IvÃ¡n Mora SerÃ³

List of Publications by Year
in descending order

239 papers	28,005 citations	8732 75 h-index	5519 163 g-index
243 all docs	243 docs citations	243 times ranked	21100 citing authors

#	Article	IF	Citations
1	Characterization of nanostructured hybrid and organic solar cells by impedance spectroscopy. Physical Chemistry Chemical Physics, 2011, 13, 9083.	1.3	1,084
2	Characteristics of High Efficiency Dye-Sensitized Solar Cellsâ€. Journal of Physical Chemistry B, 2006, 110, 25210-25221.	1.2	1,015
3	Low-Temperature Processed Electron Collection Layers of Graphene/TiO₂ Nanocomposites in Thin Film Perovskite Solar Cells. Nano Letters, 2014, 14, 724-730.	4.5	999
4	Determination of Rate Constants for Charge Transfer and the Distribution of Semiconductor and Electrolyte Electronic Energy Levels in Dye-Sensitized Solar Cells by Open-Circuit Photovoltage Decay Method. Journal of the American Chemical Society, 2004, 126, 13550-13559.	6.6	875
5	General Working Principles of CH₃NH₃PbX₃ Perovskite Solar Cells. Nano Letters, 2014, 14, 888-893.	4.5	786
6	Mechanism of carrier accumulation in perovskite thin-absorber solar cells. Nature Communications, 2013, 4, 2242.	5.8	760
7	Recombination in Quantum Dot Sensitized Solar Cells. Accounts of Chemical Research, 2009, 42, 1848-1857.	7.6	747
8	State of the Art and Prospects for Halide Perovskite Nanocrystals. ACS Nano, 2021, 15, 10775-10981.	7.3	705
9	Electron Lifetime in Dye-Sensitized Solar Cells: Theory and Interpretation of Measurements. Journal of Physical Chemistry C, 2009, 113, 17278-17290.	1.5	694
10	Titanium Dioxide Nanomaterials for Photovoltaic Applications. Chemical Reviews, 2014, 114, 10095-10130.	23.0	669
11	Photoinduced Giant Dielectric Constant in Lead Halide Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2014, 5, 2390-2394.	2.1	629
12	Modeling High-Efficiency Quantum Dot Sensitized Solar Cells. ACS Nano, 2010, 4, 5783-5790.	7.3	615
13	Slow Dynamic Processes in Lead Halide Perovskite Solar Cells. Characteristic Times and Hysteresis. Journal of Physical Chemistry Letters, 2014, 5, 2357-2363.	2.1	609
14	Role of the Selective Contacts in the Performance of Lead Halide Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2014, 5, 680-685.	2.1	583
15	High-Efficiency â€œGreenâ€•Quantum Dot Solar Cells. Journal of the American Chemical Society, 2014, 136, 9203-9210.	6.6	547
16	Breakthroughs in the Development of Semiconductor-Sensitized Solar Cells. Journal of Physical Chemistry Letters, 2010, 1, 3046-3052.	2.1	468
17	Capacitive Dark Currents, Hysteresis, and Electrode Polarization in Lead Halide Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2015, 6, 1645-1652.	2.1	430
18	Properties of Contact and Bulk Impedances in Hybrid Lead Halide Perovskite Solar Cells Including Inductive Loop Elements. Journal of Physical Chemistry C, 2016, 120, 8023-8032.	1.5	407

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19	Core/Shell Colloidal Quantum Dot Exciplex States for the Development of Highly Efficient Quantum-Dot-Sensitized Solar Cells. Journal of the American Chemical Society, 2013, 135, 15913-15922.	6.6	400
20	Recombination Study of Combined Halides (Cl, Br, I) Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2014, 5, 1628-1635.	2.1	384
21	Improving the performance of colloidal quantum-dot-sensitized solar cells. Nanotechnology, 2009, 20, 295204.	1.3	383
22	Cyclic Voltammetry Studies of Nanoporous Semiconductors. Capacitive and Reactive Properties of Nanocrystalline TiO2 Electrodes in Aqueous Electrolyte. Journal of Physical Chemistry B, 2003, 107, 758-768.	1.2	372
23	Boosting Power Conversion Efficiencies of Quantum-Dot-Sensitized Solar Cells Beyond 8% by Recombination Control. Journal of the American Chemical Society, 2015, 137, 5602-5609.	6.6	367
