Barry P Rand

List of Publications by Year
in descending order

184 papers	17,228 citations	21215 62 h-index	15698 129 g-index
188 all docs	188 docs citations	188 times ranked	19929 citing authors

#	Article	IF	Citations
1	Consensus statement: Standardized reporting of power-producing luminescent solar concentrator performance. Joule, 2022, 6, 8-15.	11.7	66
2	Powerful Organic Molecular Oxidants and Reductants Enable Ambipolar Injection in a Large-Gap Organic Homojunction Diode. ACS Applied Materials & Interfaces, 2022, 14, 2381-2389.	4.0	5
3	Improved Charge Balance in Green Perovskite Light-Emitting Diodes with Atomic-Layer-Deposited Al₂O₃. ACS Applied Materials & Interfaces, 2022, 14, 34247-34252.	4.0	10
4	Halide Perovskites for Photonics and Optoelectronics: introduction to special issue. Optical Materials Express, 2022, 12, 1764.	1.6	0
5	Nonradiative Recombination via Chargeâ€Transferâ€Exciton to Polaron Energy Transfer Limits Photocurrent in Organic Solar Cells. Advanced Energy Materials, 2022, 12, .	10.2	5
6	Electrochemically n-Doped CsPbBr₃ Nanocrystal Thin Films. ACS Energy Letters, 2022, 7, 211-216.	8.8	8
7	Iodine Electrochemistry Dictates Voltageâ€Induced Halide Segregation Thresholds in Mixedâ€Halide Perovskite Devices. Advanced Functional Materials, 2022, 32, .	7.8	25
8	Crystalline order offers access to high speeds for organic transistors. Nature, 2022, 606, 661-662.	13.7	2
9	Untying the Cesium â€œNotâ€ Cesiumâ€“Iodoplumbate Complexation in Perovskite Solution-Processing Inks Has Implications for Crystallization. Journal of Physical Chemistry Letters, 2022, 13, 6130-6137.	2.1	4
10	Device Performance of Emerging Photovoltaic Materials (Version 1). Advanced Energy Materials, 2021, 11, 2002774.	10.2	93
11	The efficacy of Lewis affinity scale metrics to represent solvent interactions with reagent salts in all-inorganic metal halide perovskite solutions. Journal of Materials Chemistry A, 2021, 9, 13087-13099.	5.2	19
12	Organic Hole Transport Material Ionization Potential Dictates Diffusion Kinetics of Iodine Species in Halide Perovskite Devices. ACS Energy Letters, 2021, 6, 501-508.	8.8	28
13	Solar fuels and feedstocks: the quest for renewable black gold. Energy and Environmental Science, 2021, 14, 1402-1419.	15.6	25
14	Role of Photon Recycling and Band Filling in Halide Perovskite Photoluminescence under Focussed Excitation Conditions. Journal of Physical Chemistry C, 2021, 125, 2240-2249.	1.5	11
15	Green Lithography for Delicate Materials. Advanced Functional Materials, 2021, 31, 2101533.	7.8	7
16	Organoammonium-Ion-based Perovskites Can Degrade to Pb⁰ via Amineâ€“Pb(II) Coordination. ACS Energy Letters, 2021, 6, 2262-2267.	8.8	25
17	Alleviating halide perovskite surface defects. Matter, 2021, 4, 2104-2105.	5.0	4
18	Benchmarking organic thin film transistor inverter design styles. Synthetic Metals, 2021, 278, 116825.	2.1	3

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19	Tuning Laser Threshold within the Large Optical Gain Bandwidth of Halide Perovskite Thin Films. ACS Photonics, 2021, 8, 2548-2554.	3.2	12
20	Nanosecondâ€Pulsed Perovskite Lightâ€Emitting Diodes at High Current Density. Advanced Materials, 2021, 33, e2104867.	11.1	26
21	The role of halide oxidation in perovskite halide phase separation. Joule, 2021, 5, 2273-2295.	11.7	86
22	Controlling Microring Resonator Extinction Ratio via Metalâ€Halide Perovskite Nonlinearity. Advanced Optical Materials, 2021, 9, 2100783.	3.6	6
