# Pablo P Boix

List of Publications by Year
in descending order



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|---|---|---|---|
| 103 papers | 14,862 citations | 22153 59 h-index | 30087 103 g-index |
| 105 all docs | 105 docs citations | 105 times ranked | 16302 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Perovskite Materials for Lightâ€Emitting Diodes and Lasers. Advanced Materials, 2016, 28, 6804-6834. | 21.0 | 1,188 |
| 2 | Leadâ€Free Halide Perovskite Solar Cells with High Photocurrents Realized Through Vacancy Modulation. Advanced Materials, 2014, 26, 7122-7127. | 21.0 | 942 |
| 3 | High Efficiency Solid-State Sensitized Solar Cell-Based on Submicrometer Rutile TiO<sub>2</sub> Nanorod and CH<sub>3</sub>NH<sub>3</sub>PbI<sub>3</sub> Perovskite Sensitizer. Nano Letters, 2013, 13, 2412-2417. | 9.1 | 908 |
| 4 | Formamidinium-Containing Metal-Halide: An Alternative Material for Near-IR Absorption Perovskite Solar Cells. Journal of Physical Chemistry C, 2014, 118, 16458-16462. | 3.1 | 657 |
| 5 | Flexible, low-temperature, solution processed ZnO-based perovskite solid state solar cells. Chemical Communications, 2013, 49, 11089. | 4.1 | 553 |
| 6 | Band-gap tuning of lead halide perovskites using a sequential deposition process. Journal of Materials Chemistry A, 2014, 2, 9221-9225. | 10.3 | 494 |
| 7 | Inorganic Halide Perovskites for Efficient Light-Emitting Diodes. Journal of Physical Chemistry Letters, 2015, 6, 4360-4364. | 4.6 | 482 |
| 8 | Lead-Free MA<sub>2</sub>CuCl<sub>x</sub>Br<sub>4â€“x</sub> Hybrid Perovskites. Inorganic Chemistry, 2016, 55, 1044-1052. | 4.0 | 457 |
| 9 | Formamidinium tin-based perovskite with low E<sub>g</sub> for photovoltaic applications. Journal of Materials Chemistry A, 2015, 3, 14996-15000. | 10.3 | 449 |
| 10 | Laminated Carbon Nanotube Networks for Metal Electrode-Free Efficient Perovskite Solar Cells. ACS Nano, 2014, 8, 6797-6804. | 14.6 | 427 |
| 11 | Current progress and future perspectives for organic/inorganic perovskite solar cells. Materials Today, 2014, 17, 16-23. | 14.2 | 349 |
| 12 | Surface Recombination and Collection Efficiency in Perovskite Solar Cells from Impedance Analysis. Journal of Physical Chemistry Letters, 2016, 7, 5105-5113. | 4.6 | 346 |
| 13 | Impact of Anionic Br<sup>â€“</sup> Substitution on Open Circuit Voltage in Lead Free Perovskite (CsSnI<sub>3-x</sub>Br<sub>x</sub>) Solar Cells. Journal of Physical Chemistry C, 2015, 119, 1763-1767. | 3.1 | 332 |
| 14 | 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. | 6.2 | 326 |
| 15 | Identifying and suppressing interfacial recombination to achieve high open-circuit voltage in perovskite solar cells. Energy and Environmental Science, 2017, 10, 1207-1212. | 30.8 | 288 |
| 16 | Vapor-Deposited Perovskites: The Route to High-Performance Solar Cell Production?. Joule, 2017, 1, 431-442. | 24.0 | 274 |
| 17 | Perovskite Solar Cells: Beyond Methylammonium Lead Iodide. Journal of Physical Chemistry Letters, 2015, 6, 898-907. | 4.6 | 266 |
| 18 | Nanostructuring Mixedâ€Dimensional Perovskites: A Route Toward Tunable, Efficient Photovoltaics. Advanced Materials, 2016, 28, 3653-3661. | 21.0 | 251 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Impedance spectroscopy characterisation of highly efficient silicon solar cells under different light illumination intensities. Energy and Environmental Science, 2009, 2, 678. | 30.8 | 241 |
