

# Juan Bisquert

## List of Publications by Year in descending order

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432  
papers

51,762  
citations

1043

113  
h-index

1565

217  
g-index

440  
all docs

440  
docs citations

440  
times ranked

32110  
citing authors

#	ARTICLE	IF	CITATIONS
1	Defect migration in methylammonium lead iodide and its role in perovskite solar cell operation. <i>Energy and Environmental Science</i> , 2015, 8, 2118-2127.	15.6	1,278
2	Theory of the Impedance of Electron Diffusion and Recombination in a Thin Layer. <i>Journal of Physical Chemistry B</i> , 2002, 106, 325-333.	1.2	1,179
3	Determination of the Electron Lifetime in Nanocrystalline Dye Solar Cells by Open-Circuit Voltage Decay Measurements. <i>ChemPhysChem</i> , 2003, 4, 859-864.	1.0	1,166
4	Influence of electrolyte in transport and recombination in dye-sensitized solar cells studied by impedance spectroscopy. <i>Solar Energy Materials and Solar Cells</i> , 2005, 87, 117-131.	3.0	1,107
5	Characterization of nanostructured hybrid and organic solar cells by impedance spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 9083.	1.3	1,084
6	Characteristics of High Efficiency Dye-Sensitized Solar Cells. <i>Journal of Physical Chemistry B</i> , 2006, 110, 25210-25221.	1.2	1,015
7	Low-Temperature Processed Electron Collection Layers of Graphene/TiO <sub>2</sub> Nanocomposites in Thin Film Perovskite Solar Cells. <i>Nano Letters</i> , 2014, 14, 724-730.	4.5	999
8	Water Oxidation at Hematite Photoelectrodes: The Role of Surface States. <i>Journal of the American Chemical Society</i> , 2012, 134, 4294-4302.	6.6	895
9	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. <i>Journal of the American Chemical Society</i> , 2004, 126, 13550-13559.	6.6	875
10	Correlation between Photovoltaic Performance and Impedance Spectroscopy of Dye-Sensitized Solar Cells Based on Ionic Liquids. <i>Journal of Physical Chemistry C</i> , 2007, 111, 6550-6560.	1.5	870
11	General Working Principles of CH <sub>3</sub> NH <sub>3</sub> PbX <sub>3</sub> Perovskite Solar Cells. <i>Nano Letters</i> , 2014, 14, 888-893.	4.5	786
12	Mechanism of carrier accumulation in perovskite thin-absorber solar cells. <i>Nature Communications</i> , 2013, 4, 2242.	5.8	760
13	Recombination in Quantum Dot Sensitized Solar Cells. <i>Accounts of Chemical Research</i> , 2009, 42, 1848-1857.	7.6	747
14	Electron Lifetime in Dye-Sensitized Solar Cells: Theory and Interpretation of Measurements. <i>Journal of Physical Chemistry C</i> , 2009, 113, 17278-17290.	1.5	694
15	Chemical capacitance of nanostructured semiconductors: its origin and significance for nanocomposite solar cells. <i>Physical Chemistry Chemical Physics</i> , 2003, 5, 5360.	1.3	693
16	Titanium Dioxide Nanomaterials for Photovoltaic Applications. <i>Chemical Reviews</i> , 2014, 114, 10095-10130.	23.0	669
17	Photoelectrochemical and Impedance Spectroscopic Investigation of Water Oxidation with Co <sup>2+</sup> -Coated Hematite Electrodes. <i>Journal of the American Chemical Society</i> , 2012, 134, 16693-16700.	6.6	635
18	Photoinduced Giant Dielectric Constant in Lead Halide Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 2390-2394.	2.1	629

