

# Zheng Tang

## List of Publications by Year in Descending Order

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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.

116  
papers

3,920  
citations

34  
h-index

59  
g-index

129  
ext. papers

5,685  
ext. citations

13.8  
avg, IF

5.7  
L-index

#	Paper	IF	Citations
116	Polymerized Small Molecular Acceptor with Branched Side Chains for All Polymer Solar Cells with Efficiency over 16.7%. <i>Advanced Materials</i> , <b>2022</b> , e2110155	24	19
115	Enhancing the Performance of Small-Molecule Organic Solar Cells via Fused-Ring Design.. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2022</b> , 14, 7093-7101	9.5	5
114	Correlating Electronic Structure and Device Physics with Mixing Region Morphology in High-Efficiency Organic Solar Cells.. <i>Advanced Science</i> , <b>2022</b> , e2104613	13.6	1
113	High-performance nonfused ring electron acceptor with a steric hindrance induced planar molecular backbone. <i>Science China Chemistry</i> , <b>2022</b> , 65, 594	7.9	3
112	Enhancing organic photovoltaic performance with 3D-transport dual nonfullerene acceptors. <i>Journal of Materials Chemistry A</i> , <b>2022</b> , 10, 1948-1955	13	2
111	Diphenylamine Substituted High-performance Fully Nonfused Ring Electron Acceptors: The Effect of Isomerism. <i>Chemical Engineering Journal</i> , <b>2022</b> , 435, 134987	14.7	2
110	Molecular Doping Increases the Semitransparent Photovoltaic Performance of Dilute Bulk Heterojunction Film with Discontinuous Polymer Donor Networks.. <i>Small Methods</i> , <b>2022</b> , e2101570	12.8	3
109	Voltage Losses and Charge Transfer States in Donor-Acceptor Organic Solar Cells <b>2022</b> , 591-612		0
108	Revealing the Sole Impact of Acceptor's Molecular Conformation to Energy Loss and Device Performance of Organic Solar Cells through Positional Isomers.. <i>Advanced Science</i> , <b>2022</b> , e2103428	13.6	1
107	High efficiency ternary organic solar cells via morphology regulation with asymmetric nonfused ring electron acceptor. <i>Chemical Engineering Journal</i> , <b>2022</b> , 438, 135384	14.7	3
106	Recent progress in organic solar cells (Part I material science). <i>Science China Chemistry</i> , <b>2022</b> , 65, 224-268	7.9	48
105	Low-cost polymer acceptors with noncovalently fused-ring backbones for efficient all-polymer solar cells. <i>Science China Chemistry</i> , <b>2022</b> , 65, 926	7.9	3
104	Vertically optimized phase separation with improved exciton diffusion enables efficient organic solar cells with thick active layers.. <i>Nature Communications</i> , <b>2022</b> , 13, 2369	17.4	23
103	A simple high-performance fully nonfused ring electron acceptor with a planar molecular backbone. <i>Chemical Engineering Journal</i> , <b>2022</b> , 444, 136472	14.7	2
102	High-Performance Non-fullerene Organic Solar Cells Enabled by Noncovalent Conformational Locks and Side-Chain Engineering. <i>Chemical Engineering Journal</i> , <b>2022</b> , 137206	14.7	2
101	Chlorination Enabling a Low-Cost Benzodithiophene-Based Wide-Bandgap Donor Polymer with an Efficiency of over 17. <i>Advanced Materials</i> , <b>2021</b> , e2105483	24	13
100	Increasing donor-acceptor spacing for reduced voltage loss in organic solar cells. <i>Nature Communications</i> , <b>2021</b> , 12, 6679	17.4	7

