Michael D Mcgehee

List of Publications by Year
in descending order

275 papers	61,293 citations	767 119 h-index	834 245 g-index
285 all docs	285 docs citations	285 times ranked	39536 citing authors

#	Article	IF	Citations
1	Conjugated Polymer Photovoltaic Cells. Chemistry of Materials, 2004, 16, 4533-4542.	6.7	2,055
2	Liquid-crystalline semiconducting polymers with high charge-carrier mobility. Nature Materials, 2006, 5, 328-333.	27.5	2,001
3	Reversible photo-induced trap formation in mixed-halide hybrid perovskites for photovoltaics. Chemical Science, 2015, 6, 613-617.	7.4	1,682
4	A Layered Hybrid Perovskite Solarâ€Cell Absorber with Enhanced Moisture Stability. Angewandte Chemie - International Edition, 2014, 53, 11232-11235.	13.8	1,547
5	Challenges for commercializing perovskite solar cells. Science, 2018, 361, .	12.6	1,327
6	Optical Absorption Enhancement in Amorphous Silicon Nanowire and Nanocone Arrays. Nano Letters, 2009, 9, 279-282.	9.1	1,225
7	23.6%-efficient monolithic perovskite/silicon tandem solar cells with improved stability. Nature Energy, 2017, 2, .	39.5	1,204
8	The renaissance of dye-sensitized solar cells. Nature Photonics, 2012, 6, 162-169.	31.4	1,197
9	Understanding Degradation Mechanisms and Improving Stability of Perovskite Photovoltaics. Chemical Reviews, 2019, 119, 3418-3451.	47.7	1,131
10	Hysteresis and transient behavior in currentâ€"voltage measurements of hybrid-perovskite absorber solar cells. Energy and Environmental Science, 2014, 7, 3690-3698.	30.8	1,117
11	Perovskite-perovskite tandem photovoltaics with optimized band gaps. Science, 2016, 354, 861-865.	12.6	1,107
12	Dependence of Regioregular Poly(3-hexylthiophene) Film Morphology and Field-Effect Mobility on Molecular Weight. Macromolecules, 2005, 38, 3312-3319.	4.8	1,003
13	Self-limited plasmonic welding of silver nanowireÂjunctions. Nature Materials, 2012, 11, 241-249.	27.5	1,002
14	Cesium Lead Halide Perovskites with Improved Stability for Tandem Solar Cells. Journal of Physical Chemistry Letters, 2016, 7, 746-751.	4.6	966
15	Polymer-based solar cells. Materials Today, 2007, 10, 28-33.	14.2	942
16	Organic solar cells with carbon nanotube network electrodes. Applied Physics Letters, 2006, 88, 233506.	3.3	936
17	Controlling the Field-Effect Mobility of Regioregular Polythiophene by Changing the Molecular Weight. Advanced Materials, 2003, 15, 1519-1522.	21.0	899
18	Semiconducting (Conjugated) Polymers as Materials for Solid-State Lasers. Advanced Materials, 2000, 12, 1655-1668.	21.0	839

#	Article	IF	Citations
19	Consensus statement for stability assessment and reporting for perovskite photovoltaics based on ISOS procedures. Nature Energy, 2020, 5, 35-49.	39.5	797
20	Highly oriented crystals at the buried interface in polythiophene thin-film transistors. Nature Materials, 2006, 5, 222-228.	27.5	737
21	Opportunities and challenges for tandem solar cells using metal halide perovskite semiconductors. Nature Energy, 2018, 3, 828-838.	39.5	716
22	Triple-halide wideâ€"band gap perovskites with suppressed phase segregation for efficient tandems. Science, 2020, 367, 1097-1104.	12.6	669
23	Efficient charge generation by relaxed charge-transfer states at organic interfaces. Nature Materials, 2014, 13, 63-68.	27.5	667
