

Jiayu Wang

List of Publications by Year in descending order

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71
papers

11,234
citations

101543

36
h-index

88630

70
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71
all docs

71
docs citations

71
times ranked

6372
citing authors

#	ARTICLE	IF	CITATIONS
1	Intrinsically inert hyperbranched interlayer for enhanced stability of organic solar cells. <i>Science Bulletin</i> , 2022, 67, 171-177.	9.0	20
2	Effect of Molecular Symmetry on Fused-Ring Electron Acceptors. <i>Solar Rrl</i> , 2022, 6, 2100797.	5.8	3
3	Pushing the Efficiency of High Open-Circuit Voltage Binary Organic Solar Cells by Vertical Morphology Tuning. <i>Advanced Science</i> , 2022, 9, e2200578.	11.2	51
4	From Perylene Diimide Polymers to Fused-Ring Electron Acceptors: A 15-Year Exploration Journey of Nonfullerene Acceptors. <i>Chinese Journal of Chemistry</i> , 2022, 40, 1592-1607.	4.9	25
5	Reducing Energy Disorder in Perovskite Solar Cells by Chelation. <i>Journal of the American Chemical Society</i> , 2022, 144, 5400-5410.	13.7	72
6	Fused-Ring Electron Acceptors for Photovoltaics and Beyond. <i>Accounts of Chemical Research</i> , 2021, 54, 132-143.	15.6	264
7	Effects of ĩ-Bridge on Fused-Ring Electron Acceptor Dimers. <i>ACS Applied Polymer Materials</i> , 2021, 3, 23-29.	4.4	9
8	Enhancing photovoltaic performance via aggregation dynamics control in fused-ring electron acceptor. <i>Aggregate</i> , 2021, 2, e29.	9.9	10
9	A Novel, Weakly N-Doped Cathode-Modifying Layer in Organic Solar Cells. <i>Energy Technology</i> , 2021, 9, 2100281.	3.8	10
10	Pyrrolo[3,2-b]pyrrole-based fused-ring electron acceptors with strong near-infrared absorption beyond 1000Ånm. <i>Dyes and Pigments</i> , 2021, 195, 109705.	3.7	4
11	Isomeric Effect in Unidirectionally Extended Fused-Ring Electron Acceptors. <i>Chemistry of Materials</i> , 2021, 33, 441-451.	6.7	6
12	Film-depth-dependent crystallinity for light transmission and charge transport in semitransparent organic solar cells. <i>Journal of Materials Chemistry A</i> , 2020, 8, 401-411.	10.3	45
13	Charge separation boosts exciton diffusion in fused ring electron acceptors. <i>Journal of Materials Chemistry A</i> , 2020, 8, 23304-23312.	10.3	18
14	Enhancing Open-Circuit Voltage of High-Efficiency Nonfullerene Ternary Solar Cells with a Star-Shaped Acceptor. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 50660-50667.	8.0	16
15	Reducing V_{OC} loss via structure compatible and high lowest unoccupied molecular orbital nonfullerene acceptors for over 17% efficiency ternary organic photovoltaics. <i>EcoMat</i> , 2020, 2, e12061.	11.9	23
16	Effects of alkoxylation position on fused-ring electron acceptors. <i>Journal of Materials Chemistry C</i> , 2020, 8, 15128-15134.	5.5	8
17	High-Efficiency Perovskite Quantum Dot Hybrid Nonfullerene Organic Solar Cells with Near-Zero Driving Force. <i>Advanced Materials</i> , 2020, 32, e2002066.	21.0	46
18	An Alkoxy-Solubilizing Decacyclic Electron Acceptor for Efficient Ecofriendly As-Cast Blade-Coated Organic Solar Cells. <i>Solar Rrl</i> , 2020, 4, 2000108.	5.8	11

