Frederik C Krebs

List of Publications by Year in Descending Order

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	A Novel Algorithm for Lifetime Extrapolation, Prediction, and Estimation of Emerging PV Technologies. *Small Methods*, **2018**, 2, 1700285	12.8	3
182	Highly Conformal Ni Micromesh as a Current Collecting Front Electrode for Reduced Cost Si Solar Cell. *ACS Applied Materials & Interfaces*, **2017**, 9, 8634-8640	9.5	18
181	Life-Cycle Assessment of Solar Charger with Integrated Organic Photovoltaics. *Advanced Engineering Materials*, **2017**, 19, 1700124	3.5	4
180	In-line, roll-to-roll morphology analysis of organic solar cell active layers. *Energy and Environmental Science*, **2017**, 10, 2411-2419	35.4	48
179	Conjugated Polymers Via Direct Arylation Polymerization in Continuous Flow: Minimizing the Cost and Batch-to-Batch Variations for High-Throughput Energy Conversion. *Macromolecular Rapid Communications*, **2017**, 38, 1700526	4.8	19
178	Cost-competitiveness of organic photovoltaics for electricity self-consumption at residential buildings: A comparative study of Denmark and Greece under real market conditions. *Applied Energy*, **2017**, 208, 471-479	10.7	28
177	In situ electrical and thermal monitoring of printed electronics by two-photon mapping. *Scientific Reports*, **2017**, 7, 3787	4.9	5
176	Inside or Outside? Linking Outdoor and Indoor Lifetime Tests of ITO-Free Organic Photovoltaic Devices for Greenhouse Applications. *Energy Technology*, **2017**, 5, 338-344	3.5	26
175	Baselines for Lifetime of Organic Solar Cells. *Advanced Energy Materials*, **2016**, 6, 1600910	21.8	38
174	Model of Organic Solar Cell Photocurrent Including the Effect of Charge Accumulation at Interfaces and Non-Uniform Carrier Generation. *IEEE Journal of the Electron Devices Society*, **2016**, 4, 387-395	2.3	12
173	In situ X-ray scattering of perovskite solar cell active layers roll-to-roll coated on flexible substrates. *CrystEngComm*, **2016**, 18, 5083-5088	3.3	19
172	Ecodesign perspectives of thin-film photovoltaic technologies: A review of life cycle assessment studies. *Solar Energy Materials and Solar Cells*, **2016**, 156, 2-10	6.4	41
171	Improving the Operational Stability of PBDTTTz-4 Polymer Solar Cells Modules by Electrode Modification. *Advanced Engineering Materials*, **2016**, 18, 511-517	3.5	15
170	Lifetime of Organic Photovoltaics: Status and Predictions. *Advanced Energy Materials*, **2016**, 6, 1501208	21.8	104
169	Role of Stress Factors on the Adhesion of Interfaces in R2R Fabricated Organic Photovoltaics. *Advanced Energy Materials*, **2016**, 6, 1501927	21.8	14
168	Roll-coating fabrication of flexible organic solar cells: comparison of fullerene and fullerene-free systems. *Journal of Materials Chemistry A*, **2016**, 4, 1044-1051	13	73
167	Mechanical Properties of a Library of Low-Band-Gap Polymers. *Chemistry of Materials*, **2016**, 28, 2363-2373	9.6	101

166	Introduction to the Issue on Organic Nanophotonics. *IEEE Journal of Selected Topics in Quantum Electronics*, **2016**, 22, 3-5	3.8	
165	In-situ, long-term operational stability of organic photovoltaics for off-grid applications in Africa. *Solar Energy Materials and Solar Cells*, **2016**, 149, 284-293	6.4	40
164	Roll-to-roll printed silver nanowires for increased stability of flexible ITO-free organic solar cell modules. *Nanoscale*, **2016**, 8, 318-26	7.7	75
163	Which Electrode Materials to Select for More Environmentally Friendly Organic Photovoltaics?. *Advanced Engineering Materials*, **2016**, 18, 490-495	3.5	17