23	Polariton Decay in Donorâ€“Acceptor Cavity Systems. Journal of Physical Chemistry Letters, 2021, 12, 9774-9782.	2.1	22
24	Roadmap on organicâ€“inorganic hybrid perovskite semiconductors and devices. APL Materials, 2021, 9, .	2.2	102
25	Influence of Disorder and State Filling on Charge-Transfer-State Absorption and Emission Spectra. Physical Review Applied, 2021, 16, .	1.5	9
26	Morphological Requirements for Nanoscale Electric Field Buildup in a Bulk Heterojunction Solar Cell. Journal of Physical Chemistry Letters, 2021, 12, 537-545.	2.1	4
27	Comparing the Expense and Accuracy of Methods to Simulate Atomic Vibrations in Rubrene. Journal of Chemical Theory and Computation, 2021, , .	2.3	3
28	Device Performance of Emerging Photovoltaic Materials (Version 2). Advanced Energy Materials, 2021, 11, .	10.2	66
29	Hall Effect in Polycrystalline Organic Semiconductors: The Effect of Grain Boundaries. Advanced Functional Materials, 2020, 30, 1903617.	7.8	37
30	Optically Pumped Lasing from Hybrid Perovskite Lightâ€Emitting Diodes. Advanced Optical Materials, 2020, 8, 1901297.	3.6	49
31	Reduced Recombination and Capacitor-like Charge Buildup in an Organic Heterojunction. Journal of the American Chemical Society, 2020, 142, 2562-2571.	6.6	27
32	Factors that Limit Continuousâ€Wave Lasing in Hybrid Perovskite Semiconductors. Advanced Optical Materials, 2020, 8, 1901514.	3.6	26
33	Low Threshold Voltages Electrochemically Drive Gold Migration in Halide Perovskite Devices. ACS Energy Letters, 2020, 5, 3352-3356.	8.8	43
34	Fate of Low-Lying Charge-Transfer Excited States in a Donor:Acceptor Blend with a Large Energy Offset. Journal of Physical Chemistry Letters, 2020, 11, 10219-10226.	2.1	9
35	Thermal Properties, Molecular Structure, and Thin-Film Organic Semiconductor Crystallization. Journal of Physical Chemistry C, 2020, 124, 27213-27221.	1.5	11
36	Thermal Management Enables Bright and Stable Perovskite Lightâ€Emitting Diodes. Advanced Materials, 2020, 32, e2000752.	11.1	126

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37	Organic-Flow: An Open-Source Organic Standard Cell Library and Process Development Kit. , 2020, , .		3
38	Polariton Transitions in Femtosecond Transient Absorption Studies of Ultrastrong Lightâ€“Molecule Coupling. Journal of Physical Chemistry Letters, 2020, 11, 2667-2674.	2.1	60
39	nâ€Doping of a Lowâ€Electronâ€Affinity Polymer Used as an Electronâ€Transport Layer in Organic Lightâ€Emitting Diodes. Advanced Functional Materials, 2020, 30, 2000328.	7.8	22
40	Electrically driven lasing in metal halide perovskites: Challenges and outlook. APL Materials, 2020, 8, .	2.2	46
41	Ultraviolet Photoemission Spectroscopy and Kelvin Probe Measurements on Metal Halide Perovskites: Advantages and Pitfalls. Advanced Energy Materials, 2020, 10, 1903252.	10.2	33
42	Interfacial charge-transfer doping of metal halide perovskites for high performance photovoltaics. Energy and Environmental Science, 2019, 12, 3063-3073.	15.6	111
43	Study of local structure at crystalline rubrene grain boundaries via scanning transmission X-ray microscopy. Organic Electronics, 2019, 74, 315-320.	1.4	2
44	Electrochemical and Thermal Etching of Indium Tin Oxide by Solid-State Hybrid Organicâ€“Inorganic Perovskites. ACS Applied Energy Materials, 2019, 2, 6097-6101.	2.5	39
