

Yahui Liu

List of Publications by Year in descending order

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3,782
citations

147726

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times ranked

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citing authors

#	ARTICLE	IF	CITATIONS
1	Exploiting Noncovalently Conformational Locking as a Design Strategy for High Performance Fused-Ring Electron Acceptor Used in Polymer Solar Cells. <i>Journal of the American Chemical Society</i> , 2017, 139, 3356-3359.	6.6	499
2	Recent progress in organic solar cells (Part I material science). <i>Science China Chemistry</i> , 2022, 65, 224-268.	4.2	349
3	Fused-Ring Acceptors with Asymmetric Side Chains for High-Performance Thick-Film Organic Solar Cells. <i>Advanced Materials</i> , 2017, 29, 1703527.	11.1	238
4	Engineered Ionic Gates for Ion Conduction Based on Sodium and Potassium Activated Nanochannels. <i>Journal of the American Chemical Society</i> , 2015, 137, 11976-11983.	6.6	184
5	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> , 2020, 59, 22714-22720.	7.2	184
6	Recent progress in organic solar cells (Part II device engineering). <i>Science China Chemistry</i> , 2022, 65, 1457-1497.	4.2	157
7	Enhancing the Performance of Organic Solar Cells by Hierarchically Supramolecular Self-Assembly of Fused-Ring Electron Acceptors. <i>Chemistry of Materials</i> , 2018, 30, 4307-4312.	3.2	116
8	Nonfullerene Acceptors with Enhanced Solubility and Ordered Packing for High-Efficiency Polymer Solar Cells. <i>ACS Energy Letters</i> , 2018, 3, 1832-1839.	8.8	115
9	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> , 2021, 11, 2102591.	10.2	111
10	Simultaneous enhancement of the molecular planarity and the solubility of non-fullerene acceptors: effect of aliphatic side-chain substitution on the photovoltaic performance. <i>Journal of Materials Chemistry A</i> , 2017, 5, 7776-7783.	5.2	87
11	Regulating the Packing of Non-Fullerene Acceptors via Multiple Noncovalent Interactions for Enhancing the Performance of Organic Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 4638-4648.	4.0	87
12	High-Efficiency As-Cast Organic Solar Cells Based on Acceptors with Steric Hindrance Induced Planar Terminal Group. <i>Advanced Energy Materials</i> , 2019, 9, 1901280.	10.2	86
13	Automatic Identification of Tool Wear Based on Convolutional Neural Network in Face Milling Process. <i>Sensors</i> , 2019, 19, 3817.	2.1	84
14	1,8-Naphthalimide-Based Planar Small Molecular Acceptor for Organic Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 5475-5483.	4.0	80
15	4-Alkyl-3,5-difluorophenyl-Substituted Benzodithiophene-Based Wide Band Gap Polymers for High-Efficiency Polymer Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 3686-3692.	4.0	75
16	Effect of Non-fullerene Acceptors' Side Chains on the Morphology and Photovoltaic Performance of Organic Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 33906-33912.	4.0	66
17	Designing high performance conjugated materials for photovoltaic cells with the aid of intramolecular noncovalent interactions. <i>Chemical Communications</i> , 2021, 57, 302-314.	2.2	65
18	Small molecule acceptors with a ladder-like core for high-performance organic solar cells with low non-radiative energy losses. <i>Journal of Materials Chemistry A</i> , 2020, 8, 12495-12501.	5.2	57