24	Linear Side Chains in Benzo[1,2-b:4,5-bâ€²]dithiopheneâ€"Thieno[3,4-c]pyrrole-4,6-dione Polymers Direct Self-Assembly and Solar Cell Performance. Journal of the American Chemical Society, 2013, 135, 4656-4659.	13.7	661
25	Electrospun Metal Nanofiber Webs as High-Performance Transparent Electrode. Nano Letters, 2010, 10, 4242-4248.	9.1	660
26	Semi-transparent perovskite solar cells for tandems with silicon and CIGS. Energy and Environmental Science, 2015, 8, 956-963.	30.8	630
27	Accounting for Interference, Scattering, and Electrode Absorption to Make Accurate Internal Quantum Efficiency Measurements in Organic and Other Thin Solar Cells. Advanced Materials, 2010, 22, 3293-3297.	21.0	627
28	Band Gap Tuning via Lattice Contraction and Octahedral Tilting in Perovskite Materials for Photovoltaics. Journal of the American Chemical Society, 2017, 139, 11117-11124.	13.7	570
29	Nanowire Solar Cells. Annual Review of Materials Research, 2011, 41, 269-295.	9.3	556
30	Light-Induced Phase Segregation in Halide-Perovskite Absorbers. ACS Energy Letters, 2016, 1, 1199-1205.	17.4	532
31	Smooth Nanowire/Polymer Composite Transparent Electrodes. Advanced Materials, 2011, 23, 2905-2910.	21.0	531
32	Indacenodithiophene Semiconducting Polymers for High-Performance, Air-Stable Transistors. Journal of the American Chemical Society, 2010, 132, 11437-11439.	13.7	529
33	Enhancing the Hole-Conductivity of Spiro-OMeTAD without Oxygen or Lithium Salts by Using Spiro(TFSI)₂ in Perovskite and Dye-Sensitized Solar Cells. Journal of the American Chemical Society, 2014, 136, 10996-11001.	13.7	529
34	Solar-driven, highly sustained splitting of seawater into hydrogen and oxygen fuels. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 6624-6629.	7.1	524
35	Narrow Bandwidth Luminescence from Blends with Energy Transfer from Semiconducting Conjugated Polymers to Europium Complexes. Advanced Materials, 1999, 11, 1349-1354.	21.0	510
36	Mirrorless Lasing from Mesostructured Waveguides Patterned by Soft Lithography. Science, 2000, 287, 465-467.	12.6	494

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37	A 2-terminal perovskite/silicon multijunction solar cell enabled by a silicon tunnel junction. Applied Physics Letters, 2015, 106, .	3.3	488
38	Transparent and conductive paper from nanocellulose fibers. Energy and Environmental Science, 2013, 6, 513-518.	30.8	431
39	Increased light harvesting in dye-sensitized solar cells with energy relay dyes. Nature Photonics, 2009, 3, 406-411.	31.4	430
40	Photovoltaic cells made from conjugated polymers infiltrated into mesoporous titania. Applied Physics Letters, 2003, 83, 3380-3382.	3.3	429
41	Effects of molecular interface modification in hybrid organic-inorganic photovoltaic cells. Journal of Applied Physics, 2007, 101, 114503.	2.5	426
42	Thermal and Environmental Stability of Semiâ€Transparent Perovskite Solar Cells for Tandems Enabled by a Solutionâ€Processed Nanoparticle Buffer Layer and Sputtered ITO Electrode. Advanced Materials, 2016, 28, 3937-3943.	21.0	419
43	The Importance of Fullerene Percolation in the Mixed Regions of Polymerâ€"Fullerene Bulk Heterojunction Solar Cells. Advanced Energy Materials, 2013, 3, 364-374.	19.5	412
44	Molecular-weight-dependent mobilities in regioregular poly(3-hexyl-thiophene) diodes. Applied Physics Letters, 2005, 86, 122110.	3.3	411
45	Hybrid Silicon Nanoconeâ€"Polymer Solar Cells. Nano Letters, 2012, 12, 2971-2976.	9.1	402