162	Flow Synthesis of Silver Nanowires for Semitransparent Solar Cell Electrodes: A Life Cycle Perspective. *ChemSusChem*, **2016**, 9, 893-9	8.3	13
161	Slot-Die-Coated V2O5 as Hole Transport Layer for Flexible Organic Solar Cells and Optoelectronic Devices . *Advanced Engineering Materials*, **2016**, 18, 1494-1503	3.5	24
160	Flexible ITO-free organic solar cells applying aqueous solution-processed V2O5 hole transport layer: An outdoor stability study. *APL Materials*, **2016**, 4, 026104	5.7	36
159	Roll coated large area ITO- and vacuum-free all organic solar cells from diketopyrrolopyrrole based non-fullerene acceptors with molecular geometry effects. *RSC Advances*, **2016**, 6, 41542-41550	3.7	11
158	Outdoor fate and environmental impact of polymer solar cells through leaching and emission to rainwater and soil. *Energy and Environmental Science*, **2016**, 9, 1674-1680	35.4	31
157	Novel high band gap pendant-borylated carbazole polymers with deep HOMO levels through direct +NB□nteraction for organic photovoltaics. *Journal of Materials Chemistry C*, **2016**, 4, 4393-4401	7.1	5
156	Application of Photocurrent Model on Polymer Solar Cells Under Forward Bias Stress. *IEEE Journal of Photovoltaics*, **2016**, 6, 1542-1548	3.7	3
155	The Organic Power Transistor: Roll-to-Roll Manufacture, Thermal Behavior, and Power Handling When Driving Printed Electronics. *Advanced Engineering Materials*, **2016**, 18, 51-55	3.5	32
154	Matrix Organization and Merit Factor Evaluation as a Method to Address the Challenge of Finding a Polymer Material for Roll Coated Polymer Solar Cells. *Advanced Energy Materials*, **2015**, 5, 1402186	21.8	47
153	Development and Manufacture of Polymer-Based Electrochromic Devices. *Advanced Functional Materials*, **2015**, 25, 2073-2090	15.6	189
152	Solution and vapour deposited lead perovskite solar cells: Ecotoxicity from a life cycle assessment perspective. *Solar Energy Materials and Solar Cells*, **2015**, 137, 303-310	6.4	161
151	Ecodesign of organic photovoltaic modules from Danish and Chinese perspectives. *Energy and Environmental Science*, **2015**, 8, 2537-2550	35.4	31
150	Structure and crystallinity of water dispersible photoactive nanoparticles for organic solar cells. *Journal of Materials Chemistry A*, **2015**, 3, 17022-17031	13	26
149	Fullerene alloy formation and the benefits for efficient printing of ternary blend organic solar cells. *Journal of Materials Chemistry C*, **2015**, 3, 5541-5548	7.1	38

148	Roll-coating fabrication of ITO-free flexible solar cells based on a non-fullerene small molecule acceptor. *RSC Advances*, **2015**, 5, 36001-36006	3.7	21
147	Interfacial engineering of self-assembled monolayer modified semi-roll-to-roll planar heterojunction perovskite solar cells on flexible substrates. *Journal of Materials Chemistry A*, **2015**, 3, 24254-24260	13	115
146	Three dimensional corrugated organic photovoltaics for building integration; improving the efficiency, oblique angle and diffuse performance of solar cells. *Energy and Environmental Science*, **2015**, 8, 3266-3273	35.4	28
145	Round-Robin Studies on Roll-Processed ITO-free Organic Tandem Solar Cells Combined with Inter-Laboratory Stability Studies. *Energy Technology*, **2015**, 3, 423-427	3.5	7
144	Air-processed organic tandem solar cells on glass: toward competitive operating lifetimes. *Energy and Environmental Science*, **2015**, 8, 169-176	35.4	76
