Pablo P Boix

List of Publications by Year
in descending order

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		22099	30010
103	14,862	59	103
papers	citations	h-index	g-index

105	105	105	16302
all docs	docs citations	times ranked	citing authors

#	ARTICLE	IF	CITATIONS
1	Understanding equivalent circuits in perovskite solar cells. Insights from drift-diffusion simulation. Physical Chemistry Chemical Physics, 2022, 24, 15657-15671.	1.3	34
2	Amplified spontaneous emission in thin films of quasi-2D BA₃MA₃Pb₅Br₁₆ lead halide perovskites. Nanoscale, 2021, 13, 8893-8900.	2.8	8
3	ZnS Ultrathin Interfacial Layers for Optimizing Carrier Management in Sb₂S₃-based Photovoltaics. ACS Applied Materials & Interfaces, 2021, 13, 11861-11868.	4.0	20
4	Use of Hydrogen Molybdenum Bronze in Vacuumâ€Deposited Perovskite Solar Cells. Energy Technology, 2020, 8, 1900734.	1.8	4
5	FAPb 0.5 Sn 0.5 I 3 : A Narrow Bandgap Perovskite Synthesized through Evaporation Methods for Solar Cell Applications. Solar Rrl, 2020, 4, 1900283.	3.1	24
6	Vacuum-Deposited Multication Tinâ€“Lead Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 2755-2761.	2.5	16
7	Ligand-Length Modification in CsPbBr3 Perovskite Nanocrystals and Bilayers with PbS Quantum Dots for Improved Photodetection Performance. Nanomaterials, 2020, 10, 1297.	1.9	19
8	Hybrid Vapor-Solution Sequentially Deposited Mixed-Halide Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 8257-8265.	2.5	21
9	Enhanced operational stability through interfacial modification by active encapsulation of perovskite solar cells. Applied Physics Letters, 2020, 116, 113502.	1.5	16
10	FAPb_{0.5}Sn_{0.5}I₃: A Narrow Bandgap Perovskite Synthesized through Evaporation Methods for Solar Cell Applications. Solar Rrl, 2020, 4, 2070024.	3.1	9
11	Radiative and non-radiative losses by voltage-dependent in-situ photoluminescence in perovskite solar cell current-voltage curves. Journal of Luminescence, 2020, 222, 117106.	1.5	10
12	Roomâ€Temperature Cubic Phase Crystallization and High Stability of Vacuumâ€Deposited Methylammonium Lead Triiodide Thin Films for Highâ€Efficiency Solar Cells. Advanced Materials, 2019, 31, e1902692.	11.1	47
13	Short Photoluminescence Lifetimes in Vacuum-Deposited CH₃NH₃PbI₃ Perovskite Thin Films as a Result of Fast Diffusion of Photogenerated Charge Carriers. Journal of Physical Chemistry Letters, 2019, 10, 5167-5172.	2.1	24
14	An Equivalent Circuit for Perovskite Solar Cell Bridging Sensitized to Thin Film Architectures. Joule, 2019, 3, 2535-2549.	11.7	83
15	Effects of energetics with {001} facet-dominant anatase TiO2 scaffold on electron transport in CH3NH3PbI3 perovskite solar cells. Electrochimica Acta, 2019, 300, 445-454.	2.6	16
16	Molecular Passivation of MoO₃: Band Alignment and Protection of Charge Transport Layers in Vacuum-Deposited Perovskite Solar Cells. Chemistry of Materials, 2019, 31, 6945-6949.	3.2	43
17	Flash infrared annealing as a cost-effective and low environmental impact processing method for planar perovskite solar cells. Materials Today, 2019, 31, 39-46.	8.3	65
18	Charge injection and trapping at perovskite interfaces with organic hole transporting materials of different ionization energies. APL Materials, 2019, 7, .	2.2	20