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19	Chlorination Enabling a Low-Cost Benzodithiophene-Based Wide-Bandgap Donor Polymer with an Efficiency of over 17%. <i>Advanced Materials</i> , 2022, 34, e2105483.	11.1	53
20	Random Terpolymer Enabling High-Efficiency Organic Solar Cells Processed by Nonhalogenated Solvent with a Low Nonradiative Energy Loss. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	49
21	High-Performance Simple Nonfused Ring Electron Acceptors with Diphenylamino Flanking Groups. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 39652-39659.	4.0	47
22	High efficiency small molecular acceptors based on novel O-functionalized ladder-type dipyran building block. <i>Nano Energy</i> , 2018, 45, 10-20.	8.2	45
23	Noncovalently Fused-Ring Electron Acceptors with C_2v Symmetry for Regulating the Morphology of Organic Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 46220-46230.	4.0	43
24	Enhancing the Performance of Organic Solar Cells by Prolonging the Lifetime of Photogenerated Excitons. <i>Advanced Materials</i> , 2020, 32, e2003164.	11.1	42
25	An effective way to reduce energy loss and enhance open-circuit voltage in polymer solar cells based on a diketopyrrolopyrrole polymer containing three regular alternating units. <i>Journal of Materials Chemistry A</i> , 2016, 4, 13265-13270.	5.2	41
26	Crosslinked and dopant free hole transport materials for efficient and stable planar perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 5522-5529.	5.2	41
27	Controlling Molecular Packing and Orientation via Constructing a Ladder-Type Electron Acceptor with Asymmetric Substituents for Thick-Film Nonfullerene Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 3098-3106.	4.0	40
28	Enhancing the power conversion efficiency of polymer solar cells to 9.26% by a synergistic effect of fluoro and carboxylate substitution. <i>Journal of Materials Chemistry A</i> , 2016, 4, 8097-8104.	5.2	39
29	Enhancing the Performance of Non-Fullerene Organic Solar Cells Using Regioregular Wide-Bandgap Polymers. <i>Macromolecules</i> , 2018, 51, 8646-8651.	2.2	39
30	Perylene diimide based star-shaped small molecular acceptors for high efficiency organic solar cells. <i>Journal of Materials Chemistry C</i> , 2019, 7, 819-825.	2.7	37
31	High-performance nonfused ring electron acceptor with a steric hindrance induced planar molecular backbone. <i>Science China Chemistry</i> , 2022, 65, 594-601.	4.2	33
32	The influence of the π -bridging unit of fused-ring acceptors on the performance of organic solar cells. <i>Journal of Materials Chemistry A</i> , 2018, 6, 21335-21340.	5.2	30
33	High-efficiency ternary nonfullerene polymer solar cells with increased phase purity and reduced nonradiative energy loss. <i>Journal of Materials Chemistry A</i> , 2020, 8, 2123-2130.	5.2	29
34	A Versatile Planar Building Block with C_{2v} Symmetry for High-Performance Non-Halogenated Solvent Processable Polymer Donors. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	29
35	Fused pentacyclic electron acceptors with four <i>cis</i> -arranged alkyl side chains for efficient polymer solar cells. <i>Journal of Materials Chemistry A</i> , 2018, 6, 3724-3729.	5.2	27
36	Elimination of the $J-V$ hysteresis of planar perovskite solar cells by interfacial modification with a thermo-cleavable fullerene derivative. <i>Journal of Materials Chemistry A</i> , 2016, 4, 17649-17654.	5.2	24

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37	A Fully Non-fused Ring Acceptor with Planar Backbone and Near-IR Absorption for High Performance Polymer Solar Cells. <i>Angewandte Chemie</i> , 2020, 132, 22903-22909.	1.6	23
38	Efficient Organic Solar Cells Based on Non-Fullerene Acceptors with Two Planar Thiophene-Fused Perylene Diimide Units. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 10746-10754.	4.0	23
39	Enhance the performance of polymer solar cells via extension of the flanking end groups of fused ring acceptors. <i>Science China Chemistry</i> , 2018, 61, 1320-1327.	4.2	22
40	Photovoltaic Performances of Fused Ring Acceptors with Isomerized Ladder-Type Dipyran Cores. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 4887-4894.	4.0	20
41	Influence of polymer side chains on the photovoltaic performance of non-fullerene organic solar cells. <i>Journal of Materials Chemistry C</i> , 2017, 5, 937-942.	2.7	19
42	Hybrid Nonfused-Ring Electron Acceptors with Fullerene Pendant for High-Efficiency Organic Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 1603-1611.	4.0	19
43	A simple high-performance fully nonfused ring electron acceptor with a planar molecular backbone. <i>Chemical Engineering Journal</i> , 2022, 444, 136472.	6.6	19
44	Perylene diimide acceptor with two planar arms and a twisted core for high efficiency polymer solar cells. <i>Dyes and Pigments</i> , 2020, 175, 108186.	2.0	17
45	Diphenylamine Substituted High-performance Fully Nonfused Ring Electron Acceptors: The Effect of Isomerism. <i>Chemical Engineering Journal</i> , 2022, 435, 134987.	6.6	17
46	High efficiency polymer solar cells based on alkylthio substituted benzothiadiazole-quaterthiophene alternating conjugated polymers. <i>Organic Electronics</i> , 2017, 40, 36-41.	1.4	16
47	High efficiency ternary polymer solar cells based on a fused pentacyclic electron acceptor. <i>Journal of Materials Chemistry A</i> , 2018, 6, 6854-6859.	5.2	16
48	Molecular-Shape-Controlled Nonfused Ring Electron Acceptors for High-Performance Organic Solar Cells with Tunable Phase Morphology. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 28807-28815.	4.0	16
49	Synthesis of a metal oxide affinity chromatography magnetic mesoporous nanomaterial and development of a one-step selective phosphopeptide enrichment strategy for analysis of phosphorylated proteins. <i>Analytica Chimica Acta</i> , 2022, 1195, 339430.	2.6	15
50	Ultrafast Carrier Dynamics of Non-fullerene Acceptors with Different Planarity: Impact of Steric Hindrance. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 5860-5866.	2.1	15
51	Enhancing the Performance of Polymer Solar Cells by Using Donor Polymers Carrying Discretely Distributed Side Chains. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 24020-24026.	4.0	14
52	Insights into out-of-plane side chains effects on optoelectronic and photovoltaic properties of simple non-fused electron acceptors. <i>Organic Electronics</i> , 2021, 89, 106029.	1.4	14
53	A Green Solvent Processable Wide-Bandgap Conjugated Polymer for Organic Solar Cells. <i>Solar Rrl</i> , 2020, 4, 2000547.	3.1	13
54	Regulating molecular orientations of dipyrans-based nonfullerene acceptors through side-chain engineering at the π -bridge. <i>Journal of Materials Chemistry A</i> , 2020, 8, 22416-22422.	5.2	13

