

Koen Vandewal

List of Publications by Citations

Source: <https://exaly.com/author-pdf/225251/koen-vandewal-publications-by-citations.pdf>

Version: 2024-04-26

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

165
papers

13,310
citations

58
h-index

113
g-index

177
ext. papers

14,942
ext. citations

12.7
avg, IF

6.55
L-index

#	Paper	IF	Citations
165	A general relationship between disorder, aggregation and charge transport in conjugated polymers. <i>Nature Materials</i> , 2013 , 12, 1038-44	27	1435
164	On the origin of the open-circuit voltage of polymer-fullerene solar cells. <i>Nature Materials</i> , 2009 , 8, 904-9	27	1006
163	Relating the open-circuit voltage to interface molecular properties of donor:acceptor bulk heterojunction solar cells. <i>Physical Review B</i> , 2010 , 81,	3.3	636
162	Efficient charge generation by relaxed charge-transfer states at organic interfaces. <i>Nature Materials</i> , 2014 , 13, 63-8	27	584
161	The Relation Between Open-Circuit Voltage and the Onset of Photocurrent Generation by Charge-Transfer Absorption in Polymer : Fullerene Bulk Heterojunction Solar Cells. <i>Advanced Functional Materials</i> , 2008 , 18, 2064-2070	15.6	468
160	Intrinsic non-radiative voltage losses in fullerene-based organic solar cells. <i>Nature Energy</i> , 2017 , 2,	62.3	362
159	An easily accessible isoindigo-based polymer for high-performance polymer solar cells. <i>Journal of the American Chemical Society</i> , 2011 , 133, 14244-7	16.4	349
158	Electroluminescence from charge transfer states in polymer solar cells. <i>Journal of the American Chemical Society</i> , 2009 , 131, 11819-24	16.4	318
157	Beyond Langevin Recombination: How Equilibrium Between Free Carriers and Charge Transfer States Determines the Open-Circuit Voltage of Organic Solar Cells. <i>Advanced Energy Materials</i> , 2015 , 5, 1500123	21.8	306
156	Charge transfer state versus hot exciton dissociation in polymer-fullerene blended solar cells. <i>Journal of the American Chemical Society</i> , 2010 , 132, 11878-80	16.4	301
155	High performance all-polymer solar cell via polymer side-chain engineering. <i>Advanced Materials</i> , 2014 , 26, 3767-72	24	300
154	Importance of the donor:fullerene intermolecular arrangement for high-efficiency organic photovoltaics. <i>Journal of the American Chemical Society</i> , 2014 , 136, 9608-18	16.4	283
153	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. <i>Advanced Functional Materials</i> , 2007 , 17, 451-457	15.6	234
152	Optical Gaps of Organic Solar Cells as a Reference for Comparing Voltage Losses. <i>Advanced Energy Materials</i> , 2018 , 8, 1801352	21.8	211
151	Recombination in Polymer:Fullerene Solar Cells with Open-Circuit Voltages Approaching and Exceeding 1.0 V. <i>Advanced Energy Materials</i> , 2013 , 3, 220-230	21.8	199
150	Quantification of Quantum Efficiency and Energy Losses in Low Bandgap Polymer:Fullerene Solar Cells with High Open-Circuit Voltage. <i>Advanced Functional Materials</i> , 2012 , 22, 3480-3490	15.6	164
149	Increased open-circuit voltage of organic solar cells by reduced donor-acceptor interface area. <i>Advanced Materials</i> , 2014 , 26, 3839-43	24	152

