Pablo P Boix

List of Publications by Year in Descending Order

103 papers	12,419 citations	56 h-index	105 g-index
105 ext. papers	13,611 ext. citations	10.7 avg, IF	6.46 L-index

#	Paper	IF	Citations
103	ZnS Ultrathin Interfacial Layers for Optimizing Carrier Management in SbS-based Photovoltaics. *ACS Applied Materials & Interfaces*, **2021**, 13, 11861-11868	9.5	8
102	Amplified spontaneous emission in thin films of quasi-2D BAMAPbBr lead halide perovskites. *Nanoscale*, **2021**, 13, 8893-8900	7.7	4
101	Enhanced operational stability through interfacial modification by active encapsulation of perovskite solar cells. *Applied Physics Letters*, **2020**, 116, 113502	3.4	13
100	FAPb0.5Sn0.5I3: A Narrow Bandgap Perovskite Synthesized through Evaporation Methods for Solar Cell Applications. *Solar Rrl*, **2020**, 4, 2070024	7.1	5
99	Radiative and non-radiative losses by voltage-dependent in-situ photoluminescence in perovskite solar cell current-voltage curves. *Journal of Luminescence*, **2020**, 222, 117106	3.8	5
98	Vacuum-Deposited Multication Tin Lead Perovskite Solar Cells. *ACS Applied Energy Materials*, **2020**, 3, 2755-2761	6.1	10
97	Ligand-Length Modification in CsPbBr Perovskite Nanocrystals and Bilayers with PbS Quantum Dots for Improved Photodetection Performance. *Nanomaterials*, **2020**, 10,	5.4	9
96	Hybrid Vapor-Solution Sequentially Deposited Mixed-Halide Perovskite Solar Cells. *ACS Applied Energy Materials*, **2020**, 3, 8257-8265	6.1	10
95	Use of Hydrogen Molybdenum Bronze in Vacuum-Deposited Perovskite Solar Cells. *Energy Technology*, **2020**, 8, 1900734	3.5	2
94	FAPb0.5Sn0.5I3: A Narrow Bandgap Perovskite Synthesized through Evaporation Methods for Solar Cell Applications. *Solar Rrl*, **2020**, 4, 1900283	7.1	16
93	An Equivalent Circuit for Perovskite Solar Cell Bridging Sensitized to Thin Film Architectures. *Joule*, **2019**, 3, 2535-2549	27.8	53
92	Effects of energetics with {001} facet-dominant anatase TiO2 scaffold on electron transport in CH3NH3PbI3 perovskite solar cells. *Electrochimica Acta*, **2019**, 300, 445-454	6.7	11
91	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	9.6	32
90	Flash infrared annealing as a cost-effective and low environmental impact processing method for planar perovskite solar cells. *Materials Today*, **2019**, 31, 39-46	21.8	44
89	Charge injection and trapping at perovskite interfaces with organic hole transporting materials of different ionization energies. *APL Materials*, **2019**, 7, 041115	5.7	12
88	Impedance analysis of perovskite solar cells: a case study. *Journal of Materials Chemistry A*, **2019**, 7, 12191-12200	13	70
87	Room-Temperature Cubic Phase Crystallization and High Stability of Vacuum-Deposited Methylammonium Lead Triiodide Thin Films for High-Efficiency Solar Cells. *Advanced Materials*, **2019**, 31, e1902692	24	30