45	Widely Tunable, Room Temperature, Single-Mode Lasing Operation from Mixed-Halide Perovskite Thin Films. ACS Photonics, 2019, 6, 3331-3337.	3.2	31
46	Engineering Charge-Transfer States for Efficient, Low-Energy-Loss Organic Photovoltaics. Trends in Chemistry, 2019, 1, 815-829.	4.4	32
47	Amine additive reactions induced by the soft Lewis acidity of Pb²⁺ in halide perovskites. Part I: evidence for Pbâ€“alkylamide formation. Journal of Materials Chemistry C, 2019, 7, 5251-5259.	2.7	56
48	Amine additive reactions induced by the soft Lewis acidity of Pb²⁺ in halide perovskites. Part II: impacts of amido Pb impurities in methylammonium lead triiodide thin films. Journal of Materials Chemistry C, 2019, 7, 5244-5250.	2.7	30
49	Engineering Perovskite Nanocrystal Surface Termination for Lightâ€Emitting Diodes with External Quantum Efficiency Exceeding 15%. Advanced Functional Materials, 2019, 29, 1807284.	7.8	80
50	Perovskite Lightâ€Emitting Diodes with Improved Outcoupling Using a Highâ€Index Contrast Nanoarray. Small, 2019, 15, e1900135.	5.2	53
51	Multiple Charge Transfer States in Donorâ€“Acceptor Heterojunctions with Large Frontier Orbital Energy Offsets. Chemistry of Materials, 2019, 31, 6808-6817.	3.2	20
52	Reactions at noble metal contacts with methylammonium lead triiodide perovskites: Role of underpotential deposition and electrochemistry. APL Materials, 2019, 7, .	2.2	74
53	Perovskites for Next-Generation Optical Sources. Chemical Reviews, 2019, 119, 7444-7477.	23.0	640
54	Organic photovoltaics (OPVs): Device physics. , 2019, , 665-693.		8

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55	Complexities of Contact Potential Difference Measurements on Metal Halide Perovskite Surfaces. Journal of Physical Chemistry Letters, 2019, 10, 890-896.	2.1	24
56	Highâ€Voltage Photogeneration Exclusively via Aggregationâ€Induced Triplet States in a Heavyâ€Atomâ€Free Nonplanar Organic Semiconductor. Advanced Energy Materials, 2019, 9, 1901649.	10.2	4
57	Best practices for measuring emerging light-emitting diode technologies. Nature Photonics, 2019, 13, 818-821.	15.6	59
58	Mixed Leadâ€“Tin Halide Perovskites for Efficient and Wavelengthâ€Tunable Nearâ€Infrared Lightâ€Emitting Diodes. Advanced Materials, 2019, 31, e1806105.	11.1	66
59	Improved Outcoupling Efficiency and Stability of Perovskite Lightâ€Emitting Diodes using Thin Emitting Layers. Advanced Materials, 2019, 31, e1805836.	11.1	198
60	Time-resolved imaging of carrier transport in halide perovskite thin films and evidence for nondiffusive transport. Physical Review Materials, 2019, 3, .	0.9	10
61	Two temperature regimes of triplet transfer in the dissociation of the correlated triplet pair after singlet fission. Canadian Journal of Chemistry, 2019, 97, 465-473.	0.6	18
62	Efficient, Color Tunable, and Flexible Thin Film Perovskite Light Emitting Devices. , 2019, , .		0
63	The Impact of Local Morphology on Organic Donor/Acceptor Charge Transfer States. Advanced Energy Materials, 2018, 8, 1702816.	10.2	75
64	Ionicâ€“Electronic Ambipolar Transport in Metal Halide Perovskites: Can Electronic Conductivity Limit Ionic Diffusion?. Journal of Physical Chemistry Letters, 2018, 9, 132-137.	2.1	39
65	Bandâ€like Charge Photogeneration at a Crystalline Organic Donor/Acceptor Interface. Advanced Energy Materials, 2018, 8, 1701494.	10.2	23
66	Metalâ€Halide Perovskites: Emerging Lightâ€Emitting Materials. Information Display, 2018, 34, 18-22.	0.1	0
