Xiaowei Zhan

List of Publications by Year
in descending order

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371	49,036	3721 89	1668 214
papers	citations	h-index	g-index

382	382	382	23617
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Aggregation-induced emission of 1-methyl-1,2,3,4,5-pentaphenylsilole. Chemical Communications, 2001, , 1740-1741.	2.2	6,387
2	An Electron Acceptor Challenging Fullerenes for Efficient Polymer Solar Cells. Advanced Materials, 2015, 27, 1170-1174.	11.1	3,365
3	Non-fullerene acceptors for organic solar cells. Nature Reviews Materials, 2018, 3, .	23.3	2,163
4	Small molecule semiconductors for high-efficiency organic photovoltaics. Chemical Society Reviews, 2012, 41, 4245.	18.7	1,601
5	Rylene and Related Diimides for Organic Electronics. Advanced Materials, 2011, 23, 268-284.	11.1	1,548
6	Next-generation organic photovoltaics based on non-fullerene acceptors. Nature Photonics, 2018, 12, 131-142.	15.6	1,535
7	A High-Mobility Electron-Transport Polymer with Broad Absorption and Its Use in Field-Effect Transistors and All-Polymer Solar Cells. Journal of the American Chemical Society, 2007, 129, 7246-7247.	6.6	1,110
8	nâ€Type Organic Semiconductors in Organic Electronics. Advanced Materials, 2010, 22, 3876-3892.	11.1	1,077
9	High-Performance Electron Acceptor with Thienyl Side Chains for Organic Photovoltaics. Journal of the American Chemical Society, 2016, 138, 4955-4961.	6.6	915
10	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.	6.6	885
11	Stability of organic solar cells: challenges and strategies. Chemical Society Reviews, 2016, 45, 2544-2582.	18.7	820
12	Fused Nonacyclic Electron Acceptors for Efficient Polymer Solar Cells. Journal of the American Chemical Society, 2017, 139, 1336-1343.	6.6	813
13	Non-fullerene acceptors for organic photovoltaics: an emerging horizon. Materials Horizons, 2014, 1, 470.	6.4	694
14	Singleâ€Junction Binaryâ€Blend Nonfullerene Polymer Solar Cells with 12.1% Efficiency. Advanced Materials, 2017, 29, 1700144.	11.1	629
15	Efficient blue emission from siloles. Journal of Materials Chemistry, 2001, 11, 2974-2978.	6.7	590
16	High-performance fullerene-free polymer solar cells with 6.31% efficiency. Energy and Environmental Science, 2015, 8, 610-616.	15.6	587
17	Oligomer Molecules for Efficient Organic Photovoltaics. Accounts of Chemical Research, 2016, 49, 175-183.	7.6	560
18	Ï€â€Conjugated Lewis Base: Efficient Trapâ€Passivation and Chargeâ€Extraction for Hybrid Perovskite Solar Cells. Advanced Materials, 2017, 29, 1604545.	11.1	543