148	Organic narrowband near-infrared photodetectors based on intermolecular charge-transfer absorption. <i>Nature Communications</i> , 2017 , 8, 15421	17.4	146
147	Reducing burn-in voltage loss in polymer solar cells by increasing the polymer crystallinity. <i>Energy and Environmental Science</i> , 2014 , 7, 2974-2980	35.4	142
146	A History and Perspective of Non-Fullerene Electron Acceptors for Organic Solar Cells. <i>Advanced Energy Materials</i> , 2021 , 11, 2003570	21.8	141
145	Structural Factors That Affect the Performance of Organic Bulk Heterojunction Solar Cells. <i>Macromolecules</i> , 2013 , 46, 6379-6387	5.5	134
144	Elementary steps in electrical doping of organic semiconductors. <i>Nature Communications</i> , 2018 , 9, 1182	17.4	133
143	How to determine optical gaps and voltage losses in organic photovoltaic materials. <i>Sustainable Energy and Fuels</i> , 2018 , 2, 538-544	5.8	129
142	Interfacial Charge Transfer States in Condensed Phase Systems. <i>Annual Review of Physical Chemistry</i> , 2016 , 67, 113-33	15.7	129
141	Correlated Donor/Acceptor Crystal Orientation Controls Photocurrent Generation in All-Polymer Solar Cells. <i>Advanced Functional Materials</i> , 2014 , 24, 4068-4081	15.6	129
140	Disorder-Induced Open-Circuit Voltage Losses in Organic Solar Cells During Photoinduced Burn-In. <i>Advanced Energy Materials</i> , 2015 , 5, 1500111	21.8	127
139	Redefining near-unity luminescence in quantum dots with photothermal threshold quantum yield. <i>Science</i> , 2019 , 363, 1199-1202	33.3	120
138	Effective solution- and vacuum-processed n-doping by dimers of benzimidazoline radicals. <i>Advanced Materials</i> , 2014 , 26, 4268-72	24	114
137	On the Dissociation Efficiency of Charge Transfer Excitons and Frenkel Excitons in Organic Solar Cells: A Luminescence Quenching Study. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 21824-21832	3.8	108
136	Polymer:Fullerene Bimolecular Crystals for Near-Infrared Spectroscopic Photodetectors. <i>Advanced Materials</i> , 2017 , 29, 1702184	24	105
135	Reducing Voltage Losses in Cascade Organic Solar Cells while Maintaining High External Quantum Efficiencies. <i>Advanced Energy Materials</i> , 2017 , 7, 1700855	21.8	104
134	Effect of Alkyl Side-Chain Length on Photovoltaic Properties of Poly(3-alkylthiophene)/PCBM Bulk Heterojunctions. <i>Advanced Functional Materials</i> , 2009 , 19, 3300-3306	15.6	103
133	Structure-property relationships of oligothiophene-indigo polymers for efficient bulk-heterojunction solar cells. <i>Energy and Environmental Science</i> , 2014 , 7, 361-369	35.4	100
132	Optical measurement of doping efficiency in poly(3-hexylthiophene) solutions and thin films. <i>Physical Review B</i> , 2015 , 91,	3.3	96
131	On the efficiency of charge transfer state splitting in polymer:fullerene solar cells. <i>Advanced Materials</i> , 2014 , 26, 2533-9	24	94