46	Infiltrating Semiconducting Polymers into Self-Assembled Mesoporous Titania Films for Photovoltaic Applications. Advanced Functional Materials, 2003, 13, 301-306.	14.9	399
47	High Efficiency Polymer Solar Cells with Long Operating Lifetimes. Advanced Energy Materials, 2011, 1, 491-494.	19.5	395
48	Bimolecular Crystals of Fullerenes in Conjugated Polymers and the Implications of Molecular Mixing for Solar Cells. Advanced Functional Materials, 2009, 19, 1173-1179.	14.9	392
49	Beyond Langevin Recombination: How Equilibrium Between Free Carriers and Charge Transfer States Determines the Openâ€Circuit Voltage of Organic Solar Cells. Advanced Energy Materials, 2015, 5, 1500123.	19.5	354
50	Mechanism of Tin Oxidation and Stabilization by Lead Substitution in Tin Halide Perovskites. ACS Energy Letters, 2017, 2, 2159-2165.	17.4	351
51	Compositional Engineering for Efficient Wide Band Gap Perovskites with Improved Stability to Photoinduced Phase Segregation. ACS Energy Letters, 2018, 3, 428-435.	17.4	344
52	Enabling Flexible All-Perovskite Tandem Solar Cells. Joule, 2019, 3, 2193-2204.	24.0	331
53	Towards enabling stable lead halide perovskite solar cells; interplay between structural, environmental, and thermal stability. Journal of Materials Chemistry A, 2017, 5, 11483-11500.	10.3	319
54	Progress in Understanding Degradation Mechanisms and Improving Stability in Organic Photovoltaics. Advanced Materials, 2017, 29, 1603940.	21.0	319

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55	Design and understanding of encapsulated perovskite solar cells to withstand temperature cycling. Energy and Environmental Science, 2018, 11, 144-150.	30.8	314
56	Hole Transport Materials with Low Glass Transition Temperatures and High Solubility for Application in Solid-State Dye-Sensitized Solar Cells. ACS Nano, 2012, 6, 1455-1462.	14.6	309
57	Importance of the Donor:Fullerene Intermolecular Arrangement for High-Efficiency Organic Photovoltaics. Journal of the American Chemical Society, 2014, 136, 9608-9618.	13.7	302
58	Amplified spontaneous emission from photopumped films of a conjugated polymer. Physical Review B, 1998, 58, 7035-7039.	3.2	292
59	Effects of optical interference and energy transfer on exciton diffusion length measurements in organic semiconductors. Journal of Applied Physics, 2006, 100, 034907.	2.5	287
60	All-back-contact ultra-thin silicon nanocone solar cells with 13.7% power conversion efficiency. Nature Communications, 2013, 4, 2950.	12.8	287
61	Overcoming Redox Reactions at Perovskite-Nickel Oxide Interfaces to Boost Voltages in Perovskite Solar Cells. Joule, 2020, 4, 1759-1775.	24.0	284
62	The Potential of Multijunction Perovskite Solar Cells. ACS Energy Letters, 2017, 2, 2506-2513.	17.4	272
63	Engineering Stress in Perovskite Solar Cells to Improve Stability. Advanced Energy Materials, 2018, 8, 1802139.	19.5	271
64	Poreâ€Filling of Spiroâ€OMeTAD in Solidâ€State Dye Sensitized Solar Cells: Quantification, Mechanism, and Consequences for Device Performance. Advanced Functional Materials, 2009, 19, 2431-2436.	14.9	258
65	Chloride in Lead Chloride-Derived Organo-Metal Halides for Perovskite-Absorber Solar Cells. Chemistry of Materials, 2014, 26, 7158-7165.	6.7	256
66	How High Local Charge Carrier Mobility and an Energy Cascade in a Threeâ€Phase Bulk Heterojunction Enable >90% Quantum Efficiency. Advanced Materials, 2014, 26, 1923-1928.	21.0	247