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55	Improving the performance of organic solar cells by side chain engineering of fused ring electron acceptors. <i>Journal of Materials Chemistry C</i> , 2021, 9, 6937-6943.	2.7	13
56	Flexible Rigid Synergetic Strategy for Saddle-Shaped Perylene Diimide Acceptors in As-Cast Polymer Solar Cells. <i>Journal of Physical Chemistry C</i> , 2021, 125, 10841-10849.	1.5	12
57	Designing High-Performance Nonfused Ring Electron Acceptors via Synergistically Adjusting Side Chains and Electron-Withdrawing End-Groups. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 21287-21294.	4.0	12
58	Efficient polymer solar cells processed by environmentally friendly halogen-free solvents. <i>RSC Advances</i> , 2016, 6, 39074-39079.	1.7	11
59	Ternary Strategy Enabling High-Performance Organic Solar Cells with Optimized Film Morphology and Reduced Nonradiative Energy Loss. <i>Solar Rrl</i> , 2021, 5, 2100806.	3.1	10
60	Enhancing the Efficiency of Polymer Solar Cells by Incorporation of 2,5-Difluorobenzene Units into the Polymer Backbone via Random Copolymerization. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 23775-23781.	4.0	9
61	Fused-ring acceptor with a spiro-bridged ladder-type core for organic solar cells. <i>Dyes and Pigments</i> , 2019, 163, 153-158.	2.0	9
62	Improving the Efficiency of Organic Solar Cells by Introducing Perylene Diimide Derivative as Third Component and Individually Dissolving Donor/Acceptor. <i>ChemSusChem</i> , 2021, 14, 5442-5449.	3.6	9
63	Fused perylene diimide dimer as nonfullerene acceptor for high-performance organic solar cells. <i>Dyes and Pigments</i> , 2021, 189, 109269.	2.0	8
64	Nonfused Ring Electron Acceptors with a Small Side-Chain Difference Lead to Vastly Different Power Conversion Efficiencies: Impact of Aggregation. <i>Journal of Physical Chemistry C</i> , 2021, 125, 23613-23621.	1.5	8
65	Polymer solar cells based on spontaneously-spreading film with double electron-transporting layers. <i>Organic Electronics</i> , 2019, 69, 56-61.	1.4	7
66	Nonfullerene acceptors comprising a naphthalene core for high efficiency organic solar cells. <i>RSC Advances</i> , 2019, 9, 39163-39169.	1.7	7
67	Bis(carboxylate) substituted benzodithiophene based wide-bandgap polymers for high performance nonfullerene polymer solar cells. <i>Dyes and Pigments</i> , 2019, 162, 120-125.	2.0	7
68	Enhancing the Photovoltaic Performance of a Benzo[1,2,5]thiadiazole-Based Polymer Donor via a Non-Fullerene Acceptor Pairing Strategy. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 53021-53028.	4.0	6
69	The preparation of Ag ₃ BiBr ₆ films and their preliminary use for solution processed photovoltaics. <i>SN Applied Sciences</i> , 2019, 1, 1.	1.5	5
70	Fluoro-Modulated Molecular Geometry in Diketopyrrolopyrrole-Based Low-Bandgap Copolymers for Tuning the Photovoltaic Performance. <i>Frontiers in Chemistry</i> , 2019, 7, 333.	1.8	3
71	Effect of Polymer Chain Regularity on the Photovoltaic Performance of Organic Solar Cells. <i>Chinese Journal of Polymer Science (English Edition)</i> , 2022, 40, 996-1002.	2.0	3
72	Enhancing the performance of organic solar cells by modification of cathode with a self-assembled monolayer of aromatic organophosphonic acid. <i>Chinese Chemical Letters</i> , 2023, 34, 107495.	4.8	2

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73	Thermal annealing effect on non-fused ring acceptor based bulk heterojunction investigated by transient absorption spectroscopy. Journal of Photochemistry and Photobiology, 2022, 11, 100129.	1.1	2