130	Semi-Transparent Tandem Organic Solar Cells with 90% Internal Quantum Efficiency. <i>Advanced Energy Materials</i> , 2012 , 2, 1467-1476	21.8	93
129	Emissive and charge-generating donor-acceptor interfaces for organic optoelectronics with low voltage losses. <i>Nature Materials</i> , 2019 , 18, 459-464	27	89
128	Interlayer for modified cathode in highly efficient inverted ITO-free organic solar cells. <i>Advanced Materials</i> , 2012 , 24, 554-8	24	88
127	Influence of Fullerene Ordering on the Energy of the Charge-Transfer State and Open-Circuit Voltage in Polymer:Fullerene Solar Cells. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 10873-10880	3.8	88
126	Varying polymer crystallinity in nanofiber poly(3-alkylthiophene): PCBM solar cells: Influence on charge-transfer state energy and open-circuit voltage. <i>Applied Physics Letters</i> , 2009 , 95, 123303	3.4	87
125	High mobility N-type transistors based on solution-sheared doped 6,13-bis(triisopropylsilylethynyl)pentacene thin films. <i>Advanced Materials</i> , 2013 , 25, 4663-7	24	86
124	Re-evaluating the role of sterics and electronic coupling in determining the open-circuit voltage of organic solar cells. <i>Advanced Materials</i> , 2013 , 25, 6076-82	24	85
123	Conformational Disorder Enhances Solubility and Photovoltaic Performance of a ThiopheneQuinoxaline Copolymer. <i>Advanced Energy Materials</i> , 2013 , 3, 806-814	21.8	85
122	Role of Molecular Weight Distribution on Charge Transport in Semiconducting Polymers. <i>Macromolecules</i> , 2014 , 47, 7151-7157	5.5	82
121	Modeling the temperature induced degradation kinetics of the short circuit current in organic bulk heterojunction solar cells. <i>Applied Physics Letters</i> , 2010 , 96, 163301	3.4	82
120	Sub-picosecond charge-transfer at near-zero driving force in polymer:non-fullerene acceptor blends and bilayers. <i>Nature Communications</i> , 2020 , 11, 833	17.4	80
119	Low Band Gap Polymer Solar Cells With Minimal Voltage Losses. <i>Advanced Energy Materials</i> , 2016 , 6, 1600148	21.8	80
118	Comparing the Device Physics and Morphology of Polymer Solar Cells Employing Fullerenes and Non-Fullerene Acceptors. <i>Advanced Energy Materials</i> , 2014 , 4, 1301426	21.8	80
117	Nanoscale electrical characterization of organic photovoltaic blends by conductive atomic force microscopy. <i>Applied Physics Letters</i> , 2006 , 89, 032107	3.4	80
116	Phase behaviour of liquid-crystalline polymer/fullerene organic photovoltaic blends: thermal stability and miscibility. <i>Journal of Materials Chemistry</i> , 2011 , 21, 10676		74
115	High voltage vacuum-deposited CH ₃ NH ₃ PbI ₃ /CH ₃ NH ₃ PbI ₃ tandem solar cells. <i>Energy and Environmental Science</i> , 2018 , 11, 3292-3297	35.4	74
114	Molecular parameters responsible for thermally activated transport in doped organic semiconductors. <i>Nature Materials</i> , 2019 , 18, 242-248	27	73
113	Influence of fullerene photodimerization on the PCBM crystallization in polymer: Fullerene bulk heterojunctions under thermal stress. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2013 , 51, 1209-1214	2.6	64