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19	Effects of linking units on fused-ring electron acceptor dimers. <i>Journal of Materials Chemistry A</i> , 2020, 8, 13735-13741.	10.3	8
20	Enhancing Performance of Fused-Ring Electron Acceptor Using Pyrrole Instead of Thiophene. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 14029-14036.	8.0	25
21	Comparison of Fused-Ring Electron Acceptors with One- and Multidimensional Conformations. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 23976-23983.	8.0	10
22	A thiophene-fused benzotriazole unit as a "bridge" in A-D-A type acceptor to achieve more balanced JSC and VOC for OSCs. <i>Organic Electronics</i> , 2020, 82, 105705.	2.6	10
23	Constructing High-Performance Organic Photovoltaics via Emerging Non-Fullerene Acceptors and Tandem-Junction Structure. <i>Advanced Energy Materials</i> , 2020, 10, 2000746.	19.5	41
24	Facile synthesis of high-performance nonfullerene acceptor isomers via a one stone two birds strategy. <i>Journal of Materials Chemistry A</i> , 2019, 7, 20667-20674.	10.3	19
25	Enhancing the JSC of P3HT-Based OSCs via a Thiophene-Fused Aromatic Heterocycle as a "Bridge" for A-D-A Type Acceptors. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 26005-26016.	8.0	19
26	Black Phosphorous Quantum Dots Sandwiched Organic Solar Cells. <i>Small</i> , 2019, 15, e1903977.	10.0	41
27	Fused octacyclic electron acceptor isomers for organic solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 21432-21437.	10.3	26
28	Pairing 1D/2D-conjugation donors/acceptors towards high-performance organic solar cells. <i>Materials Chemistry Frontiers</i> , 2019, 3, 276-283.	5.9	9
29	Rylene Diimide Electron Acceptors for Organic Solar Cells. <i>Trends in Chemistry</i> , 2019, 1, 869-881.	8.5	66
30	The impact of fluorination on both donor polymer and non-fullerene acceptor: The more fluorine, the merrier. <i>Nano Research</i> , 2019, 12, 2400-2405.	10.4	28
31	Fused thienobenzene-thienothiophene electron acceptors for organic solar cells. <i>Journal of Energy Chemistry</i> , 2019, 37, 58-65.	12.9	7
32	Effects of Terminal Groups in Third Components on Performance of Organic Solar Cells. <i>Wuli Huaxue Xuebao/ Acta Physico-Chimica Sinica</i> , 2019, 35, 275-283.	4.9	3
33	Fused Tris(thienothiophene)-Based Electron Acceptor with Strong Near-Infrared Absorption for High-Performance As-Cast Solar Cells. <i>Advanced Materials</i> , 2018, 30, 1705969.	21.0	340
34	Fused-Ring Electron Acceptor ITIC-Ph: A Novel Stabilizer for Halide Perovskite Precursor Solution. <i>Advanced Energy Materials</i> , 2018, 8, 1703399.	19.5	112
35	Bayannulated indigo based near-infrared sensitive polymer for organic solar cells. <i>Journal of Polymer Science Part A</i> , 2018, 56, 213-220.	2.3	6
36	Naphthodithiophene-Based Nonfullerene Acceptor for High-Performance Organic Photovoltaics: Effect of Extended Conjugation. <i>Advanced Materials</i> , 2018, 30, 1704713.	21.0	199

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37	Enhancing the performance of a fused-ring electron acceptor <i>via</i> extending benzene to naphthalene. <i>Journal of Materials Chemistry C</i> , 2018, 6, 66-71.	5.5	38
38	High-performance ternary organic solar cells with photoresponses beyond 1000 nm. <i>Journal of Materials Chemistry A</i> , 2018, 6, 24210-24215.	10.3	31
39	Unique Energy Alignments of a Ternary Material System toward High-Performance Organic Photovoltaics. <i>Advanced Materials</i> , 2018, 30, e1801501.	21.0	116
40	Hidden Structure Ordering Along Backbone of Fused-Ring Electron Acceptors Enhanced by Ternary Bulk Heterojunction. <i>Advanced Materials</i> , 2018, 30, e1802888.	21.0	212
41	Effect of Isomerization on High-Performance Nonfullerene Electron Acceptors. <i>Journal of the American Chemical Society</i> , 2018, 140, 9140-9147.	13.7	361
42	Enhancing the performance of non-fullerene organic solar cells <i>via</i> end group engineering of fused-ring electron acceptors. <i>Journal of Materials Chemistry A</i> , 2018, 6, 16638-16644.	10.3	47
43	Alkoxy-Induced Near-Infrared Sensitive Electron Acceptor for High-Performance Organic Solar Cells. <i>Chemistry of Materials</i> , 2018, 30, 4150-4156.	6.7	79
44	Realizing Small Energy Loss of 0.55 eV, High Open-Circuit Voltage >1 V and High Efficiency >10% in Fullerene-Free Polymer Solar Cells via Energy Driver. <i>Advanced Materials</i> , 2017, 29, 1605216.	21.0	230
45	Single-Junction Binary Blend Nonfullerene Polymer Solar Cells with 12.1% Efficiency. <i>Advanced Materials</i> , 2017, 29, 1700144.	21.0	629
46	High-Mobility p-Type Organic Semiconducting Interlayer Enhancing Efficiency and Stability of Perovskite Solar Cells. <i>Advanced Science</i> , 2017, 4, 1700025.	11.2	36
47	Fused Hexacyclic Nonfullerene Acceptor with Strong Near-Infrared Absorption for Semitransparent Organic Solar Cells with 9.77% Efficiency. <i>Advanced Materials</i> , 2017, 29, 1701308.	21.0	364
48	Conjugated Lewis Base: Efficient Trap Passivation and Charge Extraction for Hybrid Perovskite Solar Cells. <i>Advanced Materials</i> , 2017, 29, 1604545.	21.0	543
49	Enhancing performance of non-fullerene organic solar cells via side chain engineering of fused-ring electron acceptors. <i>Dyes and Pigments</i> , 2017, 139, 627-634.	3.7	48
50	Enhancing Performance of Nonfullerene Acceptors via Side-Chain Conjugation Strategy. <i>Advanced Materials</i> , 2017, 29, 1702125.	21.0	249
51	Enhancing Efficiency and Stability of Organic Solar Cells by UV Absorbent. <i>Solar Rrl</i> , 2017, 1, 1700148.	5.8	21
52	Nonfullerene acceptor with strong near-infrared absorption for polymer solar cells. <i>Dyes and Pigments</i> , 2017, 137, 553-559.	3.7	14
53	Spiro[fluorene-9,9'-xanthene]-based hole transporting materials for efficient perovskite solar cells with enhanced stability. <i>Materials Chemistry Frontiers</i> , 2017, 1, 100-110.	5.9	84
54	Alloy Acceptor: Superior Alternative to PCBM toward Efficient and Stable Organic Solar Cells. <i>Advanced Materials</i> , 2016, 28, 8021-8028.	21.0	207