143	Enabling Flexible Polymer Tandem Solar Cells by 3D Ptychographic Imaging. *Advanced Energy Materials*, **2015**, 5, 1400736	21.8	46
142	Bipolar polaron pair recombination in polymer/fullerene solar cells. *Physical Review B*, **2015**, 92,	3.3	13
141	Roll-Coated Fabrication of Fullerene-Free Organic Solar Cells with Improved Stability. *Advanced Science*, **2015**, 2, 1500096	13.6	75
140	Electrical characterization of fluorinated benzothiadiazole based conjugated copolymer a promising material for high-performance solar cells. *AIP Advances*, **2015**, 5, 127240	1.5	2
139	Upscaling of Perovskite Solar Cells: Fully Ambient Roll Processing of Flexible Perovskite Solar Cells with Printed Back Electrodes. *Advanced Energy Materials*, **2015**, 5, 1500569	21.8	258
138	Tin- and Lead-Based Perovskite Solar Cells under Scrutiny: An Environmental Perspective. *Advanced Energy Materials*, **2015**, 5, 1501119	21.8	157
137	Roll-to-Roll Printed Silver Nanowire Semitransparent Electrodes for Fully Ambient Solution-Processed Tandem Polymer Solar Cells. *Advanced Functional Materials*, **2015**, 25, 4539-4547	15.6	90
136	Over 2 Years of Outdoor Operational and Storage Stability of ITO-Free, Fully Roll-to-Roll Fabricated Polymer Solar Cell Modules. *Energy Technology*, **2015**, 3, 774-783	3.5	59
135	Influence of Side Chain Position on the Electrical Properties of Organic Solar Cells Based on Dithienylbenzothiadiazole-alt-phenylene Conjugated Polymers. *Macromolecules*, **2015**, 48, 3481-3492	5.5	29
134	Development of Lab-to-Fab Production Equipment Across Several Length Scales for Printed Energy Technologies, Including Solar Cells. *Energy Technology*, **2015**, 3, 293-304	3.5	59
133	Making Ends Meet: Flow Synthesis as the Answer to Reproducible High-Performance Conjugated Polymers on the Scale that Roll-to-Roll Processing Demands. *Advanced Energy Materials*, **2015**, 5, 1401996	21.8	43
132	The Critical Choice of PEDOT:PSS Additives for Long Term Stability of Roll-to-Roll Processed OPVs. *Advanced Energy Materials*, **2015**, 5, 1401912	21.8	63
131	The solar textile challenge: how it will not work and where it might. *ChemSusChem*, **2015**, 8, 966-9	8.3	14

130	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. *Journal of Materials Chemistry C*, **2015**, 3, 1633-1639	7.1	20
129	Comparative Indoor and Outdoor Degradation of Organic Photovoltaic Cells via Inter-laboratory Collaboration. *Polymers*, **2015**, 8,	4.5	235
128	Efficient decommissioning and recycling of polymer solar cells: justification for use of silver. *Energy and Environmental Science*, **2014**, 7, 1006-1012	35.4	42
127	2D Characterization of OPV from Single and Tandem Cells to Fully Roll-to-Roll Processed Modules with and without Electrical Contact. *Advanced Optical Materials*, **2014**, 2, 465-477	8.1	37
126	Environmentally Printing Efficient Organic Tandem Solar Cells with High Fill Factors: A Guideline Towards 20% Power Conversion Efficiency. *Advanced Energy Materials*, **2014**, 4, 1400084	21.8	101
125	Roll-to-Roll Processing of Polymer Solar Cells **2014**, 561-586		2
124	Digital grayscale printing for patterned transparent conducting Ag electrodes and their applications in flexible electronics. *Journal of Materials Chemistry C*, **2014**, 2, 2112	7.1	14
123	Solution processed large area fabrication of Ag patterns as electrodes for flexible heaters, electrochromics and organic solar cells. *Journal of Materials Chemistry A*, **2014**, 2, 10930	13	69