112	Development of polymerfullerene solar cells. <i>National Science Review</i> , 2016 , 3, 222-239	10.8	63
111	Correlation of open-circuit voltage and energy levels in zinc-phthalocyanine: C60 bulk heterojunction solar cells with varied mixing ratio. <i>Physical Review B</i> , 2013 , 88,	3.3	61
110	Charge-Transfer States and Upper Limit of the Open-Circuit Voltage in Polymer:Fullerene Organic Solar Cells. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2010 , 16, 1676-1684	3.8	60
109	Symmetry-breaking charge transfer in a zinc chlorodipyrrin acceptor for high open circuit voltage organic photovoltaics. <i>Journal of the American Chemical Society</i> , 2015 , 137, 5397-405	16.4	59
108	Microstructural and Electronic Origins of Open-Circuit Voltage Tuning in Organic Solar Cells Based on Ternary Blends. <i>Advanced Energy Materials</i> , 2015 , 5, 1501335	21.8	58
107	Diffusion-Limited Crystallization: A Rationale for the Thermal Stability of Non-Fullerene Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 21766-21774	9.5	56
106	Impact of molecular quadrupole moments on the energy levels at organic heterojunctions. <i>Nature Communications</i> , 2019 , 10, 2466	17.4	56
105	Small Molecule Near-Infrared Boron Dipyrrromethene Donors for Organic Tandem Solar Cells. <i>Journal of the American Chemical Society</i> , 2017 , 139, 13636-13639	16.4	56
104	Absorption Tails of Donor:C Blends Provide Insight into Thermally Activated Charge-Transfer Processes and Polaron Relaxation. <i>Journal of the American Chemical Society</i> , 2017 , 139, 1699-1704	16.4	55
103	Fourier-Transform Photocurrent Spectroscopy for a fast and highly sensitive spectral characterization of organic and hybrid solar cells. <i>Thin Solid Films</i> , 2008 , 516, 7135-7138	2.2	53
102	The Crucial Influence of Fullerene Phases on Photogeneration in Organic Bulk Heterojunction Solar Cells. <i>Advanced Energy Materials</i> , 2014 , 4, 1400922	21.8	48
101	Charge Transport in Pure and Mixed Phases in Organic Solar Cells. <i>Advanced Energy Materials</i> , 2017 , 7, 1700888	21.8	45
100	Enhance performance of organic solar cells based on an isoindigo-based copolymer by balancing absorption and miscibility of electron acceptor. <i>Applied Physics Letters</i> , 2011 , 99, 143302	3.4	44
99	Strong light-matter coupling for reduced photon energy losses in organic photovoltaics. <i>Nature Communications</i> , 2019 , 10, 3706	17.4	43
98	Toward bulk heterojunction polymer solar cells with thermally stable active layer morphology. <i>Journal of Photonics for Energy</i> , 2014 , 4, 040997	1.2	41
97	Reverse dark current in organic photodetectors and the major role of traps as source of noise. <i>Nature Communications</i> , 2021 , 12, 551	17.4	40
96	The Roles of Structural Order and Intermolecular Interactions in Determining Ionization Energies and Charge-Transfer State Energies in Organic Semiconductors. <i>Advanced Energy Materials</i> , 2016 , 6, 1601211	21.8	37
95	Direct Correlation of Charge Transfer Absorption with Molecular Donor:Acceptor Interfacial Area via Photothermal Deflection Spectroscopy. <i>Journal of the American Chemical Society</i> , 2015 , 137, 5256-9	16.4	36

94	Energy-Gap Law for Photocurrent Generation in Fullerene-Based Organic Solar Cells: The Case of Low-Donor-Content Blends. <i>Journal of the American Chemical Society</i> , 2019 , 141, 2329-2341	16.4	36
93	Effect of molecular weight on morphology and photovoltaic properties in P3HT:PCBM solar cells. <i>Organic Electronics</i> , 2015 , 21, 160-170	3.5	35
92	Efficient flexible organic photovoltaics using silver nanowires and polymer based transparent electrodes. <i>Organic Electronics</i> , 2016 , 36, 68-72	3.5	35
91	Intrinsic Detectivity Limits of Organic Near-Infrared Photodetectors. <i>Advanced Materials</i> , 2020 , 32, e2003818	3.18	35
90	Impact of Triplet Excited States on the Open-Circuit Voltage of Organic Solar Cells. <i>Advanced Energy Materials</i> , 2018 , 8, 1800451	21.8	33
89	Controlling Tamm Plasmons for Organic Narrowband Near-Infrared Photodetectors. <i>ACS Photonics</i> , 2017 , 4, 2228-2234	6.3	33
88	Fast Organic Near-Infrared Photodetectors Based on Charge-Transfer Absorption. <i>Journal of Physical Chemistry Letters</i> , 2017 , 8, 5621-5625	6.4	33
87	Ground-state charge-transfer complex formation in hybrid poly(3-hexyl thiophene):titanium dioxide solar cells. <i>Applied Physics Letters</i> , 2008 , 93, 223302	3.4	33
86	Charge Transfer Absorption and Emission at ZnO/Organic Interfaces. <i>Journal of Physical Chemistry Letters</i> , 2015 , 6, 500-4	6.4	32
85	Influence of side groups on the performance of infrared absorbing aza-BODIPY organic solar cells. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2015 , 212, 2747-2753	1.6	32
84	Near-infrared organic photodetectors based on bay-annulated indigo showing broadband absorption and high detectivities up to 1.1 Th. <i>Journal of Materials Chemistry C</i> , 2018 , 6, 11645-11650	7.1	31
83	Aza-BODIPY dyes with heterocyclic substituents and their derivatives bearing a cyanide co-ligand: NIR donor materials for vacuum-processed solar cells. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 10696-10703	1.3	28
82	Hole Transport in Low-Donor-Content Organic Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2018 , 9, 5496-5501	6.4	28
81	Polarization anisotropy of charge transfer absorption and emission of aligned polymer:fullerene blend films. <i>Physical Review B</i> , 2012 , 86,	3.3	27
80	The Cost of Converting Excitons into Free Charge Carriers in Organic Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2020 , 11, 129-135	6.4	27
79	PEDOT:PSS with embedded TiO ₂ nanoparticles as light trapping electrode for organic photovoltaics. <i>Applied Physics Letters</i> , 2016 , 108, 253302	3.4	27
78	Molecular vibrations reduce the maximum achievable photovoltage in organic solar cells. <i>Nature Communications</i> , 2020 , 11, 1488	17.4	26
77	Lead-Halide Perovskites Meet Donor-Acceptor Charge-Transfer Complexes. <i>Chemistry of Materials</i> , 2019 , 31, 6880-6888	9.6	26

