Frederik C Krebs

List of Publications by Year
in descending order

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Version: 2024-02-01

175 papers	20,081 citations	13865 67 h-index	10157 140 g-index
199 all docs	199 docs citations	199 times ranked	17518 citing authors

#	Article	IF	Citations
1	The teraton challenge. A review of fixation and transformation of carbon dioxide. Energy and Environmental Science, 2010, 3, 43-81.	30.8	1,929
2	Roll-to-roll fabrication of polymer solar cells. Materials Today, 2012, 15, 36-49.	14.2	1,254
3	A roll-to-roll process to flexible polymer solar cells: model studies, manufacture and operational stability studies. Journal of Materials Chemistry, 2009, 19, 5442.	6.7	1,168
4	Upscaling of polymer solar cell fabrication using full roll-to-roll processing. Nanoscale, 2010, 2, 873.	5.6	968
5	Rollâ€toâ€Roll fabrication of large area functional organic materials. Journal of Polymer Science, Part B: Polymer Physics, 2013, 51, 16-34.	2.1	890
6	Advanced materials and processes for polymer solar cell devices. Journal of Materials Chemistry, 2010, 20, 36-60.	6.7	746
7	25th Anniversary Article: Rise to Power â€“ OPVâ€Based Solar Parks. Advanced Materials, 2014, 26, 29-39.	21.0	739
8	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.	6.7	591
9	Manufacture, integration and demonstration of polymer solar cells in a lamp for the â€œLighting Africaâ€•initiative. Energy and Environmental Science, 2010, 3, 512.	30.8	469
10	Solar cells with one-day energy payback for the factories of the future. Energy and Environmental Science, 2012, 5, 5117-5132.	30.8	454
11	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.	6.2	305
12	Economic assessment of solar electricity production from organic-based photovoltaic modules in a domestic environment. Energy and Environmental Science, 2011, 4, 3741.	30.8	290
13	Upscaling of Perovskite Solar Cells: Fully Ambient Roll Processing of Flexible Perovskite Solar Cells with Printed Back Electrodes. Advanced Energy Materials, 2015, 5, 1500569.	19.5	285
14	Comparative Indoor and Outdoor Degradation of Organic Photovoltaic Cells via Inter-laboratory Collaboration. Polymers, 2016, 8, 1.	4.5	285
15	Scalable, ambient atmosphere roll-to-roll manufacture of encapsulated large area, flexible organic tandem solar cell modules. Energy and Environmental Science, 2014, 7, 2925.	30.8	255
16	Photochemical stability of Ï€-conjugated polymers for polymer solar cells: a rule of thumb. Journal of Materials Chemistry, 2011, 21, 4132.	6.7	236
17	Development and Manufacture of Polymerâ€Based Electrochromic Devices. Advanced Functional Materials, 2015, 25, 2073-2090.	14.9	232
18	Rollâ€toâ€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.	19.5	223

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19	Fabrication of Polymer Solar Cells Using Aqueous Processing for All Layers Including the Metal Back Electrode. Advanced Energy Materials, 2011, 1, 68-71.	19.5	221
20	Fast Inline Rollâ€toâ€Roll Printing for Indiumâ€Tinâ€Oxideâ€Free Polymer Solar Cells Using Automatic Registration. Energy Technology, 2013, 1, 102-107.	3.8	212
21	Tinâ€•and Leadâ€Based Perovskite Solar Cells under Scrutiny: An Environmental Perspective. Advanced Energy Materials, 2015, 5, 1501119.	19.5	197
22	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.	6.2	195
23	Ultra Fast and Parsimonious Materials Screening for Polymer Solar Cells Using Differentially Pumped Slot-Die Coating. ACS Applied Materials & Interfaces, 2010, 2, 2819-2827.	8.0	193
24	The OE-A OPV demonstrator anno domini 2011. Energy and Environmental Science, 2011, 4, 4116.	30.8	183
25	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.	30.8	170
26	Flexible ITOâ€free polymer solar cells. Journal of Applied Polymer Science, 2013, 129, 1-14.	2.6	159
27	A simple nanostructured polymer/ZnO hybrid solar cellâ€”preparation and operation in air. Nanotechnology, 2008, 19, 424013.	2.6	149
28	Large-scale roll-to-roll photonic sintering of flexo printed silver nanoparticle electrodes. Journal of Materials Chemistry, 2012, 22, 15683.	6.7	146
29	Investigation of the degradation mechanisms of a variety of organic photovoltaic devices by combination of imaging techniquesâ€”the ISOS-3 inter-laboratory collaboration. Energy and Environmental Science, 2012, 5, 6521.	30.8	134
30	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.	10.3	133
31	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.	2.6	131
32	Low Band Gap Polymers for Roll-to-Roll Coated Polymer Solar Cells. Macromolecules, 2010, 43, 8115-8120.	4.8	130
33	Mechanical Properties of a Library of Low-Band-Gap Polymers. Chemistry of Materials, 2016, 28, 2363-2373.	6.7	125
34	Electrical and Photoâ€Induced Degradation of ZnO Layers in Organic Photovoltaics. Advanced Energy Materials, 2011, 1, 836-843.	19.5	123
35	Freely available OPVâ€”The fast way to progress. Energy Technology, 2013, 1, 378-381.	3.8	122
36	Practical evaluation of organic polymer thermoelectrics by largeâ€area R2R processing on flexible substrates. Energy Science and Engineering, 2013, 1, 81-88.	4.0	122