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55	Structure Evolution of Oligomer Fused-Ring Electron Acceptors toward High Efficiency of As-Cast Polymer Solar Cells. <i>Advanced Energy Materials</i> , 2016, 6, 1600854.	19.5	152
56	Triarylamine: Versatile Platform for Organic, Dye-Sensitized, and Perovskite Solar Cells. <i>Chemical Reviews</i> , 2016, 116, 14675-14725.	47.7	418
57	Influence of Thiophene Moiety on the Excited State Properties of Push-Pull Chromophores. <i>Journal of Physical Chemistry C</i> , 2016, 120, 13922-13930.	3.1	14
58	Cracking perylene diimide backbone for fullerene-free polymer solar cells. <i>Dyes and Pigments</i> , 2016, 128, 226-234.	3.7	18
59	A Facile Planar Fused-Ring Electron Acceptor for As-Cast Polymer Solar Cells with 8.71% Efficiency. <i>Journal of the American Chemical Society</i> , 2016, 138, 2973-2976.	13.7	885
60	Monodisperse macromolecules based on benzodithiophene and diketopyrrolopyrrole with strong NIR absorption and high mobility. <i>Journal of Materials Chemistry C</i> , 2016, 4, 3781-3791.	5.5	22
61	Efficient fullerene-free organic solar cells based on fused-ring oligomer molecules. <i>Journal of Materials Chemistry A</i> , 2016, 4, 1486-1494.	10.3	48
62	An Electron Acceptor Challenging Fullerenes for Efficient Polymer Solar Cells. <i>Advanced Materials</i> , 2015, 27, 1170-1174.	21.0	3,365
63	Spirobifluorene-based acceptors for polymer solar cells: Effect of isomers. <i>Dyes and Pigments</i> , 2015, 123, 16-25.	3.7	16
64	Oligothiophene-bridged perylene diimide dimers for fullerene-free polymer solar cells: effect of bridge length. <i>Journal of Materials Chemistry A</i> , 2015, 3, 13000-13010.	10.3	45
65	Nonfullerene acceptors based on extended fused rings flanked with benzothiadiazolylmethylenemalononitrile for polymer solar cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 20758-20766.	10.3	88
66	An electron acceptor based on indacenodithiophene and 1,1-dicyanomethylene-3-indanone for fullerene-free organic solar cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 1910-1914.	10.3	137
67	High-performance fullerene-free polymer solar cells with 6.31% efficiency. <i>Energy and Environmental Science</i> , 2015, 8, 610-616.	30.8	587
68	Solar Cells: A Star-Shaped Perylene Diimide Electron Acceptor for High-Performance Organic Solar Cells (<i>Adv. Mater.</i> 30/2014). <i>Advanced Materials</i> , 2014, 26, 5224-5224.	21.0	3
69	A Twisted Dimeric Perylene Diimide Electron Acceptor for Efficient Organic Solar Cells. <i>Advanced Energy Materials</i> , 2014, 4, 1400420.	19.5	126
70	A Star-Shaped Perylene Diimide Electron Acceptor for High-Performance Organic Solar Cells. <i>Advanced Materials</i> , 2014, 26, 5137-5142.	21.0	390
71	CHAPTER 5. Fullerenes and New Acceptors for Organic Solar Cells. <i>RSC Nanoscience and Nanotechnology</i> , 0, , 154-181.	0.2	1