Koen Vandewal

List of Publications by Year
in descending order

172 papers	16,511 citations	15495 65 h-index	15716 125 g-index
177 all docs	177 docs citations	177 times ranked	11999 citing authors

#	Article	IF	Citations
1	A general relationship between disorder, aggregation and charge transport in conjugated polymers. Nature Materials, 2013, 12, 1038-1044.	13.3	1,742
2	On the origin of the open-circuit voltage of polymerâ€“fullerene solar cells. Nature Materials, 2009, 8, 904-909.	13.3	1,101
3	Relating the open-circuit voltage to interface molecular properties of donor:acceptor bulk heterojunction solar cells. Physical Review B, 2010, 81, .	1.1	750
4	Efficient charge generation by relaxed charge-transfer states at organic interfaces. Nature Materials, 2014, 13, 63-68.	13.3	667
5	The Relation Between Openâ€Circuit Voltage and the Onset of Photocurrent Generation by Chargeâ€Transfer Absorption in Polymerâ€‰:â€‰Fullerene Bulk Heterojunction Solar Cells. Advanced Functional Materials, 2008, 18, 2064-2070.	7.8	503
6	Intrinsic non-radiative voltage losses in fullerene-based organic solar cells. Nature Energy, 2017, 2, .	19.8	494
7	An Easily Accessible Isoindigo-Based Polymer for High-Performance Polymer Solar Cells. Journal of the American Chemical Society, 2011, 133, 14244-14247.	6.6	363
8	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.	10.2	354
9	Electroluminescence from Charge Transfer States in Polymer Solar Cells. Journal of the American Chemical Society, 2009, 131, 11819-11824.	6.6	338
10	Charge Transfer State Versus Hot Exciton Dissociation in Polymerâ^'Fullerene Blended Solar Cells. Journal of the American Chemical Society, 2010, 132, 11878-11880.	6.6	325
11	A History and Perspective of Nonâ€Fullerene Electron Acceptors for Organic Solar Cells. Advanced Energy Materials, 2021, 11, 2003570.	10.2	323
12	High Performance Allâ€Polymer Solar Cell via Polymer Sideâ€Chain Engineering. Advanced Materials, 2014, 26, 3767-3772.	11.1	320
13	Optical Gaps of Organic Solar Cells as a Reference for Comparing Voltage Losses. Advanced Energy Materials, 2018, 8, 1801352.	10.2	319
14	Importance of the Donor:Fullerene Intermolecular Arrangement for High-Efficiency Organic Photovoltaics. Journal of the American Chemical Society, 2014, 136, 9608-9618.	6.6	302
15	Formation of a Ground-State Charge-Transfer Complex in Polyfluorene//[6,6]-Phenyl-C61 Butyric Acid Methyl Ester (PCBM) Blend Films and Its Role in the Function of Polymer/PCBM Solar Cells. Advanced Functional Materials, 2007, 17, 451-457.	7.8	248
16	Recombination in Polymer:Fullerene Solar Cells with Openâ€Circuit Voltages Approaching and Exceeding 1.0 V. Advanced Energy Materials, 2013, 3, 220-230.	10.2	212
17	Organic narrowband near-infrared photodetectors based on intermolecular charge-transfer absorption. Nature Communications, 2017, 8, 15421.	5.8	203
18	How to determine optical gaps and voltage losses in organic photovoltaic materials. Sustainable Energy and Fuels, 2018, 2, 538-544.	2.5	199

#	Article	IF	Citations
19	Quantification of Quantum Efficiency and Energy Losses in Low Bandgap Polymer:Fullerene Solar Cells with High Openâ€Circuit Voltage. Advanced Functional Materials, 2012, 22, 3480-3490.	7.8	190
20	Redefining near-unity luminescence in quantum dots with photothermal threshold quantum yield. Science, 2019, 363, 1199-1202.	6.0	190
21	Increased Openâ€Circuit Voltage of Organic Solar Cells by Reduced Donorâ€Acceptor Interface Area. Advanced Materials, 2014, 26, 3839-3843.	11.1	181
22	Elementary steps in electrical doping of organic semiconductors. Nature Communications, 2018, 9, 1182.	5.8	178
23	Interfacial Charge Transfer States in Condensed Phase Systems. Annual Review of Physical Chemistry, 2016, 67, 113-133.	4.8	176
24	Reducing burn-in voltage loss in polymer solar cells by increasing the polymer crystallinity. Energy and Environmental Science, 2014, 7, 2974-2980.	15.6	162
