

Frederik C Krebs

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

183 papers	18,048 citations	64 h-index	133 g-index
199 ext. papers	19,142 ext. citations	12.3 avg, IF	7.06 L-index

#	Paper	IF	Citations
183	The teraton challenge. A review of fixation and transformation of carbon dioxide. <i>Energy and Environmental Science</i> , 2010 , 3, 43-81	35.4	1614
182	Roll-to-roll fabrication of polymer solar cells. <i>Materials Today</i> , 2012 , 15, 36-49	21.8	1105
181	A roll-to-roll process to flexible polymer solar cells: model studies, manufacture and operational stability studies. <i>Journal of Materials Chemistry</i> , 2009 , 19, 5442		1098
180	Upscaling of polymer solar cell fabrication using full roll-to-roll processing. <i>Nanoscale</i> , 2010 , 2, 873-86	7.7	902
179	Roll-to-Roll fabrication of large area functional organic materials. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2013 , 51, 16-34	2.6	784
178	Advanced materials and processes for polymer solar cell devices. <i>Journal of Materials Chemistry</i> , 2010 , 20, 36-60		714
177	25th anniversary article: Rise to power--OPV-based solar parks. <i>Advanced Materials</i> , 2014 , 26, 29-38	24	653
176	Product integration of compact roll-to-roll processed polymer solar cell modules: methods and manufacture using flexographic printing, slot-die coating and rotary screen printing. <i>Journal of Materials Chemistry</i> , 2010 , 20, 8994		561
175	Manufacture, integration and demonstration of polymer solar cells in a lamp for the Lighting Africa Initiative. <i>Energy and Environmental Science</i> , 2010 , 3, 512	35.4	452
174	Solar cells with one-day energy payback for the factories of the future. <i>Energy and Environmental Science</i> , 2012 , 5, 5117-5132	35.4	416
173	A life cycle analysis of polymer solar cell modules prepared using roll-to-roll methods under ambient conditions. <i>Solar Energy Materials and Solar Cells</i> , 2011 , 95, 1293-1302	6.4	280
172	Upscaling of Perovskite Solar Cells: Fully Ambient Roll Processing of Flexible Perovskite Solar Cells with Printed Back Electrodes. <i>Advanced Energy Materials</i> , 2015 , 5, 1500569	21.8	258
171	Economic assessment of solar electricity production from organic-based photovoltaic modules in a domestic environment. <i>Energy and Environmental Science</i> , 2011 , 4, 3741	35.4	258
170	Comparative Indoor and Outdoor Degradation of Organic Photovoltaic Cells via Inter-laboratory Collaboration. <i>Polymers</i> , 2015 , 8,	4.5	235
169	Scalable, ambient atmosphere roll-to-roll manufacture of encapsulated large area, flexible organic tandem solar cell modules. <i>Energy and Environmental Science</i> , 2014 , 7, 2925	35.4	224
168	Photochemical stability of π -conjugated polymers for polymer solar cells: a rule of thumb. <i>Journal of Materials Chemistry</i> , 2011 , 21, 4132		224
167	Fabrication of Polymer Solar Cells Using Aqueous Processing for All Layers Including the Metal Back Electrode. <i>Advanced Energy Materials</i> , 2011 , 1, 68-71	21.8	209

166	Roll-to-Roll Inkjet Printing and Photonic Sintering of Electrodes for ITO Free Polymer Solar Cell Modules and Facile Product Integration. <i>Advanced Energy Materials</i> , 2013 , 3, 172-175	21.8	207
165	Fast Inline Roll-to-Roll Printing for Indium-Tin-Oxide-Free Polymer Solar Cells Using Automatic Registration. <i>Energy Technology</i> , 2013 , 1, 102-107	3.5	196
164	Development and Manufacture of Polymer-Based Electrochromic Devices. <i>Advanced Functional Materials</i> , 2015 , 25, 2073-2090	15.6	189
163	Ultra fast and parsimonious materials screening for polymer solar cells using differentially pumped slot-die coating. <i>ACS Applied Materials & Interfaces</i> , 2010 , 2, 2819-27	9.5	182
162	The OE-A OPV demonstrator anno domini 2011. <i>Energy and Environmental Science</i> , 2011 , 4, 4116	35.4	177
