

Barry P Rand

List of Publications by Year in descending order

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184
papers

17,228
citations

18479

62
h-index

13770

129
g-index

188
all docs

188
docs citations

188
times ranked

17097
citing authors

#	ARTICLE	IF	CITATIONS
1	Efficient perovskite light-emitting diodes featuring nanometre-sized crystallites. <i>Nature Photonics</i> , 2017, 11, 108-115.	31.4	1,175
2	Offset energies at organic semiconductor heterojunctions and their influence on the open-circuit voltage of thin-film solar cells. <i>Physical Review B</i> , 2007, 75, .	3.2	689
3	Perovskites for Next-Generation Optical Sources. <i>Chemical Reviews</i> , 2019, 119, 7444-7477.	47.7	640
4	Long-range absorption enhancement in organic tandem thin-film solar cells containing silver nanoclusters. <i>Journal of Applied Physics</i> , 2004, 96, 7519-7526.	2.5	569
5	Asymmetric tandem organic photovoltaic cells with hybrid planar-mixed molecular heterojunctions. <i>Applied Physics Letters</i> , 2004, 85, 5757-5759.	3.3	555
6	4.2% efficient organic photovoltaic cells with low series resistances. <i>Applied Physics Letters</i> , 2004, 84, 3013-3015.	3.3	535
7	8.4% efficient fullerene-free organic solar cells exploiting long-range exciton energy transfer. <i>Nature Communications</i> , 2014, 5, 3406.	12.8	506
8	A Hybrid Planar-Mixed Molecular Heterojunction Photovoltaic Cell. <i>Advanced Materials</i> , 2005, 17, 66-71.	21.0	485
9	Enhanced Open-Circuit Voltage in Subphthalocyanine/C60 Organic Photovoltaic Cells. <i>Journal of the American Chemical Society</i> , 2006, 128, 8108-8109.	13.7	454
10	Solar cells utilizing small molecular weight organic semiconductors. <i>Progress in Photovoltaics: Research and Applications</i> , 2007, 15, 659-676.	8.1	439
11	3D Printed Quantum Dot Light-Emitting Diodes. <i>Nano Letters</i> , 2014, 14, 7017-7023.	9.1	371
12	Strategies for Increasing the Efficiency of Heterojunction Organic Solar Cells: Material Selection and Device Architecture. <i>Accounts of Chemical Research</i> , 2009, 42, 1740-1747.	15.6	367
13	Continuous-wave lasing in an organic-inorganic lead halide perovskite semiconductor. <i>Nature Photonics</i> , 2017, 11, 784-788.	31.4	356
14	Valence and Conduction Band Densities of States of Metal Halide Perovskites: A Combined Experimental-Theoretical Study. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 2722-2729.	4.6	333
15	The Impact of Molecular Orientation on the Photovoltaic Properties of a Phthalocyanine/Fullerene Heterojunction. <i>Advanced Functional Materials</i> , 2012, 22, 2987-2995.	14.9	298
16	Extremely Low Operating Current Resistive Memory Based on Exfoliated 2D Perovskite Single Crystals for Neuromorphic Computing. <i>ACS Nano</i> , 2017, 11, 12247-12256.	14.6	286
17	Solution-Processed MoO ₃ Thin Films As a Hole-Injection Layer for Organic Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2011, 3, 3244-3247.	8.0	280
18	Organic small molecule solar cells with a homogeneously mixed copper phthalocyanine: C60 active layer. <i>Applied Physics Letters</i> , 2004, 84, 4218-4220.	3.3	252