| 20 | High efficiency electrospun TiO<sub>2</sub>nanofiber based hybrid organicâ€“inorganic perovskite solar cell. Nanoscale, 2014, 6, 1675-1679. | 5.6 | 185 |
| 21 | Novel cobalt/nickelâ€“tungsten-sulfide catalysts for electrocatalytic hydrogen generation from water. Energy and Environmental Science, 2013, 6, 2452. | 30.8 | 182 |
| 22 | Novel hole transporting materials based on triptycene core for high efficiency mesoscopic perovskite solar cells. Chemical Science, 2014, 5, 2702-2709. | 7.4 | 180 |
| 23 | Hole Transport and Recombination in All-Solid Sb<sub>2</sub>S<sub>3</sub>-Sensitized TiO<sub>2</sub> Solar Cells Using CuSCN As Hole Transporter. Journal of Physical Chemistry C, 2012, 116, 1579-1587. | 3.1 | 175 |
| 24 | From Flat to Nanostructured Photovoltaics: Balance between Thickness of the Absorber and Charge Screening in Sensitized Solar Cells. ACS Nano, 2012, 6, 873-880. | 14.6 | 170 |
| 25 | A swivel-cruciform thiophene based hole-transporting material for efficient perovskite solar cells. Journal of Materials Chemistry A, 2014, 2, 6305-6309. | 10.3 | 167 |
| 26 | Determination of gap defect states in organic bulk heterojunction solar cells from capacitance measurements. Applied Physics Letters, 2009, 95, . | 3.3 | 162 |
| 27 | Vacuum Deposited Tripleâ€Cation Mixedâ€Halide Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1703506. | 19.5 | 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. Physical Chemistry Chemical Physics, 2013, 15, 13835. | 2.8 | 143 |
| 29 | 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. | 19.5 | 142 |
| 30 | 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. | 4.6 | 140 |
| 31 | Holeâ€Transporting Small Molecules Based on Thiophene Cores for High Efficiency Perovskite Solar Cells. ChemSusChem, 2014, 7, 3420-3425. | 6.8 | 139 |
| 32 | 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. | 14.6 | 138 |
| 33 | Role of ZnO Electron-Selective Layers in Regular and Inverted Bulk Heterojunction Solar Cells. Journal of Physical Chemistry Letters, 2011, 2, 407-411. | 4.6 | 121 |
| 34 | Facile Water-based Spray Pyrolysis of Earth-Abundant Cu<sub>2</sub>FeSnS<sub>4</sub> Thin Films as an Efficient Counter Electrode in Dye-Sensitized Solar Cells. ACS Applied Materials & Interfaces, 2014, 6, 17661-17667. | 8.0 | 114 |
| 35 | 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. | 14.6 | 113 |
| 36 | Impedance analysis of perovskite solar cells: a case study. Journal of Materials Chemistry A, 2019, 7, 12191-12200. | 10.3 | 109 |

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| 37 | Fluorine Treatment of TiO2 for Enhancing Quantum Dot Sensitized Solar Cell Performance. Journal of Physical Chemistry C, 2011, 115, 14400-14407. | 3.1 | 105 |
| 38 | 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. | 4.6 | 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. Nano Energy, 2016, 22, 310-318. | 16.0 | 100 |
| 40 | Photoanodes Based on Nanostructured WO<sub>3</sub> for Water Splitting. ChemPhysChem, 2012, 13, 3025-3034. | 2.1 | 99 |
| 41 | High voltage vacuum-deposited CH<sub>3</sub>NH<sub>3</sub>PbI<sub>3</sub>â€“CH<sub>3</sub>NH<sub>3</sub>PbI<sub>3</sub> tandem solar cells. Energy and Environmental Science, 2018, 11, 3292-3297. | 30.8 | 98 |