24	Surface Recombination and Collection Efficiency in Perovskite Solar Cells from Impedance Analysis. Journal of Physical Chemistry Letters, 2016, 7, 5105-5113.	2.1	346
25	Quantum dot-sensitized solar cells. Chemical Society Reviews, 2018, 47, 7659-7702.	18.7	344
26	CdSe Quantum Dot-Sensitized TiO₂ Electrodes: Effect of Quantum Dot Coverage and Mode of Attachment. Journal of Physical Chemistry C, 2009, 113, 4208-4214.	1.5	328
27	Simulation of Steady-State Characteristics of Dye-Sensitized Solar Cells and the Interpretation of the Diffusion Length. Journal of Physical Chemistry Letters, 2010, 1, 450-456.	2.1	301
28	Determination of carrier density of ZnO nanowires by electrochemical techniques. Applied Physics Letters, 2006, 89, 203117.	1.5	277
29	A review of recent results on electrochemical determination of the density of electronic states of nanostructured metal-oxide semiconductors and organic hole conductors. Inorganica Chimica Acta, 2008, 361, 684-698.	1.2	276
30	Interfaces in Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1700623.	10.2	276
31	Design of Injection and Recombination in Quantum Dot Sensitized Solar Cells. Journal of the American Chemical Society, 2010, 132, 6834-6839.	6.6	252
32	Panchromatic Sensitized Solar Cells Based on Metal Sulfide Quantum Dots Grown Directly on Nanostructured TiO₂ Electrodes. Journal of Physical Chemistry Letters, 2011, 2, 454-460.	2.1	247
33	Impedance spectroscopy characterisation of highly efficient silicon solar cells under different light illumination intensities. Energy and Environmental Science, 2009, 2, 678.	15.6	241
34	Band Engineering in Core/Shell ZnTe/CdSe for Photovoltage and Efficiency Enhancement in Exciplex Quantum Dot Sensitized Solar Cells. ACS Nano, 2015, 9, 908-915.	7.3	241
35	Factors determining the photovoltaic performance of a CdSe quantum dot sensitized solar cell: the role of the linker molecule and of the counter electrode. Nanotechnology, 2008, 19, 424007.	1.3	237
36	Bright Visible-Infrared Light Emitting Diodes Based on Hybrid Halide Perovskite with Spiro-OMeTAD as a Hole-Injecting Layer. Journal of Physical Chemistry Letters, 2015, 6, 1883-1890.	2.1	233

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37	Implications of the Negative Capacitance Observed at Forward Bias in Nanocomposite and Polycrystalline Solar Cells. Nano Letters, 2006, 6, 640-650.	4.5	217
38	Energy Band Alignment between Anatase and Rutile TiO₂. Journal of Physical Chemistry Letters, 2013, 4, 4182-4187.	2.1	210
39	Stabilization of Black Perovskite Phase in FAPbI₃ and CsPbI₃. ACS Energy Letters, 2020, 5, 1974-1985.	8.8	203
40	Amorphous TiO₂ Buffer Layer Boosts Efficiency of Quantum Dot Sensitized Solar Cells to over 9%. Chemistry of Materials, 2015, 27, 8398-8405.	3.2	197
41	Theory of Impedance and Capacitance Spectroscopy of Solar Cells with Dielectric Relaxation, Drift-Diffusion Transport, and Recombination. Journal of Physical Chemistry C, 2014, 118, 18983-18991.	1.5	185
42	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
43	Organo-metal halide perovskite-based solar cells with CuSCN as the inorganic hole selective contact. Journal of Materials Chemistry A, 2014, 2, 12754-12760.	5.2	174
44	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
45	Electrical field profile and doping in planar lead halide perovskite solar cells. Applied Physics Letters, 2014, 105, .	1.5	168
46	A Sulfide/Polysulfide-Based Ionic Liquid Electrolyte for Quantum Dot-Sensitized Solar Cells. Journal of the American Chemical Society, 2011, 133, 20156-20159.	6.6	153
47	Controlling the Phase Segregation in Mixed Halide Perovskites through Nanocrystal Size. ACS Energy Letters, 2019, 4, 54-62.	8.8	149
48	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
49	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