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19	Impedance analysis of perovskite solar cells: a case study. Journal of Materials Chemistry A, 2019, 7, 12191-12200.	5.2	109
20	Perovskite Nanoparticles: Synthesis, Properties, and Novel Applications in Photovoltaics and LEDs. Small Methods, 2019, 3, 1800231.	4.6	77
21	Influence of hole transport material ionization energy on the performance of perovskite solar cells. Journal of Materials Chemistry C, 2019, 7, 523-527.	2.7	39
22	Efficient Vacuum Deposited P-I-N Perovskite Solar Cells by Front Contact Optimization. Frontiers in Chemistry, 2019, 7, 936.	1.8	16
23	Vacuum Deposited Tripleâ€Cation Mixedâ€Halide Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1703506.	10.2	147
24	Interfacial Modification for High-Efficiency Vapor-Phase-Deposited Perovskite Solar Cells Based on a Metal Oxide Buffer Layer. Journal of Physical Chemistry Letters, 2018, 9, 1041-1046.	2.1	101
25	High voltage vacuum-deposited CH₃NH₃PbI₃â€“CH₃NH₃PbI₃ tandem solar cells. Energy and Environmental Science, 2018, 11, 3292-3297.	15.6	98
26	Effects of Frequency Dependence of the External Quantum Efficiency of Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2018, 9, 3099-3104.	2.1	59
27	Influence of doped charge transport layers on efficient perovskite solar cells. Sustainable Energy and Fuels, 2018, 2, 2429-2434.	2.5	16
28	Perovskiteâ€“Perovskite Homojunctions via Compositional Doping. Journal of Physical Chemistry Letters, 2018, 9, 2770-2775.	2.1	77
29	Towards high efficiency thin film solar cells. Progress in Materials Science, 2017, 87, 246-291.	16.0	85
30	Temperature and Electrical Poling Effects on Ionic Motion in MAPbI₃ Photovoltaic Cells. Advanced Energy Materials, 2017, 7, 1700265.	10.2	26
31	Amplified Spontaneous Emission Properties of Solution Processed CsPbBr₃ Perovskite Thin Films. Journal of Physical Chemistry C, 2017, 121, 14772-14778.	1.5	58
32	Atomically Altered Hematite for Highly Efficient Perovskite Tandem Waterâ€Splitting Devices. ChemSusChem, 2017, 10, 2449-2456.	3.6	71
33	Identifying and suppressing interfacial recombination to achieve high open-circuit voltage in perovskite solar cells. Energy and Environmental Science, 2017, 10, 1207-1212.	15.6	288
34	Vapor-Deposited Perovskites: The Route to High-Performance Solar Cell Production?. Joule, 2017, 1, 431-442.	11.7	274
35	Photovoltaics: Temperature and Electrical Poling Effects on Ionic Motion in MAPbI₃ Photovoltaic Cells (Adv. Energy Mater. 18/2017). Advanced Energy Materials, 2017, 7, .	10.2	1
36	High Stability Bilayered Perovskites through Crystallization Driven Self-Assembly. ACS Applied Materials & Interfaces, 2017, 9, 28743-28749.	4.0	20