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19	Modeling High-Efficiency Quantum Dot Sensitized Solar Cells. ACS Nano, 2010, 4, 5783-5790.	7.3	615
20	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
21	Physical Chemical Principles of Photovoltaic Conversion with Nanoparticulate, Mesoporous Dye-Sensitized Solar Cells. Journal of Physical Chemistry B, 2004, 108, 8106-8118.	1.2	584
22	High-Efficiency "Green" Quantum Dot Solar Cells. Journal of the American Chemical Society, 2014, 136, 9203-9210.	6.6	547
23	Charge carrier mobility and lifetime of organic bulk heterojunctions analyzed by impedance spectroscopy. Organic Electronics, 2008, 9, 847-851.	1.4	527
24	Interpretation of the Time Constants Measured by Kinetic Techniques in Nanostructured Semiconductor Electrodes and Dye-Sensitized Solar Cells. Journal of Physical Chemistry B, 2004, 108, 2313-2322.	1.2	469
25	Breakthroughs in the Development of Semiconductor-Sensitized Solar Cells. Journal of Physical Chemistry Letters, 2010, 1, 3046-3052.	2.1	468
26	Electrochemical and photoelectrochemical investigation of water oxidation with hematite electrodes. Energy and Environmental Science, 2012, 5, 7626.	15.6	451
27	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
28	Control of $I_{sc}$ Hysteresis in $CH_3NH_3PbI_3$ Perovskite Solar Cell. Journal of Physical Chemistry Letters, 2015, 6, 4633-4639.	2.1	430
29	Interfacial Degradation of Planar Lead Halide Perovskite Solar Cells. ACS Nano, 2016, 10, 218-224.	7.3	427
30	Electron Transport and Recombination in Solid-State Dye Solar Cell with Spiro-OMeTAD as Hole Conductor. Journal of the American Chemical Society, 2009, 131, 558-562.	6.6	424
31	Theory of the electrochemical impedance of anomalous diffusion. Journal of Electroanalytical Chemistry, 2001, 499, 112-120.	1.9	408
32	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
33	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
34	Impedance of constant phase element (CPE)-blocked diffusion in film electrodes. Journal of Electroanalytical Chemistry, 1998, 452, 229-234.	1.9	396
35	Improving the performance of colloidal quantum-dot-sensitized solar cells. Nanotechnology, 2009, 20, 295204.	1.3	383
36	A perspective on the production of dye-sensitized solar modules. Energy and Environmental Science, 2014, 7, 3952-3981.	15.6	381

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37	Cyclic Voltammetry Studies of Nanoporous Semiconductors. Capacitive and Reactive Properties of Nanocrystalline TiO <sub>2</sub> Electrodes in Aqueous Electrolyte. <i>Journal of Physical Chemistry B</i> , 2003, 107, 758-768.	1.2	372
38	High Carrier Density and Capacitance in TiO <sub>2</sub> Nanotube Arrays Induced by Electrochemical Doping. <i>Journal of the American Chemical Society</i> , 2008, 130, 11312-11316.	6.6	368
39	Boosting Power Conversion Efficiencies of Quantum-Dot-Sensitized Solar Cells Beyond 8% by Recombination Control. <i>Journal of the American Chemical Society</i> , 2015, 137, 5602-5609.	6.6	367
40	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
41	Quantum dot-sensitized solar cells. <i>Chemical Society Reviews</i> , 2018, 47, 7659-7702.	18.7	344
42	Doubling Exponent Models for the Analysis of Porous Film Electrodes by Impedance. Relaxation of TiO <sub>2</sub> Nanoporous in Aqueous Solution. <i>Journal of Physical Chemistry B</i> , 2000, 104, 2287-2298.	1.2	335
43	Impact of Capacitive Effect and Ion Migration on the Hysteretic Behavior of Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 4693-4700.	2.1	335
44	CdSe Quantum Dot-Sensitized TiO <sub>2</sub> Electrodes: Effect of Quantum Dot Coverage and Mode of Attachment. <i>Journal of Physical Chemistry C</i> , 2009, 113, 4208-4214.	1.5	328
45	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
46	Simulation of Steady-State Characteristics of Dye-Sensitized Solar Cells and the Interpretation of the Diffusion Length. <i>Journal of Physical Chemistry Letters</i> , 2010, 1, 450-456.	2.1	301
47	Understanding the Role of Underlayers and Overlayers in Thin Film Hematite Photoanodes. <i>Advanced Functional Materials</i> , 2014, 24, 7681-7688.	7.8	289
48	Decoupling of Transport, Charge Storage, and Interfacial Charge Transfer in the Nanocrystalline TiO <sub>2</sub> /Electrolyte System by Impedance Methods. <i>Journal of Physical Chemistry B</i> , 2002, 106, 334-339.	1.2	285
49	Ionic Reactivity at Contacts and Aging of Methylammonium Lead Triiodide Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2016, 6, 1502246.	10.2	281
50	Determination of carrier density of ZnO nanowires by electrochemical techniques. <i>Applied Physics Letters</i> , 2006, 89, 203117.	1.5	277
51	A review of recent results on electrochemical determination of the density of electronic states of nanostructured metal-oxide semiconductors and organic hole conductors. <i>Inorganica Chimica Acta</i> , 2008, 361, 684-698.	1.2	276
52	Influence of the boundaries in the impedance of porous film electrodes. <i>Physical Chemistry Chemical Physics</i> , 2000, 2, 4185-4192.	1.3	267
53	Analysis of the Mechanisms of Electron Recombination in Nanoporous TiO <sub>2</sub> Dye-Sensitized Solar Cells. Nonequilibrium Steady-State Statistics and Interfacial Electron Transfer via Surface States. <i>Journal of Physical Chemistry B</i> , 2002, 106, 8774-8782.	1.2	263
54	Electron Transport in Dye-Sensitized Solar Cells Based on ZnO Nanotubes: Evidence for Highly Efficient Charge Collection and Exceptionally Rapid Dynamics. <i>Journal of Physical Chemistry A</i> , 2009, 113, 4015-4021.	1.1	255