122	25th anniversary article: Rise to power--OPV-based solar parks. *Advanced Materials*, **2014**, 26, 29-38	24	653
121	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. *Solar Energy Materials and Solar Cells*, **2014**, 120, 735-743	6.4	66
120	Failure Modes and Fast Repair Procedures in High Voltage Organic Solar Cell Installations. *Advanced Energy Materials*, **2014**, 4, 1301625	21.8	19
119	Upscaling from single cells to modules—fabrication of vacuum- and ITO-free polymer solar cells on flexible substrates with long lifetime. *Journal of Materials Chemistry C*, **2014**, 2, 1290-1297	7.1	88
118	In situ monitoring of structure formation in the active layer of polymer solar cells during roll-to-roll coating. *AIP Advances*, **2014**, 4, 087105	1.5	24
117	Spatial degradation mapping and component-wise degradation tracking in polymer–fullerene blends. *Journal of Materials Chemistry C*, **2014**, 2, 5176-5182	7.1	6
116	From the bottom up--flexible solid state electrochromic devices. *Advanced Materials*, **2014**, 26, 7231-4	24	112
115	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. *Journal of Materials Chemistry A*, **2014**, 2, 18644-18654	13	32
114	Roll-coating fabrication of flexible large area small molecule solar cells with power conversion efficiency exceeding 1%. *Journal of Materials Chemistry A*, **2014**, 2, 19809-19814	13	40
113	Medium area, flexible single and tandem junction solar cells based on roll coated semi-random copolymers. *Journal of Materials Chemistry C*, **2014**, 2, 9412-9415	7.1	10

112	Predicting, categorizing and intercomparing the lifetime of OPVs for different ageing tests. *Solar Energy Materials and Solar Cells*, **2014**, 130, 99-106	6.4	27
111	Flexible organic tandem solar modules with 6% efficiency: combining roll-to-roll compatible processing with high geometric fill factors. *Energy and Environmental Science*, **2014**, 7, 3284-3290	35.4	69
110	Comparison of additive amount used in spin-coated and roll-coated organic solar cells. *Journal of Materials Chemistry A*, **2014**, 2, 19542-19549	13	30
109	Cost analysis of roll-to-roll fabricated ITO free single and tandem organic solar modules based on data from manufacture. *Energy and Environmental Science*, **2014**, 7, 2792	35.4	151
108	Scalable, ambient atmosphere roll-to-roll manufacture of encapsulated large area, flexible organic tandem solar cell modules. *Energy and Environmental Science*, **2014**, 7, 2925	35.4	224
107	A comparative study of fluorine substituents for enhanced stability of flexible and ITO-free high-performance polymer solar cells. *Journal of Polymer Science, Part B: Polymer Physics*, **2014**, 52, 893-899	2.6	33
106	Life cycle analysis of organic tandem solar cells: When are they warranted?. *Solar Energy Materials and Solar Cells*, **2014**, 120, 692-700	6.4	28
105	All-Solution-Processed, Ambient Method for ITO-Free, Roll-Coated Tandem Polymer Solar Cells using Solution-Processed Metal Films. *Energy Technology*, **2014**, 2, 651-659	3.5	24
104	High-Volume Processed, ITO-Free Superstrates and Substrates for Roll-to-Roll Development of Organic Electronics. *Advanced Science*, **2014**, 1, 1400002	13.6	62
103	Outdoor Operational Stability of Indium-Free Flexible Polymer Solar Modules Over 1 Year Studied in India, Holland, and Denmark. *Advanced Engineering Materials*, **2014**, 16, 976-987	3.5	43
102	Light Beam-Induced Current: 2D Characterization of OPV from Single and Tandem Cells to Fully Roll-to-Roll Processed Modules with and without Electrical Contact (Advanced Optical Materials 5/2014). *Advanced Optical Materials*, **2014**, 2, 404-404	8.1	1