| 42 | Effect of Organic and Inorganic Passivation in Quantum-Dot-Sensitized Solar Cells. Journal of Physical Chemistry Letters, 2013, 4, 1519-1525. | 4.6 | 96 |
| 43 | Unravelling the Effects of Cl Addition in Single Step CH<sub>3</sub>NH<sub>3</sub>PbI<sub>3</sub> Perovskite Solar Cells. Chemistry of Materials, 2015, 27, 2309-2314. | 6.7 | 96 |
| 44 | Silicon Decorated with Amorphous Cobalt Molybdenum Sulfide Catalyst as an Efficient Photocathode for Solar Hydrogen Generation. ACS Nano, 2015, 9, 3829-3836. | 14.6 | 91 |
| 45 | Carbon nanotubes as an efficient hole collector for high voltage methylammonium lead bromide perovskite solar cells. Nanoscale, 2016, 8, 6352-6360. | 5.6 | 88 |
| 46 | Towards high efficiency thin film solar cells. Progress in Materials Science, 2017, 87, 246-291. | 32.8 | 85 |
| 47 | An Equivalent Circuit for Perovskite Solar Cell Bridging Sensitized to Thin Film Architectures. Joule, 2019, 3, 2535-2549. | 24.0 | 83 |
| 48 | Oxygen doping-induced photogeneration loss in P3HT:PCBM solar cells. Solar Energy Materials and Solar Cells, 2012, 100, 185-191. | 6.2 | 82 |
| 49 | Colloidal PbS and PbSeS Quantum Dot Sensitized Solar Cells Prepared by Electrophoretic Deposition. Journal of Physical Chemistry C, 2012, 116, 16391-16397. | 3.1 | 81 |
| 50 | Revealing the Role of TiO<sub>2</sub> Surface Treatment of Hematite Nanorods Photoanodes for Solar Water Splitting. ACS Applied Materials & Interfaces, 2015, 7, 16960-16966. | 8.0 | 81 |
| 51 | Perovskiteâ€“Perovskite Homojunctions via Compositional Doping. Journal of Physical Chemistry Letters, 2018, 9, 2770-2775. | 4.6 | 77 |
| 52 | Perovskite Nanoparticles: Synthesis, Properties, and Novel Applications in Photovoltaics and LEDs. Small Methods, 2019, 3, 1800231. | 8.6 | 77 |
| 53 | Incorporation of Cl into sequentially deposited lead halide perovskite films for highly efficient mesoporous solar cells. Nanoscale, 2014, 6, 13854-13860. | 5.6 | 76 |
| 54 | Atomically Altered Hematite for Highly Efficient Perovskite Tandem Waterâ€Splitting Devices. ChemSusChem, 2017, 10, 2449-2456. | 6.8 | 71 |

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| 55 | Currentâ€Voltage Characteristics of Bulk Heterojunction Organic Solar Cells: Connection Between Light and Dark Curves. Advanced Energy Materials, 2011, 1, 1073-1078. | 19.5 | 67 |
| 56 | Flash infrared annealing as a cost-effective and low environmental impact processing method for planar perovskite solar cells. Materials Today, 2019, 31, 39-46. | 14.2 | 65 |
| 57 | Loading of mesoporous titania films by CH<sub>3</sub>NH<sub>3</sub>PbI<sub>3</sub> perovskite, single step vs. sequential deposition. Chemical Communications, 2015, 51, 4603-4606. | 4.1 | 64 |
| 58 | 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. | 5.2 | 62 |
| 59 | Engineering a Cu<sub>2</sub>O/NiO/Cu<sub>2</sub>MoS<sub>4</sub> hybrid photocathode for H<sub>2</sub> generation in water. Nanoscale, 2014, 6, 6506-6510. | 5.6 | 62 |
| 60 | Series resistance in organic bulk-heterojunction solar devices: Modulating carrier transport with fullerene electron traps. Organic Electronics, 2012, 13, 2326-2332. | 2.6 | 60 |
| 61 | Effects of Frequency Dependence of the External Quantum Efficiency of Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2018, 9, 3099-3104. | 4.6 | 59 |
