Kristofer Tvingstedt

List of Publications by Year
in descending order

66 papers	7,802 citations	87888 38 h-index	138484 58 g-index
67 all docs	67 docs citations	67 times ranked	8386 citing authors

#	Article	IF	Citations
1	On the origin of the open-circuit voltage of polymerâ€“fullerene solar cells. Nature Materials, 2009, 8, 904-909.	27.5	1,101
2	Consensus stability testing protocols for organic photovoltaic materials and devices. Solar Energy Materials and Solar Cells, 2011, 95, 1253-1267.	6.2	812
3	Relating the open-circuit voltage to interface molecular properties of donor:acceptor bulk heterojunction solar cells. Physical Review B, 2010, 81, .	3.2	750
4	Intrinsic non-radiative voltage losses in fullerene-based organic solar cells. Nature Energy, 2017, 2, .	39.5	494
5	Electroluminescence from Charge Transfer States in Polymer Solar Cells. Journal of the American Chemical Society, 2009, 131, 11819-11824.	13.7	338
6	Radiative efficiency of lead iodide based perovskite solar cells. Scientific Reports, 2014, 4, 6071.	3.3	283
7	Electrode Grids for ITO Free Organic Photovoltaic Devices. Advanced Materials, 2007, 19, 2893-2897.	21.0	265
8	A round robin study of flexible large-area roll-to-roll processed polymer solar cell modules. Solar Energy Materials and Solar Cells, 2009, 93, 1968-1977.	6.2	205
9	Identification of Trap States in Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2015, 6, 2350-2354.	4.6	204
10	Quantification of Quantum Efficiency and Energy Losses in Low Bandgap Polymer:Fullerene Solar Cells with High Openâ€Circuit Voltage. Advanced Functional Materials, 2012, 22, 3480-3490.	14.9	190
11	Surface plasmon increase absorption in polymer photovoltaic cells. Applied Physics Letters, 2007, 91, 113514.	3.3	188
12	Understanding the Role of Cesium and Rubidium Additives in Perovskite Solar Cells: Trap States, Charge Transport, and Recombination. Advanced Energy Materials, 2018, 8, 1703057.	19.5	184
13	Trapping light with micro lenses in thin film organic photovoltaic cells. Optics Express, 2008, 16, 21608.	3.4	145
14	Investigation on polymer anode design for flexible polymer solar cells. Applied Physics Letters, 2008, 92, 233308.	3.3	142
15	High photovoltage achieved in low band gap polymer solar cells by adjusting energy levels of a polymer with the LUMOs of fullerene derivatives. Journal of Materials Chemistry, 2008, 18, 5468.	6.7	137
16	Emissive and charge-generating donorâ€“acceptor interfaces for organic optoelectronics with low voltage losses. Nature Materials, 2019, 18, 459-464.	27.5	131
17	Folded reflective tandem polymer solar cell doubles efficiency. Applied Physics Letters, 2007, 91, .	3.3	124
18	Influence of Molecular Weight on the Performance of Organic Solar Cells Based on a Fluorene Derivative. Advanced Functional Materials, 2010, 20, 2124-2131.	14.9	124

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19	On the Dissociation Efficiency of Charge Transfer Excitons and Frenkel Excitons in Organic Solar Cells: A Luminescence Quenching Study. Journal of Physical Chemistry C, 2010, 114, 21824-21832.	3.1	122
20	Removing Leakage and Surface Recombination in Planar Perovskite Solar Cells. ACS Energy Letters, 2017, 2, 424-430.	17.4	117
21	Improved charge carrier lifetime in planar perovskite solar cells by bromine doping. Scientific Reports, 2016, 6, 39333.	3.3	113
22	Semiâ€Transparent Tandem Organic Solar Cells with 90% Internal Quantum Efficiency. Advanced Energy Materials, 2012, 2, 1467-1476.	19.5	109
23	Interlayer for Modified Cathode in Highly Efficient Inverted ITOâ€Free Organic Solar Cells. Advanced Materials, 2012, 24, 554-558.	21.0	101
24	Polymer Photovoltaics with Alternating Copolymer/Fullerene Blends and Novel Device Architectures. Advanced Materials, 2010, 22, E100-16.	21.0	100
25	Temperature Dependence of Ideality Factors in Organic Solar Cells and the Relation to Radiative Efficiency. Advanced Energy Materials, 2016, 6, 1502230.	19.5	99
26	Revisiting lifetimes from transient electrical characterization of thin film solar cells; a capacitive concern evaluated for silicon, organic and perovskite devices. Energy and Environmental Science, 2018, 11, 629-640.	30.8	89
27	Persistent photovoltage in methylammonium lead iodide perovskite solar cells. APL Materials, 2014, 2, .	5.1	86
28	Phase behaviour of liquid-crystalline polymer/fullerene organic photovoltaic blends: thermal stability and miscibility. Journal of Materials Chemistry, 2011, 21, 10676.	6.7	80
29	Transparent polymer cathode for organic photovoltaic devices. Synthetic Metals, 2006, 156, 1102-1107.	3.9	76
30	Observation of a Charge Transfer State in Lowâ€Bandgap Polymer/Fullerene Blend Systems by Photoluminescence and Electroluminescence Studies. Advanced Functional Materials, 2009, 19, 3293-3299.	14.9	71
31	Charge-Transfer States and Upper Limit of the Open-Circuit Voltage in Polymer:Fullerene Organic Solar Cells. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 1676-1684.	2.9	71
32	Multifolded polymer solar cells on flexible substrates. Applied Physics Letters, 2008, 93, .	3.3	67
33	Effects of Masking on Open-Circuit Voltage and Fill Factor in Solar Cells. Joule, 2019, 3, 16-26.	24.0	64
34	The Effect of additive on performance and shelf-stability of HSX-1/PCBM photovoltaic devices. Organic Electronics, 2011, 12, 1544-1551.	2.6	58
35	How far does the defect tolerance of lead-halide perovskites range? The example of Bi impurities introducing efficient recombination centers. Journal of Materials Chemistry A, 2019, 7, 23838-23853.	10.3	57
36	Optical modeling of a folded organic solar cell. Journal of Applied Physics, 2008, 103, .	2.5	55