101	Generic roll-to-roll compatible method for insolubilizing and stabilizing conjugated active layers based on low energy electron irradiation. *Journal of Applied Polymer Science*, **2014**, 131, n/a-n/a	2.9	5
100	Photochemical stability of random poly(3-hexylthiophene-co-3-cyanothiophene) and its use in roll coated ITO-free organic photovoltaics. *Journal of Photonics for Energy*, **2014**, 5, 057205	1.2	3
99	Scaling Up ITO-Free Solar Cells. *Advanced Energy Materials*, **2014**, 4, 1300498	21.8	45
98	Fast Switching ITO Free Electrochromic Devices. *Advanced Functional Materials*, **2014**, 24, 1228-1233	15.6	91
97	Comparison of UV-Curing, Hotmelt, and Pressure Sensitive Adhesive as Roll-to-Roll Encapsulation Methods for Polymer Solar Cells. *Advanced Engineering Materials*, **2013**, 15, 1068-1075	3.5	77
96	Advanced Functional Polymers for Increasing the Stability of Organic Photovoltaics. *Macromolecular Chemistry and Physics*, **2013**, 214, 1546-1558	2.6	22
95	Slot-Die Coating of a High Performance Copolymer in a Readily Scalable Roll Process for Polymer Solar Cells. *Advanced Energy Materials*, **2013**, 3, 1664-1669	21.8	62

94	Low-cost upscaling compatibility of five different ITO-free architectures for polymer solar cells. *Journal of Applied Polymer Science*, **2013**, 130, 944-954	2.9	26
93	A novel benzodipyrrolidone-based low band gap polymer for organic solar cells. *Journal of Materials Chemistry A*, **2013**, 1, 10116	13	27
92	Photochemical stability of electrochromic polymers and devices. *Journal of Materials Chemistry C*, **2013**, 1, 4826	7.1	40
91	Cyclopolymerization-derived block-copolymers of 4,4-bis(octyloxymethyl)-1,6-heptadiyne with 4,4-dipropargyl malonodinitrile for use in photovoltaics. *Polymer Chemistry*, **2013**, 4, 1590-1599	4.9	23
90	Ambient roll-to-roll fabrication of flexible solar cells based on small molecules. *Journal of Materials Chemistry C*, **2013**, 1, 8007	7.1	55
89	Synthesis and characterization of new electron-withdrawing moiety thieno[2,3-c]pyrrole-4,6-dione-based molecules for small molecule solar cells. *Dyes and Pigments*, **2013**, 97, 141-147	4.6	14
88	New Insights into the Mechanisms of Photodegradation/Stabilization of P3HT:PCBM Active Layers Using Poly(3-hexyl-d13-Thiophene). *Chemistry of Materials*, **2013**, 25, 4522-4528	9.6	54
87	Technological status of organic photovoltaics (OPV). *Solar Energy Materials and Solar Cells*, **2013**, 119, 309-310	6.4	50
86	Freely available OPV□The fast way to progress. *Energy Technology*, **2013**, 1, 378-381	3.5	114
85	Towards 15% energy conversion efficiency: a systematic study of the solution-processed organic tandem solar cells based on commercially available materials. *Energy and Environmental Science*, **2013**, 6, 3407	35.4	90
84	A laboratory scale approach to polymer solar cells using one coating/printing machine, flexible substrates, no ITO, no vacuum and no spincoating. *Solar Energy Materials and Solar Cells*, **2013**, 108, 126-128	6.4	89
83	Determining the coating speed limitations for organic photovoltaic inks. *Solar Energy Materials and Solar Cells*, **2013**, 109, 120-125	6.4	28
82	Roll-to-Roll fabrication of large area functional organic materials. *Journal of Polymer Science, Part B: Polymer Physics*, **2013**, 51, 16-34	2.6	784