76	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
75	Exciton Diffusion Length and Charge Extraction Yield in Organic Bilayer Solar Cells. <i>Advanced Materials</i> , 2017 , 29, 1604424	24	25
74	Revelation of Interfacial Energetics in Organic Multiheterojunctions. <i>Advanced Science</i> , 2017 , 4, 1600331	13.6	25
73	Manipulating the Charge Transfer Absorption for Narrowband Light Detection in the Near-Infrared. <i>Chemistry of Materials</i> , 2019 , 31, 9325-9330	9.6	25
72	Controlling Interdiffusion, Interfacial Composition, and Adhesion in Polymer Solar Cells. <i>Advanced Materials Interfaces</i> , 2014 , 1, 1400135	4.6	24
71	Orientation dependent molecular electrostatics drives efficient charge generation in homojunction organic solar cells. <i>Nature Communications</i> , 2020 , 11, 4617	17.4	24
70	Flexible, light trapping substrates for organic photovoltaics. <i>Applied Physics Letters</i> , 2016 , 109, 093301	3.4	24
69	Influence of Dopant Host Energy Level Offset on Thermoelectric Properties of Doped Organic Semiconductors. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 11730-11735	3.8	24
68	Excitons Dominate the Emission from PM6:Y6 Solar Cells, but This Does Not Help the Open-Circuit Voltage of the Device. <i>ACS Energy Letters</i> , 2021 , 6, 557-564	20.1	24
67	Efficient and readily tuneable near-infrared photodetection up to 1500 nm enabled by thiadiazoloquinoline-based push-pull type conjugated polymers. <i>Journal of Materials Chemistry C</i> , 2020 , 8, 10098-10103	7.1	23
66	Plasmon-Induced Sub-Bandgap Photodetection with Organic Schottky Diodes. <i>Advanced Functional Materials</i> , 2016 , 26, 5741-5747	15.6	23
65	Effect of H- and J-Aggregation on the Photophysical and Voltage Loss of Boron Dipyrromethene Small Molecules in Vacuum-Deposited Organic Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2019 , 10, 2684-2691	6.4	21
64	Organic Cavity Photodetectors Based on Nanometer-Thick Active Layers for Tunable Monochromatic Spectral Response. <i>ACS Photonics</i> , 2019 , 6, 1393-1399	6.3	21
63	Optical display film as flexible and light trapping substrate for organic photovoltaics. <i>Optics Express</i> , 2016 , 24, A974-80	3.3	21
62	Influence of Meso and Nanoscale Structure on the Properties of Highly Efficient Small Molecule Solar Cells. <i>Advanced Energy Materials</i> , 2016 , 6, 1501280	21.8	21
61	Boron dipyrromethene (BODIPY) with meso-perfluorinated alkyl substituents as near infrared donors in organic solar cells. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 18583-18591	13	21
60	Negligible Energy Loss During Charge Generation in Small-Molecule/Fullerene Bulk-Heterojunction Solar Cells Leads to Open-Circuit Voltage over 1.10 V. <i>ACS Applied Energy Materials</i> , 2019 , 2, 2717-2722	6.1	20
59	Influence of octanedithiol on the nanomorphology of PCPDTBT:PCBM blends studied by solid-state NMR. <i>Solar Energy Materials and Solar Cells</i> , 2012 , 96, 210-217	6.4	20