25	Polymer:Fullerene Bimolecular Crystals for Nearâ€Infrared Spectroscopic Photodetectors. Advanced Materials, 2017, 29, 1702184.	11.1	150
26	Disorderâ€Induced Openâ€Circuit Voltage Losses in Organic Solar Cells During Photoinduced Burnâ€In. Advanced Energy Materials, 2015, 5, 1500111.	10.2	146
27	Structural Factors That Affect the Performance of Organic Bulk Heterojunction Solar Cells. Macromolecules, 2013, 46, 6379-6387.	2.2	145
28	Correlated Donor/Acceptor Crystal Orientation Controls Photocurrent Generation in Allâ€Polymer Solar Cells. Advanced Functional Materials, 2014, 24, 4068-4081.	7.8	144
29	Effective Solutionâ€and Vacuumâ€Processed nâ€Doping by Dimers of Benzimidazoline Radicals. Advanced Materials, 2014, 26, 4268-4272.	11.1	139
30	Emissive and charge-generating donorâ€“acceptor interfaces for organic optoelectronics with low voltage losses. Nature Materials, 2019, 18, 459-464.	13.3	131
31	Sub-picosecond charge-transfer at near-zero driving force in polymer:non-fullerene acceptor blends and bilayers. Nature Communications, 2020, 11, 833.	5.8	130
32	On the Dissociation Efficiency of Charge Transfer Excitons and Frenkel Excitons in Organic Solar Cells: A Luminescence Quenching Study. Journal of Physical Chemistry C, 2010, 114, 21824-21832.	1.5	122
33	Reducing Voltage Losses in Cascade Organic Solar Cells while Maintaining High External Quantum Efficiencies. Advanced Energy Materials, 2017, 7, 1700855.	10.2	122
34	Reverse dark current in organic photodetectors and the major role of traps as source of noise. Nature Communications, 2021, 12, 551.	5.8	122
35	Molecular parameters responsible for thermally activated transport in doped organic semiconductors. Nature Materials, 2019, 18, 242-248.	13.3	121
36	Effect of Alkyl Sideâ€Chain Length on Photovoltaic Properties of Poly(3â€alkylthiophene)/PCBM Bulk Heterojunctions. Advanced Functional Materials, 2009, 19, 3300-3306.	7.8	114

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37	Semiâ€Transparent Tandem Organic Solar Cells with 90% Internal Quantum Efficiency. Advanced Energy Materials, 2012, 2, 1467-1476.	10.2	109
38	Structureâ€“property relationships of oligothiopheneâ€“isoindigo polymers for efficient bulk-heterojunction solar cells. Energy and Environmental Science, 2014, 7, 361-369.	15.6	108
39	Optical measurement of doping efficiency in poly(3-hexylthiophene) solutions and thin films. Physical Review B, 2015, 91, .	1.1	108
40	On the Efficiency of Charge Transfer State Splitting in Polymer:Fullerene Solar Cells. Advanced Materials, 2014, 26, 2533-2539.	11.1	106
41	Role of Molecular Weight Distribution on Charge Transport in Semiconducting Polymers. Macromolecules, 2014, 47, 7151-7157.	2.2	102
42	Interlayer for Modified Cathode in Highly Efficient Inverted ITOâ€Free Organic Solar Cells. Advanced Materials, 2012, 24, 554-558.	11.1	101
43	Impact of molecular quadrupole moments on the energy levels at organic heterojunctions. Nature Communications, 2019, 10, 2466.	5.8	101
44	High voltage vacuum-deposited CH₃NH₃PbI₃â€“CH₃NH₃PbI₃ tandem solar cells. Energy and Environmental Science, 2018, 11, 3292-3297.	15.6	98
45	High Mobility Nâ€Type Transistors Based on Solutionâ€Sheared Doped 6,13â€Bis(triisopropylsilylethynyl)pentacene Thin Films. Advanced Materials, 2013, 25, 4663-4667.	11.1	97
46	Influence of Fullerene Ordering on the Energy of the Charge-Transfer State and Open-Circuit Voltage in Polymer:Fullerene Solar Cells. Journal of Physical Chemistry C, 2011, 115, 10873-10880.	1.5	95
47	Intrinsic Detectivity Limits of Organic Nearâ€Infrared Photodetectors. Advanced Materials, 2020, 32, e2003818.	11.1	95
48	Varying polymer crystallinity in nanofiber poly(3-alkylthiophene): PCBM solar cells: Influence on charge-transfer state energy and open-circuit voltage. Applied Physics Letters, 2009, 95, .	1.5	93