81	Synthesis and photovoltaic properties from inverted geometry cells and roll-to-roll coated large area cells from dithienopyrrole-based donor□cceptor polymers. *Journal of Materials Chemistry A*, **2013**, 1, 1785-1793	13	30
80	Fast Inline Roll-to-Roll Printing for Indium-Tin-Oxide-Free Polymer Solar Cells Using Automatic Registration. *Energy Technology*, **2013**, 1, 102-107	3.5	196
79	It is all in the Pattern□High-Efficiency Power Extraction from Polymer Solar Cells through High-Voltage Serial Connection. *Energy Technology*, **2013**, 1, 15-19	3.5	80
78	Fast printing of thin, large area, ITO free electrochromics on flexible barrier foil. *Journal of Polymer Science, Part B: Polymer Physics*, **2013**, 51, 132-136	2.6	40
77	Comparison of two types of vertically aligned ZnO NRs for highly efficient polymer solar cells. *Journal of Polymer Science, Part B: Polymer Physics*, **2013**, 51, 272-280	2.6	14

76	Concentrated Light for Accelerated Photo Degradation of Polymer Materials. *Advanced Energy Materials*, **2013**, 3, 424-427	21.8	19
75	Scalability and stability of very thin, roll-to-roll processed, large area, indium-tin-oxide free polymer solar cell modules. *Organic Electronics*, **2013**, 14, 984-994	3.5	122
74	Direct Photopatterning of Electrochromic Polymers. *Advanced Functional Materials*, **2013**, 23, 3728-3737	15.6	53
73	Flexible ITO-free polymer solar cells. *Journal of Applied Polymer Science*, **2013**, 129, 1-14	2.9	145
72	Inkjet Printing of Back Electrodes for Inverted Polymer Solar Cells. *Advanced Energy Materials*, **2013**, 3, 1230-1237	21.8	52
71	Comparison of Fast Roll-to-Roll Flexographic, Inkjet, Flatbed, and Rotary Screen Printing of Metal Back Electrodes for Polymer Solar Cells. *Advanced Engineering Materials*, **2013**, 15, n/a-n/a	3.5	23
70	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. *Journal of Materials Chemistry A*, **2013**, 1, 7037	13	74
69	Roll-to-Roll Inkjet Printing and Photonic Sintering of Electrodes for ITO Free Polymer Solar Cell Modules and Facile Product Integration. *Advanced Energy Materials*, **2013**, 3, 172-175	21.8	207
68	Practical evaluation of organic polymer thermoelectrics by large-area R2R processing on flexible substrates. *Energy Science and Engineering*, **2013**, 1, 81-88	3.4	105
67	Roll-to-roll fabrication of polymer solar cells. *Materials Today*, **2012**, 15, 36-49	21.8	1105
66	Simple roll coater with variable coating and temperature control for printed polymer solar cells. *Solar Energy Materials and Solar Cells*, **2012**, 97, 191-196	6.4	78
65	Quality control of roll-to-roll processed polymer solar modules by complementary imaging methods. *Solar Energy Materials and Solar Cells*, **2012**, 97, 176-180	6.4	55
64	Current Collecting Grids for ITO-Free Solar Cells. *Advanced Energy Materials*, **2012**, 2, 103-110	21.8	106
63	Organic Solar Cells: Current Collecting Grids for ITO-Free Solar Cells (Adv. Energy Mater. 1/2012). *Advanced Energy Materials*, **2012**, 2, 169-169	21.8	2
62	All printed transparent electrodes through an electrical switching mechanism: A convincing alternative to indium-tin-oxide, silver and vacuum. *Energy and Environmental Science*, **2012**, 5, 9467	35.4	87
61	High-throughput roll-to-roll X-ray characterization of polymer solar cell active layers. *Journal of Materials Chemistry*, **2012**, 22, 22501		25
60	Comparative studies of photochemical cross-linking methods for stabilizing the bulk hetero-junction morphology in polymer solar cells. *Journal of Materials Chemistry*, **2012**, 22, 24417		44
