

Barry P Rand

List of Publications by Citations

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168
papers

14,124
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117
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188
ext. papers

15,642
ext. citations

11.9
avg, IF

6.8
L-index

#	Paper	IF	Citations
168	Efficient perovskite light-emitting diodes featuring nanometre-sized crystallites. <i>Nature Photonics</i> , 2017 , 11, 108-115	33.9	949
167	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,	3.3	644
166	Asymmetric tandem organic photovoltaic cells with hybrid planar-mixed molecular heterojunctions. <i>Applied Physics Letters</i> , 2004 , 85, 5757-5759	3.4	520
165	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	513
164	4.2% efficient organic photovoltaic cells with low series resistances. <i>Applied Physics Letters</i> , 2004 , 84, 3013-3015	3.4	498
163	A Hybrid Planar Mixed Molecular Heterojunction Photovoltaic Cell. <i>Advanced Materials</i> , 2005 , 17, 66-71	24	463
162	8.4% efficient fullerene-free organic solar cells exploiting long-range exciton energy transfer. <i>Nature Communications</i> , 2014 , 5, 3406	17.4	455
161	Enhanced open-circuit voltage in subphthalocyanine/C60 organic photovoltaic cells. <i>Journal of the American Chemical Society</i> , 2006 , 128, 8108-9	16.4	428
160	Solar cells utilizing small molecular weight organic semiconductors. <i>Progress in Photovoltaics: Research and Applications</i> , 2007 , 15, 659-676	6.8	400
159	Perovskites for Next-Generation Optical Sources. <i>Chemical Reviews</i> , 2019 , 119, 7444-7477	68.1	391
158	Strategies for increasing the efficiency of heterojunction organic solar cells: material selection and device architecture. <i>Accounts of Chemical Research</i> , 2009 , 42, 1740-7	24.3	343
157	3D printed quantum dot light-emitting diodes. <i>Nano Letters</i> , 2014 , 14, 7017-23	11.5	308
156	The Impact of Molecular Orientation on the Photovoltaic Properties of a Phthalocyanine/Fullerene Heterojunction. <i>Advanced Functional Materials</i> , 2012 , 22, 2987-2995	15.6	268
155	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, 2722-9	6.4	264
154	Solution-processed MoO ₃ thin films as a hole-injection layer for organic solar cells. <i>ACS Applied Materials & Interfaces</i> , 2011 , 3, 3244-7	9.5	253
153	Continuous-wave lasing in an organic-inorganic lead halide perovskite semiconductor. <i>Nature Photonics</i> , 2017 , 11, 784-788	33.9	248
152	Organic small molecule solar cells with a homogeneously mixed copper phthalocyanine: C60 active layer. <i>Applied Physics Letters</i> , 2004 , 84, 4218-4220	3.4	235

151	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	9.6	201
150	Extremely Low Operating Current Resistive Memory Based on Exfoliated 2D Perovskite Single Crystals for Neuromorphic Computing. <i>ACS Nano</i> , 2017 , 11, 12247-12256	16.7	201
149	Delocalization and dielectric screening of charge transfer states in organic photovoltaic cells. <i>Nature Communications</i> , 2014 , 5, 3245	17.4	196
148	Design of transparent anodes for resonant cavity enhanced light harvesting in organic solar cells. <i>Advanced Materials</i> , 2012 , 24, 728-32	24	194
147	Analytical model for the open-circuit voltage and its associated resistance in organic planar heterojunction solar cells. <i>Physical Review B</i> , 2008 , 77,	3.3	181
146	High-Performance Organic Solar Cells with Spray-Coated Hole-Transport and Active Layers. <i>Advanced Functional Materials</i> , 2011 , 21, 64-72	15.6	177
145	Mixed donor-acceptor molecular heterojunctions for photovoltaic applications. I. Material properties. <i>Journal of Applied Physics</i> , 2005 , 98, 124902	2.5	166
144	Mixed donor-acceptor molecular heterojunctions for photovoltaic applications. II. Device performance. <i>Journal of Applied Physics</i> , 2005 , 98, 124903	2.5	163
143	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	6.4	162
142	Redox Chemistry Dominates the Degradation and Decomposition of Metal Halide Perovskite Optoelectronic Devices. <i>ACS Energy Letters</i> , 2016 , 1, 595-602	20.1	151
141	Diode-Pumped Organo-Lead Halide Perovskite Lasing in a Metal-Clad Distributed Feedback Resonator. <i>Nano Letters</i> , 2016 , 16, 4624-9	11.5	148
140	On the Role of Bathocuproine in Organic Photovoltaic Cells. <i>Advanced Functional Materials</i> , 2008 , 18, 3686-3691	15.6	143
139	Improved Outcoupling Efficiency and Stability of Perovskite Light-Emitting Diodes using Thin Emitting Layers. <i>Advanced Materials</i> , 2019 , 31, e1805836	24	137
138	In Situ Preparation of Metal Halide Perovskite Nanocrystal Thin Films for Improved Light-Emitting Devices. <i>ACS Nano</i> , 2017 , 11, 3957-3964	16.7	128
137	Organic solar cells with sensitivity extending into the near infrared. <i>Applied Physics Letters</i> , 2005 , 87, 233508	3.4	126
136	Near-infrared sensitive small molecule organic photovoltaic cells based on chloroaluminum phthalocyanine. <i>Applied Physics Letters</i> , 2007 , 91, 013508	3.4	122
135	Mixed-Halide Perovskites with Stabilized Bandgaps. <i>Nano Letters</i> , 2017 , 17, 6863-6869	11.5	121
134	Beating the thermodynamic limit with photo-activation of n-doping in organic semiconductors. <i>Nature Materials</i> , 2017 , 16, 1209-1215	27	120

