

Weimin Zhang

List of Publications by Year in Descending Order

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Version: 2024-04-24

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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.

77
papers

8,828
citations

40
h-index

81
g-index

81
ext. papers

9,639
ext. citations

13.2
avg, IF

5.43
L-index

#	Paper	IF	Citations
77	Chemical Design Rules for Non-Fullerene Acceptors in Organic Solar Cells (Adv. Energy Mater. 44/2021). <i>Advanced Energy Materials</i> , 2021 , 11, 2170175	21.8	0
76	Unraveling the Unconventional Order of a High-Mobility Indacenodithiophene-Benzothiadiazole Copolymer.. <i>ACS Macro Letters</i> , 2021 , 10, 1306-1314	6.6	2
75	Printed Memtransistor Utilizing a Hybrid Perovskite/Organic Heterojunction Channel. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 51592-51601	9.5	4
74	Oligoethylene Glycol Side Chains Increase Charge Generation in Organic Semiconductor Nanoparticles for Enhanced Photocatalytic Hydrogen Evolution. <i>Advanced Materials</i> , 2021 , e2105007	24	6
73	Impact of Acceptor Quadrupole Moment on Charge Generation and Recombination in Blends of IDT-Based Non-Fullerene Acceptors with PCE10 as Donor Polymer. <i>Advanced Energy Materials</i> , 2021 , 11, 2100839	21.8	6
72	Extremely efficient flexible organic solar cells with a graphene transparent anode: Dependence on number of layers and doping of graphene. <i>Carbon</i> , 2021 , 171, 350-358	10.4	12
71	Intrinsic efficiency limits in low-bandgap non-fullerene acceptor organic solar cells. <i>Nature Materials</i> , 2021 , 20, 378-384	27	108
70	Non-fullerene-based organic photodetectors for infrared communication. <i>Journal of Materials Chemistry C</i> , 2021 , 9, 2375-2380	7.1	12
69	17.1% Efficient Single-Junction Organic Solar Cells Enabled by n-Type Doping of the Bulk-Heterojunction. <i>Advanced Science</i> , 2020 , 7, 1903419	13.6	110
68	Enhanced photocatalytic hydrogen evolution from organic semiconductor heterojunction nanoparticles. <i>Nature Materials</i> , 2020 , 19, 559-565	27	171
67	Afterglow Effects as a Tool to Screen Emissive Nongeminate Charge Recombination Processes in Organic Photovoltaic Composites. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 2695-2707	9.5	3
66	Energetic Disorder and Activation Energy in Efficient Ternary Organic Solar Cells with Nonfullerene Acceptor Eh-IDTBR as the Third Component. <i>Solar Rrl</i> , 2020 , 4, 1900403	7.1	33
65	Long-range exciton diffusion in molecular non-fullerene acceptors. <i>Nature Communications</i> , 2020 , 11, 5220	17.4	87
64	Effects of Fluorination on Fused Ring Electron Acceptor for Active Layer Morphology, Exciton Dissociation, and Charge Recombination in Organic Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 56231-56239	9.5	8
63	High-density polyethylene as an inert additive with stabilizing effects on organic field-effect transistors. <i>Journal of Materials Chemistry C</i> , 2020 , 8, 15406-15415	7.1	8
62	End Group Tuning in Acceptor-Donor-Acceptor Nonfullerene Small Molecules for High Fill Factor Organic Solar Cells. <i>Advanced Functional Materials</i> , 2019 , 29, 1808429	15.6	33
61	Suppression of Recombination Losses in Polymer:Nonfullerene Acceptor Organic Solar Cells due to Aggregation Dependence of Acceptor Electron Affinity. <i>Advanced Energy Materials</i> , 2019 , 9, 1901254	21.8	42