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37	Interfacial Kinetics of Efficient Perovskite Solar Cells. Crystals, 2017, 7, 252.	1.0	24
38	Highly Active MnO Catalysts Integrated onto Fe₂O₃ Nanorods for Efficient Water Splitting. Advanced Materials Interfaces, 2016, 3, 1600176.	1.9	22
39	Nanostructuring Mixedâ€Dimensional Perovskites: A Route Toward Tunable, Efficient Photovoltaics. Advanced Materials, 2016, 28, 3653-3661.	11.1	251
40	Perovskite Materials for Lightâ€Emitting Diodes and Lasers. Advanced Materials, 2016, 28, 6804-6834.	11.1	1,188
41	Efficient photoluminescent thin films consisting of anchored hybrid perovskite nanoparticles. Chemical Communications, 2016, 52, 11351-11354.	2.2	15
42	Surface Recombination and Collection Efficiency in Perovskite Solar Cells from Impedance Analysis. Journal of Physical Chemistry Letters, 2016, 7, 5105-5113.	2.1	346
43	Charge Transport in Organometal Halide Perovskites. , 2016, , 201-222.		9
44	Lead-Free MA₂CuCl_{<i>x</i>}Br_{4â€“<i>x</i>} Hybrid Perovskites. Inorganic Chemistry, 2016, 55, 1044-1052.	1.9	457
45	Crystalline Fe 2 O 3 /Fe 2 TiO 5 heterojunction nanorods with efficient charge separation and hole injection as photoanode for solar water oxidation. Nano Energy, 2016, 22, 310-318.	8.2	100
46	Carbon nanotubes as an efficient hole collector for high voltage methylammonium lead bromide perovskite solar cells. Nanoscale, 2016, 8, 6352-6360.	2.8	88
47	Facile Synthesis of a Furanâ€“Arylamine Holeâ€Transporting Material for Highâ€Efficiency, Mesoscopic Perovskite Solar Cells. Chemistry - A European Journal, 2015, 21, 15113-15117.	1.7	49
48	Open Circuit Potential Build-Up in Perovskite Solar Cells from Dark Conditions to 1 Sun. Journal of Physical Chemistry Letters, 2015, 6, 4640-4645.	2.1	48
49	Impact of Anionic Br^{â€“} Substitution on Open Circuit Voltage in Lead Free Perovskite (CsSnI_{3-x}Br_{<i>x</i>}) Solar Cells. Journal of Physical Chemistry C, 2015, 119, 1763-1767.	1.5	332
50	Loading of mesoporous titania films by CH₃NH₃PbI₃ perovskite, single step <i>vs.</i> sequential deposition. Chemical Communications, 2015, 51, 4603-4606.	2.2	64
51	Unravelling the Effects of Cl Addition in Single Step CH₃NH₃PbI₃ Perovskite Solar Cells. Chemistry of Materials, 2015, 27, 2309-2314.	3.2	96
52	Perovskite Solar Cells: Beyond Methylammonium Lead Iodide. Journal of Physical Chemistry Letters, 2015, 6, 898-907.	2.1	266
53	Morphological Characterization of the Anterior Palatine Region Using Cone Beam Computed Tomography. Clinical Implant Dentistry and Related Research, 2015, 17, e459-64.	1.6	24
54	Revealing the Role of TiO₂ Surface Treatment of Hematite Nanorods Photoanodes for Solar Water Splitting. ACS Applied Materials & Interfaces, 2015, 7, 16960-16966.	4.0	81

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55	Formamidinium tin-based perovskite with low E_g for photovoltaic applications. Journal of Materials Chemistry A, 2015, 3, 14996-15000.	5.2	449
56	Modulating light propagation in ZnOâ€“Cu2O-inverse opal solar cells for enhanced photocurrents. Physical Chemistry Chemical Physics, 2015, 17, 21694-21701.	1.3	9
57	Silicon Decorated with Amorphous Cobalt Molybdenum Sulfide Catalyst as an Efficient Photocathode for Solar Hydrogen Generation. ACS Nano, 2015, 9, 3829-3836.	7.3	91
58	Coreâ€“Shell Hematite Nanorods: A Simple Method To Improve the Charge Transfer in the Photoanode for Photoelectrochemical Water Splitting. ACS Applied Materials & Interfaces, 2015, 7, 6852-6859.	4.0	57
59	Inorganic Halide Perovskites for Efficient Light-Emitting Diodes. Journal of Physical Chemistry Letters, 2015, 6, 4360-4364.	2.1	482
60	A swivel-cruciform thiophene based hole-transporting material for efficient perovskite solar cells. Journal of Materials Chemistry A, 2014, 2, 6305-6309.	5.2	167
61	Current progress and future perspectives for organic/inorganic perovskite solar cells. Materials Today, 2014, 17, 16-23.	8.3	349
62	Engineering a Cu₂O/NiO/Cu₂MoS₄ hybrid photocathode for H₂ generation in water. Nanoscale, 2014, 6, 6506-6510.	2.8	62
63	Band-gap tuning of lead halide perovskites using a sequential deposition process. Journal of Materials Chemistry A, 2014, 2, 9221-9225.	5.2	494
64	High efficiency electrospun TiO₂nanofiber based hybrid organicâ€“inorganic perovskite solar cell. Nanoscale, 2014, 6, 1675-1679.	2.8	185
65	Theory of Impedance Spectroscopy of Ambipolar Solar Cells with Trap-Mediated Recombination. Journal of Physical Chemistry C, 2014, 118, 16574-16580.	1.5	28
66	MODULATING CH₃NH₃PbI₃ PEROVSKITE CRYSTALLIZATION BEHAVIOR THROUGH PRECURSOR CONCENTRATION. Nano, 2014, 09, 1440003.	0.5	10
67	Synthesis and Characterization of Organic Dyes with Various Electronâ€Accepting Substituents for pâ€Type Dyeâ€Sensitized Solar Cells. Chemistry - an Asian Journal, 2014, 9, 3251-3263.	1.7	23
68	Leadâ€Free Halide Perovskite Solar Cells with High Photocurrents Realized Through Vacancy Modulation. Advanced Materials, 2014, 26, 7122-7127.	11.1	942
69	Incorporation of Cl into sequentially deposited lead halide perovskite films for highly efficient mesoporous solar cells. Nanoscale, 2014, 6, 13854-13860.	2.8	76
70	Iron Pyrite Thin Film Counter Electrodes for Dye-Sensitized Solar Cells: High Efficiency for Iodine and Cobalt Redox Electrolyte Cells. ACS Nano, 2014, 8, 10597-10605.	7.3	138
71	Formamidinium-Containing Metal-Halide: An Alternative Material for Near-IR Absorption Perovskite Solar Cells. Journal of Physical Chemistry C, 2014, 118, 16458-16462.	1.5	657
72	Facile Water-based Spray Pyrolysis of Earth-Abundant Cu₂FeSnS₄ Thin Films as an Efficient Counter Electrode in Dye-Sensitized Solar Cells. ACS Applied Materials & Interfaces, 2014, 6, 17661-17667.	4.0	114