133	Organic Double-Heterostructure Photovoltaic Cells Employing Thick Tris(acetylacetonato)ruthenium(III) Exciton-Blocking Layers. <i>Advanced Materials</i> , 2005 , 17, 2714-2718	24	118
132	The effects of copper phthalocyanine purity on organic solar cell performance. <i>Organic Electronics</i> , 2005 , 6, 242-246	3.5	110
131	Semitransparent organic photovoltaic cells. <i>Applied Physics Letters</i> , 2006 , 88, 233502	3.4	107
130	A Transparent, Smooth, Thermally Robust, Conductive Polyimide for Flexible Electronics. <i>Advanced Functional Materials</i> , 2015 , 25, 7428-7434	15.6	100
129	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	21.8	100
128	Hybrid perovskite light emitting diodes under intense electrical excitation. <i>Nature Communications</i> , 2018 , 9, 4893	17.4	97
127	Organic tandem solar cells with complementary absorbing layers and a high open-circuit voltage. <i>Applied Physics Letters</i> , 2010 , 97, 033301	3.4	96
126	Nanoparticle-based, spray-coated silver top contacts for efficient polymer solar cells. <i>Organic Electronics</i> , 2009 , 10, 735-740	3.5	95
125	Enhanced Outcoupling in Organic Light-Emitting Diodes via a High-Index Contrast Scattering Layer. <i>ACS Photonics</i> , 2015 , 2, 1366-1372	6.3	87
124	Electrical Stress Influences the Efficiency of CH ₃ NH ₃ PbI ₃ Perovskite Light Emitting Devices. <i>Advanced Materials</i> , 2017 , 29, 1605317	24	81
123	Interfacial charge-transfer doping of metal halide perovskites for high performance photovoltaics. <i>Energy and Environmental Science</i> , 2019 , 12, 3063-3073	35.4	77
122	Electronic structure of the CsPbBr ₃ /polytriarylamine (PTAA) system. <i>Journal of Applied Physics</i> , 2017 , 121, 035304	2.5	74
121	Novel bis-C ₆₀ derivative compared to other fullerene bis-adducts in high efficiency polymer photovoltaic cells. <i>Journal of Materials Chemistry</i> , 2011 , 21, 17345		73
120	Thermal Management Enables Bright and Stable Perovskite Light-Emitting Diodes. <i>Advanced Materials</i> , 2020 , 32, e2000752	24	71
119	Thieno[3,2-b]thiophene-diketopyrrolopyrrole Containing Polymers for Inverted Solar Cells Devices with High Short Circuit Currents. <i>Advanced Functional Materials</i> , 2013 , 23, 5647-5654	15.6	71
118	Plasmonic Efficiency Enhancement of High Performance Organic Solar Cells with a Nanostructured Rear Electrode. <i>Advanced Energy Materials</i> , 2013 , 3, 145-150	21.8	70
117	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	3.5	69
116	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	21.8	67