99	Kinetics Manipulation Enables High-performance Thick Ternary Organic Solar Cells via R2R Compatible Slot-die Coating. <i>Advanced Materials</i> , <b>2021</b> , e2105114	24	13
98	Incorporating semiflexible linkers into double-cable conjugated polymers via a click reaction. <i>Polymer Chemistry</i> , <b>2021</b> , 12, 6865-6872	4.9	0
97	Isomeric Effect in Unidirectionally Extended Fused-Ring Electron Acceptors. <i>Chemistry of Materials</i> , <b>2021</b> , 33, 441-451	9.6	3
96	Patterned Blade Coating Strategy Enables the Enhanced Device Reproducibility and Optimized Morphology of Organic Solar Cells. <i>Advanced Energy Materials</i> , <b>2021</b> , 11, 2100098	21.8	16
95	Enhancing Photovoltaic Performances of Naphthalene-Based Unfused-Ring Electron Acceptors upon Regioisomerization. <i>Solar Rrl</i> , <b>2021</b> , 5, 2100094	7.1	9
94	Identifying the Electrostatic and Entropy-Related Mechanisms for Charge-Transfer Exciton Dissociation at Doped Organic Heterojunctions. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2101892	15.6	10
93	Achieving a Higher Energy Charge-Transfer State and Reduced Voltage Loss for Organic Solar Cells using Nonfullerene Acceptors with Norbornenyl-Functionalized Terminal Groups. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 24765-24773	9.5	1
92	High-Efficiency Organic Solar Cells Based on Asymmetric Acceptors Bearing One 3D Shape-Persistent Terminal Group. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2103445	15.6	13
91	Cavity-Enhanced Near-Infrared Organic Photodetectors Based on a Conjugated Polymer Containing [1,2,5]Selenadiazolo[3,4-c]Pyridine. <i>Chemistry of Materials</i> , <b>2021</b> , 33, 5147-5155	9.6	5
90	Synergistically minimized nonradiative energy loss and optimized morphology achieved via the incorporation of small molecule donor in 17.7% efficiency ternary polymer solar cells. <i>Nano Energy</i> , <b>2021</b> , 85, 105963	17.1	27
89	Carboxylate substituted pyrazine: A simple and low-cost building block for novel wide bandgap polymer donor enables 15.3% efficiency in organic solar cells. <i>Nano Energy</i> , <b>2021</b> , 82, 105679	17.1	17
88	Observing long-range non-fullerene backbone ordering in real-space to improve the charge transport properties of organic solar cells. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 16733-16742	13	5
87	A facile strategy for third-component selection in non-fullerene acceptor-based ternary organic solar cells. <i>Energy and Environmental Science</i> , <b>2021</b> , 14, 5009-5016	35.4	46
86	Formation of persistent free radicals in sludge biochar by hydrothermal carbonization. <i>Environmental Chemistry Letters</i> , <b>2021</b> , 19, 2705-2712	13.3	3
85	High-efficiency organic solar cells with low voltage loss induced by solvent additive strategy. <i>Matter</i> , <b>2021</b> , 4, 2542-2552	12.7	52
84	High-Performance Simple Nonfused Ring Electron Acceptors with Diphenylamino Flanking Groups. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 39652-39659	9.5	13
83	Different Morphology Dependence for Efficient Indoor Organic Photovoltaics: The Role of the Leakage Current and Recombination Losses. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 44604-44614	9.5	3
82	Revealing the Side-Chain-Dependent Ordering Transition of Highly Crystalline Double-Cable Conjugated Polymers. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 25499-25507	16.4	6

81	Fullerene as an additive for increasing the efficiency of organic solar cells to more than 17. <i>Journal of Colloid and Interface Science</i> , <b>2021</b> , 601, 70-77	9.3	8
80	Improving quantum efficiency in organic solar cells with a small energetic driving force. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 19770-19777	13	16
79	An underestimated photoactive area in organic solar cells based on a ZnO interlayer. <i>Journal of Materials Chemistry C</i> , <b>2021</b> , 9, 11753-11760	7.1	3
78	Single-layered organic photovoltaics with double cascading charge transport pathways: 18% efficiencies. <i>Nature Communications</i> , <b>2021</b> , 12, 309	17.4	302
77	Stacked Dual-Wavelength Near-Infrared Organic Photodetectors. <i>Advanced Optical Materials</i> , <b>2021</b> , 9, 2001784	8.1	13
76	P3HT-Based Organic Solar Cells with a Photoresponse to 1000 nm Enabled by Narrow Band Gap Nonfullerene Acceptors with High HOMO Levels.. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 61487-61495	9.5	1495
75	Enhancing the Performance of Organic Solar Cells by Prolonging the Lifetime of Photogenerated Excitons. <i>Advanced Materials</i> , <b>2020</b> , 32, e2003164	24	21
74	Non-Fullerene Acceptors: Efficient Organic Solar Cell with 16.88% Efficiency Enabled by Refined Acceptor Crystallization and Morphology with Improved Charge Transfer and Transport Properties (Adv. Energy Mater. 18/2020). <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 2070083	21.8	2
73	Balancing the pre-aggregation and crystallization kinetics enables high efficiency slot-die coated organic solar cells with reduced non-radiative recombination losses. <i>Energy and Environmental Science</i> , <b>2020</b> , 13, 2467-2479	35.4	36
72	High-Efficiency Perovskite Quantum Dot Hybrid Nonfullerene Organic Solar Cells with Near-Zero Driving Force. <i>Advanced Materials</i> , <b>2020</b> , 32, e2002066	24	28
71	Achieving Balanced Crystallization Kinetics of Donor and Acceptor by Sequential-Blade Coated Double Bulk Heterojunction Organic Solar Cells. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 2000826	21.8	39
70	Efficient Organic Solar Cell with 16.88% Efficiency Enabled by Refined Acceptor Crystallization and Morphology with Improved Charge Transfer and Transport Properties. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 1904234	21.8	252
69	A novel wide-bandgap small molecule donor for high efficiency all-small-molecule organic solar cells with small non-radiative energy losses. <i>Energy and Environmental Science</i> , <b>2020</b> , 13, 1309-1317	35.4	64
68	Effects of linking units on fused-ring electron acceptor dimers. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 13735-13741	13	7
67	Non-fullerene organic solar cells based on a BODIPY-polymer as electron donor with high photocurrent. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 2232-2237	7.1	11
66	Asymmetrically noncovalently fused-ring acceptor for high-efficiency organic solar cells with reduced voltage loss and excellent thermal stability. <i>Nano Energy</i> , <b>2020</b> , 74, 104861	17.1	39
65	High-efficiency ternary nonfullerene polymer solar cells with increased phase purity and reduced nonradiative energy loss. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 2123-2130	13	24
64	High-efficiency ternary nonfullerene organic solar cells with record long-term thermal stability. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 22907-22917	13	15