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19	Structures, Electronic States, Photoluminescence, and Carrier Transport Properties of 1,1-Disubstituted 2,3,4,5-Tetraphenylsiloles. Journal of the American Chemical Society, 2005, 127, 6335-6346.	6.6	490
20	Morphology Control in Organic Solar Cells. Advanced Energy Materials, 2018, 8, 1703147.	10.2	424
21	Triarylamine: Versatile Platform for Organic, Dye-Sensitized, and Perovskite Solar Cells. Chemical Reviews, 2016, 116, 14675-14725.	23.0	418
22	A Starâ€Shaped Perylene Diimide Electron Acceptor for Highâ€Performance Organic Solar Cells. Advanced Materials, 2014, 26, 5137-5142.	11.1	390
23	Electron transporting semiconducting polymers in organic electronics. Chemical Society Reviews, 2011, 40, 3728.	18.7	376
24	Ultrafast and broadband photodetectors based on a perovskite/organic bulk heterojunction for large-dynamic-range imaging. Light: Science and Applications, 2020, 9, 31.	7.7	372
25	Fused Hexacyclic Nonfullerene Acceptor with Strong Nearâ€Infrared Absorption for Semitransparent Organic Solar Cells with 9.77% Efficiency. Advanced Materials, 2017, 29, 1701308.	11.1	364
26	Effect of Isomerization on High-Performance Nonfullerene Electron Acceptors. Journal of the American Chemical Society, 2018, 140, 9140-9147.	6.6	361
27	Mapping Polymer Donors toward Highâ€Efficiency Fullerene Free Organic Solar Cells. Advanced Materials, 2017, 29, 1604155.	11.1	360
28	A Solutionâ€Processable Starâ€Shaped Molecule for Highâ€Performance Organic Solar Cells. Advanced Materials, 2011, 23, 1554-1557.	11.1	348
29	Fused Tris(thienothiophene)â€Based Electron Acceptor with Strong Nearâ€Infrared Absorption for Highâ€Performance Asâ€Cast Solar Cells. Advanced Materials, 2018, 30, 1705969.	11.1	340
30	A Highly Ï€-Stacked Organic Semiconductor for Field-Effect Transistors Based on Linearly Condensed Pentathienoacene. Journal of the American Chemical Society, 2005, 127, 13281-13286.	6.6	334
31	Enhancing the Performance of Polymer Solar Cells via Core Engineering of NIRâ€Absorbing Electron Acceptors. Advanced Materials, 2018, 30, e1706571.	11.1	309
32	A planar electron acceptor for efficient polymer solar cells. Energy and Environmental Science, 2015, 8, 3215-3221.	15.6	307
33	Conjugated polymers for high-efficiency organic photovoltaics. Polymer Chemistry, 2010, 1, 409-419.	1.9	292
34	Thiazoleâ€Based Organic Semiconductors for Organic Electronics. Advanced Materials, 2012, 24, 3087-3106.	11.1	288
35	A 3D star-shaped non-fullerene acceptor for solution-processed organic solar cells with a high open-circuit voltage of 1.18 V. Chemical Communications, 2012, 48, 4773.	2.2	281
36	Efficient ternary blend polymer solar cells with indene-C60 bisadduct as an electron-cascade acceptor. Energy and Environmental Science, 2014, 7, 2005.	15.6	275

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37	Fused-Ring Electron Acceptors for Photovoltaics and Beyond. Accounts of Chemical Research, 2021, 54, 132-143.	7.6	264
38	Enhancing Performance of Nonfullerene Acceptors via Sideâ€Chain Conjugation Strategy. Advanced Materials, 2017, 29, 1702125.	11.1	249
39	New Series of Blue-Emitting and Electron-Transporting Copolymers Based on Fluorene. Macromolecules, 2002, 35, 2529-2537.	2.2	235
40	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.	11.1	230
41	Binary additives synergistically boost the efficiency of all-polymer solar cells up to 3.45%. Energy and Environmental Science, 2014, 7, 1351-1356.	15.6	224
42	Hidden Structure Ordering Along Backbone of Fusedâ€Ring Electron Acceptors Enhanced by Ternary Bulk Heterojunction. Advanced Materials, 2018, 30, e1802888.	11.1	212
43	Alloy Acceptor: Superior Alternative to PCBM toward Efficient and Stable Organic Solar Cells. Advanced Materials, 2016, 28, 8021-8028.	11.1	207
44	Extended Squaraine Dyes with Large Two-Photon Absorption Cross-Sections. Journal of the American Chemical Society, 2006, 128, 14444-14445.	6.6	205
45	Fullerene derivative anchored SnO₂ for high-performance perovskite solar cells. Energy and Environmental Science, 2018, 11, 3463-3471.	15.6	205
46	A Solutionâ€Processable Small Molecule Based on Benzodithiophene and Diketopyrrolopyrrole for Highâ€Performance Organic Solar Cells. Advanced Energy Materials, 2013, 3, 1166-1170.	10.2	203
47	Designing Efficient Nonâ€Fullerene Acceptors by Tailoring Extended Fusedâ€Rings with Electronâ€Deficient Groups. Advanced Energy Materials, 2015, 5, 1501063.	10.2	203
48	Naphthodithiopheneâ€Based Nonfullerene Acceptor for Highâ€Performance Organic Photovoltaics: Effect of Extended Conjugation. Advanced Materials, 2018, 30, 1704713.	11.1	199
49	High Exciton Diffusion Coefficients in Fused Ring Electron Acceptor Films. Journal of the American Chemical Society, 2019, 141, 6922-6929.	6.6	177
50	Balanced Partnership between Donor and Acceptor Components in Nonfullerene Organic Solar Cells with >12% Efficiency. Advanced Materials, 2018, 30, e1706363.	11.1	172
51	Versatile third components for efficient and stable organic solar cells. Materials Horizons, 2015, 2, 462-485.	6.4	168
52	Breaking 10% Efficiency in Semitransparent Solar Cells with Fused-Undecacyclic Electron Acceptor. Chemistry of Materials, 2018, 30, 239-245.	3.2	167
53	Copolymers of perylene diimide with dithienothiophene and dithienopyrrole as electron-transport materials for all-polymer solar cells and field-effect transistors. Journal of Materials Chemistry, 2009, 19, 5794.	6.7	165
54	A Solutionâ€Processable Electron Acceptor Based on Dibenzosilole and Diketopyrrolopyrrole for Organic Solar Cells. Advanced Energy Materials, 2013, 3, 724-728.	10.2	161