58	Temperature dependence of the spectral line-width of charge-transfer state emission in organic solar cells; static vs. dynamic disorder. <i>Materials Horizons</i> , 2020 , 7, 1888-1900	14.4	19
57	Characterizing the Polymer:Fullerene Intermolecular Interactions. <i>Chemistry of Materials</i> , 2016 , 28, 1446-1452	14.52	17
56	Full Electrothermal OLED Model Including Nonlinear Self-heating Effects. <i>Physical Review Applied</i> , 2018 , 10,	4.3	17
55	Charge Transfer States in Organic Donor-Acceptor Solar Cells. <i>Semiconductors and Semimetals</i> , 2011 , 85, 261-295	0.6	17
54	Water based preparation method for green solid-state polythiophene solar cells. <i>Thin Solid Films</i> , 2008 , 516, 7245-7250	2.2	17
53	Optical absorption by defect states in organic solar cells. <i>Journal of Non-Crystalline Solids</i> , 2006 , 352, 1656-1659	3.9	17
52	Elucidating Batch-to-Batch Variation Caused by Homocoupled Side Products in Solution-Processable Organic Solar Cells. <i>Chemistry of Materials</i> , 2016 , 28, 9088-9098	9.6	17
51	Mixed C60/C70 based fullerene acceptors in polymer bulk-heterojunction solar cells. <i>Organic Electronics</i> , 2012 , 13, 2856-2864	3.5	16
50	Miniaturized VIS-NIR Spectrometers Based on Narrowband and Tunable Transmission Cavity Organic Photodetectors with Ultrahigh Specific Detectivity above 10 Jones. <i>Advanced Materials</i> , 2021 , 33, e2102967	24	16
49	Confined organization of fullerene units along high polymer chains. <i>Journal of Materials Chemistry C</i> , 2013 , 1, 5747	7.1	15
48	Wavelength-Selective Organic Photodetectors. <i>Advanced Functional Materials</i> , 2021 , 31, 2104060	15.6	15
47	Density of states determination in organic donor-acceptor blend layers enabled by molecular doping. <i>Journal of Applied Physics</i> , 2015 , 117, 245501	2.5	14
46	Bipolar charge transport in fullerene molecules in a bilayer and blend of polyfluorene copolymer and fullerene. <i>Advanced Materials</i> , 2010 , 22, 1008-11	24	14
45	Degradation pathways in standard and inverted DBP-C based organic solar cells. <i>Scientific Reports</i> , 2019 , 9, 4024	4.9	13
44	Degradation of Sexithiophene Cascade Organic Solar Cells. <i>Advanced Energy Materials</i> , 2016 , 6, 1502432	21.8	13
43	Stacked Dual-Wavelength Near-Infrared Organic Photodetectors. <i>Advanced Optical Materials</i> , 2021 , 9, 2001784	8.1	13
42	Electrothermal Feedback and Absorption-Induced Open-Circuit-Voltage Turnover in Solar Cells. <i>Physical Review Applied</i> , 2018 , 9,	4.3	12
41	Polarization Imaging of Emissive Charge Transfer States in Polymer/Fullerene Blends. <i>Chemistry of Materials</i> , 2014 , 26, 6695-6704	9.6	12