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73	Holeâ€Transporting Small Molecules Based on Thiophene Cores for High Efficiency Perovskite Solar Cells. ChemSusChem, 2014, 7, 3420-3425.	3.6	139
74	Novel hole transporting materials based on triptycene core for high efficiency mesoscopic perovskite solar cells. Chemical Science, 2014, 5, 2702-2709.	3.7	180
75	Laminated Carbon Nanotube Networks for Metal Electrode-Free Efficient Perovskite Solar Cells. ACS Nano, 2014, 8, 6797-6804.	7.3	427
76	Novel cobalt/nickelâ€“tungsten-sulfide catalysts for electrocatalytic hydrogen generation from water. Energy and Environmental Science, 2013, 6, 2452.	15.6	182
77	Flexible, low-temperature, solution processed ZnO-based perovskite solid state solar cells. Chemical Communications, 2013, 49, 11089.	2.2	553
78	Decoupling light absorption and charge transport properties in near IR-sensitized Fe2O3 regenerative cells. Energy and Environmental Science, 2013, 6, 3280.	15.6	14
79	Effect of Organic and Inorganic Passivation in Quantum-Dot-Sensitized Solar Cells. Journal of Physical Chemistry Letters, 2013, 4, 1519-1525.	2.1	96
80	High performance PbS Quantum Dot Sensitized Solar Cells exceeding 4% efficiency: the role of metal precursors in the electron injection and charge separation. Physical Chemistry Chemical Physics, 2013, 15, 13835.	1.3	143
81	High Efficiency Solid-State Sensitized Solar Cell-Based on Submicrometer Rutile TiO₂ Nanorod and CH₃NH₃PbI₃ Perovskite Sensitizer. Nano Letters, 2013, 13, 2412-2417.	4.5	908
82	Recombination in Organic Bulk Heterojunction Solar Cells: Small Dependence of Interfacial Charge Transfer Kinetics on Fullerene Affinity. Journal of Physical Chemistry Letters, 2012, 3, 1386-1392.	2.1	33
83	How the Charge-Neutrality Level of Interface States Controls Energy Level Alignment in Cathode Contacts of Organic Bulk-Heterojunction Solar Cells. ACS Nano, 2012, 6, 3453-3460.	7.3	113
84	From Flat to Nanostructured Photovoltaics: Balance between Thickness of the Absorber and Charge Screening in Sensitized Solar Cells. ACS Nano, 2012, 6, 873-880.	7.3	170
85	Colloidal PbS and PbSeS Quantum Dot Sensitized Solar Cells Prepared by Electrophoretic Deposition. Journal of Physical Chemistry C, 2012, 116, 16391-16397.	1.5	81
86	Photocurrent enhancement in dye-sensitized photovoltaic devices with titaniaâ€“graphene composite electrodes. Journal of Electroanalytical Chemistry, 2012, 683, 43-46.	1.9	47
87	Series resistance in organic bulk-heterojunction solar devices: Modulating carrier transport with fullerene electron traps. Organic Electronics, 2012, 13, 2326-2332.	1.4	60
88	Sb₂S₃-Sensitized Photoelectrochemical Cells: Open Circuit Voltage Enhancement through the Introduction of Poly-3-hexylthiophene Interlayer. Journal of Physical Chemistry C, 2012, 116, 20717-20721.	1.5	45
89	Hole Transport and Recombination in All-Solid Sb₂S₃-Sensitized TiO₂ Solar Cells Using CuSCN As Hole Transporter. Journal of Physical Chemistry C, 2012, 116, 1579-1587.	1.5	175
90	Photoanodes Based on Nanostructured WO₃ for Water Splitting. ChemPhysChem, 2012, 13, 3025-3034.	1.0	99