161	Solution and vapour deposited lead perovskite solar cells: Ecotoxicity from a life cycle assessment perspective. <i>Solar Energy Materials and Solar Cells</i> , 2015 , 137, 303-310	6.4	161
160	Tin- and Lead-Based Perovskite Solar Cells under Scrutiny: An Environmental Perspective. <i>Advanced Energy Materials</i> , 2015 , 5, 1501119	21.8	157
159	Cost analysis of roll-to-roll fabricated ITO free single and tandem organic solar modules based on data from manufacture. <i>Energy and Environmental Science</i> , 2014 , 7, 2792	35.4	151
158	Flexible ITO-free polymer solar cells. <i>Journal of Applied Polymer Science</i> , 2013 , 129, 1-14	2.9	145
157	Large-scale roll-to-roll photonic sintering of flexo printed silver nanoparticle electrodes. <i>Journal of Materials Chemistry</i> , 2012 , 22, 15683		130
156	A simple nanostructured polymer/ZnO hybrid solar cell-preparation and operation in air. <i>Nanotechnology</i> , 2008 , 19, 424013	3.4	129
155	Scalability and stability of very thin, roll-to-roll processed, large area, indium-tin-oxide free polymer solar cell modules. <i>Organic Electronics</i> , 2013 , 14, 984-994	3.5	122
154	Low Band Gap Polymers for Roll-to-Roll Coated Polymer Solar Cells. <i>Macromolecules</i> , 2010 , 43, 8115-8120	2.5	121
153	Investigation of the degradation mechanisms of a variety of organic photovoltaic devices by combination of imaging techniquesThe ISOS-3 inter-laboratory collaboration. <i>Energy and Environmental Science</i> , 2012 , 5, 6521	35.4	116
152	Interfacial engineering of self-assembled monolayer modified semi-roll-to-roll planar heterojunction perovskite solar cells on flexible substrates. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 24254-24260	13	115
151	Freely available OPV—the fast way to progress. <i>Energy Technology</i> , 2013 , 1, 378-381	3.5	114
150	From the bottom up—flexible solid state electrochromic devices. <i>Advanced Materials</i> , 2014 , 26, 7231-4	24	112
149	Current Collecting Grids for ITO-Free Solar Cells. <i>Advanced Energy Materials</i> , 2012 , 2, 103-110	21.8	106

148	Practical evaluation of organic polymer thermoelectrics by large-area R2R processing on flexible substrates. <i>Energy Science and Engineering</i> , 2013 , 1, 81-88	3.4	105
147	Lifetime of Organic Photovoltaics: Status and Predictions. <i>Advanced Energy Materials</i> , 2016 , 6, 1501208	21.8	104
146	The ISOS-3 inter-laboratory collaboration focused on the stability of a variety of organic photovoltaic devices. <i>RSC Advances</i> , 2012 , 2, 882-893	3.7	102
145	Mechanical Properties of a Library of Low-Band-Gap Polymers. <i>Chemistry of Materials</i> , 2016 , 28, 2363-2373	3.6	101
144	Environmentally Printing Efficient Organic Tandem Solar Cells with High Fill Factors: A Guideline Towards 20% Power Conversion Efficiency. <i>Advanced Energy Materials</i> , 2014 , 4, 1400084	21.8	101
143	Electrical and Photo-Induced Degradation of ZnO Layers in Organic Photovoltaics. <i>Advanced Energy Materials</i> , 2011 , 1, 836-843	21.8	101
142	Fast Switching ITO Free Electrochromic Devices. <i>Advanced Functional Materials</i> , 2014 , 24, 1228-1233	15.6	91
141	Using light-induced thermocleavage in a roll-to-roll process for polymer solar cells. <i>ACS Applied Materials & Interfaces</i> , 2010 , 2, 877-87	9.5	91
140	Towards 15% energy conversion efficiency: a systematic study of the solution-processed organic tandem solar cells based on commercially available materials. <i>Energy and Environmental Science</i> , 2013 , 6, 3407	35.4	90
139	Roll-to-Roll Printed Silver Nanowire Semitransparent Electrodes for Fully Ambient Solution-Processed Tandem Polymer Solar Cells. <i>Advanced Functional Materials</i> , 2015 , 25, 4539-4547	15.6	90
138	A laboratory scale approach to polymer solar cells using one coating/printing machine, flexible substrates, no ITO, no vacuum and no spincoating. <i>Solar Energy Materials and Solar Cells</i> , 2013 , 108, 126-128	6.1	89