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55	Nonfullerene Acceptors for Semitransparent Organic Solar Cells. Advanced Energy Materials, 2018, 8, 1800002.	10.2	160
56	Electron Affinities of 1,1-Diaryl-2,3,4,5-tetraphenylsiloles:Â Direct Measurements and Comparison with Experimental and Theoretical Estimates. Journal of the American Chemical Society, 2005, 127, 9021-9029.	6.6	155
57	Asymmetric Diketopyrrolopyrrole Conjugated Polymers for Fieldâ€Effect Transistors and Polymer Solar Cells Processed from a Nonchlorinated Solvent. Advanced Materials, 2016, 28, 943-950.	11.1	155
58	The state of organic solar cellsâ€"A meta analysis. Solar Energy Materials and Solar Cells, 2013, 119, 84-93.	3.0	154
59	Structure Evolution of Oligomer Fusedâ€Ring Electron Acceptors toward High Efficiency of Asâ€Cast Polymer Solar Cells. Advanced Energy Materials, 2016, 6, 1600854.	10.2	152
60	Nonfullerene All-Small-Molecule Organic Solar Cells. ACS Energy Letters, 2019, 4, 1241-1250.	8.8	151
61	Reducing Voltage Losses in the A-DAâ€²D-A Acceptor-Based Organic Solar Cells. CheM, 2020, 6, 2147-2161.	5.8	150
62	Substituent effects on the electronic structure of siloles. Chemical Communications, 2009, , 1948.	2.2	146
63	Porphyrinâ^Dithienothiophene Ï€-Conjugated Copolymers: Synthesis and Their Applications in Field-Effect Transistors and Solar Cells. Macromolecules, 2008, 41, 6895-6902.	2.2	144
64	Dynamic Monte Carlo Simulation for Highly Efficient Polymer Blend Photovoltaics. Journal of Physical Chemistry B, 2010, 114, 36-41.	1.2	137
65	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.	5.2	137
66	Electronâ€Transport Materials in Perovskite Solar Cells. Small Methods, 2018, 2, 1800082.	4.6	136
67	Enhancing the Performance of a Fused-Ring Electron Acceptor by Unidirectional Extension. Journal of the American Chemical Society, 2019, 141, 19023-19031.	6.6	136
68	Acceptorâ€"Donorâ€"Acceptor Small Molecules Based on Indacenodithiophene for Efficient Organic Solar Cells. ACS Applied Materials & Interfaces, 2014, 6, 8426-8433.	4.0	135
69	Molecular Lock: A Versatile Key to Enhance Efficiency and Stability of Organic Solar Cells. Advanced Materials, 2016, 28, 5822-5829.	11.1	134
70	Unraveling Sunlight by Transparent Organic Semiconductors toward Photovoltaic and Photosynthesis. ACS Nano, 2019, 13, 1071-1077.	7.3	134
71	Achieving Balanced Crystallinity of Donor and Acceptor by Combining Bladeâ€Coating and Ternary Strategies in Organic Solar Cells. Advanced Materials, 2018, 30, e1805041.	11.1	131
72	A Twisted Dimeric Perylene Diimide Electron Acceptor for Efficient Organic Solar Cells. Advanced Energy Materials, 2014, 4, 1400420.	10.2	126