60	Charge carrier transport and nanomorphology control for efficient non-fullerene organic solar cells. <i>Materials Today Energy</i> , 2019 , 12, 398-407	7	20
59	P3HT Molecular Weight Determines the Performance of P3HT:O-IDTBR Solar Cells. <i>Solar Rrl</i> , 2019 , 3, 1900023	7.1	21
58	Fused Pyrazine- and Carbazole-Containing Azaacenes: Synthesis and Properties. <i>ChemPlusChem</i> , 2019 , 84, 1257-1262	2.8	5
57	Impact of Nonfullerene Acceptor Side Chain Variation on Transistor Mobility. <i>Advanced Electronic Materials</i> , 2019 , 5, 1900344	6.4	30
56	Heavy-Metal-Free Flexible Hybrid Polymer-Nanocrystal Photodetectors Sensitive to 1.5 μ m Wavelength. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 42571-42579	9.5	6
55	The Effect of Ring Expansion in Thienobenzobenzindacenodithiophene Polymers for Organic Field-Effect Transistors. <i>Journal of the American Chemical Society</i> , 2019 , 141, 18806-18813	16.4	23
54	Carrier Transport and Recombination in Efficient All-Small-Molecule Solar Cells with the Nonfullerene Acceptor IDTBR. <i>Advanced Energy Materials</i> , 2018 , 8, 1800264	21.8	52
53	Alkylated indacenodithieno[3,2-b]thiophene-based all donor ladder-type conjugated polymers for organic thin film transistors. <i>Journal of Materials Chemistry C</i> , 2018 , 6, 2004-2009	7.1	15
52	A Highly Crystalline Fused-Ring n-Type Small Molecule for Non-Fullerene Acceptor Based Organic Solar Cells and Field-Effect Transistors. <i>Advanced Functional Materials</i> , 2018 , 28, 1802895	15.6	63
51	An Analysis of the Factors Determining the Efficiency of Photocurrent Generation in Polymer:Nonfullerene Acceptor Solar Cells. <i>Advanced Energy Materials</i> , 2018 , 8, 1801537	21.8	20
50	Robust nonfullerene solar cells approaching unity external quantum efficiency enabled by suppression of geminate recombination. <i>Nature Communications</i> , 2018 , 9, 2059	17.4	141
49	Highly Efficient and Reproducible Nonfullerene Solar Cells from Hydrocarbon Solvents. <i>ACS Energy Letters</i> , 2017 , 2, 1494-1500	20.1	74
48	Photophysical Study of DPPTT-T/PC70BM Blends and Solar Devices as a Function of Fullerene Loading: An Insight into EQE Limitations of DPP-Based Polymers. <i>Advanced Functional Materials</i> , 2017 , 27, 1604426	15.6	12
47	Dithiopheneindeno[1,2-b]fluorene (TIF) Semiconducting Polymers with Very High Mobility in Field-Effect Transistors. <i>Advanced Materials</i> , 2017 , 29, 1702523	24	61
46	Controlling Long-Lived Triplet Generation from Intramolecular Singlet Fission in the Solid State. <i>Journal of Physical Chemistry Letters</i> , 2017 , 8, 6086-6091	6.4	26
45	Small Molecule/Polymer Blend Organic Transistors with Hole Mobility Exceeding 13 cm ² V ⁻¹ s ⁻¹ . <i>Advanced Materials</i> , 2016 , 28, 7791-8	24	141
44	A Novel Alkylated Indacenodithieno[3,2-b]thiophene-Based Polymer for High-Performance Field-Effect Transistors. <i>Advanced Materials</i> , 2016 , 28, 3922-7	24	100
43	Compatibility of amorphous triarylamine copolymers with solution-processed hole injecting metal oxide bottom contacts. <i>Journal of Materials Chemistry C</i> , 2015 , 3, 4530-4536	7.1	7