86	Short Photoluminescence Lifetimes in Vacuum-Deposited CHNHPbI Perovskite Thin Films as a Result of Fast Diffusion of Photogenerated Charge Carriers. *Journal of Physical Chemistry Letters*, **2019**, 10, 5167-5172	6.4	21
85	Efficient Vacuum Deposited P-I-N Perovskite Solar Cells by Front Contact Optimization. *Frontiers in Chemistry*, **2019**, 7, 936	5	10
84	Perovskite Nanoparticles: Synthesis, Properties, and Novel Applications in Photovoltaics and LEDs. *Small Methods*, **2019**, 3, 1800231	12.8	51
83	Influence of hole transport material ionization energy on the performance of perovskite solar cells. *Journal of Materials Chemistry C*, **2019**, 7, 523-527	7.1	33
82	Vacuum Deposited Triple-Cation Mixed-Halide Perovskite Solar Cells. *Advanced Energy Materials*, **2018**, 8, 1703506	21.8	115
81	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	6.4	76
80	Perovskite-Perovskite Homojunctions via Compositional Doping. *Journal of Physical Chemistry Letters*, **2018**, 9, 2770-2775	6.4	54
79	Working Principles of Perovskite Solar Cells **2018**, 81-99		1
78	High voltage vacuum-deposited CH3NH3PbI3□CH3NH3PbI3 tandem solar cells. *Energy and Environmental Science*, **2018**, 11, 3292-3297	35.4	74
77	Effects of Frequency Dependence of the External Quantum Efficiency of Perovskite Solar Cells. *Journal of Physical Chemistry Letters*, **2018**, 9, 3099-3104	6.4	36
76	Influence of doped charge transport layers on efficient perovskite solar cells. *Sustainable Energy and Fuels*, **2018**, 2, 2429-2434	5.8	14
75	Towards high efficiency thin film solar cells. *Progress in Materials Science*, **2017**, 87, 246-291	42.2	67
74	Temperature and Electrical Poling Effects on Ionic Motion in MAPbI3 Photovoltaic Cells. *Advanced Energy Materials*, **2017**, 7, 1700265	21.8	19
73	Amplified Spontaneous Emission Properties of Solution Processed CsPbBr3 Perovskite Thin Films. *Journal of Physical Chemistry C*, **2017**, 121, 14772-14778	3.8	49
72	Atomically Altered Hematite for Highly Efficient Perovskite Tandem Water-Splitting Devices. *ChemSusChem*, **2017**, 10, 2449-2456	8.3	62
71	Identifying and suppressing interfacial recombination to achieve high open-circuit voltage in perovskite solar cells. *Energy and Environmental Science*, **2017**, 10, 1207-1212	35.4	242
70	Vapor-Deposited Perovskites: The Route to High-Performance Solar Cell Production?. *Joule*, **2017**, 1, 431-442	27.8	205
69	Photovoltaics: Temperature and Electrical Poling Effects on Ionic Motion in MAPbI3 Photovoltaic Cells (Adv. Energy Mater. 18/2017). *Advanced Energy Materials*, **2017**, 7,	21.8	1

68	High Stability Bilayered Perovskites through Crystallization Driven Self-Assembly. *ACS Applied Materials & Interfaces*, **2017**, 9, 28743-28749	9.5	18
67	Interfacial Kinetics of Efficient Perovskite Solar Cells. *Crystals*, **2017**, 7, 252	2.3	20
66	Efficient photoluminescent thin films consisting of anchored hybrid perovskite nanoparticles. *Chemical Communications*, **2016**, 52, 11351-11354	5.8	13
65	Surface Recombination and Collection Efficiency in Perovskite Solar Cells from Impedance Analysis. *Journal of Physical Chemistry Letters*, **2016**, 7, 5105-5113	6.4	284
64	Charge Transport in Organometal Halide Perovskites **2016**, 201-222		6
63	Lead-Free MA2CuCl(x)Br(4-x) Hybrid Perovskites. *Inorganic Chemistry*, **2016**, 55, 1044-52	5.1	345
62	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	17.1	80
61	Carbon nanotubes as an efficient hole collector for high voltage methylammonium lead bromide perovskite solar cells. *Nanoscale*, **2016**, 8, 6352-60	7.7	76
60	Highly Active MnO Catalysts Integrated onto Fe2O3 Nanorods for Efficient Water Splitting. *Advanced Materials Interfaces*, **2016**, 3, 1600176	4.6	18
59	Nanostructuring Mixed-Dimensional Perovskites: A Route Toward Tunable, Efficient Photovoltaics. *Advanced Materials*, **2016**, 28, 3653-61	24	201
58	Perovskite Materials for Light-Emitting Diodes and Lasers. *Advanced Materials*, **2016**, 28, 6804-34	24	946
57	Morphological Characterization of the Anterior Palatine Region Using Cone Beam Computed Tomography. *Clinical Implant Dentistry and Related Research*, **2015**, 17 Suppl 2, e459-64	3.9	19
56	Revealing the Role of TiO2 Surface Treatment of Hematite Nanorods Photoanodes for Solar Water Splitting. *ACS Applied Materials & Interfaces*, **2015**, 7, 16960-6	9.5	72
55	Formamidinium tin-based perovskite with low Eg for photovoltaic applications. *Journal of Materials Chemistry A*, **2015**, 3, 14996-15000	13	338
54	Modulating light propagation in ZnO-Cu□-inverse opal solar cells for enhanced photocurrents. *Physical Chemistry Chemical Physics*, **2015**, 17, 21694-701	3.6	9
53	Silicon decorated with amorphous cobalt molybdenum sulfide catalyst as an efficient photocathode for solar hydrogen generation. *ACS Nano*, **2015**, 9, 3829-36	16.7	84
52	Core-shell hematite nanorods: a simple method to improve the charge transfer in the photoanode for photoelectrochemical water splitting. *ACS Applied Materials & Interfaces*, **2015**, 7, 6852-9	9.5	53
51	Inorganic Halide Perovskites for Efficient Light-Emitting Diodes. *Journal of Physical Chemistry Letters*, **2015**, 6, 4360-4	6.4	413

