Zhen Wang

List of Publications by Year
in descending order

41 papers	2,126 citations	304368 22 h-index	288905 40 g-index
41 all docs	41 docs citations	41 times ranked	2311 citing authors

#	Article	IF	Citations
1	Fluorination-enabled optimal morphology leads to over 11% efficiency for inverted small-molecule organic solar cells. Nature Communications, 2016, 7, 13740.	5.8	549
2	From Alloy-Like to Cascade Blended Structure: Designing High-Performance All-Small-Molecule Ternary Solar Cells. Journal of the American Chemical Society, 2018, 140, 1549-1556.	6.6	145
3	Thermodynamic Properties and Molecular Packing Explain Performance and Processing Procedures of Three D18:NFA Organic Solar Cells. Advanced Materials, 2020, 32, e2005386.	11.1	130
4	Selective Hole and Electron Transport in Efficient Quaternary Blend Organic Solar Cells. Joule, 2020, 4, 1790-1805.	11.7	110
5	Combining Energy Transfer and Optimized Morphology for Highly Efficient Ternary Polymer Solar Cells. Advanced Energy Materials, 2017, 7, 1602552.	10.2	97
6	Acceptor Endâ€Capped Oligomeric Conjugated Molecules with Broadened Absorption and Enhanced Extinction Coefficients for Highâ€Efficiency Organic Solar Cells. Advanced Materials, 2016, 28, 5980-5985.	11.1	87
7	Improve the Performance of the Allâ€Smallâ€Molecule Nonfullerene Organic Solar Cells through Enhancing the Crystallinity of Acceptors. Advanced Energy Materials, 2018, 8, 1702377.	10.2	87
8	Tailoring non-fullerene acceptors using selenium-incorporated heterocycles for organic solar cells with over 16% efficiency. Journal of Materials Chemistry A, 2020, 8, 23756-23765.	5.2	85
9	High Miscibility Compatible with Ordered Molecular Packing Enables an Excellent Efficiency of 16.2% in Allâ€Smallâ€Molecule Organic Solar Cells. Advanced Materials, 2022, 34, e2106316.	11.1	74
10	Deciphering the Role of Chalcogen-Containing Heterocycles in Nonfullerene Acceptors for Organic Solar Cells. ACS Energy Letters, 2020, 5, 3415-3425.	8.8	73
11	Aâ€"Ï€â€"Dâ€"Ï€â€"A Electronâ€Donating Small Molecules for Solutionâ€Processed Organic Solar Cells: A Review. Macromolecular Rapid Communications, 2017, 38, 1700470.	2.0	70
12	Modulating Energy Level on an Aâ€Dâ€Aâ€²â€Dâ€Aâ€Type Unfused Acceptor by a Benzothiadiazole Core Enables Organic Solar Cells with Simple Procedure and High Performance. Solar Rrl, 2020, 4, 2000421.	3.1	48
13	Understanding the Impact of Hierarchical Nanostructure in Ternary Organic Solar Cells. Advanced Science, 2015, 2, 1500250.	5.6	43
14	Incorporation of alkylthio side chains on benzothiadiazole-based non-fullerene acceptors enables high-performance organic solar cells with over 16% efficiency. Journal of Materials Chemistry A, 2020, 8, 23239-23247.	5.2	39
15	Two-dimensional benzo[1,2-<i>b</i>:4,5-<i>b</i>â€²]difuran-based wide bandgap conjugated polymers for efficient fullerene-free polymer solar cells. Journal of Materials Chemistry A, 2018, 6, 4023-4031.	5.2	37
16	Orientationally engineered 2D/3D perovskite for high efficiency solar cells. Sustainable Energy and Fuels, 2020, 4, 324-330.	2.5	35
17	Macroscopic helical chirality and self-motion of hierarchical self-assemblies induced by enantiomeric small molecules. Nature Communications, 2018, 9, 3808.	5.8	34
18	Versatile asymmetric thiophene/benzothiophene flanked diketopyrrolopyrrole polymers with ambipolar properties for OFETs and OSCs. Polymer Chemistry, 2017, 8, 5603-5610.	1.9	33