67	Tuning the Properties of Polymer Bulk Heterojunction Solar Cells by Adjusting Fullerene Size to Control Intercalation. Nano Letters, 2009, 9, 4153-4157.	9.1	243
68	A quantum-chemical perspective into low optical-gap polymers for highly-efficient organic solar cells. Chemical Science, 2011, 2, 1200-1218.	7.4	241
69	Color in the Corners: ITOâ€Free White OLEDs with Angular Color Stability. Advanced Materials, 2013, 25, 4006-4013.	21.0	241
70	Semiconducting polymer distributed feedback lasers. Applied Physics Letters, 1998, 72, 1536-1538.	3.3	238
71	Polythiophene Containing Thermally Removable Solubilizing Groups Enhances the Interface and the Performance of Polymerâˆ'Titania Hybrid Solar Cells. Journal of the American Chemical Society, 2004, 126, 9486-9487.	13.7	238
72	Design of low bandgap tinâ€"lead halide perovskite solar cells to achieve thermal, atmospheric and operational stability. Nature Energy, 2019, 4, 939-947.	39.5	235

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73	Solution-Processed Organic Solar Cells with Power Conversion Efficiencies of 2.5% using Benzothiadiazole/Imide-Based Acceptors. Chemistry of Materials, 2011, 23, 5484-5490.	6.7	232
74	Encapsulating perovskite solar cells to withstand damp heat and thermal cycling. Sustainable Energy and Fuels, 2018, 2, 2398-2406.	4.9	231
75	The Mechanism of Burnâ€in Loss in a High Efficiency Polymer Solar Cell. Advanced Materials, 2012, 24, 663-668.	21.0	229
76	Doped Mesoporous Silica Fibers: A New Laser Material. Advanced Materials, 1999, 11, 632-636.	21.0	225
77	Mapping Electric Fieldâ€Induced Switchable Poling and Structural Degradation in Hybrid Lead Halide Perovskite Thin Films. Advanced Energy Materials, 2015, 5, 1500962.	19.5	225
78	Plasmonic Dyeâ€Sensitized Solar Cells. Advanced Energy Materials, 2011, 1, 52-57.	19.5	217
79	Chargeâ€Carrier Mobility Requirements for Bulk Heterojunction Solar Cells with High Fill Factor and External Quantum Efficiency >90%. Advanced Energy Materials, 2015, 5, 1500577.	19.5	214
80	Recombination in Polymer:Fullerene Solar Cells with Openâ€Circuit Voltages Approaching and Exceeding 1.0 V. Advanced Energy Materials, 2013, 3, 220-230.	19.5	212
81	Continuing to soar. Nature Materials, 2014, 13, 845-846.	27.5	200
82	Morphological and electrical control of fullerene dimerization determines organic photovoltaic stability. Energy and Environmental Science, 2016, 9, 247-256.	30.8	196
83	Controlling Solutionâ€Phase Polymer Aggregation with Molecular Weight and Solvent Additives to Optimize Polymerâ€Fullerene Bulk Heterojunction Solar Cells. Advanced Energy Materials, 2014, 4, 1301733.	19.5	194
84	Minimizing Current and Voltage Losses to Reach 25% Efficient Monolithic Two-Terminal Perovskiteâ€"Silicon Tandem Solar Cells. ACS Energy Letters, 2018, 3, 2173-2180.	17.4	194
85	Characterization of the Polymer Energy Landscape in Polymer:Fullerene Bulk Heterojunctions with Pure and Mixed Phases. Journal of the American Chemical Society, 2014, 136, 14078-14088.	13.7	193
86	Morphology and Charge Transport in Conjugated Polymers. Journal of Macromolecular Science - Reviews in Macromolecular Chemistry and Physics, 2006, 46, 27-45.	2.2	192