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37	From the Bottom Up â€“ Flexible Solid State Electrochromic Devices. Advanced Materials, 2014, 26, 7231-7234.	21.0	121
38	Lifetime of Organic Photovoltaics: Status and Predictions. Advanced Energy Materials, 2016, 6, 1501208.	19.5	119
39	Current Collecting Grids for ITOâ€Free Solar Cells. Advanced Energy Materials, 2012, 2, 103-110.	19.5	116
40	Environmentally Printing Efficient Organic Tandem Solar Cells with High Fill Factors: A Guideline Towards 20% Power Conversion Efficiency. Advanced Energy Materials, 2014, 4, 1400084.	19.5	116
41	The ISOS-3 inter-laboratory collaboration focused on the stability of a variety of organic photovoltaic devices. RSC Advances, 2012, 2, 882-893.	3.6	108
42	Fast Switching ITO Free Electrochromic Devices. Advanced Functional Materials, 2014, 24, 1228-1233.	14.9	102
43	Using Light-Induced Thermocleavage in a Roll-to-Roll Process for Polymer Solar Cells. ACS Applied Materials & Interfaces, 2010, 2, 877-887.	8.0	98
44	Rollâ€toâ€Roll Printed Silver Nanowire Semitransparent Electrodes for Fully Ambient Solutionâ€Processed Tandem Polymer Solar Cells. Advanced Functional Materials, 2015, 25, 4539-4547.	14.9	97
45	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.	30.8	96
46	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.	30.8	94
47	Manufacture and demonstration of organic photovoltaicâ€powered electrochromic displays using roll coating methods and printable electrolytes. Journal of Polymer Science, Part B: Polymer Physics, 2012, 50, 536-545.	2.1	93
48	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.	6.2	93
49	Upscaling from single cells to modules â€“ fabrication of vacuum- and ITO-free polymer solar cells on flexible substrates with long lifetime. Journal of Materials Chemistry C, 2014, 2, 1290-1297.	5.5	93
50	Roll-to-roll printed silver nanowires for increased stability of flexible ITO-free organic solar cell modules. Nanoscale, 2016, 8, 318-326.	5.6	90
51	Life-cycle analysis of product integrated polymer solar cells. Energy and Environmental Science, 2011, 4, 1547.	30.8	89
52	Rollâ€Coated Fabrication of Fullereneâ€Free Organic Solar Cells with Improved Stability. Advanced Science, 2015, 2, 1500096.	11.2	89
53	Comparison of <scp>UV</scp>â€Curing, Hotmelt, and Pressure Sensitive Adhesive as Rollâ€toâ€<scp>R</scp>oll Encapsulation Methods for Polymer Solar Cells. Advanced Engineering Materials, 2013, 15, 1068-1075.	3.5	86
54	It is all in the Patternâ€”Highâ€Efficiency Power Extraction from Polymer Solar Cells through Highâ€Voltage Serial Connection. Energy Technology, 2013, 1, 15-19.	3.8	85