50	Dye versus Quantum Dots in Sensitized Solar Cells: Participation of Quantum Dot Absorber in the Recombination Process. Journal of Physical Chemistry Letters, 2011, 2, 3032-3035.	2.1	139
51	Fermi Level of Surface States in TiO2Nanoparticles. Nano Letters, 2003, 3, 945-949.	4.5	134
52	Charge Separation in Type II Tunneling Multilayered Structures of CdTe and CdSe Nanocrystals Directly Proven by Surface Photovoltage Spectroscopy. Journal of the American Chemical Society, 2010, 132, 5981-5983.	6.6	133
53	Effect of different lead precursors on perovskite solar cell performance and stability. Journal of Materials Chemistry A, 2015, 3, 9194-9200.	5.2	131
54	Photocatalytic and Photoelectrochemical Degradation of Organic Compounds with All-Inorganic Metal Halide Perovskite Quantum Dots. Journal of Physical Chemistry Letters, 2019, 10, 630-636.	2.1	124

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55	Assessing health and environmental impacts of solvents for producing perovskite solar cells. Nature Sustainability, 2021, 4, 277-285.	11.5	117
56	Cooperative kinetics of depolarization in CH₃NH₃PbI₃ perovskite solar cells. Energy and Environmental Science, 2015, 8, 910-915.	15.6	116
57	Impedance analysis of perovskite solar cells: a case study. Journal of Materials Chemistry A, 2019, 7, 12191-12200.	5.2	109
58	Fluorine Treatment of TiO2 for Enhancing Quantum Dot Sensitized Solar Cell Performance. Journal of Physical Chemistry C, 2011, 115, 14400-14407.	1.5	105
59	Diffusionâ€“Recombination Impedance Model for Solar Cells with Disorder and Nonlinear Recombination. ChemElectroChem, 2014, 1, 289-296.	1.7	105
60	Impedance Spectroscopy Measurements in Perovskite Solar Cells: Device Stability and Noise Reduction. ACS Energy Letters, 2018, 3, 1044-1048.	8.8	103
61	Classification of solar cells according to mechanisms of charge separation and charge collection. Physical Chemistry Chemical Physics, 2015, 17, 4007-4014.	1.3	102
62	Harnessing Infrared Photons for Photoelectrochemical Hydrogen Generation. A PbS Quantum Dot Based â€œQuasi-Artificial Leafâ€• Journal of Physical Chemistry Letters, 2013, 4, 141-146.	2.1	101
63	Quantum Dot Based Heterostructures for Unassisted Photoelectrochemical Hydrogen Generation. Advanced Energy Materials, 2013, 3, 176-182.	10.2	101
64	Fast and low temperature growth of electron transport layers for efficient perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 4909-4915.	5.2	101
65	Direct Correlation between Ultrafast Injection and Photoanode Performance in Quantum Dot Sensitized Solar Cells. Journal of Physical Chemistry C, 2010, 114, 22352-22360.	1.5	97
66	Effect of Organic and Inorganic Passivation in Quantum-Dot-Sensitized Solar Cells. Journal of Physical Chemistry Letters, 2013, 4, 1519-1525.	2.1	96
67	Tin perovskite solar cells with >1,300Âh of operational stability in N2 through a synergistic chemical engineering approach. Joule, 2022, 6, 861-883.	11.7	92
68	Photosensitization of TiO2Layers with CdSe Quantum Dots:â€‰ Correlation between Light Absorption and Photoinjection. Journal of Physical Chemistry C, 2007, 111, 14889-14892.	1.5	87
69	Chemi-Structural Stabilization of Formamidinium Lead Iodide Perovskite by Using Embedded Quantum Dots. ACS Energy Letters, 2020, 5, 418-427.	8.8	87
70	Polymer/Perovskite Amplifying Waveguides for Active Hybrid Silicon Photonics. Advanced Materials, 2015, 27, 6157-6162.	11.1	83
71	An Equivalent Circuit for Perovskite Solar Cell Bridging Sensitized to Thin Film Architectures. Joule, 2019, 3, 2535-2549.	11.7	83
72	Influence of the Potassium Chloride Concentration on the Physical Properties of Electrodeposited ZnO Nanowire Arrays. Journal of Physical Chemistry C, 2008, 112, 16318-16323.	1.5	82