87	Controlled Conjugated Backbone Twisting for an Increased Open-Circuit Voltage while Having a High Short-Circuit Current in Poly(hexylthiophene) Derivatives. Journal of the American Chemical Society, 2012, 134, 5222-5232.	13.7	187
88	Synthesis, Characterization, and Field-Effect Transistor Performance of Carboxylate-Functionalized Polythiophenes with Increased Air Stability. Chemistry of Materials, 2005, 17, 4892-4899.	6.7	185
89	Impact of Surfaces on Photoinduced Halide Segregation in Mixed-Halide Perovskites. ACS Energy Letters, 2018, 3, 2694-2700.	17.4	184
90	Morphologyâ€Dependent Trap Formation in High Performance Polymer Bulk Heterojunction Solar Cells. Advanced Energy Materials, 2011, 1, 954-962.	19.5	183

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91	Barrier Design to Prevent Metal-Induced Degradation and Improve Thermal Stability in Perovskite Solar Cells. ACS Energy Letters, 2018, 3, 1772-1778.	17.4	182
92	Increased Openâ€Circuit Voltage of Organic Solar Cells by Reduced Donorâ€Acceptor Interface Area. Advanced Materials, 2014, 26, 3839-3843.	21.0	181
93	Enhanced Hole Mobility in Regioregular Polythiophene Infiltrated in Straight Nanopores. Advanced Functional Materials, 2005, 15, 1927-1932.	14.9	180
94	Dynamic Windows with Neutral Color, High Contrast, and Excellent Durability Using Reversible Metal Electrodeposition. Joule, 2017, 1, 133-145.	24.0	177
95	An effective light trapping configuration for thin-film solar cells. Applied Physics Letters, 2007, 91, .	3.3	171
96	Tinâ€"lead halide perovskites with improved thermal and air stability for efficient all-perovskite tandem solar cells. Sustainable Energy and Fuels, 2018, 2, 2450-2459.	4.9	167
97	Reducing burn-in voltage loss in polymer solar cells by increasing the polymer crystallinity. Energy and Environmental Science, 2014, 7, 2974-2980.	30.8	162
98	Using Resonance Energy Transfer to Improve Exciton Harvesting in Organic-Inorganic Hybrid Photovoltaic Cells. Advanced Materials, 2005, 17, 2960-2964.	21.0	158
99	Metamaterial mirrors in optoelectronic devices. Nature Nanotechnology, 2014, 9, 542-547.	31.5	158
100	Charge Transport in Interpenetrating Networks of Semiconducting and Metallic Carbon Nanotubes. Nano Letters, 2009, 9, 1866-1871.	9.1	151
101	Mechanical integrity of solution-processed perovskite solar cells. Extreme Mechanics Letters, 2016, 9, 353-358.	4.1	150
102	Interpretation of inverted photocurrent transients in organic lead halide perovskite solar cells: proof of the field screening by mobile ions and determination of the space charge layer widths. Energy and Environmental Science, 2017, 10, 192-204.	30.8	150
103	Controlling Thin-Film Stress and Wrinkling during Perovskite Film Formation. ACS Energy Letters, 2018, 3, 1225-1232.	17.4	148
104	Extracting Light from Polymer Light-Emitting Diodes Using Stamped Bragg Gratings. Advanced Functional Materials, 2004, 14, 451-456.	14.9	146
105	Ordered Organicâ€"Inorganic Bulk Heterojunction Photovoltaic Cells. MRS Bulletin, 2005, 30, 37-40.	3.5	146
106	Disorderâ€Induced Openâ€Circuit Voltage Losses in Organic Solar Cells During Photoinduced Burnâ€In. Advanced Energy Materials, 2015, 5, 1500111.	19.5	146
107	Transparent electrode requirements for thin film solar cell modules. Energy and Environmental Science, 2011, 4, 131-134.	30.8	140
108	Molecular Packing and Solar Cell Performance in Blends of Polymers with a Bisadduct Fullerene. Nano Letters, 2012, 12, 1566-1570.	9.1	140

