Jiaya Wang

List of Publications by Year
in descending order

71 papers	11,234 citations	101543 36 h-index	88630 70 g-index
71 all docs	71 docs citations	71 times ranked	6372 citing authors

#	Article	IF	Citations
1	An Electron Acceptor Challenging Fullerenes for Efficient Polymer Solar Cells. Advanced Materials, 2015, 27, 1170-1174.	21.0	3,365
2	A Facile Planar Fused-Ring Electron Acceptor for As-Cast Polymer Solar Cells with 8.71% Efficiency. Journal of the American Chemical Society, 2016, 138, 2973-2976.	13.7	885
3	Singleâ€Junction Binaryâ€Blend Nonfullerene Polymer Solar Cells with 12.1% Efficiency. Advanced Materials, 2017, 29, 1700144.	21.0	629
4	High-performance fullerene-free polymer solar cells with 6.31% efficiency. Energy and Environmental Science, 2015, 8, 610-616.	30.8	587
5	Ï€â€Conjugated Lewis Base: Efficient Trapâ€Passivation and Chargeâ€Extraction for Hybrid Perovskite Solar Cells. Advanced Materials, 2017, 29, 1604545.	21.0	543
6	Triarylamine: Versatile Platform for Organic, Dye-Sensitized, and Perovskite Solar Cells. Chemical Reviews, 2016, 116, 14675-14725.	47.7	418
7	A Starâ€Shaped Perylene Diimide Electron Acceptor for Highâ€Performance Organic Solar Cells. Advanced Materials, 2014, 26, 5137-5142.	21.0	390
8	Fused Hexacyclic Nonfullerene Acceptor with Strong Nearâ€Infrared Absorption for Semitransparent Organic Solar Cells with 9.77% Efficiency. Advanced Materials, 2017, 29, 1701308.	21.0	364
9	Effect of Isomerization on High-Performance Nonfullerene Electron Acceptors. Journal of the American Chemical Society, 2018, 140, 9140-9147.	13.7	361
10	Fused Tris(thienothiophene)â€Based Electron Acceptor with Strong Nearâ€Infrared Absorption for Highâ€Performance Asâ€Cast Solar Cells. Advanced Materials, 2018, 30, 1705969.	21.0	340
11	Fused-Ring Electron Acceptors for Photovoltaics and Beyond. Accounts of Chemical Research, 2021, 54, 132-143.	15.6	264
12	Enhancing Performance of Nonfullerene Acceptors via Sideâ€Chain Conjugation Strategy. Advanced Materials, 2017, 29, 1702125.	21.0	249
13	Realizing Small Energy Loss of 0.55 eV, High Openâ€Circuit Voltage >1 V and High Efficiency >10% in Fullereneâ€Free Polymer Solar Cells via Energy Driver. Advanced Materials, 2017, 29, 1605216.	21.0	230
14	Hidden Structure Ordering Along Backbone of Fusedâ€Ring Electron Acceptors Enhanced by Ternary Bulk Heterojunction. Advanced Materials, 2018, 30, e1802888.	21.0	212
15	Alloy Acceptor: Superior Alternative to PCBM toward Efficient and Stable Organic Solar Cells. Advanced Materials, 2016, 28, 8021-8028.	21.0	207
16	Naphthodithiopheneâ€Based Nonfullerene Acceptor for Highâ€Performance Organic Photovoltaics: Effect of Extended Conjugation. Advanced Materials, 2018, 30, 1704713.	21.0	199
17	Structure Evolution of Oligomer Fusedâ€Ring Electron Acceptors toward High Efficiency of Asâ€Cast Polymer Solar Cells. Advanced Energy Materials, 2016, 6, 1600854.	19.5	152
18	An electron acceptor based on indacenodithiophene and 1,1-dicyanomethylene-3-indanone for fullerene-free organic solar cells. Journal of Materials Chemistry A, 2015, 3, 1910-1914.	10.3	137