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73	High reduction of interfacial charge recombination in colloidal quantum dot solar cells by metal oxide surface passivation. Nanoscale, 2015, 7, 5446-5456.	2.8	82
74	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
75	Exploring Graphene Quantum Dots/TiO2 interface in photoelectrochemical reactions: Solar to fuel conversion. Electrochimica Acta, 2016, 187, 249-255.	2.6	79
76	Photoelectrochemical Behavior of Nanostructured TiO2Thin-Film Electrodes in Contact with Aqueous Electrolytes Containing Dissolved Pollutants:Â A Model for Distinguishing between Direct and Indirect Interfacial Hole Transfer from Photocurrent Measurements. Journal of Physical Chemistry B, 2005, 109, 3371-3380.	1.2	78
77	Effect of Mesostructured Layer upon Crystalline Properties and Device Performance on Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2015, 6, 1628-1637.	2.1	78
78	Operation Mechanism of Perovskite Quantum Dot Solar Cells Probed by Impedance Spectroscopy. ACS Energy Letters, 2019, 4, 251-258.	8.8	73
79	High Open Circuit Voltage Quantum Dot Sensitized Solar Cells Manufactured with ZnO Nanowire Arrays and Si/ZnO Branched Hierarchical Structures. Journal of Physical Chemistry Letters, 2011, 2, 1984-1990.	2.1	71
80	Dynamics of Charge Separation and Trap-Limited Electron Transport in TiO₂ Nanostructures. Journal of Physical Chemistry C, 2007, 111, 13997-14000.	1.5	70
81	Electrodeposition and impedance spectroscopy characterization of ZnO nanowire arrays. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 2345-2350.	0.8	69
82	Operating Mechanisms of Mesoscopic Perovskite Solar Cells through Impedance Spectroscopy and <i>J</i>â€“<i>V</i> Modeling. Journal of Physical Chemistry Letters, 2017, 8, 6073-6079.	2.1	69
83	Impedance spectroscopy of thin-film CdTe/CdS solar cells under varied illumination. Journal of Applied Physics, 2009, 106, .	1.1	68
84	Effect of Different Sensitization Technique on the Photoconversion Efficiency of CdS Quantum Dot and CdSe Quantum Rod Sensitized TiO₂ Solar Cells. Journal of Physical Chemistry C, 2015, 119, 13394-13403.	1.5	68
85	Analysis of the Hysteresis Behavior of Perovskite Solar Cells with Interfacial Fullerene Self-Assembled Monolayers. Journal of Physical Chemistry Letters, 2016, 7, 4622-4628.	2.1	68
86	A new CdTe/ZnO columnar composite film for Eta-solar cells. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 14, 229-232.	1.3	66
87	Recombination rates in heterojunction silicon solar cells analyzed by impedance spectroscopy at forward bias and under illumination. Solar Energy Materials and Solar Cells, 2008, 92, 505-509.	3.0	66
88	Tunable light emission by exciplex state formation between hybrid halide perovskite and core/shell quantum dots: Implications in advanced LEDs and photovoltaics. Science Advances, 2016, 2, e1501104.	4.7	66
89	Deleterious Effect of Negative Capacitance on the Performance of Halide Perovskite Solar Cells. ACS Energy Letters, 2017, 2, 2007-2013.	8.8	65
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.	8.3	65

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91	Enhancement of the Performance of Perovskite Solar Cells, LEDs, and Optical Amplifiers by Antiâ€Solvent Additive Deposition. Advanced Materials, 2017, 29, 1604056.	11.1	63
92	Progress in halide-perovskite nanocrystals with near-unity photoluminescence quantum yield. Trends in Chemistry, 2021, 3, 499-511.	4.4	63
93	Observation of Diffusion and Tunneling Recombination of Dye-Photoinjected Electrons in Ultrathin TiO2Layers by Surface Photovoltage Transients. Journal of Physical Chemistry B, 2005, 109, 14932-14938.	1.2	62
94	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
95	Analysis of the UVâ€“Ozoneâ€Treated SnO₂ Electron Transporting Layer in Planar Perovskite Solar Cells for High Performance and Reduced Hysteresis. Solar Rrl, 2019, 3, 1900191.	3.1	62