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19	Effect of Fluorination on the Properties of a Donor–Acceptor Copolymer for Use in Photovoltaic Cells and Transistors. <i>Chemistry of Materials</i> , 2013, 25, 277-285.	6.7	218
20	Design of Transparent Anodes for Resonant Cavity Enhanced Light Harvesting in Organic Solar Cells. <i>Advanced Materials</i> , 2012, 24, 728-732.	21.0	216
21	Delocalization and dielectric screening of charge transfer states in organic photovoltaic cells. <i>Nature Communications</i> , 2014, 5, 3245.	12.8	212
22	Analytical model for the open-circuit voltage and its associated resistance in organic planar heterojunction solar cells. <i>Physical Review B</i> , 2008, 77, .	3.2	198
23	Improved Outcoupling Efficiency and Stability of Perovskite Light-Emitting Diodes using Thin Emitting Layers. <i>Advanced Materials</i> , 2019, 31, e1805836.	21.0	198
24	High-Performance Organic Solar Cells with Spray-Coated Hole-Transport and Active Layers. <i>Advanced Functional Materials</i> , 2011, 21, 64-72.	14.9	197
25	Redox Chemistry Dominates the Degradation and Decomposition of Metal Halide Perovskite Optoelectronic Devices. <i>ACS Energy Letters</i> , 2016, 1, 595-602.	17.4	196
26	Diode-Pumped Organo-Lead Halide Perovskite Lasing in a Metal-Clad Distributed Feedback Resonator. <i>Nano Letters</i> , 2016, 16, 4624-4629.	9.1	194
27	Mixed donor-acceptor molecular heterojunctions for photovoltaic applications. II. Device performance. <i>Journal of Applied Physics</i> , 2005, 98, 124903.	2.5	184
28	Exploring spray coating as a deposition technique for the fabrication of solution-processed solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2009, 93, 454-458.	6.2	181
29	Mixed donor-acceptor molecular heterojunctions for photovoltaic applications. I. Material properties. <i>Journal of Applied Physics</i> , 2005, 98, 124902.	2.5	177
30	Mixed-Halide Perovskites with Stabilized Bandgaps. <i>Nano Letters</i> , 2017, 17, 6863-6869.	9.1	165
31	On the Role of Bathocuproine in Organic Photovoltaic Cells. <i>Advanced Functional Materials</i> , 2008, 18, 3686-3691.	14.9	155
32	<i>In Situ</i> Preparation of Metal Halide Perovskite Nanocrystal Thin Films for Improved Light-Emitting Devices. <i>ACS Nano</i> , 2017, 11, 3957-3964.	14.6	151
33	Hybrid perovskite light emitting diodes under intense electrical excitation. <i>Nature Communications</i> , 2018, 9, 4893.	12.8	146
34	A Transparent, Smooth, Thermally Robust, Conductive Polyimide for Flexible Electronics. <i>Advanced Functional Materials</i> , 2015, 25, 7428-7434.	14.9	140
35	Organic solar cells with sensitivity extending into the near infrared. <i>Applied Physics Letters</i> , 2005, 87, 233508.	3.3	139
36	Beating the thermodynamic limit with photo-activation of n-doping in organic semiconductors. <i>Nature Materials</i> , 2017, 16, 1209-1215.	27.5	139