| 62 | Amplified Spontaneous Emission Properties of Solution Processed CsPbBr<sub>3</sub> Perovskite Thin Films. Journal of Physical Chemistry C, 2017, 121, 14772-14778. | 3.1 | 58 |
| 63 | 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, . | 2.5 | 57 |
| 64 | 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. | 8.0 | 57 |
| 65 | Facile Synthesis of a Furanâ€“Arylamine Holeâ€Transporting Material for Highâ€Efficiency, Mesoscopic Perovskite Solar Cells. Chemistry - A European Journal, 2015, 21, 15113-15117. | 3.3 | 49 |
| 66 | Open Circuit Potential Build-Up in Perovskite Solar Cells from Dark Conditions to 1 Sun. Journal of Physical Chemistry Letters, 2015, 6, 4640-4645. | 4.6 | 48 |
| 67 | Photocurrent enhancement in dye-sensitized photovoltaic devices with titaniaâ€“graphene composite electrodes. Journal of Electroanalytical Chemistry, 2012, 683, 43-46. | 3.8 | 47 |
| 68 | 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. | 21.0 | 47 |
| 69 | Sb<sub>2</sub>S<sub>3</sub>-Sensitized Photoelectrochemical Cells: Open Circuit Voltage Enhancement through the Introduction of Poly-3-hexylthiophene Interlayer. Journal of Physical Chemistry C, 2012, 116, 20717-20721. | 3.1 | 45 |
| 70 | Molecular Passivation of MoO<sub>3</sub>: Band Alignment and Protection of Charge Transport Layers in Vacuum-Deposited Perovskite Solar Cells. Chemistry of Materials, 2019, 31, 6945-6949. | 6.7 | 43 |
| 71 | 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. | 3.1 | 42 |
| 72 | Influence of hole transport material ionization energy on the performance of perovskite solar cells. Journal of Materials Chemistry C, 2019, 7, 523-527. | 5.5 | 39 |

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| 73 | Understanding equivalent circuits in perovskite solar cells. Insights from drift-diffusion simulation. Physical Chemistry Chemical Physics, 2022, 24, 15657-15671. | 2.8 | 34 |
| 74 | 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. | 4.6 | 33 |
| 75 | Theory of Impedance Spectroscopy of Ambipolar Solar Cells with Trap-Mediated Recombination. Journal of Physical Chemistry C, 2014, 118, 16574-16580. | 3.1 | 28 |
| 76 | Temperature and Electrical Poling Effects on Ionic Motion in MAPbI<sub>3</sub> Photovoltaic Cells. Advanced Energy Materials, 2017, 7, 1700265. | 19.5 | 26 |
| 77 | Morphological Characterization of the Anterior Palatine Region Using Cone Beam Computed Tomography. Clinical Implant Dentistry and Related Research, 2015, 17, e459-64. | 3.7 | 24 |
| 78 | Interfacial Kinetics of Efficient Perovskite Solar Cells. Crystals, 2017, 7, 252. | 2.2 | 24 |
| 79 | Short Photoluminescence Lifetimes in Vacuum-Deposited CH<sub>3</sub>NH<sub>3</sub>PbI<sub>3</sub> Perovskite Thin Films as a Result of Fast Diffusion of Photogenerated Charge Carriers. Journal of Physical Chemistry Letters, 2019, 10, 5167-5172. | 4.6 | 24 |
| 80 | 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. | 5.8 | 24 |
| 81 | 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. | 3.3 | 23 |
| 82 | Highly Active MnO Catalysts Integrated onto Fe<sub>2</sub>O<sub>3</sub> Nanorods for Efficient Water Splitting. Advanced Materials Interfaces, 2016, 3, 1600176. | 3.7 | 22 |
| 83 | Hybrid Vapor-Solution Sequentially Deposited Mixed-Halide Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 8257-8265. | 5.1 | 21 |
| 84 | High Stability Bilayered Perovskites through Crystallization Driven Self-Assembly. ACS Applied Materials & Interfaces, 2017, 9, 28743-28749. | 8.0 | 20 |