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55	Design of Injection and Recombination in Quantum Dot Sensitized Solar Cells. <i>Journal of the American Chemical Society</i> , 2010, 132, 6834-6839.	6.6	252
56	Light-Induced Space-Charge Accumulation Zone as Photovoltaic Mechanism in Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 525-528.	2.1	243
57	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
58	Band Engineering in Core/Shell ZnTe/CdSe for Photovoltage and Efficiency Enhancement in Exciplex Quantum Dot Sensitized Solar Cells. <i>ACS Nano</i> , 2015, 9, 908-915.	7.3	241
59	Factors determining the photovoltaic performance of a CdSe quantum dot sensitized solar cell: the role of the linker molecule and of the counter electrode. <i>Nanotechnology</i> , 2008, 19, 424007.	1.3	237
60	Theoretical models for ac impedance of finite diffusion layers exhibiting low frequency dispersion. <i>Journal of Electroanalytical Chemistry</i> , 1999, 475, 152-163.	1.9	228
61	Mott-Schottky Analysis of Nanoporous Semiconductor Electrodes in Dielectric State Deposited on SnO <sub>2</sub> (F) Conducting Substrates. <i>Journal of the Electrochemical Society</i> , 2003, 150, E293.	1.3	218
62	Implications of the Negative Capacitance Observed at Forward Bias in Nanocomposite and Polycrystalline Solar Cells. <i>Nano Letters</i> , 2006, 6, 640-650.	4.5	217
63	Physical electrochemistry of nanostructured devices. <i>Physical Chemistry Chemical Physics</i> , 2008, 10, 49-72.	1.3	210
64	Energy Band Alignment between Anatase and Rutile TiO <sub>2</sub> . <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 4182-4187.	2.1	210
65	Amorphous TiO <sub>2</sub> Buffer Layer Boosts Efficiency of Quantum Dot Sensitized Solar Cells to over 9%. <i>Chemistry of Materials</i> , 2015, 27, 8398-8405.	3.2	197
66	Unravelling the role of vacancies in lead halide perovskite through electrical switching of photoluminescence. <i>Nature Communications</i> , 2018, 9, 5113.	5.8	196
67	Anomalous transport effects in the impedance of porous film electrodes. <i>Electrochemistry Communications</i> , 1999, 1, 429-435.	2.3	195
68	The origin of slow electron recombination processes in dye-sensitized solar cells with alumina barrier coatings. <i>Journal of Applied Physics</i> , 2004, 96, 6903-6907.	1.1	190
69	Polarization Switching and Light-Enhanced Piezoelectricity in Lead Halide Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 1408-1413.	2.1	189
70	Tunable hysteresis effect for perovskite solar cells. <i>Energy and Environmental Science</i> , 2017, 10, 2383-2391.	15.6	188
71	Controlled Carbon Nitride Growth on Surfaces for Hydrogen Evolution Electrodes. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 3654-3658.	7.2	187
72	Influence of Charge Transport Layers on Open-Circuit Voltage and Hysteresis in Perovskite Solar Cells. <i>Joule</i> , 2018, 2, 788-798.	11.7	187