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55	Roll-coating fabrication of flexible organic solar cells: comparison of fullerene and fullerene-free systems. Journal of Materials Chemistry A, 2016, 4, 1044-1051.	10.3	84
56	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.	10.3	83
57	Simple roll coater with variable coating and temperature control for printed polymer solar cells. Solar Energy Materials and Solar Cells, 2012, 97, 191-196.	6.2	81
58	Air-processed organic tandem solar cells on glass: toward competitive operating lifetimes. Energy and Environmental Science, 2015, 8, 169-176.	30.8	80
59	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.	6.7	79
60	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.	30.8	75
61	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.	10.3	73
62	Roll-to-roll coated PBI membranes for high temperature PEM fuel cells. Energy and Environmental Science, 2012, 5, 6076.	30.8	72
63	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.	6.2	72
64	Poly(3-hexylthiophene)/ZnO hybrid pn junctions for microelectronics applications. Applied Physics Letters, 2009, 94, .	3.3	71
65	Roll-to-Roll Processing of Inverted Polymer Solar Cells using Hydrated Vanadium(V)Oxide as a PEDOT:PSS Replacement. Materials, 2011, 4, 169-182.	2.9	70
66	Effects of concentrated sunlight on organic photovoltaics. Applied Physics Letters, 2010, 96, 073501.	3.3	69
67	Slotâ€Die Coating of a High Performance Copolymer in a Readily Scalable Roll Process for Polymer Solar Cells. Advanced Energy Materials, 2013, 3, 1664-1669.	19.5	69
68	Highâ€Volume Processed, ITOâ€Free Superstrates and Substrates for Rollâ€toâ€Roll Development of Organic Electronics. Advanced Science, 2014, 1, 1400002.	11.2	69
69	The Critical Choice of PEDOT:PSS Additives for Long Term Stability of Rollâ€toâ€Roll Processed OPVs. Advanced Energy Materials, 2015, 5, 1401912.	19.5	66
70	Development of Labâ€toâ€Fab Production Equipment Across Several Length Scales for Printed Energy Technologies, Including Solar Cells. Energy Technology, 2015, 3, 293-304.	3.8	64
71	Direct Photopatterning of Electrochromic Polymers. Advanced Functional Materials, 2013, 23, 3728-3737.	14.9	63
72	Over 2â€…Years of Outdoor Operational and Storage Stability of ITOâ€Free, Fully Rollâ€toâ€Roll Fabricated Polymer Solar Cell Modules. Energy Technology, 2015, 3, 774-783.	3.8	61

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73	Origin of size effect on efficiency of organic photovoltaics. Journal of Applied Physics, 2011, 109, 074508.	2.5	59
74	Ambient roll-to-roll fabrication of flexible solar cells based on small molecules. Journal of Materials Chemistry C, 2013, 1, 8007.	5.5	59
75	Quality control of roll-to-roll processed polymer solar modules by complementary imaging methods. Solar Energy Materials and Solar Cells, 2012, 97, 176-180.	6.2	57
76	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.	6.7	57
77	Inkjet Printing of Back Electrodes for Inverted Polymer Solar Cells. Advanced Energy Materials, 2013, 3, 1230-1237.	19.5	56
78	Making Ends Meet: Flow Synthesis as the Answer to Reproducible Highâ€Performance Conjugated Polymers on the Scale that Rollâ€toâ€Roll Processing Demands. Advanced Energy Materials, 2015, 5, 1401996.	19.5	55
79	Ecodesign perspectives of thin-film photovoltaic technologies: A review of life cycle assessment studies. Solar Energy Materials and Solar Cells, 2016, 156, 2-10.	6.2	54
80	In-line, roll-to-roll morphology analysis of organic solar cell active layers. Energy and Environmental Science, 2017, 10, 2411-2419.	30.8	54
81	Technological status of organic photovoltaics (OPV). Solar Energy Materials and Solar Cells, 2013, 119, 309-310.	6.2	53
82	New Lowâ€Bandgap Materials with Good Stabilities and Efficiencies Comparable to P3HT in R2Râ€Coated Solar Cells. Advanced Energy Materials, 2012, 2, 415-418.	19.5	52
83	Enabling Flexible Polymer Tandem Solar Cells by 3D Ptychographic Imaging. Advanced Energy Materials, 2015, 5, 1400736.	19.5	52
84	Efficient decommissioning and recycling of polymer solar cells: justification for use of silver. Energy and Environmental Science, 2014, 7, 1006-1012.	30.8	51
85	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.	19.5	51
86	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.	6.2	51
87	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.	6.7	49
88	Scaling Up ITOâ€Free Solar Cells. Advanced Energy Materials, 2014, 4, 1300498.	19.5	48
89	Roundâ€Robin Studies as a Method for Testing and Validating Highâ€Efficiency ITOâ€Free Polymer Solar Cells Based on Rollâ€toâ€Rollâ€Coated Highly Conductive and Transparent Flexible Substrates. Advanced Energy Materials, 2012, 2, 1091-1094.	19.5	46
90	Photochemical stability of electrochromic polymers and devices. Journal of Materials Chemistry C, 2013, 1, 4826.	5.5	46