63	Efficient all-polymer solar cells based on a narrow-bandgap polymer acceptor. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 16180-16187	7.1	9
62	Butterfly Effects Arising from Starting Materials in Fused-Ring Electron Acceptors. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 20124-20133	16.4	45
61	Efficient Ternary Organic Solar Cells with a New Electron Acceptor Based on 3,4-(2,2-Dihexylpropylenedioxy)thiophene. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 40590-40598	8.5	12
60	A Fully Non-fused Ring Acceptor with Planar Backbone and Near-IR Absorption for High Performance Polymer Solar Cells. <i>Angewandte Chemie - International Edition</i> , <b>2020</b> , 59, 22714-22720	16.4	87
59	A Fully Non-fused Ring Acceptor with Planar Backbone and Near-IR Absorption for High Performance Polymer Solar Cells. <i>Angewandte Chemie</i> , <b>2020</b> , 132, 22903-22909	3.6	12
58	Hot Hydrocarbon-Solvent Slot-Die Coating Enables High-Efficiency Organic Solar Cells with Temperature-Dependent Aggregation Behavior. <i>Advanced Materials</i> , <b>2020</b> , 32, e2002302	24	65
57	Miscibility-Controlled Phase Separation in Double-Cable Conjugated Polymers for Single-Component Organic Solar Cells with Efficiencies over 8 . <i>Angewandte Chemie - International Edition</i> , <b>2020</b> , 59, 21683-21692	16.4	45
56	Miscibility-Controlled Phase Separation in Double-Cable Conjugated Polymers for Single-Component Organic Solar Cells with Efficiencies over 8 %. <i>Angewandte Chemie</i> , <b>2020</b> , 132, 21867-21876 <sup>11</sup>	3.6	11
55	Fused octacyclic electron acceptor isomers for organic solar cells. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 21432-21437	13	21
54	New roles of fused-ring electron acceptors in organic solar cells. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 4766-4770	13	3
53	Organic Cavity Photodetectors Based on Nanometer-Thick Active Layers for Tunable Monochromatic Spectral Response. <i>ACS Photonics</i> , <b>2019</b> , 6, 1393-1399	6.3	21
52	High-Efficiency As-Cast Organic Solar Cells Based on Acceptors with Steric Hindrance Induced Planar Terminal Group. <i>Advanced Energy Materials</i> , <b>2019</b> , 9, 1901280	21.8	64
51	Thermal-Driven Phase Separation of Double-Cable Polymers Enables Efficient Single-Component Organic Solar Cells. <i>Joule</i> , <b>2019</b> , 3, 1765-1781	27.8	79
50	Noncovalently fused-ring electron acceptors with near-infrared absorption for high-performance organic solar cells. <i>Nature Communications</i> , <b>2019</b> , 10, 3038	17.4	166
49	Crystalline Cooperativity of Donor and Acceptor Segments in Double-Cable Conjugated Polymers toward Efficient Single-Component Organic Solar Cells. <i>Angewandte Chemie</i> , <b>2019</b> , 131, 15678-15686	3.6	8
48	Crystalline Cooperativity of Donor and Acceptor Segments in Double-Cable Conjugated Polymers toward Efficient Single-Component Organic Solar Cells. <i>Angewandte Chemie - International Edition</i> , <b>2019</b> , 58, 15532-15540	16.4	31
47	Enhancing the Performance of a Fused-Ring Electron Acceptor by Unidirectional Extension. <i>Journal of the American Chemical Society</i> , <b>2019</b> , 141, 19023-19031	16.4	102
46	Small Band gap Boron Dipyrrromethene-Based Conjugated Polymers for All-Polymer Solar Cells: The Effect of Methyl Units. <i>Macromolecules</i> , <b>2019</b> , 52, 8367-8373	5.5	14