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73	Device Physics of Hybrid Perovskite Solar cells: Theory and Experiment. <i>Advanced Energy Materials</i> , 2018, 8, 1702772.	10.2	186
74	Theory of Impedance and Capacitance Spectroscopy of Solar Cells with Dielectric Relaxation, Drift-Diffusion Transport, and Recombination. <i>Journal of Physical Chemistry C</i> , 2014, 118, 18983-18991.	1.5	185
75	Guanidinium thiocyanate selective Ostwald ripening induced large grain for high performance perovskite solar cells. <i>Nano Energy</i> , 2017, 41, 476-487.	8.2	184
76	Open-circuit voltage limit caused by recombination through tail states in bulk heterojunction polymer-fullerene solar cells. <i>Applied Physics Letters</i> , 2010, 96, 113301.	1.5	182
77	Interpretation of electron diffusion coefficient in organic and inorganic semiconductors with broad distributions of states. <i>Physical Chemistry Chemical Physics</i> , 2008, 10, 3175.	1.3	179
78	Hole Transport and Recombination in All-Solid $\text{Sb}_2\text{S}_3$ -Sensitized $\text{TiO}_2$ Solar Cells Using $\text{CuSCN}$ As Hole Transporter. <i>Journal of Physical Chemistry C</i> , 2012, 116, 1579-1587.	1.5	175
79	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
80	Carbon Counter-Electrode-Based Quantum-Dot-Sensitized Solar Cells with Certified Efficiency Exceeding 11%. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 3103-3111.	2.1	169
81	Negative capacitance caused by electron injection through interfacial states in organic light-emitting diodes. <i>Chemical Physics Letters</i> , 2006, 422, 184-191.	1.2	168
82	Electrical field profile and doping in planar lead halide perovskite solar cells. <i>Applied Physics Letters</i> , 2014, 105, .	1.5	168
83	Photovoltaic efficiency limits and material disorder. <i>Energy and Environmental Science</i> , 2012, 5, 6022.	15.6	166
84	Physical aspects of ferroelectric semiconductors for photovoltaic solar energy conversion. <i>Physics Reports</i> , 2016, 653, 1-40.	10.3	166
85	Operating Modes of Sandwiched Light-Emitting Electrochemical Cells. <i>Advanced Functional Materials</i> , 2011, 21, 1581-1586.	7.8	164
86	Interfacial band-edge energetics for solar fuels production. <i>Energy and Environmental Science</i> , 2015, 8, 2851-2862.	15.6	163
87	Chemical Diffusion Coefficient of Electrons in Nanostructured Semiconductor Electrodes and Dye-Sensitized Solar Cells. <i>Journal of Physical Chemistry B</i> , 2004, 108, 2323-2332.	1.2	158
88	Inverted Solution Processable OLEDs Using a Metal Oxide as an Electron Injection Contact.. <i>Advanced Functional Materials</i> , 2008, 18, 145-150.	7.8	158
89	Lead-Free Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2017, 2, 904-905.	8.8	158
90	Kinetic and material properties of interfaces governing slow response and long timescale phenomena in perovskite solar cells. <i>Energy and Environmental Science</i> , 2019, 12, 2054-2079.	15.6	158