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19	Fluorination-substitution effect on all-small-molecule organic solar cells. Science China Chemistry, 2019, 62, 837-844.	4.2	32
20	Modulation of the Molecular Orientation at the Bulk Heterojunction Interface via Tuning the Small Molecular Donorâ€“Nonfullerene Acceptor Interactions. ACS Applied Materials & Interfaces, 2018, 10, 31526-31534.	4.0	26
21	Organic Solar Cells Based on High Hole Mobility Conjugated Polymer and Nonfullerene Acceptor with Comparable Bandgaps and Suitable Energy Level Offsets Showing Significant Suppression of <i>J</i>_{sc}â€“<i>V</i>_{oc} Tradeâ€Off. Solar Rrl, 2019, 3, 1900079.	3.1	25
22	Impact of Isomer Design on Physicochemical Properties and Performance in High-Efficiency All-Polymer Solar Cells. Macromolecules, 2020, 53, 9026-9033.	2.2	25
23	Wide-Bandgap Conjugated Polymers Based on Alkylthiofuran-Substituted Benzo[1,2-<i>b</i>:4,5-<i>b</i>â€²]difuran for Efficient Fullerene-Free Polymer Solar Cells. Macromolecules, 2018, 51, 2498-2505.	2.2	23
24	Ternary Organic Solar Cells Based on Two Nonâ€fullerene Acceptors with Complimentary Absorption and Balanced Crystallinity. Chinese Journal of Chemistry, 2020, 38, 935-940.	2.6	21
25	Branched Alkoxy Side Chain Enables High-Performance Non-Fullerene Acceptors with High Open-Circuit Voltage and Highly Ordered Molecular Packing. Chemistry of Materials, 2022, 34, 2059-2068.	3.2	20
26	Aromatic end-capped acceptor effects on molecular stacking and the photovoltaic performance of solution-processable small molecules. Journal of Materials Chemistry A, 2018, 6, 22077-22085.	5.2	19
27	An Asymmetrical Polymer Based on Thieno[2,3-<i>f</i>]benzofuran for Efficient Fullerene-Free Polymer Solar Cells. ACS Applied Energy Materials, 2018, 1, 1888-1892.	2.5	18
28	1D/2A ternary blend active layer enables as-cast polymer solar cells with higher efficiency, better thickness tolerance, and higher thermal stability. Organic Electronics, 2018, 61, 359-365.	1.4	18
29	Efficient Polymer Solar Cells With High Fill Factor Enabled by A Furo[3,4â€c]pyrroleâ€4,6â€dioneâ€Based Copolymer. Solar Rrl, 2019, 3, 1900012.	3.1	17
30	Chain Engineering of Benzodifuranâ€Based Wideâ€Bandgap Polymers for Efficient Nonâ€Fullerene Polymer Solar Cells. Macromolecular Rapid Communications, 2019, 40, e1900227.	2.0	15
31	Functionalization of Benzotriazole-Based Conjugated Polymers for Solar Cells: Heteroatom vs Substituents. ACS Applied Polymer Materials, 2021, 3, 30-41.	2.0	14
32	Selfâ€Doped and Crownâ€Ether Functionalized Fullerene as Cathode Buffer Layer for Highlyâ€Efficient Inverted Polymer Solar Cells. Advanced Energy Materials, 2016, 6, .	10.2	13
33	Suppressing charge recombination in small-molecule ternary organic solar cells by modulating donorâ€“acceptor interfacial arrangements. Physical Chemistry Chemical Physics, 2018, 20, 24570-24576.	1.3	13
34	Naphtho[1,2â€b:5,6â€bâ€²]dithiopheneâ€Based Conjugated Polymers for Fullereneâ€Free Inverted Polymer Solar Cells. Macromolecular Rapid Communications, 2018, 39, e1700872.	2.0	11
35	Creating Side Transport Pathways in Organic Solar Cells by Introducing Delayed Fluorescence Molecules. Chemistry of Materials, 2021, 33, 4578-4585.	3.2	11
36	A-Ï€-D-Ï€-A small-molecule donors with different end alkyl chains obtain different morphologies in organic solar cells. Chinese Chemical Letters, 2019, 30, 906-910.	4.8	8

#	Article	IF	Citations
37	Revealing aggregation of non-fullerene acceptors in intermixed phase by ultraviolet-visible absorption spectroscopy. Cell Reports Physical Science, 2022, 3, 100983.	2.8	6
38	Efficient post-treatment-free polymer solar cells from indacenodithiophene and fluorinated quinoxaline-based conjugated polymers. Dyes and Pigments, 2018, 154, 164-171.	2.0	5
39	Optically Probing Field-Dependent Charge Dynamics in Non-Fullerene Organic Photovoltaics with Small Interfacial Energy Offsets. Journal of Physical Chemistry C, 2021, 125, 1714-1722.	1.5	5
40	Fluorination Induced Donor to Acceptor Transformation in A1â€“Dâ€“A2â€“Dâ€“A1-Type Photovoltaic Small Molecules. Frontiers in Chemistry, 2018, 6, 384.	1.8	4
41	Effect of Side-Chain Variation on Single-Crystalline Structures for Revealing the Structureâ€“Property Relationships of Organic Solar Cells. Organic Materials, 2020, 02, 026-032.	1.0	1