49	Modeling the temperature induced degradation kinetics of the short circuit current in organic bulk heterojunction solar cells. Applied Physics Letters, 2010, 96, .	1.5	90
50	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.	11.1	90
51	Comparing the Device Physics and Morphology of Polymer Solar Cells Employing Fullerenes and Nonâ€Fullerene Acceptors. Advanced Energy Materials, 2014, 4, 1301426.	10.2	90
52	Nanoscale electrical characterization of organic photovoltaic blends by conductive atomic force microscopy. Applied Physics Letters, 2006, 89, 032107.	1.5	88
53	Conformational Disorder Enhances Solubility and Photovoltaic Performance of a Thiopheneâ€“Quinoxaline Copolymer. Advanced Energy Materials, 2013, 3, 806-814.	10.2	86
54	Low Band Gap Polymer Solar Cells With Minimal Voltage Losses. Advanced Energy Materials, 2016, 6, 1600148.	10.2	84

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55	Symmetry-Breaking Charge Transfer in a Zinc Chlorodipyrrin Acceptor for High Open Circuit Voltage Organic Photovoltaics. Journal of the American Chemical Society, 2015, 137, 5397-5405.	6.6	82
56	Diffusion-Limited Crystallization: A Rationale for the Thermal Stability of Non-Fullerene Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 21766-21774.	4.0	82
57	Phase behaviour of liquid-crystalline polymer/fullerene organic photovoltaic blends: thermal stability and miscibility. Journal of Materials Chemistry, 2011, 21, 10676.	6.7	80
58	Development of polymerâ€"fullerene solar cells. National Science Review, 2016, 3, 222-239.	4.6	78
59	Small Molecule Near-Infrared Boron Dipyrromethene Donors for Organic Tandem Solar Cells. Journal of the American Chemical Society, 2017, 139, 13636-13639.	6.6	74
60	Absorption Tails of Donor:C₆₀ Blends Provide Insight into Thermally Activated Charge-Transfer Processes and Polaron Relaxation. Journal of the American Chemical Society, 2017, 139, 1699-1704.	6.6	73
61	Influence of fullerene photodimerization on the PCBM crystallization in polymer: Fullerene bulk heterojunctions under thermal stress. Journal of Polymer Science, Part B: Polymer Physics, 2013, 51, 1209-1214.	2.4	72
62	Strong light-matter coupling for reduced photon energy losses in organic photovoltaics. Nature Communications, 2019, 10, 3706.	5.8	72
63	Charge-Transfer States and Upper Limit of the Open-Circuit Voltage in Polymer:Fullerene Organic Solar Cells. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 1676-1684.	1.9	71
64	Correlation of open-circuit voltage and energy levels in zinc-phthalocyanine: C<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>60</mml:mn></mml:msub></mml:math>bulk heterojunction solar cells with varied mixing ratio. Physical Review B, 2013, 88, .	1.1	71
65	Enhancing sub-bandgap external quantum efficiency by photomultiplication for narrowband organic near-infrared photodetectors. Nature Communications, 2021, 12, 4259.	5.8	69
66	Microstructural and Electronic Origins of Openâ€Circuit Voltage Tuning in Organic Solar Cells Based on Ternary Blends. Advanced Energy Materials, 2015, 5, 1501335.	10.2	68
67	Orientation dependent molecular electrostatics drives efficient charge generation in homojunction organic solar cells. Nature Communications, 2020, 11, 4617.	5.8	60
68	Fourier-Transform Photocurrent Spectroscopy for a fast and highly sensitive spectral characterization of organic and hybrid solar cells. Thin Solid Films, 2008, 516, 7135-7138.	0.8	59
69	Miniaturized VISâ€NIR Spectrometers Based on Narrowband and Tunable Transmission Cavity Organic Photodetectors with Ultrahigh Specific Detectivity above 10¹⁴ Jones. Advanced Materials, 2021, 33, e2102967.	11.1	58
70	Excitons Dominate the Emission from PM6:Y6 Solar Cells, but This Does Not Help the Open-Circuit Voltage of the Device. ACS Energy Letters, 2021, 6, 557-564.	8.8	57
71	Increasing donor-acceptor spacing for reduced voltage loss in organic solar cells. Nature Communications, 2021, 12, 6679.	5.8	56