115	Electrode Considerations for the Optical Enhancement of Organic Bulk Heterojunction Solar Cells. <i>Advanced Energy Materials</i> , 2011 , 1, 930-935	21.8	65
114	The Impact of Local Morphology on Organic Donor/Acceptor Charge Transfer States. <i>Advanced Energy Materials</i> , 2018 , 8, 1702816	21.8	60
113	Structural Evolution of Evaporated Lead Phthalocyanine Thin Films for Near-Infrared Sensitive Solar Cells. <i>Chemistry of Materials</i> , 2011 , 23, 886-895	9.6	58
112	Device Performance of Emerging Photovoltaic Materials (Version 1). <i>Advanced Energy Materials</i> , 2021 , 11, 2002774	21.8	56
111	Engineering Perovskite Nanocrystal Surface Termination for Light-Emitting Diodes with External Quantum Efficiency Exceeding 15%. <i>Advanced Functional Materials</i> , 2019 , 29, 1807284	15.6	55
110	Enhanced photocurrent and open-circuit voltage in a 3-layer cascade organic solar cell. <i>Applied Physics Letters</i> , 2012 , 101, 143301	3.4	54
109	Influence of Bulky Organo-Ammonium Halide Additive Choice on the Flexibility and Efficiency of Perovskite Light-Emitting Devices. <i>Advanced Functional Materials</i> , 2018 , 28, 1802060	15.6	53
108	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		53
107	Thin film metal nanocluster light-emitting devices. <i>Advanced Materials</i> , 2014 , 26, 1446-9	24	52
106	Organic solar cells with sensitized phosphorescent absorbing layers. <i>Organic Electronics</i> , 2009 , 10, 1015-1019	3.19	52
105	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	9.6	50
104	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, 8505-15	9.5	49
103	Ultrasoother metal halide perovskite thin films via sol-gel processing. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 8308-8315	13	48
102	Reactions at noble metal contacts with methylammonium lead triiodide perovskites: Role of underpotential deposition and electrochemistry. <i>APL Materials</i> , 2019 , 7, 041103	5.7	47
101	Determination of Energy Level Alignment within an Energy Cascade Organic Solar Cell. <i>Chemistry of Materials</i> , 2016 , 28, 794-801	9.6	47
100	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	6.4	47
99	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	35.4	46
98	Concurrently pumped ultrasonic spray coating for donor:acceptor and thickness optimization of organic solar cells. <i>Organic Electronics</i> , 2013 , 14, 1002-1008	3.5	43

97	Efficient truxenone-based acceptors for organic photovoltaics. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 73-76	13	43
96	Amine additive reactions induced by the soft Lewis acidity of Pb ²⁺ in halide perovskites. Part I: evidence for Pbalkylamide formation. <i>Journal of Materials Chemistry C</i> , 2019 , 7, 5251-5259	7.1	41
95	Microcrystalline organic thin-film solar cells. <i>Advanced Materials</i> , 2013 , 25, 5504-7	24	41
94	Correlating the Polymorphism of Titanyl Phthalocyanine Thin Films with Solar Cell Performance. <i>Journal of Physical Chemistry Letters</i> , 2012 , 3, 2395-400	6.4	39
93	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		39
92	Linking Chemistry at the TiO/CHNHPbI Interface to Current-Voltage Hysteresis. <i>Journal of Physical Chemistry Letters</i> , 2017 , 8, 2298-2303	6.4	37
91	Perovskite Light-Emitting Diodes with Improved Outcoupling Using a High-Index Contrast Nanoarray. <i>Small</i> , 2019 , 15, e1900135	11	37
90	Mixed Lead-Tin Halide Perovskites for Efficient and Wavelength-Tunable Near-Infrared Light-Emitting Diodes. <i>Advanced Materials</i> , 2019 , 31, e1806105	24	37
89	The angular response of ultrathin film organic solar cells. <i>Applied Physics Letters</i> , 2008 , 92, 243310	3.4	36
88	Light-Induced Degradation of Polymer:Fullerene Photovoltaic Devices: An Intrinsic or Material-Dependent Failure Mechanism?. <i>Advanced Energy Materials</i> , 2014 , 4, 1400848	21.8	35
87	Structural templating of chloro-aluminum phthalocyanine layers for planar and bulk heterojunction organic solar cells. <i>Organic Electronics</i> , 2011 , 12, 2131-2139	3.5	35
86	Electrically driven lasing in metal halide perovskites: Challenges and outlook. <i>APL Materials</i> , 2020 , 8, 030902	5.7	33
85	Metal nanocluster light-emitting devices with suppressed parasitic emission and improved efficiency: exploring the impact of photophysical properties. <i>Nanoscale</i> , 2015 , 7, 9140-6	7.7	32
84	Polariton Transitions in Femtosecond Transient Absorption Studies of Ultrastrong Light-Molecule Coupling. <i>Journal of Physical Chemistry Letters</i> , 2020 , 11, 2667-2674	6.4	31
83	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	6.4	30
82	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	9.6	28
81	Roadmap on organic-inorganic hybrid perovskite semiconductors and devices. <i>APL Materials</i> , 2021 , 9, 109202	5.7	28
80	Revealing the Full Charge Transfer State Absorption Spectrum of Organic Solar Cells. <i>Advanced Energy Materials</i> , 2016 , 6, 1601001	21.8	28