96	New iridium complex as additive to the spiro-OMeTAD in perovskite solar cells with enhanced stability. APL Materials, 2014, 2, .	2.2	60
97	Electron Transport Layerâ€Free Solar Cells Based on Perovskiteâ€“Fullerene Blend Films with Enhanced Performance and Stability. ChemSusChem, 2016, 9, 2679-2685.	3.6	60
98	Nanoscale Interaction Between CdSe or CdTe Nanocrystals and Molecular Dyes Fostering or Hindering Directional Charge Separation. Small, 2010, 6, 221-225.	5.2	59
99	Inorganic Surface Engineering to Enhance Perovskite Solar Cell Efficiency. ACS Applied Materials & Interfaces, 2017, 9, 13181-13187.	4.0	58
100	Electron injection and scaffold effects in perovskite solar cells. Journal of Materials Chemistry C, 2017, 5, 634-644.	2.7	58
101	Determination of spatial charge separation of diffusing electrons by transient photovoltage measurements. Journal of Applied Physics, 2006, 100, 103705.	1.1	56
102	Selective contacts drive charge extraction in quantum dot solids via asymmetry in carrier transfer kinetics. Nature Communications, 2013, 4, 2272.	5.8	56
103	Boosting Long-Term Stability of Pure Formamidinium Perovskite Solar Cells by Ambient Air Additive Assisted Fabrication. ACS Energy Letters, 2021, 6, 3511-3521.	8.8	56
104	Unravelling the Photocatalytic Behavior of All-Inorganic Mixed Halide Perovskites: The Role of Surface Chemical States. ACS Applied Materials & Interfaces, 2020, 12, 914-924.	4.0	55
105	Electrochemical impedance spectra for the complete equivalent circuit of diffusion and reaction under steady-state recombination current. Physical Chemistry Chemical Physics, 2004, 6, 2983-2988.	1.3	53
106	Temperature dependent normal and anomalous electron diffusion in porousTiO2studied by transient surface photovoltage. Physical Review B, 2006, 73, .	1.1	53
107	Outstanding nonlinear optical properties of methylammonium- and Cs-PbX3 (X = Br, I, and Brâ€“I) perovskites: Polycrystalline thin films and nanoparticles. APL Materials, 2019, 7, .	2.2	53
108	Interpretation of diffusion coefficients in nanostructured materials from random walk numerical simulation. Physical Chemistry Chemical Physics, 2008, 10, 4478.	1.3	52

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109	Influence of the substrate on the bulk properties of hybrid lead halide perovskite films. Journal of Materials Chemistry A, 2016, 4, 18153-18163.	5.2	52
110	Conjugated Organic Cations to Improve the Optoelectronic Properties of 2D/3D Perovskites. ACS Energy Letters, 2017, 2, 1969-1970.	8.8	52
111	Perovskite Photovoltaic Modules: Life Cycle Assessment of Pre-industrial Production Process. IScience, 2018, 9, 542-551.	1.9	51
112	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
113	Large improvement of electron extraction from CdSe quantum dots into a TiO2 thin layer by N3 dye coabsorption. Thin Solid Films, 2008, 516, 6994-6998.	0.8	49
114	Three dimensional-TiO2 nanotube array photoanode architectures assembled on a thin hollow nanofibrous backbone and their performance in quantum dot-sensitized solar cells. Chemical Communications, 2013, 49, 2810.	2.2	48
115	Current Challenges in the Development of Quantum Dot Sensitized Solar Cells. Advanced Energy Materials, 2020, 10, 2001774.	10.2	48
116	Ligand & band gap engineering: tailoring the protocol synthesis for achieving high-quality CsPbI₃ quantum dots. Nanoscale, 2020, 12, 14194-14203.	2.8	48
117	Single-Exciton Amplified Spontaneous Emission in Thin Films of CsPbX₃ (X = Br, I) Perovskite Nanocrystals. Journal of Physical Chemistry Letters, 2019, 10, 6389-6398.	2.1	46
118	Comparison of Perovskite Solar Cells with other Photovoltaics Technologies from the Point of View of Life Cycle Assessment. Advanced Energy and Sustainability Research, 2021, 2, 2000088.	2.8	46