40	Optical In-Coupling in Organic Solar Cells. <i>Small Methods</i> , 2018 , 2, 1800123	12.8	12
39	Narrow electroluminescence linewidths for reduced nonradiative recombination in organic solar cells and near-infrared light-emitting diodes. <i>Joule</i> , 2021 , 5, 2365-2379	27.8	12
38	A charge carrier transport model for donor-acceptor blend layers. <i>Journal of Applied Physics</i> , 2015 , 117, 045501	2.5	11
37	Doping-induced carrier profiles in organic semiconductors determined from capacitive extraction-current transients. <i>Scientific Reports</i> , 2017 , 7, 5397	4.9	11
36	Diketopyrrolopyrrole-based terpolymers with tunable broad band absorption for fullerene and fullerene-free polymer solar cells. <i>Journal of Materials Chemistry C</i> , 2019 , 7, 3375-3384	7.1	11
35	Enhancing sub-bandgap external quantum efficiency by photomultiplication for narrowband organic near-infrared photodetectors. <i>Nature Communications</i> , 2021 , 12, 4259	17.4	11
34	H-aggregated small molecular nanowires as near infrared absorbers for organic solar cells. <i>Organic Electronics</i> , 2017 , 45, 198-202	3.5	9
33	Built-in voltage of organic bulk heterojunction p-i-n solar cells measured by electroabsorption spectroscopy. <i>AIP Advances</i> , 2014 , 4, 047134	1.5	9
32	Alkyl Branching Position in Diketopyrrolopyrrole Polymers: Interplay between Fibrillar Morphology and Crystallinity and Their Effect on Photogeneration and Recombination in Bulk-Heterojunction Solar Cells. <i>Chemistry of Materials</i> , 2018 , 30, 6801-6809	9.6	9
31	Selectively absorbing small-molecule solar cells for self-powered electrochromic windows. <i>Nano Energy</i> , 2021 , 89, 106404	17.1	8
30	All-polymer solar cells based on photostable bis(perylene diimide) acceptor polymers. <i>Solar Energy Materials and Solar Cells</i> , 2019 , 196, 178-184	6.4	7
29	The effect of halogenation on PBDTT-TQxT based non-fullerene polymer solar cells [Chlorination vs fluorination. <i>Dyes and Pigments</i> , 2020 , 181, 108577	4.6	7
28	Benzothiadiazole triphenylamine as an efficient exciton blocking layer in small molecule based organic solar cells. <i>Sustainable Energy and Fuels</i> , 2018 , 2, 2296-2302	5.8	7
27	Highly sensitive spectroscopic characterization of inorganic and organic heterojunctions for solar cells. <i>EPJ Applied Physics</i> , 2006 , 36, 281-283	1.1	7
26	Increasing donor-acceptor spacing for reduced voltage loss in organic solar cells. <i>Nature Communications</i> , 2021 , 12, 6679	17.4	7
25	Heteroquinoid Merocyanine Dyes with High Thermal Stability as Absorber Materials in Vacuum-Processed Organic Solar Cells. <i>European Journal of Organic Chemistry</i> , 2019 , 2019, 845-851	3.2	7
24	Co-evaporant induced crystallization of zinc phthalocyanine:C60 blends for solar cells. <i>Organic Electronics</i> , 2015 , 27, 133-136	3.5	6
23	Field Effect versus Driving Force: Charge Generation in Small-Molecule Organic Solar Cells. <i>Advanced Energy Materials</i> , 2020 , 10, 2002124	21.8	6