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37	Theoretical Perspective on Transient Photovoltage and Charge Extraction Techniques. Journal of Physical Chemistry C, 2019, 123, 14261-14271.	3.1	49
38	Fabrication of a light trapping system for organic solar cells. Microelectronic Engineering, 2009, 86, 1150-1154.	2.4	39
39	Unravelling steady-state bulk recombination dynamics in thick efficient vacuum-deposited perovskite solar cells by transient methods. Journal of Materials Chemistry A, 2019, 7, 14712-14722.	10.3	31
40	Polarization anisotropy of charge transfer absorption and emission of aligned polymer:fullerene blend films. Physical Review B, 2012, 86, .	3.2	28
41	Optoelectronic Properties of Cs₂AgBiBr₆ Thin Films: The Influence of Precursor Stoichiometry. ACS Applied Energy Materials, 2020, 3, 11597-11609.	5.1	27
42	Single- and bilayer submicron arrays of fluorescent polymer on conducting polymer surface with surface energy controlled dewetting. Nanotechnology, 2005, 16, 437-443.	2.6	26
43	On the absence of triplet exciton loss pathways in non-fullerene acceptor based organic solar cells. Materials Horizons, 2020, 7, 1641-1649.	12.2	24
44	Temperature dependence of the spectral line-width of charge-transfer state emission in organic solar cells; staticvs.dynamic disorder. Materials Horizons, 2020, 7, 1888-1900.	12.2	23
45	Light trapping with total internal reflection and transparent electrodes in organic photovoltaic devices. Applied Physics Letters, 2012, 101, 163902.	3.3	21
46	In situ reflectance imaging of organic thin film formation from solution deposition. Solar Energy Materials and Solar Cells, 2013, 114, 89-98.	6.2	21
47	Doping Profile in Planar Hybrid Perovskite Solar Cells Identifying Mobile Ions. ACS Applied Energy Materials, 0, , .	5.1	19
48	Charge Transfer States in Organic Donorâ€“Acceptor Solar Cells. Semiconductors and Semimetals, 2011, 85, 261-295.	0.7	18
49	Band gap engineering in blended organic semiconductor films based on dielectric interactions. Nature Materials, 2021, 20, 1407-1413.	27.5	17
50	Bipolar Charge Transport in Fullerene Molecules in a Bilayer and Blend of Polyfluorene Copolymer and Fullerene. Advanced Materials, 2010, 22, 1008-1011.	21.0	16
51	Bridging Dimensions in Organic Electronics: Assembly of Electroactive Polymer Nanodevices from Fluids. Nano Letters, 2009, 9, 631-635.	9.1	15
52	Triplet Excitons in Highly Efficient Solar Cells Based on the Soluble Small Molecule pâ€DTS(FBTTh 2) 2. Advanced Energy Materials, 2017, 7, 1602016.	19.5	15
53	Impact of Interfaces and Laser Repetition Rate on Photocarrier Dynamics in Lead Halide Perovskites. Journal of Physical Chemistry Letters, 2017, 8, 4698-4703.	4.6	13
54	Direct Observation of Spin States Involved in Organic Electroluminescence Based on Thermally Activated Delayed Fluorescence. Advanced Optical Materials, 2017, 5, 1600926.	7.3	11

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55	Efficient Solution Processed CH₃NH₃PbI₃ Perovskite Solar Cells with PolyTPD Hole Transport Layer. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 2019, 74, 665-672.	1.5	9
56	Light confinement in thin film organic photovoltaic cells. , 2006, , .		7
57	Assigning ionic properties in perovskite solar cells; a unifying transient simulation/experimental study. Sustainable Energy and Fuels, 2021, 5, 3578-3587.	4.9	6
58	Reduced Recombination Losses in Evaporated Perovskite Solar Cells by Postfabrication Treatment. Solar Rrl, 2021, 5, 2100400.	5.8	5
59	Influence of crystallisation on the structural and optical properties of lead-free Cs₂AgBiBr₆ perovskite crystals. CrystEngComm, 2021, 23, 6848-6854.	2.6	4
60	Understanding the Role of Cesium and Rubidium Additives in Perovskite Solar Cells: Trap States and Charge Carrier Mobility. , 0, , .		1
61	Transient driftâ€diffusion simulation of the open circuit voltage decay in ionic perovskite solar cells. , 0, , .		0
62	Doping profile in planar perovskite solar cells. , 0, , .		0
63	On the assignment of carrier lifetimes in high absorption coefficient thin film solar cells via electrical transient methods. , 0, , .		0
64	Impact of interfaces and active layer thickness on the assignment of charge carrier recombination dynamics in thin film solar cells.. , 0, , .		0
65	A Theoretical Perspective on Transient Photovoltage and Charge Extraction Techniques. , 0, , .		0
66	A Theoretical Perspective on Transient Photovoltage and Charge Extraction Techniques. , 0, , .		0