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19	A Twisted Dimeric Perylene Diimide Electron Acceptor for Efficient Organic Solar Cells. Advanced Energy Materials, 2014, 4, 1400420.	19.5	126
20	Unique Energy Alignments of a Ternary Material System toward Highâ€Performance Organic Photovoltaics. Advanced Materials, 2018, 30, e1801501.	21.0	116
21	Fusedâ€Ring Electron Acceptor ITICâ€Th: A Novel Stabilizer for Halide Perovskite Precursor Solution. Advanced Energy Materials, 2018, 8, 1703399.	19.5	112
22	Nonfullerene acceptors based on extended fused rings flanked with benzothiadiazolylmethylenemalononitrile for polymer solar cells. Journal of Materials Chemistry A, 2015, 3, 20758-20766.	10.3	88
23	Spiro[fluorene-9,9â€²-xanthene]-based hole transporting materials for efficient perovskite solar cells with enhanced stability. Materials Chemistry Frontiers, 2017, 1, 100-110.	5.9	84
24	Alkoxy-Induced Near-Infrared Sensitive Electron Acceptor for High-Performance Organic Solar Cells. Chemistry of Materials, 2018, 30, 4150-4156.	6.7	79
25	Reducing Energy Disorder in Perovskite Solar Cells by Chelation. Journal of the American Chemical Society, 2022, 144, 5400-5410.	13.7	72
26	Rylene Diimide Electron Acceptors for Organic Solar Cells. Trends in Chemistry, 2019, 1, 869-881.	8.5	66
27	Pushing the Efficiency of High Openâ€Circuit Voltage Binary Organic Solar Cells by Vertical Morphology Tuning. Advanced Science, 2022, 9, e2200578.	11.2	51
28	Efficient fullerene-free organic solar cells based on fused-ring oligomer molecules. Journal of Materials Chemistry A, 2016, 4, 1486-1494.	10.3	48
29	Enhancing performance of non-fullerene organic solar cells via side chain engineering of fused-ring electron acceptors. Dyes and Pigments, 2017, 139, 627-634.	3.7	48
30	Enhancing the performance of non-fullerene organic solar cells <i>via</i> end group engineering of fused-ring electron acceptors. Journal of Materials Chemistry A, 2018, 6, 16638-16644.	10.3	47
31	Highâ€Efficiency Perovskite Quantum Dot Hybrid Nonfullerene Organic Solar Cells with Nearâ€Zero Driving Force. Advanced Materials, 2020, 32, e2002066.	21.0	46
32	Oligothiophene-bridged perylene diimide dimers for fullerene-free polymer solar cells: effect of bridge length. Journal of Materials Chemistry A, 2015, 3, 13000-13010.	10.3	45
33	Film-depth-dependent crystallinity for light transmission and charge transport in semitransparent organic solar cells. Journal of Materials Chemistry A, 2020, 8, 401-411.	10.3	45
34	Black Phosphorous Quantum Dots Sandwiched Organic Solar Cells. Small, 2019, 15, e1903977.	10.0	41
35	Constructing Highâ€Performance Organic Photovoltaics via Emerging Nonâ€Fullerene Acceptors and Tandemâ€Junction Structure. Advanced Energy Materials, 2020, 10, 2000746.	19.5	41
36	Enhancing the performance of a fused-ring electron acceptor <i>via</i> extending benzene to naphthalene. Journal of Materials Chemistry C, 2018, 6, 66-71.	5.5	38

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37	Highâ€Mobility pâ€Type Organic Semiconducting Interlayer Enhancing Efficiency and Stability of Perovskite Solar Cells. Advanced Science, 2017, 4, 1700025.	11.2	36
38	High-performance ternary organic solar cells with photoresponses beyond 1000 nm. Journal of Materials Chemistry A, 2018, 6, 24210-24215.	10.3	31
39	The impact of fluorination on both donor polymer and non-fullerene acceptor: The more fluorine, the merrier. Nano Research, 2019, 12, 2400-2405.	10.4	28
40	Fused octacyclic electron acceptor isomers for organic solar cells. Journal of Materials Chemistry A, 2019, 7, 21432-21437.	10.3	26
41	Enhancing Performance of Fused-Ring Electron Acceptor Using Pyrrole Instead of Thiophene. ACS Applied Materials & Interfaces, 2020, 12, 14029-14036.	8.0	25
42	From Perylene Diimide Polymers to <scp>Fusedâ€Ring</scp> Electron Acceptors: A <scp>15â€Year</scp> Exploration Journey of Nonfullerene Acceptors. Chinese Journal of Chemistry, 2022, 40, 1592-1607.	4.9	25
43	Reducing <scp><i>V</i>_{OC}</scp> loss via structure compatible and high <scp>lowest unoccupied molecular orbital</scp> nonfullerene acceptors for over 17%â€efficiency ternary organic photovoltaics. EcoMat, 2020, 2, e12061.	11.9	23
44	Monodisperse macromolecules based on benzodithiophene and diketopyrrolopyrrole with strong NIR absorption and high mobility. Journal of Materials Chemistry C, 2016, 4, 3781-3791.	5.5	22
45	Enhancing Efficiency and Stability of Organic Solar Cells by UV Absorbent. Solar Rrl, 2017, 1, 1700148.	5.8	21
46	Intrinsically inert hyperbranched interlayer for enhanced stability of organic solar cells. Science Bulletin, 2022, 67, 171-177.	9.0	20
47	Facile synthesis of high-performance nonfullerene acceptor isomers <i>via</i> a one stone two birds strategy. Journal of Materials Chemistry A, 2019, 7, 20667-20674.	10.3	19
48	Enhancing the <i>J</i>_{SC} of P3HT-Based OSCs via a Thiophene-Fused Aromatic Heterocycle as a â€œÏ€-Bridgeâ€•for Aâˆ’Ï€â€“Dâˆ’Ï€â€“A-Type Acceptors. ACS Applied Materials & Interfaces, 2019, 11, 26005-26016.	8.0	19
49	Cracking perylene diimide backbone for fullerene-free polymer solar cells. Dyes and Pigments, 2016, 128, 226-234.	3.7	18
50	Charge separation boosts exciton diffusion in fused ring electron acceptors. Journal of Materials Chemistry A, 2020, 8, 23304-23312.	10.3	18
51	Spirobifluorene-based acceptors for polymer solar cells: Effect of isomers. Dyes and Pigments, 2015, 123, 16-25.	3.7	16
52	Enhancing Open-Circuit Voltage of High-Efficiency Nonfullerene Ternary Solar Cells with a Star-Shaped Acceptor. ACS Applied Materials & Interfaces, 2020, 12, 50660-50667.	8.0	16
53	Influence of Thiophene Moiety on the Excited State Properties of Pushâ€“Pull Chromophores. Journal of Physical Chemistry C, 2016, 120, 13922-13930.	3.1	14
54	Nonfullerene acceptor with strong near-infrared absorption for polymer solar cells. Dyes and Pigments, 2017, 137, 553-559.	3.7	14