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109	Incomplete Exciton Harvesting from Fullerenes in Bulk Heterojunction Solar Cells. Nano Letters, 2009, 9, 4037-4041.	9.1	139
110	Modeling low cost hybrid tandem photovoltaics with the potential for efficiencies exceeding 20%. Energy and Environmental Science, 2012, 5, 9173.	30.8	138
111	The Role of Electron Affinity in Determining Whether Fullerenes Catalyze or Inhibit Photooxidation of Polymers for Solar Cells. Advanced Energy Materials, 2012, 2, 1351-1357.	19.5	134
112	The Effect of Hole Transport Material Pore Filling on Photovoltaic Performance in Solidâ€State Dyeâ€Sensitized Solar Cells. Advanced Energy Materials, 2011, 1, 407-414.	19.5	130
113	Effect of Cation Composition on the Mechanical Stability of Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1702116.	19.5	130
114	Hybrid dynamic windows using reversible metal electrodeposition and ion insertion. Nature Energy, 2019, 4, 223-229.	39.5	130
115	Structural Origins of Light-Induced Phase Segregation in Organic-Inorganic Halide Perovskite Photovoltaic Materials. Matter, 2020, 2, 207-219.	10.0	128
116	Reverse Bias Behavior of Halide Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1702365.	19.5	127
117	Use of Xâ€Ray Diffraction, Molecular Simulations, and Spectroscopy to Determine the Molecular Packing in a Polymerâ€Fullerene Bimolecular Crystal. Advanced Materials, 2012, 24, 6071-6079.	21.0	126
118	High-efficiency tandem perovskite solar cells. MRS Bulletin, 2015, 40, 681-686.	3.5	123
119	Thermal Stability of Mixed Cation Metal Halide Perovskites in Air. ACS Applied Materials & Interfaces, 2018, 10, 5485-5491.	8.0	123
120	Carrier control in Snâ€“Pb perovskites via 2D cation engineering for all-perovskite tandem solar cells with improved efficiency and stability. Nature Energy, 2022, 7, 642-651.	39.5	121
121	Nanostructured Organicâ€“Inorganic Hybrid Solar Cells. MRS Bulletin, 2009, 34, 95-100.	3.5	120
122	Ring Substituents Mediate the Morphology of PBDTTPD-PCBM Bulk-Heterojunction Solar Cells. Chemistry of Materials, 2014, 26, 2299-2306.	6.7	119
123	Mobile Ion Concentration Measurement and Open-Access Band Diagram Simulation Platform for Halide Perovskite Solar Cells. Joule, 2020, 4, 109-127.	24.0	117
124	Generalized Coating Route to Silica and Titania Films with Orthogonally Tilted Cylindrical Nanopore Arrays. Nano Letters, 2006, 6, 2567-2570.	9.1	115
125	Minimal Effect of the Hole-Transport Material Ionization Potential on the Open-Circuit Voltage of Perovskite Solar Cells. ACS Energy Letters, 2016, 1, 556-560.	17.4	115
126	Longâ€Range Resonant Energy Transfer for Enhanced Exciton Harvesting for Organic Solar Cells. Advanced Materials, 2007, 19, 2961-2966.	21.0	114

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127	â€œPlasticâ€•lasers: Comparison of gain narrowing with a soluble semiconducting polymer in waveguides and microcavities. Applied Physics Letters, 1997, 70, 3191-3193.	3.3	112
128	Fast-track solar cells. Nature, 2013, 501, 323-325.	27.8	112
129	Nanostructuring Titania by Embossing with Polymer Molds Made from Anodic Alumina Templates. Nano Letters, 2005, 5, 1545-1549.	9.1	111
130	Influence of the hole-transport layer on the initial behavior and lifetime of inverted organic photovoltaics. Solar Energy Materials and Solar Cells, 2011, 95, 1382-1388.	6.2	111