67	Ultrasensitive Heterojunctions of Graphene and 2D Perovskites Reveal Spontaneous Iodide Loss. Joule, 2018, 2, 2133-2144.	11.7	39
68	Hybrid perovskite light emitting diodes under intense electrical excitation. Nature Communications, 2018, 9, 4893.	5.8	146
69	Donor/Acceptor Charge-Transfer States at Two-Dimensional Metal Halide Perovskite and Organic Semiconductor Interfaces. ACS Energy Letters, 2018, 3, 2708-2712.	8.8	34
70	Variable charge transfer state energies at nanostructured pentacene/C60 interfaces. Applied Physics Letters, 2018, 112, 213302.	1.5	12
71	18â€1: Invited Paper: Color Tunable, Flexible, and Efficient Light Emitting Diodes Composed of Metal Halide Perovskites. Digest of Technical Papers SID International Symposium, 2018, 49, 212-213.	0.1	1
72	Phototriggered Depolymerization of Flexible Poly(phthalaldehyde) Substrates by Integrated Organic Light-Emitting Diodes. ACS Applied Materials & Interfaces, 2018, 10, 28062-28068.	4.0	25

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73	Triplet Energy Transfer Governs the Dissociation of the Correlated Triplet Pair in Exothermic Singlet Fission. Journal of Physical Chemistry Letters, 2018, 9, 4087-4095.	2.1	58
74	Methods for Conducting Electron Backscattered Diffraction (EBSD) on Polycrystalline Organic Molecular Thin Films. Microscopy and Microanalysis, 2018, 24, 420-423.	0.2	6
75	33-1: Invited Paper: Exploring the Formation and Growth of Organic Semiconductors with mm-Scale Grains. Digest of Technical Papers SID International Symposium, 2018, 49, 413-414.	0.1	0
76	Influence of Bulky Organoâ€Ammonium Halide Additive Choice on the Flexibility and Efficiency of Perovskite Lightâ€Emitting Devices. Advanced Functional Materials, 2018, 28, 1802060.	7.8	76
77	Electronic structure of the CsPbBr3/polytriarylamine (PTAA) system. Journal of Applied Physics, 2017, 121, .	1.1	93
78	Efficient perovskite light-emitting diodes featuring nanometre-sized crystallites. Nature Photonics, 2017, 11, 108-115.	15.6	1,175
79	Homoepitaxy of Crystalline Rubrene Thin Films. Nano Letters, 2017, 17, 3040-3046.	4.5	27
80	Electrical Stress Influences the Efficiency of CH₃NH₃PbI₃ Perovskite Light Emitting Devices. Advanced Materials, 2017, 29, 1605317.	11.1	105
81	Linking Chemistry at the TiO₂/CH₃NH₃PbI₃ Interface to Currentâ€“Voltage Hysteresis. Journal of Physical Chemistry Letters, 2017, 8, 2298-2303.	2.1	46
82	Enhanced sub-bandgap efficiency of a solid-state organic intermediate band solar cell using tripletâ€“triplet annihilation. Energy and Environmental Science, 2017, 10, 1465-1475.	15.6	54
83	In Situ Preparation of Metal Halide Perovskite Nanocrystal Thin Films for Improved Light-Emitting Devices. ACS Nano, 2017, 11, 3957-3964.	7.3	151
84	Enhanced outcoupling in flexible organic light-emitting diodes on scattering polyimide substrates. Organic Electronics, 2017, 51, 471-476.	1.4	40
85	Mixed-Halide Perovskites with Stabilized Bandgaps. Nano Letters, 2017, 17, 6863-6869.	4.5	165
86	Light-trapping in polymer solar cells by processing with nanostructured diatomaceous earth. Organic Electronics, 2017, 51, 422-427.	1.4	10
87	Use of an Underlayer for Large Area Crystallization of Rubrene Thin Films. Chemistry of Materials, 2017, 29, 6666-6673.	3.2	34
88	Editorial for â€˜special issue on advanced solar cell technologyâ€™. Journal of Optics (United Kingdom), 2017, 19, 120401.	1.0	2
