Dechan Angmo

List of Publications by Year
in descending order

50 papers	5,357 citations	136950 32 h-index	214800 47 g-index
54 all docs	54 docs citations	54 times ranked	7050 citing authors

#	ARTICLE	IF	CITATIONS
1	Roll-to-roll fabrication of polymer solar cells. Materials Today, 2012, 15, 36-49.	14.2	1,254
2	Solar cells with one-day energy payback for the factories of the future. Energy and Environmental Science, 2012, 5, 5117-5132.	30.8	454
3	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
4	Comparative Indoor and Outdoor Degradation of Organic Photovoltaic Cells via Inter-laboratory Collaboration. Polymers, 2016, 8, 1.	4.5	285
5	One-step roll-to-roll air processed high efficiency perovskite solar cells. Nano Energy, 2018, 46, 185-192.	16.0	271
6	ITO-free flexible polymer solar cells: From small model devices to roll-to-roll processed large modules. Organic Electronics, 2011, 12, 566-574.	2.6	235
7	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
8	Silver front electrode grids for ITO-free all printed polymer solar cells with embedded and raised topographies, prepared by thermal imprint, flexographic and inkjet roll-to-roll processes. Nanoscale, 2012, 4, 6032.	5.6	222
9	Flexible ITOâ€free polymer solar cells. Journal of Applied Polymer Science, 2013, 129, 1-14.	2.6	159
10	Perovskite and Organic Solar Cells Fabricated by Inkjet Printing: Progress and Prospects. Advanced Functional Materials, 2017, 27, 1703704.	14.9	149
11	Selfâ€Assembled 2D Perovskite Layers for Efficient Printable Solar Cells. Advanced Energy Materials, 2019, 9, 1803258.	19.5	149
12	Life cycle assessment of ITO-free flexible polymer solar cells prepared by roll-to-roll coating and printing. Solar Energy Materials and Solar Cells, 2012, 97, 3-13.	6.2	147
13	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
14	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
15	Printing-friendly sequential deposition via intra-additive approach for roll-to-roll process of perovskite solar cells. Nano Energy, 2017, 41, 443-451.	16.0	91
16	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
17	All solution processing of ITO-free organic solar cell modules directly on barrier foil. Solar Energy Materials and Solar Cells, 2012, 107, 329-336.	6.2	81
18	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

#	Article	IF	Citations
19	Highâ€Volume Processed, ITOâ€Free Superstrates and Substrates for Rollâ€toâ€Roll Development of Organic Electronics. Advanced Science, 2014, 1, 1400002.	11.2	69
20	Crystallisation control of drop-cast quasi-2D/3D perovskite layers for efficient solar cells. Communications Materials, 2020, 1, .	6.9	66
21	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
22	Inkjet Printing of Back Electrodes for Inverted Polymer Solar Cells. Advanced Energy Materials, 2013, 3, 1230-1237.	19.5	56
23	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
24	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
25	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
26	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
27	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
28	Emerging Perovskite Solar Cell Technology: Remedial Actions for the Foremost Challenges. Advanced Energy Materials, 2021, 11, .	19.5	40
29	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
30	A Lab-to-Fab Study toward Roll-to-Roll Fabrication of Reproducible Perovskite Solar Cells under Ambient Room Conditions. Cell Reports Physical Science, 2021, 2, 100293.	5.6	39
31	Recent progress towards roll-to-roll manufacturing of perovskite solar cells using slot-die processing. Flexible and Printed Electronics, 2020, 5, 014006.	2.7	37
32	Millimeterâ€Sized Clusters of Triple Cation Perovskite Enables Highly Efficient and Reproducible Rollâ€toâ€Roll Fabricated Inverted Perovskite Solar Cells. Advanced Functional Materials, 2022, 32, .	14.9	36
33	Improving organic tandem solar cells based on water-processed nanoparticles by quantitative 3D nanoimaging. Nanoscale, 2015, 7, 13765-13774.	5.6	30
34	Controlling Homogenous Spherulitic Crystallization for Highâ€Efficiency Planar Perovskite Solar Cells Fabricated under Ambient Highâ€Humidity Conditions. Small, 2019, 15, e1904422.	10.0	30
35	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
36	Influence of Side Chain Position on the Electrical Properties of Organic Solar Cells Based on Dithienylbenzothiadiazole-<i>alt</i>-phenylene Conjugated Polymers. Macromolecules, 2015, 48, 3481-3492.	4.8	29

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37	Beyond Fullerenes: Indacenodithiophene-Based Organic Charge-Transport Layer toward Upscaling of Low-Cost Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 22143-22155.	8.0	27
38	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
39	Improving the Stability of Ambient Processed, SnO₂â€Based, Perovskite Solar Cells by the UVâ€Treatment of Subâ€Cells. Solar Rrl, 2020, 4, 2000262.	5.8	21
40	Fully Roll-to-Roll Processed Efficient Perovskite Solar Cells via Precise Control on the Morphology of PbI2:CsI Layer. Nano-Micro Letters, 2022, 14, 79.	27.0	21
41	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
42	Organic solar cells (OSCs). , 2013, , 473-507.		14
43	A sandwich-like structural model revealed for quasi-2D perovskite films. Journal of Materials Chemistry C, 2021, 9, 5362-5372.	5.5	14
44	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
45	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
46	Novel high band gap pendant-borylated carbazole polymers with deep HOMO levels through direct +Nî€Bâˆ’ interaction for organic photovoltaics. Journal of Materials Chemistry C, 2016, 4, 4393-4401.	5.5	6
47	Indium Tin Oxide-Free Polymer Solar Cells: Toward Commercial Reality. Green Energy and Technology, 2014, , 189-225.	0.6	4
48	Brownian Treeâ€Shaped Dendrites in Quasiâ€2D Perovskite Films and Their Impact on Photovoltaic Performance. Advanced Materials Interfaces, 0, , 2102231.	3.7	4
49	Emerging Perovskite Solar Cell Technology: Remedial Actions for the Foremost Challenges (Adv.) Tj ETQq1 1 0.784314 rgBT /Overlock	19.5	2
50	Brownian Treeâ€Shaped Dendrites in Quasiâ€2D Perovskite Films and Their Impact on Photovoltaic Performance (Adv. Mater. Interfaces 13/2022). Advanced Materials Interfaces, 2022, 9, .	3.7	0