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37	Near-infrared sensitive small molecule organic photovoltaic cells based on chloroaluminum phthalocyanine. <i>Applied Physics Letters</i> , 2007, 91, .	3.3	129
38	Thermal Management Enables Bright and Stable Perovskite Light-Emitting Diodes. <i>Advanced Materials</i> , 2020, 32, e2000752.	21.0	126
39	Organic Double-Heterostructure Photovoltaic Cells Employing Thick Tris(acetylacetonato)ruthenium(III) Exciton-Blocking Layers. <i>Advanced Materials</i> , 2005, 17, 2714-2718.	21.0	124
40	The effects of copper phthalocyanine purity on organic solar cell performance. <i>Organic Electronics</i> , 2005, 6, 242-246.	2.6	121
41	Semitransparent organic photovoltaic cells. <i>Applied Physics Letters</i> , 2006, 88, 233502.	3.3	118
42	Interfacial charge-transfer doping of metal halide perovskites for high performance photovoltaics. <i>Energy and Environmental Science</i> , 2019, 12, 3063-3073.	30.8	111
43	A 4% Efficient Organic Solar Cell Using a Fluorinated Fused Subphthalocyanine Dimer as an Electron Acceptor. <i>Advanced Energy Materials</i> , 2011, 1, 565-568.	19.5	110
44	Electrical Stress Influences the Efficiency of CH ₃ NH ₃ PbI ₃ Perovskite Light Emitting Devices. <i>Advanced Materials</i> , 2017, 29, 1605317.	21.0	105
45	Nanoparticle-based, spray-coated silver top contacts for efficient polymer solar cells. <i>Organic Electronics</i> , 2009, 10, 735-740.	2.6	103
46	Enhanced Outcoupling in Organic Light-Emitting Diodes via a High-Index Contrast Scattering Layer. <i>ACS Photonics</i> , 2015, 2, 1366-1372.	6.6	103
47	Roadmap on organic-inorganic hybrid perovskite semiconductors and devices. <i>APL Materials</i> , 2021, 9, .	5.1	102
48	Organic tandem solar cells with complementary absorbing layers and a high open-circuit voltage. <i>Applied Physics Letters</i> , 2010, 97, 033301.	3.3	101
49	Electronic structure of the CsPbBr ₃ /polytriarylamine (PTAA) system. <i>Journal of Applied Physics</i> , 2017, 121, .	2.5	93
50	Device Performance of Emerging Photovoltaic Materials (Version 1). <i>Advanced Energy Materials</i> , 2021, 11, 2002774.	19.5	93
51	X-ray imager using solution processed organic transistor arrays and bulk heterojunction photodiodes on thin, flexible plastic substrate. <i>Organic Electronics</i> , 2013, 14, 2602-2609.	2.6	89
52	The role of halide oxidation in perovskite halide phase separation. <i>Joule</i> , 2021, 5, 2273-2295.	24.0	86
53	Engineering Perovskite Nanocrystal Surface Termination for Light-Emitting Diodes with External Quantum Efficiency Exceeding 15%. <i>Advanced Functional Materials</i> , 2019, 29, 1807284.	14.9	80
54	Thieno[3,2- <i>b</i>]thiophene-diketopyrrolopyrrole Containing Polymers for Inverted Solar Cells Devices with High Short Circuit Currents. <i>Advanced Functional Materials</i> , 2013, 23, 5647-5654.	14.9	78

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55	Plasmonic Efficiency Enhancement of High Performance Organic Solar Cells with a Nanostructured Rear Electrode. <i>Advanced Energy Materials</i> , 2013, 3, 145-150.	19.5	76
56	Influence of Bulky Organoammonium Halide Additive Choice on the Flexibility and Efficiency of Perovskite Light-Emitting Devices. <i>Advanced Functional Materials</i> , 2018, 28, 1802060.	14.9	76
57	Novel bis-C60 derivative compared to other fullerene bis-adducts in high efficiency polymer photovoltaic cells. <i>Journal of Materials Chemistry</i> , 2011, 21, 17345.	6.7	75
58	Decreased Recombination Through the Use of a Non-Fullerene Acceptor in a 6.4% Efficient Organic Planar Heterojunction Solar Cell. <i>Advanced Energy Materials</i> , 2014, 4, 1301413.	19.5	75
59	The Impact of Local Morphology on Organic Donor/Acceptor Charge Transfer States. <i>Advanced Energy Materials</i> , 2018, 8, 1702816.	19.5	75
60	Reactions at noble metal contacts with methylammonium lead triiodide perovskites: Role of underpotential deposition and electrochemistry. <i>APL Materials</i> , 2019, 7, .	5.1	74
61	Thin Film Metal Nanocluster Light-Emitting Devices. <i>Advanced Materials</i> , 2014, 26, 1446-1449.	21.0	71
62	Electrode Considerations for the Optical Enhancement of Organic Bulk Heterojunction Solar Cells. <i>Advanced Energy Materials</i> , 2011, 1, 930-935.	19.5	70
63	Mixed Lead-Tin Halide Perovskites for Efficient and Wavelength-Tunable Near-Infrared Light-Emitting Diodes. <i>Advanced Materials</i> , 2019, 31, e1806105.	21.0	66
64	Device Performance of Emerging Photovoltaic Materials (Version 2). <i>Advanced Energy Materials</i> , 2021, 11, .	19.5	66
65	Consensus statement: Standardized reporting of power-producing luminescent solar concentrator performance. <i>Joule</i> , 2022, 6, 8-15.	24.0	66
66	Ultrasoother metal halide perovskite thin films via sol-gel processing. <i>Journal of Materials Chemistry A</i> , 2016, 4, 8308-8315.	10.3	64
67	Structural Evolution of Evaporated Lead Phthalocyanine Thin Films for Near-Infrared Sensitive Solar Cells. <i>Chemistry of Materials</i> , 2011, 23, 886-895.	6.7	61
68	Polariton Transitions in Femtosecond Transient Absorption Studies of Ultrastrong Light-Molecule Coupling. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 2667-2674.	4.6	60
69	Enhanced photocurrent and open-circuit voltage in a 3-layer cascade organic solar cell. <i>Applied Physics Letters</i> , 2012, 101, 143301.	3.3	59
70	Best practices for measuring emerging light-emitting diode technologies. <i>Nature Photonics</i> , 2019, 13, 818-821.	31.4	59
71	The characterization of chloroboron (iii) subnaphthalocyanine thin films and their application as a donor material for organic solar cells. <i>Journal of Materials Chemistry</i> , 2009, 19, 5295.	6.7	58
72	Triplet Energy Transfer Governs the Dissociation of the Correlated Triplet Pair in Exothermic Singlet Fission. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 4087-4095.	4.6	58