89	Extremely Low Operating Current Resistive Memory Based on Exfoliated 2D Perovskite Single Crystals for Neuromorphic Computing. ACS Nano, 2017, 11, 12247-12256.	7.3	286
90	Continuous-wave lasing in an organicâ€“inorganic lead halide perovskite semiconductor. Nature Photonics, 2017, 11, 784-788.	15.6	356

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91	Beating the thermodynamic limit with photo-activation of n-doping in organic semiconductors. Nature Materials, 2017, 16, 1209-1215.	13.3	139
92	Efficient Perovskite LEDs Featuring Nanometer Sized Crystallites. , 2017, , .		0
93	Outcoupling Enhancement in White Organic Light-Emitting Diodes on Scattering Polyimide Substrates. , 2017, , .		0
94	Metal Halide Perovskites: Processing, Interfaces, and Light Emitting Devices. , 2017, , .		0
95	Valence and Conduction Band Densities of States of Metal Halide Perovskites: A Combined Experimentalâ€“Theoretical Study. Journal of Physical Chemistry Letters, 2016, 7, 2722-2729.	2.1	333
96	Ultrasmooth metal halide perovskite thin films via solâ€“gel processing. Journal of Materials Chemistry A, 2016, 4, 8308-8315.	5.2	64
97	Revealing the Full Charge Transfer State Absorption Spectrum of Organic Solar Cells. Advanced Energy Materials, 2016, 6, 1601001.	10.2	33
98	Comprehensive method for analyzing the power conversion efficiency of organic solar cells under different spectral irradiances considering both photonic and electrical characteristics. Applied Energy, 2016, 180, 516-523.	5.1	18
99	Redox Chemistry Dominates the Degradation and Decomposition of Metal Halide Perovskite Optoelectronic Devices. ACS Energy Letters, 2016, 1, 595-602.	8.8	196
100	Morphological Tuning of the Energetics in Singlet Fission Organic Solar Cells. Advanced Functional Materials, 2016, 26, 6489-6494.	7.8	24
101	Real-Time Tracking of Singlet Exciton Diffusion in Organic Semiconductors. Physical Review Letters, 2016, 116, 057402.	2.9	23
102	Diode-Pumped Organo-Lead Halide Perovskite Lasing in a Metal-Clad Distributed Feedback Resonator. Nano Letters, 2016, 16, 4624-4629.	4.5	194
103	Determination of Energy Level Alignment within an Energy Cascade Organic Solar Cell. Chemistry of Materials, 2016, 28, 794-801.	3.2	54
104	Interfacial Depletion Regions: Beyond the Space Charge Limit in Thick Bulk Heterojunctions. ACS Applied Materials & Interfaces, 2016, 8, 2211-2219.	4.0	23
105	Contorted Hexabenzocoronenes with Extended Heterocyclic Moieties Improve Visible-Light Absorption and Performance in Organic Solar Cells. Chemistry of Materials, 2016, 28, 673-681.	3.2	34
106	Unlocking Efficient Perovskite-based Light Emitting Devices. , 2016, , .		0
107	Unlocking Efficient Perovskite-based Light Emitting Devices. , 2016, , .		0
108	ITO-free Flexible Organic Light Emitting Diodes with Enhanced Light Outcoupling. , 2016, , .		0

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109	A Transparent, Smooth, Thermally Robust, Conductive Polyimide for Flexible Electronics. Advanced Functional Materials, 2015, 25, 7428-7434.	7.8	140
110	Flexible Electronics: A Transparent, Smooth, Thermally Robust, Conductive Polyimide for Flexible Electronics (Adv. Funct. Mater. 48/2015). Advanced Functional Materials, 2015, 25, 7547-7547.	7.8	3
111	Absorptive carbon nanotube electrodes: Consequences of optical interference loss in thin film solar cells. Nanoscale, 2015, 7, 7259-7266.	2.8	8