45	Ultrathin MoO <sub>3</sub> Layers in Composite Metal Electrodes: Improved Optics Allow Highly Efficient Organic Light-Emitting Diodes. <i>Advanced Optical Materials</i> , <b>2019</b> , 7, 1801262	8.1	9
44	DNA Based Hybrid Material for Interface Engineering in Polymer Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 9579-9586	9.5	15
43	Asymmetric photocurrent extraction in semitransparent laminated flexible organic solar cells. <i>Npj Flexible Electronics</i> , <b>2018</b> , 2,	10.7	36
42	Electrothermal Feedback and Absorption-Induced Open-Circuit-Voltage Turnover in Solar Cells. <i>Physical Review Applied</i> , <b>2018</b> , 9,	4.3	12
41	Relating open-circuit voltage losses to the active layer morphology and contact selectivity in organic solar cells. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 12574-12581	13	53
40	Polymer:Fullerene Bimolecular Crystals for Near-Infrared Spectroscopic Photodetectors. <i>Advanced Materials</i> , <b>2017</b> , 29, 1702184	24	105
39	Performance limitations in thieno[3,4-c]pyrrole-4,6-dione-based polymer:ITIC solar cells. <i>Physical Chemistry Chemical Physics</i> , <b>2017</b> , 19, 23990-23998	3.6	27
38	Effect of Alkyl Side Chains of Conjugated Polymer Donors on the Device Performance of Non-Fullerene Solar Cells. <i>Macromolecules</i> , <b>2016</b> , 49, 6445-6454	5.5	70
37	Self-doped conjugated polyelectrolyte with tuneable work function for effective hole transport in polymer solar cells. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 15670-15675	13	26
36	Diketopyrrolopyrrole Polymers with Thienyl and Thiazolyl Linkers for Application in Field-Effect Transistors and Polymer Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 30328-30335	9.5	23
35	New method for lateral mapping of bimolecular recombination in thin-film organic solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , <b>2016</b> , 24, 1096-1108	6.8	7
34	Inverted all-polymer solar cells based on a quinoxalinethiophene/naphthalene-diimide polymer blend improved by annealing. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 3835-3843	13	51
33	Flexible, light trapping substrates for organic photovoltaics. <i>Applied Physics Letters</i> , <b>2016</b> , 109, 093301	3.4	24
32	Fully-solution-processed organic solar cells with a highly efficient paper-based light trapping element. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 24289-24296	13	19
31	Ethanedithiol Treatment of Solution-Processed ZnO Thin Films: Controlling the Intragap States of Electron Transporting Interlayers for Efficient and Stable Inverted Organic Photovoltaics. <i>Advanced Energy Materials</i> , <b>2015</b> , 5, 1401606	21.8	121
30	A new fullerene-free bulk-heterojunction system for efficient high-voltage and high-fill factor solution-processed organic photovoltaics. <i>Advanced Materials</i> , <b>2015</b> , 27, 1900-7	24	77
29	Structure-property relationships of oligothiophene-indigo polymers for efficient bulk-heterojunction solar cells. <i>Energy and Environmental Science</i> , <b>2014</b> , 7, 361-369	35.4	100
28	Sub-glass transition annealing enhances polymer solar cell performance. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 6146-6152	13	43