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73	Organic solar cells with sensitized phosphorescent absorbing layers. <i>Organic Electronics</i> , 2009, 10, 1015-1019.	2.6	56
74	Amine additive reactions induced by the soft Lewis acidity of Pb ²⁺ in halide perovskites. Part I: evidence for Pb ²⁺ -alkylamide formation. <i>Journal of Materials Chemistry C</i> , 2019, 7, 5251-5259.	5.5	56
75	Isostructural, Deeper Highest Occupied Molecular Orbital Analogues of Poly(3-hexylthiophene) for High-Open Circuit Voltage Organic Solar Cells. <i>Chemistry of Materials</i> , 2013, 25, 4239-4249.	6.7	55
76	Determination of Energy Level Alignment within an Energy Cascade Organic Solar Cell. <i>Chemistry of Materials</i> , 2016, 28, 794-801.	6.7	54
77	Enhanced sub-bandgap efficiency of a solid-state organic intermediate band solar cell using triplet-triplet annihilation. <i>Energy and Environmental Science</i> , 2017, 10, 1465-1475.	30.8	54
78	Controlling the Texture and Crystallinity of Evaporated Lead Phthalocyanine Thin Films for Near-Infrared Sensitive Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 8505-8515.	8.0	53
79	Perovskite Light-Emitting Diodes with Improved Outcoupling Using a High-Index Contrast Nanoarray. <i>Small</i> , 2019, 15, e1900135.	10.0	53
80	Microcrystalline Organic Thin-Film Solar Cells. <i>Advanced Materials</i> , 2013, 25, 5504-5507.	21.0	50
81	Optically Pumped Lasing from Hybrid Perovskite Light-Emitting Diodes. <i>Advanced Optical Materials</i> , 2020, 8, 1901297.	7.3	49
82	Efficient truxenone-based acceptors for organic photovoltaics. <i>Journal of Materials Chemistry A</i> , 2013, 1, 73-76.	10.3	48
83	Linking Chemistry at the TiO ₂ /CH ₃ NH ₃ PbI ₃ Interface to Current-Voltage Hysteresis. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 2298-2303.	4.6	46
84	Electrically driven lasing in metal halide perovskites: Challenges and outlook. <i>APL Materials</i> , 2020, 8, .	5.1	46
85	A benzotrithiophene-based low band gap polymer for polymer solar cells with high open-circuit voltage. <i>Journal of Materials Chemistry</i> , 2011, 21, 17642.	6.7	44
86	Concurrently pumped ultrasonic spray coating for donor:acceptor and thickness optimization of organic solar cells. <i>Organic Electronics</i> , 2013, 14, 1002-1008.	2.6	44
87	Low Threshold Voltages Electrochemically Drive Gold Migration in Halide Perovskite Devices. <i>ACS Energy Letters</i> , 2020, 5, 3352-3356.	17.4	43
88	Correlating the Polymorphism of Titanyl Phthalocyanine Thin Films with Solar Cell Performance. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 2395-2400.	4.6	42
89	Light-Induced Degradation of Polymer:Fullerene Photovoltaic Devices: An Intrinsic or Material-Dependent Failure Mechanism?. <i>Advanced Energy Materials</i> , 2014, 4, 1400848.	19.5	40
90	Enhanced outcoupling in flexible organic light-emitting diodes on scattering polyimide substrates. <i>Organic Electronics</i> , 2017, 51, 471-476.	2.6	40