112	Metal nanocluster light-emitting devices with suppressed parasitic emission and improved efficiency: exploring the impact of photophysical properties. Nanoscale, 2015, 7, 9140-9146.	2.8	38
113	Enhanced Outcoupling in Organic Light-Emitting Diodes via a High-Index Contrast Scattering Layer. ACS Photonics, 2015, 2, 1366-1372.	3.2	103
114	Reducing exciton-polaron annihilation in organic planar heterojunction solar cells. Physical Review B, 2014, 90, .	1.1	14
115	8.4% efficient fullerene-free organic solar cells exploiting long-range exciton energy transfer. Nature Communications, 2014, 5, 3406.	5.8	506
116	Decreased Recombination Through the Use of a Nonâ€Fullerene Acceptor in a 6.4% Efficient Organic Planar Heterojunction Solar Cell. Advanced Energy Materials, 2014, 4, 1301413.	10.2	75
117	Accurate spectral response measurements of a complementary absorbing organic tandem cell with fill factor exceeding the subcells. Applied Physics Letters, 2014, 104, .	1.5	17
118	Exciton dynamics in an energy up-converting solid state system based on diphenylanthracene doped with platinum octaethylporphyrin. Chemical Physics, 2014, 429, 57-62.	0.9	28
119	Delocalization and dielectric screening of charge transfer states in organic photovoltaic cells. Nature Communications, 2014, 5, 3245.	5.8	212
120	Role of Electron- and Hole-Collecting Buffer Layers on the Stability of Inverted Polymer: Fullerene Photovoltaic Devices. IEEE Journal of Photovoltaics, 2014, 4, 265-270.	1.5	11
121	Ultrasonic Spray Coating of 6.5% Efficient Diketopyrrolopyrrole-Based Organic Photovoltaics. IEEE Journal of Photovoltaics, 2014, 4, 1538-1544.	1.5	26
122	3D Printed Quantum Dot Light-Emitting Diodes. Nano Letters, 2014, 14, 7017-7023.	4.5	371
123	Lightâ€Induced Degradation of Polymer:Fullerene Photovoltaic Devices: An Intrinsic or Materialâ€Dependent Failure Mechanism?. Advanced Energy Materials, 2014, 4, 1400848.	10.2	40
124	Thin Film Metal Nanocluster Lightâ€Emitting Devices. Advanced Materials, 2014, 26, 1446-1449.	11.1	71
125	Microcrystalline Organic Thinâ€Film Solar Cells. Advanced Materials, 2013, 25, 5504-5507.	11.1	50
126	Controlling the Texture and Crystallinity of Evaporated Lead Phthalocyanine Thin Films for Near-Infrared Sensitive Solar Cells. ACS Applied Materials & Interfaces, 2013, 5, 8505-8515.	4.0	53

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127	Concurrently pumped ultrasonic spray coating for donor:acceptor and thickness optimization of organic solar cells. Organic Electronics, 2013, 14, 1002-1008.	1.4	44
128	Isostructural, Deeper Highest Occupied Molecular Orbital Analogues of Poly(3-hexylthiophene) for High-Open Circuit Voltage Organic Solar Cells. Chemistry of Materials, 2013, 25, 4239-4249.	3.2	55
129	X-ray imager using solution processed organic transistor arrays and bulk heterojunction photodiodes on thin, flexible plastic substrate. Organic Electronics, 2013, 14, 2602-2609.	1.4	89
130	Efficient truxenone-based acceptors for organic photovoltaics. Journal of Materials Chemistry A, 2013, 1, 73-76.	5.2	48
131	Effect of Fluorination on the Properties of a Donorâ€“Acceptor Copolymer for Use in Photovoltaic Cells and Transistors. Chemistry of Materials, 2013, 25, 277-285.	3.2	218
132	Improved cathode buffer layer to decrease exciton recombination in organic planar heterojunction solar cells. Applied Physics Letters, 2013, 102, .	1.5	21