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55	An Alkoxyâ€Solubilizing Decacyclic Electron Acceptor for Efficient Ecofriendly Asâ€Cast Bladeâ€Coated Organic Solar Cells. Solar Rrl, 2020, 4, 2000108.	5.8	11
56	Comparison of Fused-Ring Electron Acceptors with One- and Multidimensional Conformations. ACS Applied Materials & Interfaces, 2020, 12, 23976-23983.	8.0	10
57	A thiophene-fused benzotriazole unit as a â€œÏ€-bridgeâ€• in A-Ï€-D-Ï€-A type acceptor to achieve more balanced JSC and VOC for OSCs. Organic Electronics, 2020, 82, 105705.	2.6	10
58	Enhancing photovoltaic performance via aggregation dynamics control in fusedâ€ring electron acceptor. Aggregate, 2021, 2, e29.	9.9	10
59	A Novel, Weakly Nâ€Doped Cathodeâ€Modifying Layer in Organic Solar Cells. Energy Technology, 2021, 9, 2100281.	3.8	10
60	Pairing 1D/2D-conjugation donors/acceptors towards high-performance organic solar cells. Materials Chemistry Frontiers, 2019, 3, 276-283.	5.9	9
61	Effects of Ï€-Bridge on Fused-Ring Electron Acceptor Dimers. ACS Applied Polymer Materials, 2021, 3, 23-29.	4.4	9
62	Effects of alkoxylation position on fused-ring electron acceptors. Journal of Materials Chemistry C, 2020, 8, 15128-15134.	5.5	8
63	Effects of linking units on fused-ring electron acceptor dimers. Journal of Materials Chemistry A, 2020, 8, 13735-13741.	10.3	8
64	Fused thienobenzene-thienothiophene electron acceptors for organic solar cells. Journal of Energy Chemistry, 2019, 37, 58-65.	12.9	7
65	Bayâ€annulated indigo based nearâ€infrared sensitive polymer for organic solar cells. Journal of Polymer Science Part A, 2018, 56, 213-220.	2.3	6
66	Isomeric Effect in Unidirectionally Extended Fused-Ring Electron Acceptors. Chemistry of Materials, 2021, 33, 441-451.	6.7	6
67	Pyrrolo[3,2-b]pyrrole-based fused-ring electron acceptors with strong near-infrared absorption beyond 1000Ânm. Dyes and Pigments, 2021, 195, 109705.	3.7	4
68	Solar Cells: A Starâ€Shaped Perylene Diimide Electron Acceptor for Highâ€Performance Organic Solar Cells (Adv. Mater. 30/2014). Advanced Materials, 2014, 26, 5224-5224.	21.0	3
69	Effects of Terminal Groups in Third Components on Performance of Organic Solar Cells. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2019, 35, 275-283.	4.9	3
70	Effect of Molecular Symmetry on Fusedâ€Ring Electron Acceptors. Solar Rrl, 2022, 6, 2100797.	5.8	3
71	CHAPTER 5. Fullerenes and New Acceptors for Organic Solar Cells. RSC Nanoscience and Nanotechnology, 0, , 154-181.	0.2	1