137	Upscaling from single cells to modules (Fabrication of vacuum- and ITO-free polymer solar cells on flexible substrates with long lifetime. <i>Journal of Materials Chemistry C</i> , 2014 , 2, 1290-1297	7.1	88
136	Manufacture and demonstration of organic photovoltaic-powered electrochromic displays using roll coating methods and printable electrolytes. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2012 , 50, 536-545	2.6	88
135	All printed transparent electrodes through an electrical switching mechanism: A convincing alternative to indium-tin-oxide, silver and vacuum. <i>Energy and Environmental Science</i> , 2012 , 5, 9467	35.4	87
134	Life-cycle analysis of product integrated polymer solar cells. <i>Energy and Environmental Science</i> , 2011 , 4, 1547	35.4	83
133	It is all in the Pattern: High-Efficiency Power Extraction from Polymer Solar Cells through High-Voltage Serial Connection. <i>Energy Technology</i> , 2013 , 1, 15-19	3.5	80
132	Simple roll coater with variable coating and temperature control for printed polymer solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2012 , 97, 191-196	6.4	78
131	Comparison of UV-Curing, Hotmelt, and Pressure Sensitive Adhesive as Roll-to-Roll Encapsulation Methods for Polymer Solar Cells. <i>Advanced Engineering Materials</i> , 2013 , 15, 1068-1075	3.5	77

130	Air-processed organic tandem solar cells on glass: toward competitive operating lifetimes. <i>Energy and Environmental Science</i> , 2015 , 8, 169-176	35.4	76
129	Roll-to-roll printed silver nanowires for increased stability of flexible ITO-free organic solar cell modules. <i>Nanoscale</i> , 2016 , 8, 318-26	7.7	75
128	Roll-Coated Fabrication of Fullerene-Free Organic Solar Cells with Improved Stability. <i>Advanced Science</i> , 2015 , 2, 1500096	13.6	75
127	OPV for mobile applications: an evaluation of roll-to-roll processed indium and silver free polymer solar cells through analysis of life cycle, cost and layer quality using inline optical and functional inspection tools. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 7037	13	74
126	Roll-coating fabrication of flexible organic solar cells: comparison of fullerene and fullerene-free systems. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 1044-1051	13	73
125	Photochemical stability of conjugated polymers, electron acceptors and blends for polymer solar cells resolved in terms of film thickness and absorbance. <i>Journal of Materials Chemistry</i> , 2012 , 22, 7592		73
124	Solution processed large area fabrication of Ag patterns as electrodes for flexible heaters, electrochromics and organic solar cells. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 10930	13	69
123	Flexible organic tandem solar modules with 6% efficiency: combining roll-to-roll compatible processing with high geometric fill factors. <i>Energy and Environmental Science</i> , 2014 , 7, 3284-3290	35.4	69
122	Poly(3-hexylthiophene)/ZnO hybrid pn junctions for microelectronics applications. <i>Applied Physics Letters</i> , 2009 , 94, 143501	3.4	69
121	Roll-to-Roll Processing of Inverted Polymer Solar Cells using Hydrated Vanadium(V)Oxide as a PEDOT:PSS Replacement. <i>Materials</i> , 2011 , 4, 169-182	3.5	68
120	A rational method for developing and testing stable flexible indium- and vacuum-free multilayer tandem polymer solar cells comprising up to twelve roll processed layers. <i>Solar Energy Materials and Solar Cells</i> , 2014 , 120, 735-743	6.4	66
119	The Critical Choice of PEDOT:PSS Additives for Long Term Stability of Roll-to-Roll Processed OPVs. <i>Advanced Energy Materials</i> , 2015 , 5, 1401912	21.8	63
118	Slot-Die Coating of a High Performance Copolymer in a Readily Scalable Roll Process for Polymer Solar Cells. <i>Advanced Energy Materials</i> , 2013 , 3, 1664-1669	21.8	62