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91	Analysis of the kinetics of ion intercalation. <i>Electrochimica Acta</i> , 2002, 47, 2435-2449.	2.6	155
92	A Sulfide/Polysulfide-Based Ionic Liquid Electrolyte for Quantum Dot-Sensitized Solar Cells. <i>Journal of the American Chemical Society</i> , 2011, 133, 20156-20159.	6.6	153
93	On Voltage, Photovoltage, and Photocurrent in Bulk Heterojunction Organic Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2011, 2, 1950-1964.	2.1	153
94	Dynamic Phenomena at Perovskite/Electron-Selective Contact Interface as Interpreted from Photovoltage Decays. <i>CheM</i> , 2016, 1, 776-789.	5.8	153
95	Real-time Observation of Iodide Ion Migration in Methylammonium Lead Halide Perovskites. <i>Small</i> , 2017, 13, 1701711.	5.2	148
96	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
97	Surface Passivation of Nanoporous TiO <sub>2</sub> via Atomic Layer Deposition of ZrO <sub>2</sub> for Solid-State Dye-Sensitized Solar Cell Applications. <i>Journal of Physical Chemistry C</i> , 2009, 113, 18385-18390.	1.5	141
98	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
99	Dye versus Quantum Dots in Sensitized Solar Cells: Participation of Quantum Dot Absorber in the Recombination Process. <i>Journal of Physical Chemistry Letters</i> , 2011, 2, 3032-3035.	2.1	139
100	Fermi Level of Surface States in TiO <sub>2</sub> Nanoparticles. <i>Nano Letters</i> , 2003, 3, 945-949.	4.5	134
101	Equivalent Circuit of Electrons and Holes in Thin Semiconductor Films for Photoelectrochemical Water Splitting Applications. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 2517-2522.	2.1	134
102	Inductive Loop in the Impedance Response of Perovskite Solar Cells Explained by Surface Polarization Model. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 1402-1406.	2.1	129
103	Water Oxidation at Hematite Photoelectrodes with an Iridium-Based Catalyst. <i>Journal of Physical Chemistry C</i> , 2013, 117, 3826-3833.	1.5	128
104	Analysis of the kinetics of ion intercalation. Two state model describing the coupling of solid state ion diffusion and ion binding processes. <i>Electrochimica Acta</i> , 2002, 47, 3977-3988.	2.6	126
105	Energetic factors governing injection, regeneration and recombination in dye solar cells with phthalocyanine sensitizers. <i>Energy and Environmental Science</i> , 2010, 3, 1985.	15.6	125
106	Quantification of Ionic Diffusion in Lead Halide Perovskite Single Crystals. <i>ACS Energy Letters</i> , 2018, 3, 1477-1481.	8.8	123
107	Band unpinning and photovoltaic model for P3HT:PCBM organic bulk heterojunctions under illumination. <i>Chemical Physics Letters</i> , 2008, 465, 57-62.	1.2	122
108	Assessing Possibilities and Limits for Solar Cells. <i>Advanced Materials</i> , 2011, 23, 2870-2876.	11.1	122

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109	Changes from Bulk to Surface Recombination Mechanisms between Pristine and Cycled Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2017, 2, 681-688.	8.8	122
110	Surface Polarization Model for the Dynamic Hysteresis of Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 915-921.	2.1	122
111	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
112	Impedance Spectroscopy of Metal Halide Perovskite Solar Cells from the Perspective of Equivalent Circuits. <i>Chemical Reviews</i> , 2021, 121, 14430-14484.	23.0	121
113	Beyond the quasistatic approximation: Impedance and capacitance of an exponential distribution of traps. <i>Physical Review B</i> , 2008, 77, .	1.1	120
114	Quantification of the Effects of Recombination and Injection in the Performance of Dye-Sensitized Solar Cells Based on <i>N</i> -Substituted Carbazole Dyes. <i>Journal of Physical Chemistry C</i> , 2010, 114, 19840-19848.	1.5	120
115	Cooperative kinetics of depolarization in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite solar cells. <i>Energy and Environmental Science</i> , 2015, 8, 910-915.	15.6	116
116	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
117	Elucidating Operating Modes of Bulk-Heterojunction Solar Cells from Impedance Spectroscopy Analysis. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 877-886.	2.1	112
118	Illumination Intensity Dependence of the Photovoltage in Nanostructured TiO <sub>2</sub> Dye-Sensitized Solar Cells. <i>Journal of Physical Chemistry B</i> , 2005, 109, 15915-15926.	1.2	110
119	Impedance analysis of galvanostatically synthesized polypyrrole films. Correlation of ionic diffusion and capacitance parameters with the electrode morphology. <i>Electrochimica Acta</i> , 2002, 47, 4263-4272.	2.6	109
120	Design and characterization of alkoxy-wrapped push-pull porphyrins for dye-sensitized solar cells. <i>Chemical Communications</i> , 2012, 48, 4368.	2.2	108
121	Identifying charge and mass transfer resistances of an oxygen reducing biocathode. <i>Energy and Environmental Science</i> , 2011, 4, 5035.	15.6	107
122	Fluorine Treatment of TiO <sub>2</sub> for Enhancing Quantum Dot Sensitized Solar Cell Performance. <i>Journal of Physical Chemistry C</i> , 2011, 115, 14400-14407.	1.5	105
123	Diffusion-Recombination Impedance Model for Solar Cells with Disorder and Nonlinear Recombination. <i>ChemElectroChem</i> , 2014, 1, 289-296.	1.7	105
124	Effect of humidity on the ac conductivity of nanoporous TiO <sub>2</sub> . <i>Journal of Applied Physics</i> , 2003, 94, 5261.	1.1	103
125	Fractional Diffusion in the Multiple-Trapping Regime and Revision of the Equivalence with the Continuous-Time Random Walk. <i>Physical Review Letters</i> , 2003, 91, 010602.	2.9	103
126	Three-Channel Transmission Line Impedance Model for Mesoscopic Oxide Electrodes Functionalized with a Conductive Coating. <i>Journal of Physical Chemistry B</i> , 2006, 110, 11284-11290.	1.2	103