133	Plasmonic Efficiency Enhancement of High Performance Organic Solar Cells with a Nanostructured Rear Electrode. Advanced Energy Materials, 2013, 3, 145-150.	10.2	76
134	Resonant cavity enhanced light harvesting in flexible thin-film organic solar cells. Optics Letters, 2013, 38, 1431.	1.7	9
135	Structure induced conductivity enhancement in metal-doped molybdenum oxide thin films. Journal of Applied Physics, 2013, 113, .	1.1	21
136	Thieno[3,2â€‹b]thiopheneâ€diketopyrrolopyrrole Containing Polymers for Inverted Solar Cells Devices with High Short Circuit Currents. Advanced Functional Materials, 2013, 23, 5647-5654.	7.8	78
137	Enhanced photocurrent and open-circuit voltage in a 3-layer cascade organic solar cell. Applied Physics Letters, 2012, 101, 143301.	1.5	59
138	Near-Field Interactions between Metal Nanoparticle Surface Plasmons and Molecular Excitons in Thin-Films. Part I: Absorption. Journal of Physical Chemistry C, 2012, 116, 24206-24214.	1.5	18
139	Correlating the Polymorphism of Titanyl Phthalocyanine Thin Films with Solar Cell Performance. Journal of Physical Chemistry Letters, 2012, 3, 2395-2400.	2.1	42
140	Understanding metal doping for organic electron transport layers. Applied Physics Letters, 2012, 100, 053305.	1.5	14
141	Near-Field Interactions between Metal Nanoparticle Surface Plasmons and Molecular Excitons in Thin-Films. Part II: Emission. Journal of Physical Chemistry C, 2012, 116, 24215-24223.	1.5	9
142	Excitation of Charge Transfer States and Low-Driving Force Triplet Exciton Dissociation at Planar Donor/Acceptor Interfaces. Journal of Physical Chemistry Letters, 2012, 3, 2064-2068.	2.1	29
143	The Impact of Molecular Orientation on the Photovoltaic Properties of a Phthalocyanine/Fullerene Heterojunction. Advanced Functional Materials, 2012, 22, 2987-2995.	7.8	298
144	Design of Transparent Anodes for Resonant Cavity Enhanced Light Harvesting in Organic Solar Cells. Advanced Materials, 2012, 24, 728-732.	11.1	216

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145	A benzotrithiophene-based low band gap polymer for polymer solar cells with high open-circuit voltage. Journal of Materials Chemistry, 2011, 21, 17642.	6.7	44
146	Structural Evolution of Evaporated Lead Phthalocyanine Thin Films for Near-Infrared Sensitive Solar Cells. Chemistry of Materials, 2011, 23, 886-895.	3.2	61
147	Solution-Processed MoO₃ Thin Films As a Hole-Injection Layer for Organic Solar Cells. ACS Applied Materials & Interfaces, 2011, 3, 3244-3247.	4.0	280
148	Structural templating of chloro-aluminum phthalocyanine layers for planar and bulk heterojunction organic solar cells. Organic Electronics, 2011, 12, 2131-2139.	1.4	36
149	Novel bis-C60 derivative compared to other fullerene bis-adducts in high efficiency polymer photovoltaic cells. Journal of Materials Chemistry, 2011, 21, 17345.	6.7	75
150	Highâ€Performance Organic Solar Cells with Sprayâ€Coated Holeâ€Transport and Active Layers. Advanced Functional Materials, 2011, 21, 64-72.	7.8	197
151	A 4% Efficient Organic Solar Cell Using a Fluorinated Fused Subphthalocyanine Dimer as an Electron Acceptor. Advanced Energy Materials, 2011, 1, 565-568.	10.2	110
152	Electrode Considerations for the Optical Enhancement of Organic Bulk Heterojunction Solar Cells. Advanced Energy Materials, 2011, 1, 930-935.	10.2	70