117	High-Volume Processed, ITO-Free Superstrates and Substrates for Roll-to-Roll Development of Organic Electronics. <i>Advanced Science</i> , 2014 , 1, 1400002	13.6	62
116	Roll-to-roll coated PBI membranes for high temperature PEM fuel cells. <i>Energy and Environmental Science</i> , 2012 , 5, 6076	35.4	62
115	Effects of concentrated sunlight on organic photovoltaics. <i>Applied Physics Letters</i> , 2010 , 96, 073501	3.4	61
114	Over 2 Years of Outdoor Operational and Storage Stability of ITO-Free, Fully Roll-to-Roll Fabricated Polymer Solar Cell Modules. <i>Energy Technology</i> , 2015 , 3, 774-783	3.5	59
113	Development of Lab-to-Fab Production Equipment Across Several Length Scales for Printed Energy Technologies, Including Solar Cells. <i>Energy Technology</i> , 2015 , 3, 293-304	3.5	59

112	Quality control of roll-to-roll processed polymer solar modules by complementary imaging methods. <i>Solar Energy Materials and Solar Cells</i> , 2012 , 97, 176-180	6.4	55
111	Ambient roll-to-roll fabrication of flexible solar cells based on small molecules. <i>Journal of Materials Chemistry C</i> , 2013 , 1, 8007	7.1	55
110	Origin of size effect on efficiency of organic photovoltaics. <i>Journal of Applied Physics</i> , 2011 , 109, 074508	2.5	55
109	New Insights into the Mechanisms of Photodegradation/Stabilization of P3HT:PCBM Active Layers Using Poly(3-hexyl-d13-Thiophene). <i>Chemistry of Materials</i> , 2013 , 25, 4522-4528	9.6	54
108	Direct Photopatterning of Electrochromic Polymers. <i>Advanced Functional Materials</i> , 2013 , 23, 3728-3737	15.6	53
107	Inkjet Printing of Back Electrodes for Inverted Polymer Solar Cells. <i>Advanced Energy Materials</i> , 2013 , 3, 1230-1237	21.8	52
106	Technological status of organic photovoltaics (OPV). <i>Solar Energy Materials and Solar Cells</i> , 2013 , 119, 309-310	6.4	50
105	In-line, roll-to-roll morphology analysis of organic solar cell active layers. <i>Energy and Environmental Science</i> , 2017 , 10, 2411-2419	35.4	48
104	Matrix Organization and Merit Factor Evaluation as a Method to Address the Challenge of Finding a Polymer Material for Roll Coated Polymer Solar Cells. <i>Advanced Energy Materials</i> , 2015 , 5, 1402186	21.8	47
103	New Low-Bandgap Materials with Good Stabilities and Efficiencies Comparable to P3HT in R2R-Coated Solar Cells. <i>Advanced Energy Materials</i> , 2012 , 2, 415-418	21.8	47
102	Enabling Flexible Polymer Tandem Solar Cells by 3D Ptychographic Imaging. <i>Advanced Energy Materials</i> , 2015 , 5, 1400736	21.8	46
101	Scaling Up ITO-Free Solar Cells. <i>Advanced Energy Materials</i> , 2014 , 4, 1300498	21.8	45
100	Round-Robin Studies as a Method for Testing and Validating High-Efficiency ITO-Free Polymer Solar Cells Based on Roll-to-Roll-Coated Highly Conductive and Transparent Flexible Substrates. <i>Advanced Energy Materials</i> , 2012 , 2, 1091-1094	21.8	45
99	Comparative studies of photochemical cross-linking methods for stabilizing the bulk hetero-junction morphology in polymer solar cells. <i>Journal of Materials Chemistry</i> , 2012 , 22, 24417		44
98	Making Ends Meet: Flow Synthesis as the Answer to Reproducible High-Performance Conjugated Polymers on the Scale that Roll-to-Roll Processing Demands. <i>Advanced Energy Materials</i> , 2015 , 5, 1401996	21.8	43
97	Outdoor Operational Stability of Indium-Free Flexible Polymer Solar Modules Over 1 Year Studied in India, Holland, and Denmark. <i>Advanced Engineering Materials</i> , 2014 , 16, 976-987	3.5	43
96	Efficient decommissioning and recycling of polymer solar cells: justification for use of silver. <i>Energy and Environmental Science</i> , 2014 , 7, 1006-1012	35.4	42
95	Ecodesign perspectives of thin-film photovoltaic technologies: A review of life cycle assessment studies. <i>Solar Energy Materials and Solar Cells</i> , 2016 , 156, 2-10	6.4	41