72	The Crucial Influence of Fullerene Phases on Photogeneration in Organic Bulk Heterojunction Solar Cells. Advanced Energy Materials, 2014, 4, 1400922.	10.2	54

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73	Charge Transport in Pure and Mixed Phases in Organic Solar Cells. Advanced Energy Materials, 2017, 7, 1700888.	10.2	54
74	Energy-Gap Law for Photocurrent Generation in Fullerene-Based Organic Solar Cells: The Case of Low-Donor-Content Blends. Journal of the American Chemical Society, 2019, 141, 2329-2341.	6.6	54
75	Wavelengthâ€Selective Organic Photodetectors. Advanced Functional Materials, 2021, 31, 2104060.	7.8	48
76	Enhance performance of organic solar cells based on an isoindigo-based copolymer by balancing absorption and miscibility of electron acceptor. Applied Physics Letters, 2011, 99, 143302.	1.5	45
77	Direct Correlation of Charge Transfer Absorption with Molecular Donor:Acceptor Interfacial Area via Photothermal Deflection Spectroscopy. Journal of the American Chemical Society, 2015, 137, 5256-5259.	6.6	45
78	The Roles of Structural Order and Intermolecular Interactions in Determining Ionization Energies and Chargeâ€Transfer State Energies in Organic Semiconductors. Advanced Energy Materials, 2016, 6, 1601211.	10.2	45
79	Near-infrared organic photodetectors based on bay-annulated indigo showing broadband absorption and high detectivities up to 1.1 Î¼m. Journal of Materials Chemistry C, 2018, 6, 11645-11650.	2.7	45
80	Efficient flexible organic photovoltaics using silver nanowires and polymer based transparent electrodes. Organic Electronics, 2016, 36, 68-72.	1.4	43
81	Controlling Tamm Plasmons for Organic Narrowband Near-Infrared Photodetectors. ACS Photonics, 2017, 4, 2228-2234.	3.2	43
82	Efficient and readily tuneable near-infrared photodetection up to 1500 nm enabled by thiadiazoloquinoxaline-based pushâ€“pull type conjugated polymers. Journal of Materials Chemistry C, 2020, 8, 10098-10103.	2.7	43
83	Toward bulk heterojunction polymer solar cells with thermally stable active layer morphology. Journal of Photonics for Energy, 2014, 4, 040997.	0.8	42
84	Effect of molecular weight on morphology and photovoltaic properties in P3HT:PCBM solar cells. Organic Electronics, 2015, 21, 160-170.	1.4	40
85	Fast Organic Near-Infrared Photodetectors Based on Charge-Transfer Absorption. Journal of Physical Chemistry Letters, 2017, 8, 5621-5625.	2.1	40
86	Manipulating the Charge Transfer Absorption for Narrowband Light Detection in the Near-Infrared. Chemistry of Materials, 2019, 31, 9325-9330.	3.2	40
87	Molecular vibrations reduce the maximum achievable photovoltage in organic solar cells. Nature Communications, 2020, 11, 1488.	5.8	40
88	Stacked Dualâ€Wavelength Nearâ€Infrared Organic Photodetectors. Advanced Optical Materials, 2021, 9, 2001784.	3.6	40
89	Charge Transfer Absorption and Emission at ZnO/Organic Interfaces. Journal of Physical Chemistry Letters, 2015, 6, 500-504.	2.1	37
90	Narrow electroluminescence linewidths for reduced nonradiative recombination in organic solar cells and near-infrared light-emitting diodes. Joule, 2021, 5, 2365-2379.	11.7	37

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91	Exciton Diffusion Length and Charge Extraction Yield in Organic Bilayer Solar Cells. Advanced Materials, 2017, 29, 1604424.	11.1	36
92	Aza-BODIPY dyes with heterocyclic substituents and their derivatives bearing a cyanide co-ligand: NIR donor materials for vacuum-processed solar cells. Journal of Materials Chemistry A, 2017, 5, 10696-10703.	5.2	36
93	Impact of Triplet Excited States on the Openâ€Circuit Voltage of Organic Solar Cells. Advanced Energy Materials, 2018, 8, 1800451.	10.2	36
94	Lead-Halide Perovskites Meet Donorâ€“Acceptor Charge-Transfer Complexes. Chemistry of Materials, 2019, 31, 6880-6888.	3.2	36