22	Diffusion-enhanced exciton dissociation in single-material organic solar cells. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 20848-20853	3.6	6
21	Cavity-Enhanced Near-Infrared Organic Photodetectors Based on a Conjugated Polymer Containing [1,2,5]Selenadiazolo[3,4-c]Pyridine. <i>Chemistry of Materials</i> , 2021 , 33, 5147-5155	9.6	5
20	The role of spin in the degradation of organic photovoltaics. <i>Nature Communications</i> , 2021 , 12, 471	17.4	5
19	Experimental and theoretical study of phase separation in ZnPc:C60 blends. <i>Organic Electronics</i> , 2015 , 27, 183-191	3.5	4
18	Small Molecule Solar Cells. <i>Green Chemistry and Sustainable Technology</i> , 2018 , 1-43	1.1	4
17	Analysis of bulk heterojunction organic solar cell blends by solid-state NMR relaxometry and sensitive external quantum efficiency \square Impact of polymer side chain variation on nanoscale morphology. <i>Organic Electronics</i> , 2019 , 74, 309-314	3.5	4
16	Aza-BODIPY Derivatives Containing BF(CN) and B(CN) Moieties. <i>ChemPlusChem</i> , 2017 , 82, 190-194	2.8	4
15	Tuning Electronic and Morphological Properties for High-Performance Wavelength-Selective Organic Near-Infrared Cavity Photodetectors. <i>Advanced Functional Materials</i> , 2108146	15.6	4
14	Fluorine-containing low-energy-gap organic dyes with low voltage losses for organic solar cells. <i>Synthetic Metals</i> , 2016 , 222, 232-239	3.6	3
13	Ladder-type high gap conjugated polymers based on indacenodithieno[3,2-b]thiophene and bithiazole for organic photovoltaics. <i>Organic Electronics</i> , 2019 , 74, 211-217	3.5	3
12	Sub-bandgap laser annealing of room temperature deposited polycrystalline CdTe 2014 ,		3
11	Comparative study on the effects of alkylsilyl and alkylthio side chains on the performance of fullerene and non-fullerene polymer solar cells. <i>Organic Electronics</i> , 2020 , 77, 105572	3.5	2
10	Continuous Droplet Flow Synthesis of a Near-Infrared Responsive PushPull Copolymer toward Large Scale Implementation of Organic Photodetectors. <i>ACS Applied Polymer Materials</i> , 2020 , 2, 4373-4378	4.3	2
9	Vacuum-Deposited Microcavity Perovskite Photovoltaic Devices. <i>ACS Photonics</i> , 2021 , 8, 2067-2073	6.3	2
8	Near infrared laser annealing of CdTe and in-situ measurement of the evolution of structural and optical properties. <i>Journal of Applied Physics</i> , 2016 , 119, 165305	2.5	2
7	Organic Photovoltaics: Low Band Gap Polymer Solar Cells With Minimal Voltage Losses (Adv. Energy Mater. 18/2016). <i>Advanced Energy Materials</i> , 2016 , 6,	21.8	1
6	Solar Cells: Re-evaluating the Role of Sterics and Electronic Coupling in Determining the Open-Circuit Voltage of Organic Solar Cells (Adv. Mater. 42/2013). <i>Advanced Materials</i> , 2013 , 25, 5990-5990	24	1
5	Light trapping for flexible organic photovoltaics 2016 ,		1

4	A PDTPQx:PC61BM blend with pronounced charge-transfer absorption for organic resonant cavity photodetectors via direct arylation polymerization vs. Stille polycondensation. <i>Dyes and Pigments</i> , 2022 , 200, 110130	4.6	o
3	Accurate reconstruction of the jV-characteristic of organic solar cells from measurements of the external quantum efficiency. <i>Journal of Applied Physics</i> , 2018 , 123, 134501	2.5	
2	Organic Solar Cells: On the Efficiency of Charge Transfer State Splitting in Polymer:Fullerene Solar Cells (Adv. Mater. 16/2014). <i>Advanced Materials</i> , 2014 , 26, 2607-2607	24	
1	Organic and Hybrid Photodetectors. <i>World Scientific Series in Nanoscience and Nanotechnology</i> , 2019 , 213-241	0.1	