94	In-situ, long-term operational stability of organic photovoltaics for off-grid applications in Africa. <i>Solar Energy Materials and Solar Cells</i> , 2016 , 149, 284-293	6.4	40
93	Roll-coating fabrication of flexible large area small molecule solar cells with power conversion efficiency exceeding 1%. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 19809-19814	13	40
92	Photochemical stability of electrochromic polymers and devices. <i>Journal of Materials Chemistry C</i> , 2013 , 1, 4826	7.1	40
91	Fast printing of thin, large area, ITO free electrochromics on flexible barrier foil. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2013 , 51, 132-136	2.6	40
90	Incorporation of ester groups into low band-gap diketopyrrolopyrrole containing polymers for solar cell applications. <i>Journal of Materials Chemistry</i> , 2012 , 22, 15710		40
89	Ellipsometry as a Nondestructive Depth Profiling Tool for Roll-to-Roll Manufactured Flexible Solar Cells. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 10817-10822	3.8	39
88	Fullerene alloy formation and the benefits for efficient printing of ternary blend organic solar cells. <i>Journal of Materials Chemistry C</i> , 2015 , 3, 5541-5548	7.1	38
87	Baselines for Lifetime of Organic Solar Cells. <i>Advanced Energy Materials</i> , 2016 , 6, 1600910	21.8	38
86	2D Characterization of OPV from Single and Tandem Cells to Fully Roll-to-Roll Processed Modules with and without Electrical Contact. <i>Advanced Optical Materials</i> , 2014 , 2, 465-477	8.1	37
85	Flexible ITO-free organic solar cells applying aqueous solution-processed V2O5 hole transport layer: An outdoor stability study. <i>APL Materials</i> , 2016 , 4, 026104	5.7	36
84	A comparative study of fluorine substituents for enhanced stability of flexible and ITO-free high-performance polymer solar cells. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2014 , 52, 893-899	2.6	33
83	Rapid flash annealing of thermally reactive copolymers in a roll-to-roll process for polymer solar cells. <i>Polymer Chemistry</i> , 2012 , 3, 2649	4.9	33
82	The influence of additives on the morphology and stability of roll-to-roll processed polymer solar cells studied through ex situ and in situ X-ray scattering. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 18644-18654	13	32
81	A self-calibrating led-based solar test platform. <i>Progress in Photovoltaics: Research and Applications</i> , 2011 , 19, 97-112	6.8	32
80	The Organic Power Transistor: Roll-to-Roll Manufacture, Thermal Behavior, and Power Handling When Driving Printed Electronics. <i>Advanced Engineering Materials</i> , 2016 , 18, 51-55	3.5	32
79	Ecodesign of organic photovoltaic modules from Danish and Chinese perspectives. <i>Energy and Environmental Science</i> , 2015 , 8, 2537-2550	35.4	31
78	Thermally reactive Thiazolo[5,4-d]thiazole based copolymers for high photochemical stability in polymer solar cells. <i>Polymer Chemistry</i> , 2011 , 2, 2536	4.9	31
77	Outdoor fate and environmental impact of polymer solar cells through leaching and emission to rainwater and soil. <i>Energy and Environmental Science</i> , 2016 , 9, 1674-1680	35.4	31

76	Comparison of additive amount used in spin-coated and roll-coated organic solar cells. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 19542-19549	13	30
75	Synthesis and photovoltaic properties from inverted geometry cells and roll-to-roll coated large area cells from dithienopyrrole-based donor-acceptor polymers. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 1785-1793	13	30
74	Influence of Side Chain Position on the Electrical Properties of Organic Solar Cells Based on Dithienylbenzothiadiazole-alt-phenylene Conjugated Polymers. <i>Macromolecules</i> , 2015 , 48, 3481-3492	5.5	29