59	Roll-to-roll coated PBI membranes for high temperature PEM fuel cells. *Energy and Environmental Science*, **2012**, 5, 6076	35.4	62

58	Incorporation of ester groups into low band-gap diketopyrrolopyrrole containing polymers for solar cell applications. *Journal of Materials Chemistry*, **2012**, 22, 15710		40
57	The ISOS-3 inter-laboratory collaboration focused on the stability of a variety of organic photovoltaic devices. *RSC Advances*, **2012**, 2, 882-893	3.7	102
56	Investigation of the degradation mechanisms of a variety of organic photovoltaic devices by combination of imaging techniques□The ISOS-3 inter-laboratory collaboration. *Energy and Environmental Science*, **2012**, 5, 6521	35.4	116
55	Photochemical stability of conjugated polymers, electron acceptors and blends for polymer solar cells resolved in terms of film thickness and absorbance. *Journal of Materials Chemistry*, **2012**, 22, 7592		73
54	Fine tuning the HOMO energy levels of polythieno[3,4-b]thiophene derivatives by incorporation of thiophene-3,4-dicarboxylate moiety for photovoltaic applications. *Synthetic Metals*, **2012**, 162, 2005-2009	2.6	10
53	Influence of processing and intrinsic polymer parameters on photochemical stability of polythiophene thin films. *Polymer Degradation and Stability*, **2012**, 97, 2412-2417	4.7	24
52	Rapid flash annealing of thermally reactive copolymers in a roll-to-roll process for polymer solar cells. *Polymer Chemistry*, **2012**, 3, 2649	4.9	33
51	Large-scale roll-to-roll photonic sintering of flexo printed silver nanoparticle electrodes. *Journal of Materials Chemistry*, **2012**, 22, 15683		130
50	Degradation of Small-Molecule-Based OPV **2012**, 109-142		5
49	Low-temperature side-chain cleavage and decarboxylation of polythiophene esters by acid catalysis. *Journal of Polymer Science Part A*, **2012**, 50, 1127-1132	2.5	14
48	Manufacture and demonstration of organic photovoltaic-powered electrochromic displays using roll coating methods and printable electrolytes. *Journal of Polymer Science, Part B: Polymer Physics*, **2012**, 50, 536-545	2.6	88
47	Solar cells with one-day energy payback for the factories of the future. *Energy and Environmental Science*, **2012**, 5, 5117-5132	35.4	416
46	New Low-Bandgap Materials with Good Stabilities and Efficiencies Comparable to P3HT in R2R-Coated Solar Cells. *Advanced Energy Materials*, **2012**, 2, 415-418	21.8	47
45	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. *Advanced Energy Materials*, **2012**, 2, 1091-1094	21.8	45
44	Roll-to-Roll Coatings: New Low-Bandgap Materials with Good Stabilities and Efficiencies Comparable to P3HT in R2R-Coated Solar Cells (Adv. Energy Mater. 4/2012). *Advanced Energy Materials*, **2012**, 2, 394-394	21.8	
43	Concentrated Light for Organic Photovoltaics **2012**, 243-267		
42	Imaging Techniques for Studying OPV Stability and Degradation **2012**, 39-70		2
41	Accelerated stability testing of organic photovoltaics using concentrated sunlight **2012**,		3

40	A Nanoparticle Approach towards Morphology Controlled Organic Photovoltaics (OPV). *Polymers*, **2012**, 4, 1242-1258	4.5	7
39	Life-cycle analysis of product integrated polymer solar cells. *Energy and Environmental Science*, **2011**, 4, 1547	35.4	83
38	Photochemical stability of π-conjugated polymers for polymer solar cells: a rule of thumb. *Journal of Materials Chemistry*, **2011**, 21, 4132		224
37	The OE-A OPV demonstrator anno domini 2011. *Energy and Environmental Science*, **2011**, 4, 4116	35.4	177