50	Facile Synthesis of a Furan-Arylamine Hole-Transporting Material for High-Efficiency, Mesoscopic Perovskite Solar Cells. *Chemistry - A European Journal*, **2015**, 21, 15113-7	4.8	45
49	Open circuit potential build-up in perovskite solar cells from dark conditions to 1 sun. *Journal of Physical Chemistry Letters*, **2015**, 6, 4640-5	6.4	44
48	Impact of Anionic Br Substitution on Open Circuit Voltage in Lead Free Perovskite (CsSnI3-xBrx) Solar Cells. *Journal of Physical Chemistry C*, **2015**, 119, 1763-1767	3.8	263
47	Loading of mesoporous titania films by CH3NH3PbI3 perovskite, single step vs. sequential deposition. *Chemical Communications*, **2015**, 51, 4603-6	5.8	61
46	Unravelling the Effects of Cl Addition in Single Step CH3NH3PbI3 Perovskite Solar Cells. *Chemistry of Materials*, **2015**, 27, 2309-2314	9.6	81
45	Perovskite Solar Cells: Beyond Methylammonium Lead Iodide. *Journal of Physical Chemistry Letters*, **2015**, 6, 898-907	6.4	234
44	A swivel-cruciform thiophene based hole-transporting material for efficient perovskite solar cells. *Journal of Materials Chemistry A*, **2014**, 2, 6305-6309	13	156
43	Current progress and future perspectives for organic/inorganic perovskite solar cells. *Materials Today*, **2014**, 17, 16-23	21.8	293
42	Engineering a Cu2O/NiO/Cu2MoS4 hybrid photocathode for H2 generation in water. *Nanoscale*, **2014**, 6, 6506-10	7.7	57
41	Band-gap tuning of lead halide perovskites using a sequential deposition process. *Journal of Materials Chemistry A*, **2014**, 2, 9221-9225	13	398
40	High efficiency electrospun TiO nanofiber based hybrid organic-inorganic perovskite solar cell. *Nanoscale*, **2014**, 6, 1675-9	7.7	163
39	Theory of Impedance Spectroscopy of Ambipolar Solar Cells with Trap-Mediated Recombination. *Journal of Physical Chemistry C*, **2014**, 118, 16574-16580	3.8	24
38	MODULATING CH3NH3PbI3 PEROVSKITE CRYSTALLIZATION BEHAVIOR THROUGH PRECURSOR CONCENTRATION. *Nano*, **2014**, 09, 1440003	1.1	8
37	Synthesis and characterization of organic dyes with various electron-accepting substituents for p-type dye-sensitized solar cells. *Chemistry - an Asian Journal*, **2014**, 9, 3251-63	4.5	23
36	Lead-free halide perovskite solar cells with high photocurrents realized through vacancy modulation. *Advanced Materials*, **2014**, 26, 7122-7	24	737
35	Incorporation of Cl into sequentially deposited lead halide perovskite films for highly efficient mesoporous solar cells. *Nanoscale*, **2014**, 6, 13854-60	7.7	70
34	Iron pyrite thin film counter electrodes for dye-sensitized solar cells: high efficiency for iodine and cobalt redox electrolyte cells. *ACS Nano*, **2014**, 8, 10597-605	16.7	127
33	Formamidinium-Containing Metal-Halide: An Alternative Material for Near-IR Absorption Perovskite Solar Cells. *Journal of Physical Chemistry C*, **2014**, 118, 16458-16462	3.8	554