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91	Outdoor Operational Stability of Indiumâ€Free Flexible Polymer Solar Modules Over 1 Year Studied in India, Holland, and Denmark. Advanced Engineering Materials, 2014, 16, 976-987.	3.5	46
92	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.	10.3	44
93	A selfâ€calibrating ledâ€based solar test platform. Progress in Photovoltaics: Research and Applications, 2011, 19, 97-112.	8.1	43
94	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.	2.1	43
95	Comparison of Fast Rollâ€toâ€<scp>R</scp>oll Flexographic, Inkjet, Flatbed, and Rotary Screen Printing of Metal Back Electrodes for Polymer Solar Cells. Advanced Engineering Materials, 2013, 15, 995-1001.	3.5	42
96	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.	30.8	42
97	Baselines for Lifetime of Organic Solar Cells. Advanced Energy Materials, 2016, 6, 1600910.	19.5	42
98	Incorporation of ester groups into low band-gap diketopyrrolopyrrole containing polymers for solar cell applications. Journal of Materials Chemistry, 2012, 22, 15710.	6.7	40
99	Ecodesign of organic photovoltaic modules from Danish and Chinese perspectives. Energy and Environmental Science, 2015, 8, 2537-2550.	30.8	40
100	Fullerene alloy formation and the benefits for efficient printing of ternary blend organic solar cells. Journal of Materials Chemistry C, 2015, 3, 5541-5548.	5.5	40
101	Flexible ITO-free organic solar cells applying aqueous solution-processed V2O5 hole transport layer: An outdoor stability study. APL Materials, 2016, 4, .	5.1	40
102	Ellipsometry as a Nondestructive Depth Profiling Tool for Roll-to-Roll Manufactured Flexible Solar Cells. Journal of Physical Chemistry C, 2011, 115, 10817-10822.	3.1	39
103	2D Characterization of OPV from Single and Tandem Cells to Fully Rollâ€toâ€Roll Processed Modules with and without Electrical Contact. Advanced Optical Materials, 2014, 2, 465-477.	7.3	39
104	Comparison of additive amount used in spin-coated and roll-coated organic solar cells. Journal of Materials Chemistry A, 2014, 2, 19542-19549.	10.3	36
105	Carbon: The Ultimate Electrode Choice for Widely Distributed Polymer Solar Cells. Advanced Energy Materials, 2014, 4, 1400732.	19.5	36
106	Thermally reactive Thiazolo[5,4-d]thiazole based copolymers for high photochemical stability in polymer solar cells. Polymer Chemistry, 2011, 2, 2536.	3.9	35
107	Determining the coating speed limitations for organic photovoltaic inks. Solar Energy Materials and Solar Cells, 2013, 109, 120-125.	6.2	35
108	A comparative study of fluorine substituents for enhanced stability of flexible and ITOâ€free highâ€performance polymer solar cells. Journal of Polymer Science, Part B: Polymer Physics, 2014, 52, 893-899.	2.1	35