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127	Classification of solar cells according to mechanisms of charge separation and charge collection. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 4007-4014.	1.3	102
128	Quantum Dot Based Heterostructures for Unassisted Photoelectrochemical Hydrogen Generation. <i>Advanced Energy Materials</i> , 2013, 3, 176-182.	10.2	101
129	Modelling the electric potential distribution in the dark in nanoporous semiconductor electrodes. <i>Journal of Solid State Electrochemistry</i> , 1999, 3, 337-347.	1.2	99
130	Nature of the Schottky-type barrier of highly dense SnO <sub>2</sub> systems displaying nonohmic behavior. <i>Journal of Applied Physics</i> , 2000, 88, 6545-6548.	1.1	99
131	Chemical capacitance of nanoporous-nanocrystalline TiO <sub>2</sub> in a room temperature ionic liquid. <i>Physical Chemistry Chemical Physics</i> , 2006, 8, 1827-1833.	1.3	99
132	Photoanodes Based on Nanostructured WO <sub>3</sub> for Water Splitting. <i>ChemPhysChem</i> , 2012, 13, 3025-3034.	1.0	99
133	Application of a distributed impedance model in the analysis of conducting polymer films. <i>Electrochemistry Communications</i> , 2000, 2, 601-605.	2.3	98
134	Electronic conductivity in nanostructured TiO <sub>2</sub> films permeated with electrolyte. <i>Physica Status Solidi A</i> , 2003, 196, R4-R6.	1.7	97
135	Direct Correlation between Ultrafast Injection and Photoanode Performance in Quantum Dot Sensitized Solar Cells. <i>Journal of Physical Chemistry C</i> , 2010, 114, 22352-22360.	1.5	97
136	Solar Fuels. Photocatalytic Hydrogen Generation. <i>Journal of Physical Chemistry C</i> , 2013, 117, 14873-14875.	1.5	97
137	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
138	Theory of the impedance of charge transfer via surface states in dye-sensitized solar cells. <i>Journal of Electroanalytical Chemistry</i> , 2010, 646, 43-51.	1.9	94
139	Charge transfer processes at the semiconductor/electrolyte interface for solar fuel production: insight from impedance spectroscopy. <i>Journal of Materials Chemistry A</i> , 2016, 4, 2873-2879.	5.2	94
140	Interfacial Mechanism for Efficient Resistive Switching in Ruddlesden-Popper Perovskites for Non-volatile Memories. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 463-470.	2.1	90
141	Photosensitization of TiO <sub>2</sub> Layers with CdSe Quantum Dots: Correlation between Light Absorption and Photoinjection. <i>Journal of Physical Chemistry C</i> , 2007, 111, 14889-14892.	1.5	87
142	Tailoring Crystal Structure of FA <sub>0.83</sub> Cs <sub>0.17</sub> PbI <sub>3</sub> Perovskite Through Guanidinium Doping for Enhanced Performance and Tunable Hysteresis of Planar Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2019, 29, 1806479.	7.8	87
143	A high-capacity Li[Ni <sub>0.8</sub> Co <sub>0.06</sub> Mn <sub>0.14</sub> ]O <sub>2</sub> positive electrode with a dual concentration gradient for next-generation lithium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2015, 3, 22183-22190.	5.2	84
144	Hopping Transport of Electrons in Dye-Sensitized Solar Cells. <i>Journal of Physical Chemistry C</i> , 2007, 111, 17163-17168.	1.5	83

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145	Temperature Effects on the Photovoltaic Performance of Planar Structure Perovskite Solar Cells. <i>Chemistry Letters</i> , 2015, 44, 1557-1559.	0.7	83
146	Polymer/Perovskite Amplifying Waveguides for Active Hybrid Silicon Photonics. <i>Advanced Materials</i> , 2015, 27, 6157-6162.	11.1	83
147	Photovoltage Behavior in Perovskite Solar Cells under Light-Soaking Showing Photoinduced Interfacial Changes. <i>ACS Energy Letters</i> , 2017, 2, 950-956.	8.8	83
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