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91	The angular response of ultrathin film organic solar cells. <i>Applied Physics Letters</i> , 2008, 92, 243310.	3.3	39
92	Ionic Electronic Ambipolar Transport in Metal Halide Perovskites: Can Electronic Conductivity Limit Ionic Diffusion?. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 132-137.	4.6	39
93	Ultrasensitive Heterojunctions of Graphene and 2D Perovskites Reveal Spontaneous Iodide Loss. <i>Joule</i> , 2018, 2, 2133-2144.	24.0	39
94	Electrochemical and Thermal Etching of Indium Tin Oxide by Solid-State Hybrid Organic-Inorganic Perovskites. <i>ACS Applied Energy Materials</i> , 2019, 2, 6097-6101.	5.1	39
95	Metal nanocluster light-emitting devices with suppressed parasitic emission and improved efficiency: exploring the impact of photophysical properties. <i>Nanoscale</i> , 2015, 7, 9140-9146.	5.6	38
96	Hall Effect in Polycrystalline Organic Semiconductors: The Effect of Grain Boundaries. <i>Advanced Functional Materials</i> , 2020, 30, 1903617.	14.9	37
97	Structural templating of chloro-aluminum phthalocyanine layers for planar and bulk heterojunction organic solar cells. <i>Organic Electronics</i> , 2011, 12, 2131-2139.	2.6	36
98	Contorted Hexabenzocoronenes with Extended Heterocyclic Moieties Improve Visible-Light Absorption and Performance in Organic Solar Cells. <i>Chemistry of Materials</i> , 2016, 28, 673-681.	6.7	34
99	Use of an Underlayer for Large Area Crystallization of Rubrene Thin Films. <i>Chemistry of Materials</i> , 2017, 29, 6666-6673.	6.7	34
100	Donor/Acceptor Charge-Transfer States at Two-Dimensional Metal Halide Perovskite and Organic Semiconductor Interfaces. <i>ACS Energy Letters</i> , 2018, 3, 2708-2712.	17.4	34
101	Revealing the Full Charge Transfer State Absorption Spectrum of Organic Solar Cells. <i>Advanced Energy Materials</i> , 2016, 6, 1601001.	19.5	33
102	Ultraviolet Photoemission Spectroscopy and Kelvin Probe Measurements on Metal Halide Perovskites: Advantages and Pitfalls. <i>Advanced Energy Materials</i> , 2020, 10, 1903252.	19.5	33
103	Engineering Charge-Transfer States for Efficient, Low-Energy-Loss Organic Photovoltaics. <i>Trends in Chemistry</i> , 2019, 1, 815-829.	8.5	32
104	Widely Tunable, Room Temperature, Single-Mode Lasing Operation from Mixed-Halide Perovskite Thin Films. <i>ACS Photonics</i> , 2019, 6, 3331-3337.	6.6	31
105	Photocurrent enhancement in polymer:fullerene bulk heterojunction solar cells doped with a phosphorescent molecule. <i>Applied Physics Letters</i> , 2009, 95, 173304.	3.3	30
106	Amine additive reactions induced by the soft Lewis acidity of Pb ²⁺ in halide perovskites. Part II: impacts of amido Pb impurities in methylammonium lead triiodide thin films. <i>Journal of Materials Chemistry C</i> , 2019, 7, 5244-5250.	5.5	30
107	Excitation of Charge Transfer States and Low-Driving Force Triplet Exciton Dissociation at Planar Donor/Acceptor Interfaces. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 2064-2068.	4.6	29
108	Exciton dynamics in an energy up-converting solid state system based on diphenylanthracene doped with platinum octaethylporphyrin. <i>Chemical Physics</i> , 2014, 429, 57-62.	1.9	28