131	Organic bulk heterojunction solar cells using poly(2,5-bis(3-tetradecylthiophen-2-yl)thieno[3,2,-b]thiophene). Applied Physics Letters, 2008, 92, .	3.3	110
132	Synthesis of Acenaphthyl and Phenanthrene Based Fused-Aromatic Thienopyrazine Co-Polymers for Photovoltaic and Thin Film Transistor Applications. Chemistry of Materials, 2009, 21, 3618-3628.	6.7	109
133	Three-Dimensional Packing Structure and Electronic Properties of Biaxially Oriented Poly(2,5-bis(3-alkylthiophene-2-yl)thieno[3,2-b]thiophene) Films. Journal of the American Chemical Society, 2012, 134, 6177-6190.	13.7	108
134	Effect of Al₂O₃ Recombination Barrier Layers Deposited by Atomic Layer Deposition in Solid-State CdS Quantum Dot-Sensitized Solar Cells. Journal of Physical Chemistry C, 2013, 117, 5584-5592.	3.1	108
135	Optical modeling of wide-bandgap perovskite and perovskite/silicon tandem solar cells using complex refractive indices for arbitrary-bandgap perovskite absorbers. Optics Express, 2018, 26, 27441.	3.4	102
136	Polymerâ€“Nanoparticle Electrochromic Materials that Selectively Modulate Visible and Near-Infrared Light. Chemistry of Materials, 2016, 28, 1439-1445.	6.7	100
137	Dependence of Band Offset and Open-Circuit Voltage on the Interfacial Interaction between TiO2 and Carboxylated Polythiophenes. Journal of Physical Chemistry B, 2006, 110, 3257-3261.	2.6	99
138	Spray Deposition of Silver Nanowire Electrodes for Semitransparent Solidâ€State Dyeâ€Sensitized Solar Cells. Advanced Energy Materials, 2013, 3, 1657-1663.	19.5	99
139	Improving the long-term stability of PBDTTPD polymer solar cells through material purification aimed at removing organic impurities. Energy and Environmental Science, 2013, 6, 2529.	30.8	98
140	Electron Barrier Formation at the Organicâ€Back Contact Interface is the First Step in Thermal Degradation of Polymer Solar Cells. Advanced Functional Materials, 2014, 24, 3978-3985.	14.9	98
141	High Excitation Transfer Efficiency from Energy Relay Dyes in Dye-Sensitized Solar Cells. Nano Letters, 2010, 10, 3077-3083.	9.1	97
142	Factors Governing Intercalation of Fullerenes and Other Small Molecules Between the Side Chains of Semiconducting Polymers Used in Solar Cells. Advanced Energy Materials, 2012, 2, 1208-1217.	19.5	97
143	Energy and Hole Transfer between Dyes Attached to Titania in Cosensitized Dye-Sensitized Solar Cells. Journal of the American Chemical Society, 2011, 133, 10662-10667.	13.7	96
144	Panchromatic Response in Solidâ€State Dyeâ€Sensitized Solar Cells Containing Phosphorescent Energy Relay Dyes. Angewandte Chemie - International Edition, 2009, 48, 9277-9280.	13.8	94

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145	Effects of Self-Assembled Monolayers on Solid-State CdS Quantum Dot Sensitized Solar Cells. ACS Nano, 2011, 5, 1495-1504.	14.6	93
146	Device Performance of Emerging Photovoltaic Materials (Version 1). Advanced Energy Materials, 2021, 11, 2002774.	19.5	93
147	Chlorine in PbCl₂-Derived Hybrid-Perovskite Solar Absorbers. Chemistry of Materials, 2015, 27, 7240-7243.	6.7	91
148	Bistable Black Electrochromic Windows Based on the Reversible Metal Electrodeposition of Bi and Cu. ACS Energy Letters, 2018, 3, 104-111.	17.4	91
149	Deposition of hole-transport materials in solid-state dye-sensitized solar cells by doctor-blading. Organic Electronics, 2010, 11, 1217-1222.	2.6	90