| 85 | Charge injection and trapping at perovskite interfaces with organic hole transporting materials of different ionization energies. APL Materials, 2019, 7, . | 5.1 | 20 |
| 86 | ZnS Ultrathin Interfacial Layers for Optimizing Carrier Management in Sb<sub>2</sub>S<sub>3</sub>-based Photovoltaics. ACS Applied Materials & Interfaces, 2021, 13, 11861-11868. | 8.0 | 20 |
| 87 | Ligand-Length Modification in CsPbBr3 Perovskite Nanocrystals and Bilayers with PbS Quantum Dots for Improved Photodetection Performance. Nanomaterials, 2020, 10, 1297. | 4.1 | 19 |
| 88 | Influence of doped charge transport layers on efficient perovskite solar cells. Sustainable Energy and Fuels, 2018, 2, 2429-2434. | 4.9 | 16 |
| 89 | Effects of energetics with {001} facet-dominant anatase TiO2 scaffold on electron transport in CH3NH3PbI3 perovskite solar cells. Electrochimica Acta, 2019, 300, 445-454. | 5.2 | 16 |
| 90 | Vacuum-Deposited Multication Tinâ€“Lead Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 2755-2761. | 5.1 | 16 |

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| 91 | Enhanced operational stability through interfacial modification by active encapsulation of perovskite solar cells. Applied Physics Letters, 2020, 116, 113502. | 3.3 | 16 |
| 92 | Efficient Vacuum Deposited P-I-N Perovskite Solar Cells by Front Contact Optimization. Frontiers in Chemistry, 2019, 7, 936. | 3.6 | 16 |
| 93 | Efficient photoluminescent thin films consisting of anchored hybrid perovskite nanoparticles. Chemical Communications, 2016, 52, 11351-11354. | 4.1 | 15 |
| 94 | Kinetics of occupancy of defect states in poly(3-hexylthiophene):fullerene solar cells. Thin Solid Films, 2012, 520, 2265-2268. | 1.8 | 14 |
| 95 | Decoupling light absorption and charge transport properties in near IR-sensitized Fe2O3 regenerative cells. Energy and Environmental Science, 2013, 6, 3280. | 30.8 | 14 |
| 96 | MODULATING <font>CH</font><sub>3</sub><font>NH</font><sub>3</sub><font>PbI</font><sub>3</sub> PEROVSKITE CRYSTALLIZATION BEHAVIOR THROUGH PRECURSOR CONCENTRATION. Nano, 2014, 09, 1440003. | 1.0 | 10 |
| 97 | Radiative and non-radiative losses by voltage-dependent in-situ photoluminescence in perovskite solar cell current-voltage curves. Journal of Luminescence, 2020, 222, 117106. | 3.1 | 10 |
| 98 | Modulating light propagation in ZnOâ€“Cu2O-inverse opal solar cells for enhanced photocurrents. Physical Chemistry Chemical Physics, 2015, 17, 21694-21701. | 2.8 | 9 |
| 99 | Charge Transport in Organometal Halide Perovskites. , 2016, , 201-222. | | 9 |
| 100 | FAPb<sub>0.5</sub>Sn<sub>0.5</sub>I<sub>3</sub>: A Narrow Bandgap Perovskite Synthesized through Evaporation Methods for Solar Cell Applications. Solar Rrl, 2020, 4, 2070024. | 5.8 | 9 |
| 101 | Amplified spontaneous emission in thin films of quasi-2D BA<sub>3</sub>MA<sub>3</sub>Pb<sub>5</sub>Br<sub>16</sub> lead halide perovskites. Nanoscale, 2021, 13, 8893-8900. | 5.6 | 8 |
| 102 | Use of Hydrogen Molybdenum Bronze in Vacuumâ€Deposited Perovskite Solar Cells. Energy Technology, 2020, 8, 1900734. | 3.8 | 4 |
| 103 | Photovoltaics: Temperature and Electrical Poling Effects on Ionic Motion in MAPbI<sub>3</sub> Photovoltaic Cells (Adv. Energy Mater. 18/2017). Advanced Energy Materials, 2017, 7, . | 19.5 | 1 |