95	The Cost of Converting Excitons into Free Charge Carriers in Organic Solar Cells. Journal of Physical Chemistry Letters, 2020, 11, 129-135.	2.1	36
96	Ground-state charge-transfer complex formation in hybrid poly(3-hexyl thiophene):titanium dioxide solar cells. Applied Physics Letters, 2008, 93, .	1.5	35
97	Influence of side groups on the performance of infrared absorbing azaâ€BODIPY organic solar cells. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 2747-2753.	0.8	35
98	Boron dipyrromethene (BODIPY) with <i>meso</i>-perfluorinated alkyl substituents as near infrared donors in organic solar cells. Journal of Materials Chemistry A, 2018, 6, 18583-18591.	5.2	34
99	Influence of Dopantâ€“Host Energy Level Offset on Thermoelectric Properties of Doped Organic Semiconductors. Journal of Physical Chemistry C, 2018, 122, 11730-11735.	1.5	34
100	Revelation of Interfacial Energetics in Organic Multiheterojunctions. Advanced Science, 2017, 4, 1600331.	5.6	33
101	Hole Transport in Low-Donor-Content Organic Solar Cells. Journal of Physical Chemistry Letters, 2018, 9, 5496-5501.	2.1	33
102	PEDOT:PSS with embedded TiO2 nanoparticles as light trapping electrode for organic photovoltaics. Applied Physics Letters, 2016, 108, .	1.5	32
103	Effect of H- and J-Aggregation on the Photophysical and Voltage Loss of Boron Dipyrromethene Small Molecules in Vacuum-Deposited Organic Solar Cells. Journal of Physical Chemistry Letters, 2019, 10, 2684-2691.	2.1	32
104	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
105	Flexible, light trapping substrates for organic photovoltaics. Applied Physics Letters, 2016, 109, 093301.	1.5	29
106	Cavity-Enhanced Near-Infrared Organic Photodetectors Based on a Conjugated Polymer Containing [1,2,5]Selenadiazolo[3,4-<i>c</i>]Pyridine. Chemistry of Materials, 2021, 33, 5147-5155.	3.2	29
107	Polarization anisotropy of charge transfer absorption and emission of aligned polymer:fullerene blend films. Physical Review B, 2012, 86, .	1.1	28
108	Controlling Interdiffusion, Interfacial Composition, and Adhesion in Polymer Solar Cells. Advanced Materials Interfaces, 2014, 1, 1400135.	1.9	28

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109	Plasmonâ€Induced Subâ€Bandgap Photodetection with Organic Schottky Diodes. Advanced Functional Materials, 2016, 26, 5741-5747.	7.8	28
110	Organic Cavity Photodetectors Based on Nanometer-Thick Active Layers for Tunable Monochromatic Spectral Response. ACS Photonics, 2019, 6, 1393-1399.	3.2	27
111	Negligible Energy Loss During Charge Generation in Small-Molecule/Fullerene Bulk-Heterojunction Solar Cells Leads to Open-Circuit Voltage over 1.10 V. ACS Applied Energy Materials, 2019, 2, 2717-2722.	2.5	27
112	Elucidating Batch-to-Batch Variation Caused by Homocoupled Side Products in Solution-Processable Organic Solar Cells. Chemistry of Materials, 2016, 28, 9088-9098.	3.2	25
113	Full Electrothermal OLED Model Including Nonlinear Self-heating Effects. Physical Review Applied, 2018, 10, .	1.5	24
114	Optical display film as flexible and light trapping substrate for organic photovoltaics. Optics Express, 2016, 24, A974.	1.7	23
115	Temperature dependence of the spectral line-width of charge-transfer state emission in organic solar cells; staticvs.dynamic disorder. Materials Horizons, 2020, 7, 1888-1900.	6.4	23
116	Influence of Meso and Nanoscale Structure on the Properties of Highly Efficient Small Molecule Solar Cells. Advanced Energy Materials, 2016, 6, 1501280.	10.2	21
117	Tuning Electronic and Morphological Properties for Highâ€Performance Wavelengthâ€Selective Organic Nearâ€Infrared Cavity Photodetectors. Advanced Functional Materials, 2022, 32, 2108146.	7.8	21
118	Influence of octanedithiol on the nanomorphology of PCPDTBT:PCBM blends studied by solid-state NMR. Solar Energy Materials and Solar Cells, 2012, 96, 210-217.	3.0	20
119	Characterizing the Polymer:Fullerene Intermolecular Interactions. Chemistry of Materials, 2016, 28, 1446-1452.	3.2	20