119	Modeling and characterization of extremely thin absorber (eta) solar cells based on ZnO nanowires. Physical Chemistry Chemical Physics, 2011, 13, 7162.	1.3	45
120	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
121	Charge transfer kinetics in CdSe quantum dot sensitized solar cells. Physical Chemistry Chemical Physics, 2010, 12, 2819.	1.3	44
122	Fast Regeneration of CdSe Quantum Dots by Ru Dye in Sensitized TiO2 Electrodes. Journal of Physical Chemistry C, 2010, 114, 6755-6761.	1.5	43
123	Homeopathic Perovskite Solar Cells: Effect of Humidity during Fabrication on the Performance and Stability of the Device. Journal of Physical Chemistry C, 2018, 122, 5341-5348.	1.5	43
124	Determination of limiting factors of photovoltaic efficiency in quantum dot sensitized solar cells: Correlation between cell performance and structural properties. Journal of Applied Physics, 2010, 108, 064310.	1.1	42
125	Energy transfer versus charge separation in hybrid systems of semiconductor quantum dots and Ru-dyes as potential co-sensitizers of TiO2-based solar cells. Journal of Applied Physics, 2011, 110, .	1.1	42
126	Easily manufactured TiO₂hollow fibers for quantum dot sensitized solar cells. Physical Chemistry Chemical Physics, 2012, 14, 522-528.	1.3	42

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127	Enhanced Photovoltaic Performance of Mesoscopic Perovskite Solar Cells by Controlling the Interaction between CH₃NH₃PbI₃ Films and CsPbX₃ Perovskite Nanoparticles. Journal of Physical Chemistry C, 2017, 121, 4239-4245.	1.5	42
128	High-throughput analysis of the ideality factor to evaluate the outdoor performance of perovskite solar minimodules. Nature Energy, 2021, 6, 54-62.	19.8	40
129	Study of the Partial Substitution of Pb by Sn in Csâ€“Pbâ€“Snâ€“Br Nanocrystals Owing to Obtaining Stable Nanoparticles with Excellent Optical Properties. Journal of Physical Chemistry C, 2018, 122, 14222-14231.	1.5	38
130	All solution processed low turn-on voltage near infrared LEDs based on coreâ€“shell PbSâ€“CdS quantum dots with inverted device structure. Nanoscale, 2014, 6, 8551-8555.	2.8	37
131	Photon Up-Conversion with Lanthanide-Doped Oxide Particles for Solar H₂ Generation. Journal of Physical Chemistry C, 2014, 118, 11279-11284.	1.5	37
132	Enhancement of Efficiency in Quantum Dot Sensitized Solar Cells Based on CdS/CdSe/CdSeTe Heterostructure by Improving the Light Absorption in the VIS-NIR Region. Electrochimica Acta, 2017, 247, 899-909.	2.6	37
133	Air-stable and efficient inorganicâ€“organic heterojunction solar cells using PbS colloidal quantum dots co-capped by 1-dodecanethiol and oleic acid. Physical Chemistry Chemical Physics, 2012, 14, 14999.	1.3	36
134	Interaction between Colloidal Quantum Dots and Halide Perovskites: Looking for Constructive Synergies. Journal of Physical Chemistry Letters, 2019, 10, 1099-1108.	2.1	36
135	Widening the 2D/3D Perovskite Family for Efficient and Thermal-Resistant Solar Cells by the Use of Secondary Ammonium Cations. ACS Energy Letters, 2020, 5, 1013-1021.	8.8	36
136	Improvement of Photovoltaic Performance of Colloidal Quantum Dot Solar Cells Using Organic Small Molecule as Hole-Selective Layer. Journal of Physical Chemistry Letters, 2017, 8, 2163-2169.	2.1	35
137	How Do Perovskite Solar Cells Work?. Joule, 2018, 2, 585-587.	11.7	34
138	Relative impacts of methylammonium lead triiodide perovskite solar cells based on life cycle assessment. Solar Energy Materials and Solar Cells, 2018, 179, 169-177.	3.0	34
139	Understanding equivalent circuits in perovskite solar cells. Insights from drift-diffusion simulation. Physical Chemistry Chemical Physics, 2022, 24, 15657-15671.	1.3	34
140	Imaging of Resonant Quenching of Surface Plasmons by Quantum Dots. Nano Letters, 2006, 6, 2833-2837.	4.5	33