79	Enhanced outcoupling in flexible organic light-emitting diodes on scattering polyimide substrates. <i>Organic Electronics</i> , 2017 , 51, 471-476	3.5	27
78	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	6.1	27
77	Use of an Underlayer for Large Area Crystallization of Rubrene Thin Films. <i>Chemistry of Materials</i> , 2017 , 29, 6666-6673	9.6	27
76	Photocurrent enhancement in polymer:fullerene bulk heterojunction solar cells doped with a phosphorescent molecule. <i>Applied Physics Letters</i> , 2009 , 95, 173304	3.4	27
75	Optically Pumped Lasing from Hybrid Perovskite Light-Emitting Diodes. <i>Advanced Optical Materials</i> , 2020 , 8, 1901297	8.1	27
74	Ultrasensitive Heterojunctions of Graphene and 2D Perovskites Reveal Spontaneous Iodide Loss. <i>Joule</i> , 2018 , 2, 2133-2144	27.8	27
73	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	6.4	26
72	Ultrasonic Spray Coating of 6.5% Efficient Diketopyrrolopyrrole-Based Organic Photovoltaics. <i>IEEE Journal of Photovoltaics</i> , 2014 , 4, 1538-1544	3.7	25
71	Phototriggered Depolymerization of Flexible Poly(phthalaldehyde) Substrates by Integrated Organic Light-Emitting Diodes. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 28062-28068	9.5	24
70	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	2.3	24
69	Donor/Acceptor Charge-Transfer States at Two-Dimensional Metal Halide Perovskite and Organic Semiconductor Interfaces. <i>ACS Energy Letters</i> , 2018 , 3, 2708-2712	20.1	24
68	Engineering Charge-Transfer States for Efficient, Low-Energy-Loss Organic Photovoltaics. <i>Trends in Chemistry</i> , 2019 , 1, 815-829	14.8	23
67	Ultraviolet Photoemission Spectroscopy and Kelvin Probe Measurements on Metal Halide Perovskites: Advantages and Pitfalls. <i>Advanced Energy Materials</i> , 2020 , 10, 1903252	21.8	23
66	Interfacial Depletion Regions: Beyond the Space Charge Limit in Thick Bulk Heterojunctions. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 2211-9	9.5	22
65	Hall Effect in Polycrystalline Organic Semiconductors: The Effect of Grain Boundaries. <i>Advanced Functional Materials</i> , 2020 , 30, 1903617	15.6	21
64	Real-Time Tracking of Singlet Exciton Diffusion in Organic Semiconductors. <i>Physical Review Letters</i> , 2016 , 116, 057402	7.4	20
63	Widely Tunable, Room Temperature, Single-Mode Lasing Operation from Mixed-Halide Perovskite Thin Films. <i>ACS Photonics</i> , 2019 , 6, 3331-3337	6.3	20
62	Improved cathode buffer layer to decrease exciton recombination in organic planar heterojunction solar cells. <i>Applied Physics Letters</i> , 2013 , 102, 043301	3.4	20