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109	Organic Hole Transport Material Ionization Potential Dictates Diffusion Kinetics of Iodine Species in Halide Perovskite Devices. ACS Energy Letters, 2021, 6, 501-508.	17.4	28
110	Homoepitaxy of Crystalline Rubrene Thin Films. Nano Letters, 2017, 17, 3040-3046.	9.1	27
111	Reduced Recombination and Capacitor-like Charge Buildup in an Organic Heterojunction. Journal of the American Chemical Society, 2020, 142, 2562-2571.	13.7	27
112	Ultrasonic Spray Coating of 6.5% Efficient Diketopyrrolopyrrole-Based Organic Photovoltaics. IEEE Journal of Photovoltaics, 2014, 4, 1538-1544.	2.5	26
113	Factors that Limit Continuous-Wave Lasing in Hybrid Perovskite Semiconductors. Advanced Optical Materials, 2020, 8, 1901514.	7.3	26
114	Nanosecond-Pulsed Perovskite Light-Emitting Diodes at High Current Density. Advanced Materials, 2021, 33, e2104867.	21.0	26
115	Phototriggered Depolymerization of Flexible Poly(phthalaldehyde) Substrates by Integrated Organic Light-Emitting Diodes. ACS Applied Materials & Interfaces, 2018, 10, 28062-28068.	8.0	25
116	Solar fuels and feedstocks: the quest for renewable black gold. Energy and Environmental Science, 2021, 14, 1402-1419.	30.8	25
117	Organoammonium-Ion-based Perovskites Can Degrade to Pb ⁰ via Amine-Pb(II) Coordination. ACS Energy Letters, 2021, 6, 2262-2267.	17.4	25
118	Iodine Electrochemistry Dictates Voltage-Induced Halide Segregation Thresholds in Mixed-Halide Perovskite Devices. Advanced Functional Materials, 2022, 32, .	14.9	25
119	Morphological Tuning of the Energetics in Singlet Fission Organic Solar Cells. Advanced Functional Materials, 2016, 26, 6489-6494.	14.9	24
120	Complexities of Contact Potential Difference Measurements on Metal Halide Perovskite Surfaces. Journal of Physical Chemistry Letters, 2019, 10, 890-896.	4.6	24
121	Real-Time Tracking of Singlet Exciton Diffusion in Organic Semiconductors. Physical Review Letters, 2016, 116, 057402.	7.8	23
122	Interfacial Depletion Regions: Beyond the Space Charge Limit in Thick Bulk Heterojunctions. ACS Applied Materials & Interfaces, 2016, 8, 2211-2219.	8.0	23
123	Band-Like Charge Photogeneration at a Crystalline Organic Donor/Acceptor Interface. Advanced Energy Materials, 2018, 8, 1701494.	19.5	23
124	n-Doping of a Low-Electron-Affinity Polymer Used as an Electron-Transport Layer in Organic Light-Emitting Diodes. Advanced Functional Materials, 2020, 30, 2000328.	14.9	22
125	Polariton Decay in Donor-Acceptor Cavity Systems. Journal of Physical Chemistry Letters, 2021, 12, 9774-9782.	4.6	22
126	Thin-film organic position sensitive detectors. IEEE Photonics Technology Letters, 2003, 15, 1279-1281.	2.5	21