141	Localized versus delocalized states: Photoluminescence from electrochemically synthesized ZnO nanowires. Journal of Applied Physics, 2009, 106, 054304.	1.1	33
142	Recent insights for achieving mixed halide perovskites without halide segregation. Current Opinion in Electrochemistry, 2018, 11, 84-90.	2.5	33
143	A Perspective on the Commercial Viability of Perovskite Solar Cells. Solar Rrl, 2021, 5, 2100401.	3.1	33
144	Interfacial engineering of quantum dot-sensitized TiO2 fibrous electrodes for futuristic photoanodes in photovoltaic applications. Journal of Materials Chemistry, 2012, 22, 14228.	6.7	32

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145	Effect of the electrophoretic deposition of Au NPs in the performance CdS QDs sensitized solar Cells. Electrochimica Acta, 2016, 188, 710-717.	2.6	32
146	PbS quantum dots as additives in methylammonium halide perovskite solar cells: the effect of quantum dot capping. Nanoscale Advances, 2019, 1, 4109-4118.	2.2	32
147	Effect of buffer layer on minority carrier lifetime and series resistance of bifacial heterojunction silicon solar cells analyzed by impedance spectroscopy. Thin Solid Films, 2006, 514, 254-257.	0.8	31
148	Optical Characterization of Lead-Free Cs₂SnI₆ Double Perovskite Fabricated from Degraded and Reconstructed CsSnI₃ Films. ACS Applied Energy Materials, 2019, 2, 8381-8387.	2.5	30
149	Interpretation of the photoluminescence decay kinetics in metal halide perovskite nanocrystals and thin polycrystalline films. Journal of Luminescence, 2020, 221, 117092.	1.5	30
150	Single step deposition of an interacting layer of a perovskite matrix with embedded quantum dots. Nanoscale, 2016, 8, 14379-14383.	2.8	29
151	White light emission from lead-free mixed-cation doped Cs₂SnCl₆ nanocrystals. Nanoscale, 2022, 14, 1468-1479.	2.8	29
152	Theory of Impedance Spectroscopy of Ambipolar Solar Cells with Trap-Mediated Recombination. Journal of Physical Chemistry C, 2014, 118, 16574-16580.	1.5	28
153	Synergistic Interaction of Dyes and Semiconductor Quantum Dots for Advanced Cascade Cosensitized Solar Cells. Advanced Functional Materials, 2015, 25, 3220-3226.	7.8	28
154	Recombination reduction on lead halide perovskite solar cells based on low temperature synthesized hierarchical TiO₂nanorods. Nanoscale, 2016, 8, 6271-6277.	2.8	28
155	Panchromatic Solar-to-H₂ Conversion by a Hybrid Quantum Dotsâ€"Dye Dual Absorber Tandem Device. Journal of Physical Chemistry C, 2014, 118, 891-895.	1.5	27
156	Trend of Perovskite Solar Cells: Dig Deeper to Build Higher. Journal of Physical Chemistry Letters, 2015, 6, 2315-2317.	2.1	27
157	Transformation of PbI₂, PbBr₂ and PbCl₂ salts into MAPbBr₃ perovskite by halide exchange as an effective method for recombination reduction. Physical Chemistry Chemical Physics, 2017, 19, 10913-10921.	1.3	27
158	A Comparative Study of Lightâ€Emitting Diodes Based on Allâ€Inorganic Perovskite Nanoparticles (CsPbBr₃) Synthesized at Room Temperature and by a Hotâ€Injection Method. ChemPlusChem, 2018, 83, 294-299.	1.3	27
159	Analysis of cyclic voltammograms of electrochromic a-WO3 films from voltage-dependent equilibrium capacitance measurements. Journal of Electroanalytical Chemistry, 2004, 565, 329-334.	1.9	26
160	Efficient passivated phthalocyanine-quantum dot solar cells. Chemical Communications, 2015, 51, 1732-1735.	2.2	26
161	Dynamic behaviour of viologen-activated nanostructured TiO2: correlation between kinetics of charging and coloration. Electrochimica Acta, 2004, 49, 745-752.	2.6	25
162	Fullereneâ€Based Materials as Holeâ€Transporting/Electronâ€Blocking Layers: Applications in Perovskite Solar Cells. Chemistry - A European Journal, 2018, 24, 8524-8529.	1.7	25

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