61	The role of halide oxidation in perovskite halide phase separation. <i>Joule</i> , 2021 , 5, 2273-2295	27.8	20
60	Homoepitaxy of Crystalline Rubrene Thin Films. <i>Nano Letters</i> , 2017 , 17, 3040-3046	11.5	19
59	Morphological Tuning of the Energetics in Singlet Fission Organic Solar Cells. <i>Advanced Functional Materials</i> , 2016 , 26, 6489-6494	15.6	19
58	Band-like Charge Photogeneration at a Crystalline Organic Donor/Acceptor Interface. <i>Advanced Energy Materials</i> , 2018 , 8, 1701494	21.8	19
57	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	7.1	18
56	Structure induced conductivity enhancement in metal-doped molybdenum oxide thin films. <i>Journal of Applied Physics</i> , 2013 , 113, 043109	2.5	18
55	Thin-film organic position sensitive detectors. <i>IEEE Photonics Technology Letters</i> , 2003 , 15, 1279-1281	2.2	18
54	Reduced Recombination and Capacitor-like Charge Buildup in an Organic Heterojunction. <i>Journal of the American Chemical Society</i> , 2020 , 142, 2562-2571	16.4	18
53	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	3.8	17
52	Device Performance of Emerging Photovoltaic Materials (Version 2). <i>Advanced Energy Materials</i> , 2021 , 11, 2102526	21.8	17
51	Factors that Limit Continuous-Wave Lasing in Hybrid Perovskite Semiconductors. <i>Advanced Optical Materials</i> , 2020 , 8, 1901514	8.1	17
50	Complexities of Contact Potential Difference Measurements on Metal Halide Perovskite Surfaces. <i>Journal of Physical Chemistry Letters</i> , 2019 , 10, 890-896	6.4	16
49	Accurate spectral response measurements of a complementary absorbing organic tandem cell with fill factor exceeding the subcells. <i>Applied Physics Letters</i> , 2014 , 104, 093302	3.4	16
48	Low Threshold Voltages Electrochemically Drive Gold Migration in Halide Perovskite Devices. <i>ACS Energy Letters</i> , 2020 , 5, 3352-3356	20.1	15
47	Reducing exciton-polaron annihilation in organic planar heterojunction solar cells. <i>Physical Review B</i> , 2014 , 90,	3.3	14
46	Understanding metal doping for organic electron transport layers. <i>Applied Physics Letters</i> , 2012 , 100, 053305	3.4	14
45	Excitation of multiple dipole surface plasmon resonances in spherical silver nanoparticles. <i>Optics Express</i> , 2010 , 18, 19032-8	3.3	14
44	Consensus statement: Standardized reporting of power-producing luminescent solar concentrator performance. <i>Joule</i> , 2022 , 6, 8-15	27.8	14

43	Multiple Charge Transfer States in Donor-Acceptor Heterojunctions with Large Frontier Orbital Energy Offsets. <i>Chemistry of Materials</i> , 2019 , 31, 6808-6817	9.6	13
42	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	10.7	13
41	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	3.7	11
40	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	0.9	10
39	Solar fuels and feedstocks: the quest for renewable black gold. <i>Energy and Environmental Science</i> , 2021 , 14, 1402-1419	35.4	10
38	Variable charge transfer state energies at nanostructured pentacene/C60 interfaces. <i>Applied Physics Letters</i> , 2018 , 112, 213302	3.4	10
37	Near-Field Interactions between Metal Nanoparticle Surface Plasmons and Molecular Excitons in Thin-Films. Part II: Emission. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 24215-24223	3.8	9
36	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> ,	13	9
35	Absorptive carbon nanotube electrodes: consequences of optical interference loss in thin film solar cells. <i>Nanoscale</i> , 2015 , 7, 7259-66	7.7	8
34	Organic Hole Transport Material Ionization Potential Dictates Diffusion Kinetics of Iodine Species in Halide Perovskite Devices. <i>ACS Energy Letters</i> , 2021 , 6, 501-508	20.1	8
33	n-Doping of a Low-Electron-Affinity Polymer Used as an Electron-Transport Layer in Organic Light-Emitting Diodes. <i>Advanced Functional Materials</i> , 2020 , 30, 2000328	15.6	7
32	Light-trapping in polymer solar cells by processing with nanostructured diatomaceous earth. <i>Organic Electronics</i> , 2017 , 51, 422-427	3.5	7
31	Resonant cavity enhanced light harvesting in flexible thin-film organic solar cells. <i>Optics Letters</i> , 2013 , 38, 1431-3	3	7
30	Organoammonium-Ion-based Perovskites Can Degrade to Pb0 via Amine-Pb(II) Coordination. <i>ACS Energy Letters</i> , 2021 , 6, 2262-2267	20.1	7
29	Organic photovoltaics (OPVs): Device physics 2019 , 665-693		6
28	Time-resolved imaging of carrier transport in halide perovskite thin films and evidence for nondiffusive transport. <i>Physical Review Materials</i> , 2019 , 3,	3.2	6
27	Nanosecond-Pulsed Perovskite Light-Emitting Diodes at High Current Density. <i>Advanced Materials</i> , 2021 , 33, e2104867	24	6
26	Methods for Conducting Electron Backscattered Diffraction (EBSD) on Polycrystalline Organic Molecular Thin Films. <i>Microscopy and Microanalysis</i> , 2018 , 24, 420-423	0.5	5