42	An electron beam evaporated TiO ₂ layer for high efficiency planar perovskite solar cells on flexible polyethylene terephthalate substrates. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 22824-22829	13	105
41	High-Performance Solution-Processed Low-Voltage Polymer Thin-Film Transistors With Low- κ /High- κ Bilayer Gate Dielectric. <i>IEEE Electron Device Letters</i> , 2015 , 36, 950-952	4.4	53
40	Top-Gate Dry-Etching Patterned Polymer Thin-Film Transistors With a Protective Layer on Top of the Channel. <i>IEEE Electron Device Letters</i> , 2015 , 36, 59-61	4.4	17
39	Cross-linked Polymer-Blend Gate Dielectrics through Thermal Click Chemistry. <i>Chemistry - A European Journal</i> , 2015 , 21, 17762-8	4.8	9
38	Optimisation of diketopyrrolopyrrole:fullerene solar cell performance through control of polymer molecular weight and thermal annealing. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 19282-19289	13	23
37	Bis-lactam-based donor polymers for organic solar cells: Evolution by design. <i>Thin Solid Films</i> , 2014 , 560, 82-85	2.2	2
36	Material Crystallinity as a Determinant of Triplet Dynamics and Oxygen Quenching in Donor Polymers for Organic Photovoltaic Devices. <i>Advanced Functional Materials</i> , 2014 , 24, 1474-1482	15.6	56
35	Molecular origin of high field-effect mobility in an indacenodithiophene-benzothiadiazole copolymer. <i>Nature Communications</i> , 2013 , 4, 2238	17.4	384
34	High mobility field-effect transistors with versatile processing from a small-molecule organic semiconductor. <i>Advanced Materials</i> , 2013 , 25, 4352-7	24	116
33	Influence of crystallinity and energetics on charge separation in polymer-inorganic nanocomposite films for solar cells. <i>Scientific Reports</i> , 2013 , 3, 1531	4.9	81
32	In-situ monitoring of molecular vibrations of two organic semiconductors in photovoltaic blends and their impact on thin film morphology. <i>Applied Physics Letters</i> , 2013 , 102, 173302	3.4	20
31	Spectroscopic and morphological investigation of conjugated photopolymerisable quinquethiophene liquid crystals. <i>Current Applied Physics</i> , 2012 , 12, e59-e66	2.6	4
30	Synthesis of novel thieno[3,2-b]thienobis(silolothiophene) based low bandgap polymers for organic photovoltaics. <i>Chemical Communications</i> , 2012 , 48, 7699-701	5.8	60
29	Correlating Emissive Non-Geminate Charge Recombination with Photocurrent Generation Efficiency in Polymer/Perylene Diimide Organic Photovoltaic Blend Films. <i>Advanced Functional Materials</i> , 2012 , 22, 2318-2326	15.6	28
28	Solution-processed small molecule-polymer blend organic thin-film transistors with hole mobility greater than 5 cm ² /Vs. <i>Advanced Materials</i> , 2012 , 24, 2441-6	24	202
27	A Systematic Approach to the Design Optimization of Light-Absorbing Indenofluorene Polymers for Organic Photovoltaics. <i>Advanced Energy Materials</i> , 2012 , 2, 260-265	21.8	47
26	Design of semiconducting indacenodithiophene polymers for high performance transistors and solar cells. <i>Accounts of Chemical Research</i> , 2012 , 45, 714-22	24.3	229
25	Pyrrroloindacenodithiophene containing polymers for organic field effect transistors and organic photovoltaics. <i>Journal of Materials Chemistry</i> , 2011 , 21, 18744		48