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127	Improved cathode buffer layer to decrease exciton recombination in organic planar heterojunction solar cells. <i>Applied Physics Letters</i> , 2013, 102, .	3.3	21
128	Structure induced conductivity enhancement in metal-doped molybdenum oxide thin films. <i>Journal of Applied Physics</i> , 2013, 113, .	2.5	21
129	Multiple Charge Transfer States in Donor-Acceptor Heterojunctions with Large Frontier Orbital Energy Offsets. <i>Chemistry of Materials</i> , 2019, 31, 6808-6817.	6.7	20
130	The efficacy of Lewis affinity scale metrics to represent solvent interactions with reagent salts in all-inorganic metal halide perovskite solutions. <i>Journal of Materials Chemistry A</i> , 2021, 9, 13087-13099.	10.3	19
131	Near-Field Interactions between Metal Nanoparticle Surface Plasmons and Molecular Excitons in Thin-Films. Part I: Absorption. <i>Journal of Physical Chemistry C</i> , 2012, 116, 24206-24214.	3.1	18
132	Comprehensive method for analyzing the power conversion efficiency of organic solar cells under different spectral irradiances considering both photonic and electrical characteristics. <i>Applied Energy</i> , 2016, 180, 516-523.	10.1	18
133	Two temperature regimes of triplet transfer in the dissociation of the correlated triplet pair after singlet fission. <i>Canadian Journal of Chemistry</i> , 2019, 97, 465-473.	1.1	18
134	Accurate spectral response measurements of a complementary absorbing organic tandem cell with fill factor exceeding the subcells. <i>Applied Physics Letters</i> , 2014, 104, .	3.3	17
135	Excitation of multiple dipole surface plasmon resonances in spherical silver nanoparticles. <i>Optics Express</i> , 2010, 18, 19032.	3.4	15
136	Understanding metal doping for organic electron transport layers. <i>Applied Physics Letters</i> , 2012, 100, 053305.	3.3	14
137	Reducing exciton-polaron annihilation in organic planar heterojunction solar cells. <i>Physical Review B</i> , 2014, 90, .	3.2	14
138	Variable charge transfer state energies at nanostructured pentacene/C60 interfaces. <i>Applied Physics Letters</i> , 2018, 112, 213302.	3.3	12
139	Tuning Laser Threshold within the Large Optical Gain Bandwidth of Halide Perovskite Thin Films. <i>ACS Photonics</i> , 2021, 8, 2548-2554.	6.6	12
140	Role of Electron- and Hole-Collecting Buffer Layers on the Stability of Inverted Polymer: Fullerene Photovoltaic Devices. <i>IEEE Journal of Photovoltaics</i> , 2014, 4, 265-270.	2.5	11
141	Thermal Properties, Molecular Structure, and Thin-Film Organic Semiconductor Crystallization. <i>Journal of Physical Chemistry C</i> , 2020, 124, 27213-27221.	3.1	11
142	Role of Photon Recycling and Band Filling in Halide Perovskite Photoluminescence under Focussed Excitation Conditions. <i>Journal of Physical Chemistry C</i> , 2021, 125, 2240-2249.	3.1	11
143	Light-trapping in polymer solar cells by processing with nanostructured diatomaceous earth. <i>Organic Electronics</i> , 2017, 51, 422-427.	2.6	10
144	Time-resolved imaging of carrier transport in halide perovskite thin films and evidence for nondiffusive transport. <i>Physical Review Materials</i> , 2019, 3, .	2.4	10

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145	Improved Charge Balance in Green Perovskite Light-Emitting Diodes with Atomic-Layer-Deposited Al ₂ O ₃ . ACS Applied Materials & Interfaces, 2022, 14, 34247-34252.	8.0	10
146	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.	3.1	9
147	Resonant cavity enhanced light harvesting in flexible thin-film organic solar cells. Optics Letters, 2013, 38, 1431.	3.3	9
148	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.	4.6	9
149	Influence of Disorder and State Filling on Charge-Transfer-State Absorption and Emission Spectra. Physical Review Applied, 2021, 16, .	3.8	9
150	Absorptive carbon nanotube electrodes: Consequences of optical interference loss in thin film solar cells. Nanoscale, 2015, 7, 7259-7266.	5.6	8
151	Organic photovoltaics (OPVs): Device physics. , 2019, , 665-693.		8
152	Electrochemically n-Doped CsPbBr ₃ Nanocrystal Thin Films. ACS Energy Letters, 2022, 7, 211-216.	17.4	8
153	Green Lithography for Delicate Materials. Advanced Functional Materials, 2021, 31, 2101533.	14.9	7
154	Methods for Conducting Electron Backscattered Diffraction (EBSD) on Polycrystalline Organic Molecular Thin Films. Microscopy and Microanalysis, 2018, 24, 420-423.	0.4	6
155	Controlling Microring Resonator Extinction Ratio via Metal-Halide Perovskite Nonlinearity. Advanced Optical Materials, 2021, 9, 2100783.	7.3	6
156	Powerful Organic Molecular Oxidants and Reductants Enable Ambipolar Injection in a Large-Gap Organic Homojunction Diode. ACS Applied Materials & Interfaces, 2022, 14, 2381-2389.	8.0	5
157	Nonradiative Recombination via Charge-Transfer-Exciton to Polaron Energy Transfer Limits Photocurrent in Organic Solar Cells. Advanced Energy Materials, 2022, 12, .	19.5	5
158	Origin of the open-circuit voltage in organic solar cells. , 2006, , .		4
159	High-Voltage Photogeneration Exclusively via Aggregation-Induced Triplet States in a Heavy-Atom-Free Nonplanar Organic Semiconductor. Advanced Energy Materials, 2019, 9, 1901649.	19.5	4
160	Alleviating halide perovskite surface defects. Matter, 2021, 4, 2104-2105.	10.0	4
161	Morphological Requirements for Nanoscale Electric Field Buildup in a Bulk Heterojunction Solar Cell. Journal of Physical Chemistry Letters, 2021, 12, 537-545.	4.6	4
162	Untying the Cesium -Not- Cesium-Iodoplumbate Complexation in Perovskite Solution-Processing Inks Has Implications for Crystallization. Journal of Physical Chemistry Letters, 2022, 13, 6130-6137.	4.6	4