120	Degradation pathways in standard and inverted DBP-C70 based organic solar cells. Scientific Reports, 2019, 9, 4024.	1.6	20
121	Optical Inâ€Coupling in Organic Solar Cells. Small Methods, 2018, 2, 1800123.	4.6	19
122	Field Effect versus Driving Force: Charge Generation in Smallâ€Molecule Organic Solar Cells. Advanced Energy Materials, 2020, 10, 2002124.	10.2	19
123	Selectively absorbing small-molecule solar cells for self-powered electrochromic windows. Nano Energy, 2021, 89, 106404.	8.2	19
124	Optical absorption by defect states in organic solar cells. Journal of Non-Crystalline Solids, 2006, 352, 1656-1659.	1.5	18
125	Water based preparation method for â€˜greenâ€™ solid-state polythiophene solar cells. Thin Solid Films, 2008, 516, 7245-7250.	0.8	18
126	Charge Transfer States in Organic Donorâ€"Acceptor Solar Cells. Semiconductors and Semimetals, 2011, 85, 261-295.	0.4	18

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127	Mixed C60/C70 based fullerene acceptors in polymer bulk-heterojunction solar cells. Organic Electronics, 2012, 13, 2856-2864.	1.4	18
128	Bipolar Charge Transport in Fullerene Molecules in a Bilayer and Blend of Polyfluorene Copolymer and Fullerene. Advanced Materials, 2010, 22, 1008-1011.	11.1	16
129	Confined organization of fullerene units along high polymer chains. Journal of Materials Chemistry C, 2013, 1, 5747.	2.7	16
130	Degradation of Sexithiophene Cascade Organic Solar Cells. Advanced Energy Materials, 2016, 6, 1502432.	10.2	16
131	The role of spin in the degradation of organic photovoltaics. Nature Communications, 2021, 12, 471.	5.8	16
132	Density of states determination in organic donor-acceptor blend layers enabled by molecular doping. Journal of Applied Physics, 2015, 117, .	1.1	15
133	Polarization Imaging of Emissive Charge Transfer States in Polymer/Fullerene Blends. Chemistry of Materials, 2014, 26, 6695-6704.	3.2	14
134	Diketopyrrolopyrrole-based terpolymers with tunable broad band absorption for fullerene and fullerene-free polymer solar cells. Journal of Materials Chemistry C, 2019, 7, 3375-3384.	2.7	14
135	Alkyl Branching Position in Diketopyrrolopyrrole Polymers: Interplay between Fibrillar Morphology and Crystallinity and Their Effect on Photogeneration and Recombination in Bulk-Heterojunction Solar Cells. Chemistry of Materials, 2018, 30, 6801-6809.	3.2	13
136	Electrothermal Feedback and Absorption-Induced Open-Circuit-Voltage Turnover in Solar Cells. Physical Review Applied, 2018, 9, .	1.5	13
137	H-aggregated small molecular nanowires as near infrared absorbers for organic solar cells. Organic Electronics, 2017, 45, 198-202.	1.4	12
138	Doping-induced carrier profiles in organic semiconductors determined from capacitive extraction-current transients. Scientific Reports, 2017, 7, 5397.	1.6	12
139	Built-in voltage of organic bulk heterojuction p-i-n solar cells measured by electroabsorption spectroscopy. AIP Advances, 2014, 4, .	0.6	11
140	A charge carrier transport model for donor-acceptor blend layers. Journal of Applied Physics, 2015, 117, .	1.1	11
141	All-polymer solar cells based on photostable bis(perylene diimide) acceptor polymers. Solar Energy Materials and Solar Cells, 2019, 196, 178-184.	3.0	10
142	The effect of halogenation on PBDTT-TQxT based non-fullerene polymer solar cells â€" Chlorination vs fluorination. Dyes and Pigments, 2020, 181, 108577.	2.0	10
143	On the Interplay between CT and Singlet Exciton Emission in Organic Solar Cells with Small Driving Force and Its Impact on Voltage Loss. Advanced Energy Materials, 2022, 12, .	10.2	10
144	Heteroquinoid Merocyanine Dyes with High Thermal Stability as Absorber Materials in Vacuumâ€Processed Organic Solar Cells. European Journal of Organic Chemistry, 2019, 2019, 845-851.	1.2	9