73	Cost-competitiveness of organic photovoltaics for electricity self-consumption at residential buildings: A comparative study of Denmark and Greece under real market conditions. <i>Applied Energy</i> , 2017 , 208, 471-479	10.7	28
72	Three dimensional corrugated organic photovoltaics for building integration; improving the efficiency, oblique angle and diffuse performance of solar cells. <i>Energy and Environmental Science</i> , 2015 , 8, 3266-3273	35.4	28
71	Life cycle analysis of organic tandem solar cells: When are they warranted?. <i>Solar Energy Materials and Solar Cells</i> , 2014 , 120, 692-700	6.4	28
70	Determining the coating speed limitations for organic photovoltaic inks. <i>Solar Energy Materials and Solar Cells</i> , 2013 , 109, 120-125	6.4	28
69	Influence of the Annealing Temperature on the Photovoltaic Performance and Film Morphology Applying Novel Thermocleavable Materials. <i>Chemistry of Materials</i> , 2010 , 22, 5617-5624	9.6	28
68	Predicting, categorizing and intercomparing the lifetime of OPVs for different ageing tests. <i>Solar Energy Materials and Solar Cells</i> , 2014 , 130, 99-106	6.4	27
67	A novel benzodipyrrolidone-based low band gap polymer for organic solar cells. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 10116	13	27
66	Structure and crystallinity of water dispersible photoactive nanoparticles for organic solar cells. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 17022-17031	13	26
65	Low-cost upscaling compatibility of five different ITO-free architectures for polymer solar cells. <i>Journal of Applied Polymer Science</i> , 2013 , 130, 944-954	2.9	26
64	Inside or Outside? Linking Outdoor and Indoor Lifetime Tests of ITO-Free Organic Photovoltaic Devices for Greenhouse Applications. <i>Energy Technology</i> , 2017 , 5, 338-344	3.5	26
63	High-throughput roll-to-roll X-ray characterization of polymer solar cell active layers. <i>Journal of Materials Chemistry</i> , 2012 , 22, 22501		25
62	Conjugated 12 nm long oligomers as molecular wires in nanoelectronics. <i>Journal of Materials Chemistry</i> , 2009 , 19, 3899		25
61	In situ monitoring of structure formation in the active layer of polymer solar cells during roll-to-roll coating. <i>AIP Advances</i> , 2014 , 4, 087105	1.5	24
60	All-Solution-Processed, Ambient Method for ITO-Free, Roll-Coated Tandem Polymer Solar Cells using Solution-Processed Metal Films. <i>Energy Technology</i> , 2014 , 2, 651-659	3.5	24
59	Influence of processing and intrinsic polymer parameters on photochemical stability of polythiophene thin films. <i>Polymer Degradation and Stability</i> , 2012 , 97, 2412-2417	4.7	24

58	Slot-Die-Coated V2O5 as Hole Transport Layer for Flexible Organic Solar Cells and Optoelectronic Devices . <i>Advanced Engineering Materials</i> , 2016 , 18, 1494-1503	3.5	24
57	Cyclopolymerization-derived block-copolymers of 4,4-bis(octyloxymethyl)-1,6-heptadiyne with 4,4-dipropargyl malonodinitrile for use in photovoltaics. <i>Polymer Chemistry</i> , 2013 , 4, 1590-1599	4.9	23
56	Comparison of Fast Roll-to-Roll Flexographic, Inkjet, Flatbed, and Rotary Screen Printing of Metal Back Electrodes for Polymer Solar Cells. <i>Advanced Engineering Materials</i> , 2013 , 15, n/a-n/a	3.5	23
55	Advanced Functional Polymers for Increasing the Stability of Organic Photovoltaics. <i>Macromolecular Chemistry and Physics</i> , 2013 , 214, 1546-1558	2.6	22
54	Roll-coating fabrication of ITO-free flexible solar cells based on a non-fullerene small molecule acceptor. <i>RSC Advances</i> , 2015 , 5, 36001-36006	3.7	21
53	An isoindigo containing donor-acceptor polymer: synthesis and photovoltaic properties of all-solution-processed ITO- and vacuum-free large area roll-coated single junction and tandem solar cells. <i>Journal of Materials Chemistry C</i> , 2015 , 3, 1633-1639	7.1	20