36	Photochemical stability and photovoltaic performance of low-band gap polymers based on dithiophene with different bridging atoms. *Polymer Chemistry*, **2011**, 2, 1355	4.9	16
35	Origin of size effect on efficiency of organic photovoltaics. *Journal of Applied Physics*, **2011**, 109, 074508	2.5	55
34	Economic assessment of solar electricity production from organic-based photovoltaic modules in a domestic environment. *Energy and Environmental Science*, **2011**, 4, 3741	35.4	258
33	Non-destructive lateral mapping of the thickness of the photoactive layer in polymer-based solar cells. *Progress in Photovoltaics: Research and Applications*, **2011**, 21, n/a-n/a	6.8	2
32	A self-calibrating led-based solar test platform. *Progress in Photovoltaics: Research and Applications*, **2011**, 19, 97-112	6.8	32
31	Fabrication of Polymer Solar Cells Using Aqueous Processing for All Layers Including the Metal Back Electrode. *Advanced Energy Materials*, **2011**, 1, 68-71	21.8	209
30	Electrical and Photo-Induced Degradation of ZnO Layers in Organic Photovoltaics. *Advanced Energy Materials*, **2011**, 1, 836-843	21.8	101
29	Thermally reactive Thiazolo[5,4-d]thiazole based copolymers for high photochemical stability in polymer solar cells. *Polymer Chemistry*, **2011**, 2, 2536	4.9	31
28	Ellipsometry as a Nondestructive Depth Profiling Tool for Roll-to-Roll Manufactured Flexible Solar Cells. *Journal of Physical Chemistry C*, **2011**, 115, 10817-10822	3.8	39
27	A life cycle analysis of polymer solar cell modules prepared using roll-to-roll methods under ambient conditions. *Solar Energy Materials and Solar Cells*, **2011**, 95, 1293-1302	6.4	280
26	Roll-to-Roll Processing of Inverted Polymer Solar Cells using Hydrated Vanadium(V)Oxide as a PEDOT:PSS Replacement. *Materials*, **2011**, 4, 169-182	3.5	68
25	Low Band Gap Polymers for Roll-to-Roll Coated Organic Photovoltaics – Design, Synthesis and Characterization. *Green*, **2011**, 1,		7
24	Effects of concentrated sunlight on organic photovoltaics. *Applied Physics Letters*, **2010**, 96, 073501	3.4	61
23	Low Band Gap Polymers for Roll-to-Roll Coated Polymer Solar Cells. *Macromolecules*, **2010**, 43, 8115-8120	5.5	121

22	The teraton challenge. A review of fixation and transformation of carbon dioxide. *Energy and Environmental Science*, **2010**, 3, 43-81	35.4	1614
21	Ultra fast and parsimonious materials screening for polymer solar cells using differentially pumped slot-die coating. *ACS Applied Materials & Interfaces*, **2010**, 2, 2819-27	9.5	182
20	Advanced materials and processes for polymer solar cell devices. *Journal of Materials Chemistry*, **2010**, 20, 36-60		714
19	Using light-induced thermocleavage in a roll-to-roll process for polymer solar cells. *ACS Applied Materials & Interfaces*, **2010**, 2, 877-87	9.5	91
18	Influence of the Annealing Temperature on the Photovoltaic Performance and Film Morphology Applying Novel Thermocleavable Materials. *Chemistry of Materials*, **2010**, 22, 5617-5624	9.6	28
17	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. *Journal of Materials Chemistry*, **2010**, 20, 8994		561
16	Manufacture, integration and demonstration of polymer solar cells in a lamp for the lighting Africa initiative. *Energy and Environmental Science*, **2010**, 3, 512	35.4	452
15	Upscaling of polymer solar cell fabrication using full roll-to-roll processing. *Nanoscale*, **2010**, 2, 873-86	7.7	902
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