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91	Effect of nanostructured electrode architecture and semiconductor deposition strategy on the photovoltaic performance of quantum dot sensitized solar cells. Electrochimica Acta, 2012, 75, 139-147.	2.6	62
92	Oxygen doping-induced photogeneration loss in P3HT:PCBM solar cells. Solar Energy Materials and Solar Cells, 2012, 100, 185-191.	3.0	82
93	Kinetics of occupancy of defect states in poly(3-hexylthiophene):fullerene solar cells. Thin Solid Films, 2012, 520, 2265-2268.	0.8	14
94	Carrier recombination losses in inverted polymer: Fullerene solar cells with ZnO hole-blocking layer from transient photovoltage and impedance spectroscopy techniques. Journal of Applied Physics, 2011, 109, .	1.1	57
95	Open-Circuit Voltage Limitation in Low-Bandgap Diketopyrrolopyrrole-Based Polymer Solar Cells Processed from Different Solvents. Journal of Physical Chemistry C, 2011, 115, 15075-15080.	1.5	42
96	Fluorine Treatment of TiO2 for Enhancing Quantum Dot Sensitized Solar Cell Performance. Journal of Physical Chemistry C, 2011, 115, 14400-14407.	1.5	105
97	Role of ZnO Electron-Selective Layers in Regular and Inverted Bulk Heterojunction Solar Cells. Journal of Physical Chemistry Letters, 2011, 2, 407-411.	2.1	121
98	PEDOT Nanotube Arrays as High Performing Counter Electrodes for Dye Sensitized Solar Cells. Study of the Interactions Among Electrolytes and Counter Electrodes. Advanced Energy Materials, 2011, 1, 781-784.	10.2	142
99	Currentâ€Voltage Characteristics of Bulk Heterojunction Organic Solar Cells: Connection Between Light and Dark Curves. Advanced Energy Materials, 2011, 1, 1073-1078.	10.2	67
100	Simultaneous determination of carrier lifetime and electron density-of-states in P3HT:PCBM organic solar cells under illumination by impedance spectroscopy. Solar Energy Materials and Solar Cells, 2010, 94, 366-375.	3.0	326
101	Influence of the Intermediate Density-of-States Occupancy on Open-Circuit Voltage of Bulk Heterojunction Solar Cells with Different Fullerene Acceptors. Journal of Physical Chemistry Letters, 2010, 1, 2566-2571.	2.1	140
102	Impedance spectroscopy characterisation of highly efficient silicon solar cells under different light illumination intensities. Energy and Environmental Science, 2009, 2, 678.	15.6	241
103	Determination of gap defect states in organic bulk heterojunction solar cells from capacitance measurements. Applied Physics Letters, 2009, 95, .	1.5	162