52	Conjugated Polymers Via Direct Arylation Polymerization in Continuous Flow: Minimizing the Cost and Batch-to-Batch Variations for High-Throughput Energy Conversion. <i>Macromolecular Rapid Communications</i> , 2017 , 38, 1700526	4.8	19
51	In situ X-ray scattering of perovskite solar cell active layers roll-to-roll coated on flexible substrates. <i>CrystEngComm</i> , 2016 , 18, 5083-5088	3.3	19
50	Failure Modes and Fast Repair Procedures in High Voltage Organic Solar Cell Installations. <i>Advanced Energy Materials</i> , 2014 , 4, 1301625	21.8	19
49	Concentrated Light for Accelerated Photo Degradation of Polymer Materials. <i>Advanced Energy Materials</i> , 2013 , 3, 424-427	21.8	19
48	Highly Conformal Ni Micromesh as a Current Collecting Front Electrode for Reduced Cost Si Solar Cell. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 8634-8640	9.5	18
47	Which Electrode Materials to Select for More Environmentally Friendly Organic Photovoltaics?. <i>Advanced Engineering Materials</i> , 2016 , 18, 490-495	3.5	17
46	Photochemical stability and photovoltaic performance of low-band gap polymers based on dithiophene with different bridging atoms. <i>Polymer Chemistry</i> , 2011 , 2, 1355	4.9	16
45	Improving the Operational Stability of PBDDTTz-4 Polymer Solar Cells Modules by Electrode Modification. <i>Advanced Engineering Materials</i> , 2016 , 18, 511-517	3.5	15
44	Role of Stress Factors on the Adhesion of Interfaces in R2R Fabricated Organic Photovoltaics. <i>Advanced Energy Materials</i> , 2016 , 6, 1501927	21.8	14
43	Digital grayscale printing for patterned transparent conducting Ag electrodes and their applications in flexible electronics. <i>Journal of Materials Chemistry C</i> , 2014 , 2, 2112	7.1	14
42	Synthesis and characterization of new electron-withdrawing moiety thieno[2,3-c]pyrrole-4,6-dione-based molecules for small molecule solar cells. <i>Dyes and Pigments</i> , 2013 , 97, 141-147	4.6	14
41	Comparison of two types of vertically aligned ZnO NRs for highly efficient polymer solar cells. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2013 , 51, 272-280	2.6	14

40	The solar textile challenge: how it will not work and where it might. <i>ChemSusChem</i> , 2015 , 8, 966-9	8.3	14
39	Low-temperature side-chain cleavage and decarboxylation of polythiophene esters by acid catalysis. <i>Journal of Polymer Science Part A</i> , 2012 , 50, 1127-1132	2.5	14
38	Preorganization of Nanostructured Inks for Roll-to-Roll-Coated Polymer Solar Cells. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2010 , 16, 1821-1826	3.8	14
37	Bipolar polaron pair recombination in polymer/fullerene solar cells. <i>Physical Review B</i> , 2015 , 92,	3.3	13
36	Flow Synthesis of Silver Nanowires for Semitransparent Solar Cell Electrodes: A Life Cycle Perspective. <i>ChemSusChem</i> , 2016 , 9, 893-9	8.3	13
35	Model of Organic Solar Cell Photocurrent Including the Effect of Charge Accumulation at Interfaces and Non-Uniform Carrier Generation. <i>IEEE Journal of the Electron Devices Society</i> , 2016 , 4, 387-395	2.3	12
34	Roll coated large area ITO- and vacuum-free all organic solar cells from diketopyrrolopyrrole based non-fullerene acceptors with molecular geometry effects. <i>RSC Advances</i> , 2016 , 6, 41542-41550	3.7	11
33	Medium area, flexible single and tandem junction solar cells based on roll coated semi-random copolymers. <i>Journal of Materials Chemistry C</i> , 2014 , 2, 9412-9415	7.1	10
32	Fine tuning the HOMO energy levels of polythieno[3,4-b]thiophene derivatives by incorporation of thiophene-3,4-dicarboxylate moiety for photovoltaic applications. <i>Synthetic Metals</i> , 2012 , 162, 2005-2009	3.6	10
31	Round-Robin Studies on Roll-Processed ITO-free Organic Tandem Solar Cells Combined with Inter-Laboratory Stability Studies. <i>Energy Technology</i> , 2015 , 3, 423-427	3.5	7
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