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109	The Organic Power Transistor: Rollâ€toâ€Roll Manufacture, Thermal Behavior, and Power Handling When Driving Printed Electronics. Advanced Engineering Materials, 2016, 18, 51-55.	3.5	35
110	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.	10.3	34
111	Rapid flash annealing of thermally reactive copolymers in a roll-to-roll process for polymer solar cells. Polymer Chemistry, 2012, 3, 2649.	3.9	33
112	Life cycle analysis of organic tandem solar cells: When are they warranted?. Solar Energy Materials and Solar Cells, 2014, 120, 692-700.	6.2	33
113	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.	10.1	33
114	Synthesis and photovoltaic properties from inverted geometry cells and roll-to-roll coated large area cells from dithienopyrrole-based donorâ€“acceptor polymers. Journal of Materials Chemistry A, 2013, 1, 1785-1793.	10.3	32
115	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.	30.8	31
116	A novel benzodipyrrolidone-based low band gap polymer for organic solar cells. Journal of Materials Chemistry A, 2013, 1, 10116.	10.3	30
117	Lowâ€cost upscaling compatibility of five different ITOâ€free architectures for polymer solar cells. Journal of Applied Polymer Science, 2013, 130, 944-954.	2.6	29
118	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.	4.8	29
119	Structure and crystallinity of water dispersible photoactive nanoparticles for organic solar cells. Journal of Materials Chemistry A, 2015, 3, 17022-17031.	10.3	29
120	Inside or Outside? Linking Outdoor and Indoor Lifetime Tests of ITOâ€Free Organic Photovoltaic Devices for Greenhouse Applications. Energy Technology, 2017, 5, 338-344.	3.8	29
121	Conjugated 12 nm long oligomers as molecular wires in nanoelectronics. Journal of Materials Chemistry, 2009, 19, 3899.	6.7	28
122	Influence of the Annealing Temperature on the Photovoltaic Performance and Film Morphology Applying Novel Thermocleavable Materials. Chemistry of Materials, 2010, 22, 5617-5624.	6.7	28
123	Predicting, categorizing and intercomparing the lifetime of OPVs for different ageing tests. Solar Energy Materials and Solar Cells, 2014, 130, 99-106.	6.2	28
124	Slotâ€Dieâ€Coated V₂O₅ as Hole Transport Layer for Flexible Organic Solar Cells and Optoelectronic Devices. Advanced Engineering Materials, 2016, 18, 1494-1503.	3.5	28
125	High-throughput roll-to-roll X-ray characterization of polymer solar cell active layers. Journal of Materials Chemistry, 2012, 22, 22501.	6.7	26
126	Influence of processing and intrinsic polymer parameters on photochemical stability of polythiophene thin films. Polymer Degradation and Stability, 2012, 97, 2412-2417.	5.8	26

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127	Conjugated Polymers Via Direct Arylation Polymerization in Continuous Flow: Minimizing the Cost and Batchâ€toâ€Batch Variations for Highâ€Throughput Energy Conversion. Macromolecular Rapid Communications, 2017, 38, 1700526.	3.9	26
128	In situ monitoring of structure formation in the active layer of polymer solar cells during roll-to-roll coating. AIP Advances, 2014, 4, .	1.3	25
129	Roll-coating fabrication of ITO-free flexible solar cells based on a non-fullerene small molecule acceptor. RSC Advances, 2015, 5, 36001-36006.	3.6	25
130	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.	3.9	24
131	Concentrated Light for Accelerated Photo Degradation of Polymer Materials. Advanced Energy Materials, 2013, 3, 424-427.	19.5	24
132	Allâ€Solutionâ€Processed, Ambient Method for ITOâ€Free, Rollâ€Coated Tandem Polymer Solar Cells using Solutionâ€Processed Metal Films. Energy Technology, 2014, 2, 651-659.	3.8	24
133	Highly Conformal Ni Micromesh as a Current Collecting Front Electrode for Reduced Cost Si Solar Cell. ACS Applied Materials & Interfaces, 2017, 9, 8634-8640.	8.0	24
134	Advanced Functional Polymers for Increasing the Stability of Organic Photovoltaics. Macromolecular Chemistry and Physics, 2013, 214, 1546-1558.	2.2	23
135	Failure Modes and Fast Repair Procedures in High Voltage Organic Solar Cell Installations. Advanced Energy Materials, 2014, 4, 1301625.	19.5	22
136	An isoindigo containing donorâ€“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.	5.5	20
137	In situ X-ray scattering of perovskite solar cell active layers roll-to-roll coated on flexible substrates. CrystEngComm, 2016, 18, 5083-5088.	2.6	20
138	The Solar Textile Challenge: How It Will Not Work and Where It Might. ChemSusChem, 2015, 8, 966-969.	6.8	18
139	Which Electrode Materials to Select for More Environmentally Friendly Organic Photovoltaics?. Advanced Engineering Materials, 2016, 18, 490-495.	3.5	18
140	Role of Stress Factors on the Adhesion of Interfaces in R2R Fabricated Organic Photovoltaics. Advanced Energy Materials, 2016, 6, 1501927.	19.5	18
141	Improving the Operational Stability of PBDTTTzâ€4 Polymer Solar Cells Modules by Electrode Modification. Advanced Engineering Materials, 2016, 18, 511-517.	3.5	17
142	Photochemical stability and photovoltaic performance of low-band gap polymers based on dithiophene with different bridging atoms. Polymer Chemistry, 2011, 2, 1355.	3.9	16
143	Preorganization of Nanostructured Inks for Roll-to-Roll-Coated Polymer Solar Cells. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 1821-1826.	2.9	15
144	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.	2.1	15