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145	Quasiâ€2D Hybrid Perovskite Formation Using Benzothieno[3,2â€<i>b</i>]Benzothiophene (BTBT) Ammonium Cations: Substantial Cesium Lead(II) Iodide Black Phase Stabilization. Advanced Optical Materials, 2022, 10, .	3.6	9
146	Highly sensitive spectroscopic characterization of inorganic and organic heterojunctions for solar cells. EPJ Applied Physics, 2006, 36, 281-283.	0.3	8
147	Benzothiadiazoleâ€"triphenylamine as an efficient exciton blocking layer in small molecule based organic solar cells. Sustainable Energy and Fuels, 2018, 2, 2296-2302.	2.5	8
148	Ladder-type high gap conjugated polymers based on indacenodithieno[3,2-b]thiophene and bithiazole for organic photovoltaics. Organic Electronics, 2019, 74, 211-217.	1.4	8
149	Co-evaporant induced crystallization of zinc phthalocyanine:C60 blends for solar cells. Organic Electronics, 2015, 27, 133-136.	1.4	7
150	Diffusion-enhanced exciton dissociation in single-material organic solar cells. Physical Chemistry Chemical Physics, 2021, 23, 20848-20853.	1.3	7
151	Comparative study on the effects of alkylsilyl and alkylthio side chains on the performance of fullerene and non-fullerene polymer solar cells. Organic Electronics, 2020, 77, 105572.	1.4	6
152	Vacuum-Deposited Microcavity Perovskite Photovoltaic Devices. ACS Photonics, 2021, 8, 2067-2073.	3.2	6
153	Sub-bandgap laser annealing of room temperature deposited polycrystalline CdTe. , 2014, , .		5
154	Experimental and theoretical study of phase separation in ZnPc:C60 blends. Organic Electronics, 2015, 27, 183-191.	1.4	5
155	Azaâ€BODIPY Derivatives Containing BF(CN) and B(CN)₂ Moieties. ChemPlusChem, 2017, 82, 190-194.	1.3	5
156	Near infrared laser annealing of CdTe and <i>in-situ</i> measurement of the evolution of structural and optical properties. Journal of Applied Physics, 2016, 119, .	1.1	4
157	Fluorine-containing low-energy-gap organic dyes with low voltage losses for organic solar cells. Synthetic Metals, 2016, 222, 232-239.	2.1	4
158	Small Molecule Solar Cells. Green Chemistry and Sustainable Technology, 2018, , 1-43.	0.4	4
159	Analysis of bulk heterojunction organic solar cell blends by solid-state NMR relaxometry and sensitive external quantum efficiency â€" Impact of polymer side chain variation on nanoscale morphology. Organic Electronics, 2019, 74, 309-314.	1.4	4
160	Continuous Droplet Flow Synthesis of a Near-Infrared Responsive Pushâ€"Pull Copolymer toward Large Scale Implementation of Organic Photodetectors. ACS Applied Polymer Materials, 2020, 2, 4373-4378.	2.0	4
161	A PDTPQx:PC61BM blend with pronounced charge-transfer absorption for organic resonant cavity photodetectors â€" direct arylation polymerization vs. Stille polycondensation. Dyes and Pigments, 2022, 200, 110130.	2.0	2
162	Solar Cells: Reâ€evaluating the Role of Sterics and Electronic Coupling in Determining the Openâ€Circuit Voltage of Organic Solar Cells (Adv. Mater. 42/2013). Advanced Materials, 2013, 25, 5990-5990.	11.1	1

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163	Light trapping for flexible organic photovoltaics. , 2016, , .		1
164	Organic Photovoltaics: Low Band Gap Polymer Solar Cells With Minimal Voltage Losses (Adv. Energy) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	10.2	1
165	Charge-transfer state energy determines open-circuit voltage in organic photovoltaics. SPIE Newsroom, 0, , .	0.1	1
166	The use of nanofibers of P3HT in bulk heterojunction solar cells: the effect of order and morphology on the performance of P3HT:PCBM blends. , 2009, , .		0
167	Organic Solar Cells: On the Efficiency of Charge Transfer State Splitting in Polymer:Fullerene Solar Cells (Adv. Mater. 16/2014). Advanced Materials, 2014, 26, 2607-2607.	11.1	0
168	Charge-transfer absorption, emission, and the open-circuit voltage of organic solar cells (Presentation Recording). , 2015, , .		0
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