24	Silaindacenodithiophene Semiconducting Polymers for Efficient Solar Cells and High-Mobility Ambipolar Transistors. <i>Chemistry of Materials</i> , 2011 , 23, 768-770	9.6	120
23	Transient Optoelectronic Analysis of Charge Carrier Losses in a Selenophene/Fullerene Blend Solar Cell. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 5947-5957	3.8	141
22	Energy versus electron transfer in organic solar cells: a comparison of the photophysics of two indenofluorene: fullerene blend films. <i>Chemical Science</i> , 2011 , 2, 1111	9.4	42
21	Thieno[3,2-b]thiophene-diketopyrrolopyrrole-containing polymers for high-performance organic field-effect transistors and organic photovoltaic devices. <i>Journal of the American Chemical Society</i> , 2011 , 133, 3272-5	16.4	809
20	Synthesis of a novel fused thiophene-thieno[3,2-b]thiophene-thiophene donor monomer and co-polymer for use in OPV and OFETs. <i>Macromolecular Rapid Communications</i> , 2011 , 32, 1664-8	4.8	38
19	Indacenodithiophene-co-benzothiadiazole Copolymers for High Performance Solar Cells or Transistors via Alkyl Chain Optimization. <i>Macromolecules</i> , 2011 , 44, 6649-6652	5.5	152
18	Understanding the Influence of Morphology on Poly(3-hexylselenothiophene):PCBM Solar Cells. <i>Macromolecules</i> , 2010 , 43, 1169-1174	5.5	86
17	Indacenodithiophene semiconducting polymers for high-performance, air-stable transistors. <i>Journal of the American Chemical Society</i> , 2010 , 132, 11437-9	16.4	463
16	High mobility ambipolar charge transport in polyselenophene conjugated polymers. <i>Advanced Materials</i> , 2010 , 22, 2371-5	24	172
15	Recombination dynamics as a key determinant of open circuit voltage in organic bulk heterojunction solar cells: a comparison of four different donor polymers. <i>Advanced Materials</i> , 2010 , 22, 4987-92	24	343
14	Delayed luminescence spectroscopy of organic photovoltaic binary blend films: Probing the emissive non-geminate charge recombination. <i>Advanced Materials</i> , 2010 , 22, 5183-7	24	24
13	Semiconducting Thienothiophene Copolymers: Design, Synthesis, Morphology, and Performance in Thin-Film Organic Transistors. <i>Advanced Materials</i> , 2009 , 21, 1091-1109	24	382
12	Systematic improvement in charge carrier mobility of air stable triarylamine copolymers. <i>Journal of the American Chemical Society</i> , 2009 , 131, 10814-5	16.4	148
11	Charge carrier formation in polythiophene/fullerene blend films studied by transient absorption spectroscopy. <i>Journal of the American Chemical Society</i> , 2008 , 130, 3030-42	16.4	576
10	An alignable fluorene thienothiophene copolymer with deep-blue electroluminescent emission at 410 nm. <i>Chemical Communications</i> , 2008 , 1079-81	5.8	44
9	Electrical Properties of Reactive Liquid Crystal Semiconductors. <i>Japanese Journal of Applied Physics</i> , 2008 , 47, 488-491	1.4	19
8	Regioregular poly(3-hexyl)selenophene: a low band gap organic hole transporting polymer. <i>Chemical Communications</i> , 2007 , 5061-3	5.8	298
7	Designing solution-processable air-stable liquid crystalline crosslinkable semiconductors. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2006 , 364, 2779-87	3	9

6	Liquid-crystalline semiconducting polymers with high charge-carrier mobility. <i>Nature Materials</i> , 2006 , 5, 328-33	27	1836
5	Alkylidene Fluorene Liquid Crystalline Semiconducting Polymers for Organic Field Effect Transistor Devices. <i>Macromolecules</i> , 2004 , 37, 5250-5256	5-5	75
4	Self-assembled liquid crystalline solution processable semiconductors 2004 ,		1
3	Polymerisable liquid crystalline organic semiconductors and their fabrication in organic field effect transistors. <i>Journal of Materials Chemistry</i> , 2003 , 13, 2436		92
2	Chemical Design Rules for Non-Fullerene Acceptors in Organic Solar Cells. <i>Advanced Energy Materials</i> , 2102363	21.8	7
1	Low-Defect, High Molecular Weight Indacenodithiophene (IDT) Polymers Via a C ₆₀ Activation: Evaluation of a Simpler and Greener Approach to Organic Electronic Materials 1503-1512		3