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145	Digital grayscale printing for patterned transparent conducting Ag electrodes and their applications in flexible electronics. Journal of Materials Chemistry C, 2014, 2, 2112.	5.5	15
146	Flow Synthesis of Silver Nanowires for Semitransparent Solar Cell Electrodes: A Life Cycle Perspective. ChemSusChem, 2016, 9, 893-899.	6.8	15
147	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.	2.1	15
148	Lowâ€temperature sideâ€chain cleavage and decarboxylation of polythiophene esters by acid catalysis. Journal of Polymer Science Part A, 2012, 50, 1127-1132.	2.3	14
149	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.	3.7	14
150	Bipolar polaron pair recombination in polymer/fullerene solar cells. Physical Review B, 2015, 92, .	3.2	13
151	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.	3.6	13
152	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.	5.5	11
153	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.	3.9	10
154	Low Band Gap Polymers for Roll-to-Roll Coated Organic Photovoltaics â€“ Design, Synthesis and Characterization. Green, 2011, 1, .	0.4	9
155	A Nanoparticle Approach towards Morphology Controlled Organic Photovoltaics (OPV). Polymers, 2012, 4, 1242-1258.	4.5	7
156	Spatial degradation mapping and component-wise degradation tracking in polymerâ€“fullerene blends. Journal of Materials Chemistry C, 2014, 2, 5176-5182.	5.5	7
157	Roundâ€Robin Studies on Rollâ€Processed ITOâ€free Organic Tandem Solar Cells Combined with Interâ€Laboratory Stability Studies. Energy Technology, 2015, 3, 423-427.	3.8	7
158	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.	2.6	6
159	Novel high band gap pendant-borylated carbazole polymers with deep HOMO levels through direct +Nî€Bâ^' interaction for organic photovoltaics. Journal of Materials Chemistry C, 2016, 4, 4393-4401.	5.5	6
160	Lifeâ€Cycle Assessment of Solar Charger with Integrated Organic Photovoltaics. Advanced Engineering Materials, 2017, 19, 1700124.	3.5	6
161	In situ electrical and thermal monitoring of printed electronics by two-photon mapping. Scientific Reports, 2017, 7, 3787.	3.3	5
162	Application of Photocurrent Model on Polymer Solar Cells Under Forward Bias Stress. IEEE Journal of Photovoltaics, 2016, 6, 1542-1548.	2.5	4

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163	Introduction to the Issue on Organic Nanophotonics. IEEE Journal of Selected Topics in Quantum Electronics, 2016, 22, 3-5.	2.9	4
164	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.	8.1	3
165	Accelerated stability testing of organic photovoltaics using concentrated sunlight. , 2012, , .		3
166	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.	1.3	3
167	A Novel Algorithm for Lifetime Extrapolation, Prediction, and Estimation of Emerging PV Technologies. Small Methods, 2018, 2, 1700285.	8.6	3
168	Degradation of Polymer-Based OPV. , 0, , 143-162.		3
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