical Chemistry C</i> , 2011, 115, 15075-15080.	1.5	42
72	Influence of hole transport material ionization energy on the performance of perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2019, 7, 523-527.	2.7	39

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73	Understanding equivalent circuits in perovskite solar cells. Insights from drift-diffusion simulation. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 15657-15671.	1.3	34
74	Recombination in Organic Bulk Heterojunction Solar Cells: Small Dependence of Interfacial Charge Transfer Kinetics on Fullerene Affinity. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 1386-1392.	2.1	33
75	Theory of Impedance Spectroscopy of Ambipolar Solar Cells with Trap-Mediated Recombination. <i>Journal of Physical Chemistry C</i> , 2014, 118, 16574-16580.	1.5	28
76	Temperature and Electrical Poling Effects on Ionic Motion in MAPbI ₃ Photovoltaic Cells. <i>Advanced Energy Materials</i> , 2017, 7, 1700265.	10.2	26
77	Morphological Characterization of the Anterior Palatine Region Using Cone Beam Computed Tomography. <i>Clinical Implant Dentistry and Related Research</i> , 2015, 17, e459-64.	1.6	24
78	Interfacial Kinetics of Efficient Perovskite Solar Cells. <i>Crystals</i> , 2017, 7, 252.	1.0	24
79	Short Photoluminescence Lifetimes in Vacuum-Deposited CH ₃ NH ₃ PbI ₃ Perovskite Thin Films as a Result of Fast Diffusion of Photogenerated Charge Carriers. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 5167-5172.	2.1	24
80	FAPb _{0.5} Sn _{0.5} I ₃ : A Narrow Bandgap Perovskite Synthesized through Evaporation Methods for Solar Cell Applications. <i>Solar Rrl</i> , 2020, 4, 1900283.	3.1	24
81	Synthesis and Characterization of Organic Dyes with Various Electron-Accepting Substituents for p-Type Dye-Sensitized Solar Cells. <i>Chemistry - an Asian Journal</i> , 2014, 9, 3251-3263.	1.7	23
82	Highly Active MnO Catalysts Integrated onto Fe ₂ O ₃ Nanorods for Efficient Water Splitting. <i>Advanced Materials Interfaces</i> , 2016, 3, 1600176.	1.9	22
83	Hybrid Vapor-Solution Sequentially Deposited Mixed-Halide Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2020, 3, 8257-8265.	2.5	21
84	High Stability Bilayered Perovskites through Crystallization Driven Self-Assembly. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 28743-28749.	4.0	20
85	Charge injection and trapping at perovskite interfaces with organic hole transporting materials of different ionization energies. <i>APL Materials</i> , 2019, 7, .	2.2	20
86	ZnS Ultrathin Interfacial Layers for Optimizing Carrier Management in Sb ₂ S ₃ -based Photovoltaics. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 11861-11868.	4.0	20
87	Ligand-Length Modification in CsPbBr ₃ Perovskite Nanocrystals and Bilayers with PbS Quantum Dots for Improved Photodetection Performance. <i>Nanomaterials</i> , 2020, 10, 1297.	1.9	19
88	Influence of doped charge transport layers on efficient perovskite solar cells. <i>Sustainable Energy and Fuels</i> , 2018, 2, 2429-2434.	2.5	16
89	Effects of energetics with {001} facet-dominant anatase TiO ₂ scaffold on electron transport in CH ₃ NH ₃ PbI ₃ perovskite solar cells. <i>Electrochimica Acta</i> , 2019, 300, 445-454.	2.6	16
90	Vacuum-Deposited Multication Tin-Lead Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2020, 3, 2755-2761.	2.5	16

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91	Enhanced operational stability through interfacial modification by active encapsulation of perovskite solar cells. <i>Applied Physics Letters</i> , 2020, 116, 113502.	1.5	16
92	Efficient Vacuum Deposited P-I-N Perovskite Solar Cells by Front Contact Optimization. <i>Frontiers in Chemistry</i> , 2019, 7, 936.	1.8	16
93	Efficient photoluminescent thin films consisting of anchored hybrid perovskite nanoparticles. <i>Chemical Communications</i> , 2016, 52, 11351-11354.	2.2	15
94	Kinetics of occupancy of defect states in poly(3-hexylthiophene):fullerene solar cells. <i>Thin Solid Films</i> , 2012, 520, 2265-2268.	0.8	14
95	Decoupling light absorption and charge transport properties in near IR-sensitized Fe ₂ O ₃ regenerative cells. <i>Energy and Environmental Science</i> , 2013, 6, 3280.	15.6	14
96	MODULATING $CH_3NH_3PbI_3$ PEROVSKITE CRYSTALLIZATION BEHAVIOR THROUGH PRECURSOR CONCENTRATION. <i>Nano</i> , 2014, 09, 1440003.	0.5	10
97	Radiative and non-radiative losses by voltage-dependent in-situ photoluminescence in perovskite solar cell current-voltage curves. <i>Journal of Luminescence</i> , 2020, 222, 117106.	1.5	10
98	Modulating light propagation in ZnO/Cu ₂ O-inverse opal solar cells for enhanced photocurrents. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 21694-21701.	1.3	9
99	Charge Transport in Organometal Halide Perovskites. , 2016, , 201-222.		9
100	FAPb _{0.5} Sn _{0.5} I ₃ : A Narrow Bandgap Perovskite Synthesized through Evaporation Methods for Solar Cell Applications. <i>Solar Rrl</i> , 2020, 4, 2070024.	3.1	9
101	Amplified spontaneous emission in thin films of quasi-2D BA ₃ MA ₃ Pb ₅ Br ₁₆ lead halide perovskites. <i>Nanoscale</i> , 2021, 13, 8893-8900.	2.8	8
102	Use of Hydrogen Molybdenum Bronze in Vacuum-Deposited Perovskite Solar Cells. <i>Energy Technology</i> , 2020, 8, 1900734.	1.8	4
103	Photovoltaics: Temperature and Electrical Poling Effects on Ionic Motion in MAPb ₃ Photovoltaic Cells (<i>Adv. Energy Mater.</i> 18/2017). <i>Advanced Energy Materials</i> , 2017, 7, .	10.2	1