25	Polariton Decay in Donor-Acceptor Cavity Systems. <i>Journal of Physical Chemistry Letters</i> , 2021 , 12, 9774-9782	5	
24	Origin of the open-circuit voltage in organic solar cells 2006 ,	4	
23	Influence of Disorder and State Filling on Charge-Transfer-State Absorption and Emission Spectra. <i>Physical Review Applied</i> , 2021 , 16,	4.3	4
22	Fate of Low-Lying Charge-Transfer Excited States in a Donor:Acceptor Blend with a Large Energy Offset. <i>Journal of Physical Chemistry Letters</i> , 2020 , 11, 10219-10226	6.4	4
21	Role of Photon Recycling and Band Filling in Halide Perovskite Photoluminescence under Focused Excitation Conditions. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 2240-2249	3.8	4
20	Flexible Electronics: A Transparent, Smooth, Thermally Robust, Conductive Polyimide for Flexible Electronics (Adv. Funct. Mater. 48/2015). <i>Advanced Functional Materials</i> , 2015 , 25, 7547-7547	15.6	3
19	Introduction to the Issue on Next-Generation Organic and Hybrid Solar Cells. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2010 , 16, 1512-1513	3.8	3
18	Thermal Properties, Molecular Structure, and Thin-Film Organic Semiconductor Crystallization. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 27213-27221	3.8	3
17	High-Voltage Photogeneration Exclusively via Aggregation-Induced Triplet States in a Heavy-Atom-Free Nonplanar Organic Semiconductor. <i>Advanced Energy Materials</i> , 2019 , 9, 1901649	21.8	3
16	Study of local structure at crystalline rubrene grain boundaries via scanning transmission X-ray microscopy. <i>Organic Electronics</i> , 2019 , 74, 315-320	3.5	2
15	Editorial for Special issue on advanced solar cell technology <i>Journal of Optics (United Kingdom)</i> , 2017 , 19, 120401	1.7	2
14	Green Lithography for Delicate Materials. <i>Advanced Functional Materials</i> , 2021 , 31, 2101533	15.6	2
13	Benchmarking organic thin film transistor inverter design styles. <i>Synthetic Metals</i> , 2021 , 278, 116825	3.6	2
12	Controlling Microring Resonator Extinction Ratio via Metal-Halide Perovskite Nonlinearity. <i>Advanced Optical Materials</i> , 2100783	8.1	2
11	Organic-Flow: An Open-Source Organic Standard Cell Library and Process Development Kit 2020 ,		1
10	Efficient polymer solar cells via an all-spray-coated deposition 2010 ,		1
9	18-1: Invited Paper: Color Tunable, Flexible, and Efficient Light Emitting Diodes Composed of Metal Halide Perovskites. <i>Digest of Technical Papers SID International Symposium</i> , 2018 , 49, 212-213	0.5	1
8	Tuning Laser Threshold within the Large Optical Gain Bandwidth of Halide Perovskite Thin Films. <i>ACS Photonics</i> , 2021 , 8, 2548-2554	6.3	1

7	Nonradiative Recombination via Charge-Transfer-Exciton to Polaron Energy Transfer Limits Photocurrent in Organic Solar Cells. <i>Advanced Energy Materials</i> , 2020, 10, 2200551	21.8	1
6	Electrochemically n-Doped CsPbBr ₃ Nanocrystal Thin Films. <i>ACS Energy Letters</i> , 2022 , 7, 211-216	20.1	1
5	Morphological Requirements for Nanoscale Electric Field Buildup in a Bulk Heterojunction Solar Cell. <i>Journal of Physical Chemistry Letters</i> , 2021 , 12, 537-545	6.4	0
4	Alleviating halide perovskite surface defects. <i>Matter</i> , 2021 , 4, 2104-2105	12.7	0
3	33-1: Invited Paper: Exploring the Formation and Growth of Organic Semiconductors with mm-Scale Grains. <i>Digest of Technical Papers SID International Symposium</i> , 2018 , 49, 413-414	0.5	
2	Metal-Halide Perovskites: Emerging Light-Emitting Materials. <i>Information Display</i> , 2018 , 34, 18-22	0.8	
1	Halide Perovskites for Photonics and Optoelectronics: introduction to special issue. <i>Optical Materials Express</i> , 2022 , 12, 1764	2.6	