153	Introduction to the Issue on Next-Generation Organic and Hybrid Solar Cells. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 1512-1513.	1.9	3
154	Organic tandem solar cells with complementary absorbing layers and a high open-circuit voltage. Applied Physics Letters, 2010, 97, 033301.	1.5	101
155	Excitation of multiple dipole surface plasmon resonances in spherical silver nanoparticles. Optics Express, 2010, 18, 19032.	1.7	15
156	Efficient polymer solar cells via an all-spray-coated deposition. , 2010, , .		1
157	Exploring spray coating as a deposition technique for the fabrication of solution-processed solar cells. Solar Energy Materials and Solar Cells, 2009, 93, 454-458.	3.0	181
158	Nanoparticle-based, spray-coated silver top contacts for efficient polymer solar cells. Organic Electronics, 2009, 10, 735-740.	1.4	103
159	Organic solar cells with sensitized phosphorescent absorbing layers. Organic Electronics, 2009, 10, 1015-1019.	1.4	56
160	Photocurrent enhancement in polymer:fullerene bulk heterojunction solar cells doped with a phosphorescent molecule. Applied Physics Letters, 2009, 95, 173304.	1.5	30
161	The characterization of chloroboron (iii) subnaphthalocyanine thin films and their application as a donor material for organic solar cells. Journal of Materials Chemistry, 2009, 19, 5295.	6.7	58
162	Strategies for Increasing the Efficiency of Heterojunction Organic Solar Cells: Material Selection and Device Architecture. Accounts of Chemical Research, 2009, 42, 1740-1747.	7.6	367

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163	On the Role of Bathocuproine in Organic Photovoltaic Cells. Advanced Functional Materials, 2008, 18, 3686-3691.	7.8	155
164	Analytical model for the open-circuit voltage and its associated resistance in organic planar heterojunction solar cells. Physical Review B, 2008, 77, .	1.1	198
165	The angular response of ultrathin film organic solar cells. Applied Physics Letters, 2008, 92, 243310.	1.5	39
166	Near-infrared sensitive small molecule organic photovoltaic cells based on chloroaluminum phthalocyanine. Applied Physics Letters, 2007, 91, .	1.5	129
167	Offset energies at organic semiconductor heterojunctions and their influence on the open-circuit voltage of thin-film solar cells. Physical Review B, 2007, 75, .	1.1	689
168	Solar cells utilizing small molecular weight organic semiconductors. Progress in Photovoltaics: Research and Applications, 2007, 15, 659-676.	4.4	439
169	Semitransparent organic photovoltaic cells. Applied Physics Letters, 2006, 88, 233502.	1.5	118
170	Enhanced Open-Circuit Voltage in Subphthalocyanine/C60 Organic Photovoltaic Cells. Journal of the American Chemical Society, 2006, 128, 8108-8109.	6.6	454
171	Origin of the open-circuit voltage in organic solar cells. , 2006, , .		4
172	The effects of copper phthalocyanine purity on organic solar cell performance. Organic Electronics, 2005, 6, 242-246.	1.4	121
173	A Hybrid Planar-Mixed Molecular Heterojunction Photovoltaic Cell. Advanced Materials, 2005, 17, 66-71.	11.1	485
174	Organic Double-Heterostructure Photovoltaic Cells Employing Thick Tris(acetylacetonato)ruthenium(III) Exciton-Blocking Layers. Advanced Materials, 2005, 17, 2714-2718.	11.1	124
175	Mixed donor-acceptor molecular heterojunctions for photovoltaic applications. I. Material properties. Journal of Applied Physics, 2005, 98, 124902.	1.1	177
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