150	Reâ€evaluating the Role of Sterics and Electronic Coupling in Determining the Openâ€Circuit Voltage of Organic Solar Cells. Advanced Materials, 2013, 25, 6076-6082.	21.0	90
151	Comparing the Device Physics and Morphology of Polymer Solar Cells Employing Fullerenes and Nonâ€Fullerene Acceptors. Advanced Energy Materials, 2014, 4, 1301426.	19.5	90
152	Semiâ€Transparent Polymer Solar Cells with Excellent Subâ€Bandgap Transmission for Third Generation Photovoltaics. Advanced Materials, 2013, 25, 7020-7026.	21.0	88
153	Molecular Packing and Arrangement Govern the Photo-Oxidative Stability of Organic Photovoltaic Materials. Chemistry of Materials, 2015, 27, 6345-6353.	6.7	88
154	Tuning the Optoelectronic Properties of Vinylene-Linked Donorâˆ’Acceptor Copolymers for Organic Photovoltaics. Macromolecules, 2010, 43, 6685-6698.	4.8	86
155	Terahertz Emission from Hybrid Perovskites Driven by Ultrafast Charge Separation and Strong Electronâ€“Phonon Coupling. Advanced Materials, 2018, 30, 1704737.	21.0	86
156	Thiophene-rich fused-aromatic thienopyrazine acceptor for donorâ€“acceptor low band-gap polymers for OTFT and polymer solar cell applications. Journal of Materials Chemistry, 2010, 20, 5823.	6.7	84
157	Minimal Long-Term Intrinsic Degradation Observed in a Polymer Solar Cell Illuminated in an Oxygen-Free Environment. Chemistry of Materials, 2015, 27, 404-407.	6.7	84
158	Resonance energy transfer from organic chromophores to fullerene molecules. Journal of Applied Physics, 2006, 99, 093521.	2.5	82
159	Improved light management in planar silicon and perovskite solar cells using PDMS scattering layer. Solar Energy Materials and Solar Cells, 2017, 173, 59-65.	6.2	82
160	Nanostructured Titaniaâˆ’Polymer Photovoltaic Devices Made Using PFPE-Based Nanomolding Techniques. Chemistry of Materials, 2008, 20, 5229-5234.	6.7	80
161	Polymer inhibitors enable >900â€‰cm2 dynamic windows based on reversible metal electrodeposition with high solar modulation. Nature Energy, 2021, 6, 546-554.	39.5	79
162	Improving Low-Bandgap Tinâ€“Lead Perovskite Solar Cells via Contact Engineering and Gas Quench Processing. ACS Energy Letters, 2020, 5, 1215-1223.	17.4	78

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163	Melt-infiltration of spiro-OMeTAD and thermal instability of solid-state dye-sensitized solar cells. Physical Chemistry Chemical Physics, 2014, 16, 4864.	2.8	77
164	Transformation from crystalline precursor to perovskite in PbCl2-derived MAPbI3. Nature Communications, 2018, 9, 3458.	12.8	77
165	Atomic Layer Deposition of CdS Quantum Dots for Solidâ€State Quantum Dot Sensitized Solar Cells. Advanced Energy Materials, 2011, 1, 1169-1175.	19.5	76
166	Atomic layer deposition of vanadium oxide to reduce parasitic absorption and improve stability in nâ€“iâ€“p perovskite solar cells for tandems. Sustainable Energy and Fuels, 2019, 3, 1517-1525.	4.9	76
167	Effects of Intercalation on the Hole Mobility of Amorphous Semiconducting Polymer Blends. Chemistry of Materials, 2010, 22, 3543-3548.	6.7	75
168	Fabrication of densely packed, well-ordered, high-aspect-ratio silicon nanopillars over large areas using block copolymer lithography. Thin Solid Films, 2006, 513, 289-294.	1.8	72
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