#	ARTICLE	IF	CITATIONS
163	Introduction to the Issue on Next-Generation Organic and Hybrid Solar Cells. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 1512-1513.	2.9	3
164	Flexible Electronics: A Transparent, Smooth, Thermally Robust, Conductive Polyimide for Flexible Electronics (Adv. Funct. Mater. 48/2015). Advanced Functional Materials, 2015, 25, 7547-7547.	14.9	3
165	Organic-Flow: An Open-Source Organic Standard Cell Library and Process Development Kit. , 2020, , .		3
166	Benchmarking organic thin film transistor inverter design styles. Synthetic Metals, 2021, 278, 116825.	3.9	3
167	Comparing the Expense and Accuracy of Methods to Simulate Atomic Vibrations in Rubrene. Journal of Chemical Theory and Computation, 2021, , .	5.3	3
168	Editorial for "special issue on advanced solar cell technology"™. Journal of Optics (United Kingdom), 2017, 19, 120401.	2.2	2
169	Study of local structure at crystalline rubrene grain boundaries via scanning transmission X-ray microscopy. Organic Electronics, 2019, 74, 315-320.	2.6	2
170	Crystalline order offers access to high speeds for organic transistors. Nature, 2022, 606, 661-662.	27.8	2
171	Efficient polymer solar cells via an all-spray-coated deposition. , 2010, , .		1
172	18: 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.	0.3	1
173	Efficient Perovskite LEDs Featuring Nanometer Sized Crystallites. , 2017, , .		0
174	Metal Halide Perovskites: Emerging Light Emitting Materials. Information Display, 2018, 34, 18-22.	0.2	0
175	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.	0.3	0
176	Unlocking Efficient Perovskite-based Light Emitting Devices. , 2016, , .		0
177	Unlocking Efficient Perovskite-based Light Emitting Devices. , 2016, , .		0
178	ITO-free Flexible Organic Light Emitting Diodes with Enhanced Light Outcoupling. , 2016, , .		0
179	Outcoupling Enhancement in White Organic Light-Emitting Diodes on Scattering Polyimide Substrates. , 2017, , .		0
180	Metal Halide Perovskites: Processing, Interfaces, and Light Emitting Devices. , 2017, , .		0

#	ARTICLE	IF	CITATIONS
181	Light emitting devices and lasers from metal halide perovskites. , 0, , .		0
182	Efficient, Color Tunable, and Flexible Thin Film Perovskite Light Emitting Devices. , 2019, , .		0
183	Halide Perovskites for Photonics and Optoelectronics: introduction to special issue. Optical Materials Express, 2022, 12, 1764.	3.0	0
184	Flexible and color tunable metal halide perovskite light emitting diodes using bulky organoammonium additives. , 0, , .		0