32	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, 17661-7	9.5	90
31	Hole-transporting small molecules based on thiophene cores for high efficiency perovskite solar cells. *ChemSusChem*, **2014**, 7, 3420-5	8.3	122
30	Novel hole transporting materials based on triptycene core for high efficiency mesoscopic perovskite solar cells. *Chemical Science*, **2014**, 5, 2702-2709	9.4	160
29	Laminated carbon nanotube networks for metal electrode-free efficient perovskite solar cells. *ACS Nano*, **2014**, 8, 6797-804	16.7	371
28	Novel cobalt/nickel tungsten-sulfide catalysts for electrocatalytic hydrogen generation from water. *Energy and Environmental Science*, **2013**, 6, 2452	35.4	167
27	Flexible, low-temperature, solution processed ZnO-based perovskite solid state solar cells. *Chemical Communications*, **2013**, 49, 11089-91	5.8	481
26	Decoupling light absorption and charge transport properties in near IR-sensitized Fe2O3 regenerative cells. *Energy and Environmental Science*, **2013**, 6, 3280	35.4	13
25	Effect of Organic and Inorganic Passivation in Quantum-Dot-Sensitized Solar Cells. *Journal of Physical Chemistry Letters*, **2013**, 4, 1519-25	6.4	90
24	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, 13835-43	3.6	133
23	High efficiency solid-state sensitized solar cell-based on submicrometer rutile TiO2 nanorod and CH3NH3PbI3 perovskite sensitizer. *Nano Letters*, **2013**, 13, 2412-7	11.5	825
22	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	6.7	61
21	Oxygen doping-induced photogeneration loss in P3HT:PCBM solar cells. *Solar Energy Materials and Solar Cells*, **2012**, 100, 185-191	6.4	69
20	Kinetics of occupancy of defect states in poly(3-hexylthiophene):fullerene solar cells. *Thin Solid Films*, **2012**, 520, 2265-2268	2.2	14
19	Recombination in Organic Bulk Heterojunction Solar Cells: Small Dependence of Interfacial Charge Transfer Kinetics on Fullerene Affinity. *Journal of Physical Chemistry Letters*, **2012**, 3, 1386-92	6.4	32
18	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, 3453-60	16.7	104
17	From flat to nanostructured photovoltaics: balance between thickness of the absorber and charge screening in sensitized solar cells. *ACS Nano*, **2012**, 6, 873-80	16.7	156
16	Colloidal PbS and PbSeS Quantum Dot Sensitized Solar Cells Prepared by Electrophoretic Deposition. *Journal of Physical Chemistry C*, **2012**, 116, 16391-16397	3.8	77
15	Photocurrent enhancement in dye-sensitized photovoltaic devices with titania graphene composite electrodes. *Journal of Electroanalytical Chemistry*, **2012**, 683, 43-46	4.1	46

14	Series resistance in organic bulk-heterojunction solar devices: Modulating carrier transport with fullerene electron traps. *Organic Electronics*, **2012**, 13, 2326-2332	3.5	57
13	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	3.8	42
12	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	3.8	162
11	Photoanodes based on nanostructured WO3 for water splitting. *ChemPhysChem*, **2012**, 13, 3025-34	3.2	89
10	Fluorine Treatment of TiO2 for Enhancing Quantum Dot Sensitized Solar Cell Performance. *Journal of Physical Chemistry C*, **2011**, 115, 14400-14407	3.8	99
9	Role of ZnO Electron-Selective Layers in Regular and Inverted Bulk Heterojunction Solar Cells. *Journal of Physical Chemistry Letters*, **2011**, 2, 407-411	6.4	114
8	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	21.8	137
7	Current-Voltage Characteristics of Bulk Heterojunction Organic Solar Cells: Connection Between Light and Dark Curves. *Advanced Energy Materials*, **2011**, 1, 1073-1078	21.8	64
6	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, 074514	2.5	54
5	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	3.8	41
4	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	6.4	126
3	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	6.4	283
2	Impedance spectroscopy characterisation of highly efficient silicon solar cells under different light illumination intensities. *Energy and Environmental Science*, **2009**, 2, 678	35.4	196
1	Determination of gap defect states in organic bulk heterojunction solar cells from capacitance measurements. *Applied Physics Letters*, **2009**, 95, 233302	3.4	141