27	Improving Cathodes with a Polymer Interlayer in Reversed Organic Solar Cells. <i>Advanced Energy Materials</i> , <b>2014</b> , 4, 1400643	21.8	31
26	A Facile Method to Enhance Photovoltaic Performance of Benzodithiophene-Isoindigo Polymers by Inserting Bithiophene Spacer. <i>Advanced Energy Materials</i> , <b>2014</b> , 4, 1301455	21.8	58
25	Charge carrier generation and transport in different stoichiometry APFO3:PC61BM solar cells. <i>Journal of the American Chemical Society</i> , <b>2014</b> , 136, 11331-8	16.4	29
24	Light trapping in thin film organic solar cells. <i>Materials Today</i> , <b>2014</b> , 17, 389-396	21.8	111
23	Polarization Imaging of Emissive Charge Transfer States in Polymer/Fullerene Blends. <i>Chemistry of Materials</i> , <b>2014</b> , 26, 6695-6704	9.6	12
22	Bulk Heterojunction Morphology Control and Characterization <b>2014</b> , 335-384		3
21	Light Trapping with Dielectric Scatterers in Single- and Tandem-Junction Organic Solar Cells. <i>Advanced Energy Materials</i> , <b>2013</b> , 3, 1606-1613	21.8	28
20	Origin of Reduced Bimolecular Recombination in Blends of Conjugated Polymers and Fullerenes. <i>Advanced Functional Materials</i> , <b>2013</b> , 23, 4262-4268	15.6	72
19	Unified Study of Recombination in Polymer:Fullerene Solar Cells Using Transient Absorption and Charge-Extraction Measurements. <i>Journal of Physical Chemistry Letters</i> , <b>2013</b> , 4, 2069-72	6.4	24
18	Molecular orbital energy level modulation through incorporation of selenium and fluorine into conjugated polymers for organic photovoltaic cells. <i>Journal of Materials Chemistry A</i> , <b>2013</b> , 1, 13422	13	26
17	Interlayer for modified cathode in highly efficient inverted ITO-free organic solar cells. <i>Advanced Materials</i> , <b>2012</b> , 24, 554-8	24	88
16	Inverted indium-tin-oxide-free cone-shaped polymer solar cells for light trapping. <i>Applied Physics Letters</i> , <b>2012</b> , 100, 213901	3.4	25
15	Influences of Surface Roughness of ZnO Electron Transport Layer on the Photovoltaic Performance of Organic Inverted Solar Cells. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 24462-24468	3.8	103
14	Quantification of Quantum Efficiency and Energy Losses in Low Bandgap Polymer:Fullerene Solar Cells with High Open-Circuit Voltage. <i>Advanced Functional Materials</i> , <b>2012</b> , 22, 3480-3490	15.6	164
13	Semi-Transparent Tandem Organic Solar Cells with 90% Internal Quantum Efficiency. <i>Advanced Energy Materials</i> , <b>2012</b> , 2, 1467-1476	21.8	93
12	Light trapping with total internal reflection and transparent electrodes in organic photovoltaic devices. <i>Applied Physics Letters</i> , <b>2012</b> , 101, 163902	3.4	18
11	Ternary Strategy Enabling High-Efficiency Rigid and Flexible Organic Solar Cells with Reduced Non-radiative Voltage Loss. <i>Energy and Environmental Science</i> ,	35.4	17
10	High-Efficiency Organic Solar Cells with Reduced Nonradiative Voltage Loss Enabled by a Highly Emissive Narrow Bandgap Fused Ring Acceptor. <i>Advanced Functional Materials</i> , 2107756	15.6	9

9	Effect of Molecular Symmetry on Fused-Ring Electron Acceptors. <i>Solar Rrl</i> ,2100797	7.1	1
8	Simple Nonfused Ring Electron Acceptors with 3D Network Packing Structure Boosting the Efficiency of Organic Solar Cells to 15.44%. <i>Advanced Energy Materials</i> ,2102591	21.8	23
7	Simple Nonfused-Ring Electron Acceptors with Noncovalently Conformational Locks for Low-Cost and High-Performance Organic Solar Cells Enabled by End-Group Engineering. <i>Advanced Functional Materials</i> ,2108861	15.6	13
6	Effective Strategy to Improve Contact Selectivity in Organic Solar Cells. <i>ACS Applied Energy Materials</i> ,	6.1	1
5	Improving the performance of organic solar cells by side chain engineering of fused ring electron acceptors. <i>Journal of Materials Chemistry C</i> ,	7.1	5
4	Achieving small non-radiative energy loss through synergically non-fullerene electron acceptor selection and side chain engineering in benzo[1,2-b:4,5-b']difuran polymer-based organic solar cells. <i>Journal of Materials Chemistry A</i> ,	13	7
3	Interfacial energetic disorder induced by the molecular packing structure at conjugated polymer-based donor/acceptor heterojunctions. <i>Journal of Materials Chemistry C</i> ,	7.1	1
2	Tuning Acceptor Composition in Ternary Organic Photovoltaics Impact of Domain Purity on Non-Radiative Voltage Losses. <i>Advanced Energy Materials</i> ,2103735	21.8	4
1	Recent progress in organic solar cells (Part II device engineering). <i>Science China Chemistry</i> ,	7.9	12