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73	Efficient all-polymer solar cells based on blend of tris(thienylenevinylene)-substituted polythiophene and poly[perylene diimide-alt-bis(dithienothiophene)]. Applied Physics Letters, 2008, 93, .	1.5	123
74	Highâ€Performance Fluorinated Fusedâ€Ring Electron Acceptor with 3D Stacking and Exciton/Charge Transport. Advanced Materials, 2020, 32, e2000645.	11.1	122
75	A Solution Processable Dâ€Aâ€D Molecule based on Thiazolothiazole for High Performance Organic Solar Cells. Advanced Energy Materials, 2012, 2, 63-67.	10.2	121
76	Advanced functional polymer materials. Materials Chemistry Frontiers, 2020, 4, 1803-1915.	3.2	117
77	Unique Energy Alignments of a Ternary Material System toward Highâ€Performance Organic Photovoltaics. Advanced Materials, 2018, 30, e1801501.	11.1	116
78	Fusedâ€Ring Electron Acceptor ITICâ€Th: A Novel Stabilizer for Halide Perovskite Precursor Solution. Advanced Energy Materials, 2018, 8, 1703399.	10.2	112
79	Suppressing photo-oxidation of non-fullerene acceptors and their blends in organic solar cells by exploring material design and employing friendly stabilizers. Journal of Materials Chemistry A, 2019, 7, 25088-25101.	5.2	107
80	Ternary System with Controlled Structure: A New Strategy toward Efficient Organic Photovoltaics. Advanced Materials, 2018, 30, 1705243.	11.1	105
81	Multiple stimuli-responsive polymeric micelles for controlled release. Soft Matter, 2013, 9, 370-373.	1.2	104
82	Nonfullerene Tandem Organic Solar Cells with High Openâ€Circuit Voltage of 1.97 V. Advanced Materials, 2016, 28, 9729-9734.	11.1	104
83	Synthesis and Photovoltaic Properties of Bithiazole-Based Donorâ^'Acceptor Copolymers. Macromolecules, 2010, 43, 5706-5712.	2.2	103
84	Effect of Core Size on Performance of Fused-Ring Electron Acceptors. Chemistry of Materials, 2018, 30, 5390-5396.	3.2	102
85	Dual-Accepting-Unit Design of Donor Material for All-Small-Molecule Organic Solar Cells with Efficiency Approaching 11%. Chemistry of Materials, 2018, 30, 8661-8668.	3.2	101
86	Ternary Organic Solar Cells with Small Nonradiative Recombination Loss. ACS Energy Letters, 2019, 4, 1196-1203.	8.8	101
87	Low bandgap Ï€â€conjugated copolymers based on fused thiophenes and benzothiadiazole: Synthesis and structureâ€property relationship study. Journal of Polymer Science Part A, 2009, 47, 5498-5508.	2.5	100
88	Layerâ€byâ€Layer Processed Organic Solar Cells. Advanced Energy Materials, 2016, 6, 1600414.	10.2	98
89	Ferrocene as a highly volatile solid additive in non-fullerene organic solar cells with enhanced photovoltaic performance. Energy and Environmental Science, 2020, 13, 5117-5125.	15.6	93
90	Highâ€Mobility Conjugated Polymers Based on Fusedâ€Thiophene Building Blocks. Macromolecular Chemistry and Physics, 2011, 212, 428-443.	1.1	92

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91	Smallâ€Molecule Solar Cells with Fill Factors up to 0.75 via a Layerâ€byâ€Layer Solution Process. Advanced Energy Materials, 2014, 4, 1300626.	10.2	90
92	Rollâ€Coated Fabrication of Fullereneâ€Free Organic Solar Cells with Improved Stability. Advanced Science, 2015, 2, 1500096.	5.6	89
93	Side Chain Engineering of Copolymers Based on Bithiazole and Benzodithiophene for Enhanced Photovoltaic Performance. Macromolecules, 2011, 44, 4230-4240.	2.2	88
94	Nonfullerene acceptors based on extended fused rings flanked with benzothiadiazolylmethylenemalononitrile for polymer solar cells. Journal of Materials Chemistry A, 2015, 3, 20758-20766.	5.2	88
95	A bipolar small molecule based on indacenodithiophene and diketopyrrolopyrrole for solution processed organic solar cells. Journal of Materials Chemistry A, 2014, 2, 778-784.	5.2	87
96	Butterfly Effects Arising from Starting Materials in Fused-Ring Electron Acceptors. Journal of the American Chemical Society, 2020, 142, 20124-20133.	6.6	87
97	Synthesis of a Conjugated Polymer with Broad Absorption and Its Application in High-Performance Phototransistors. Macromolecules, 2012, 45, 1296-1302.	2.2	86
98	Roll-coating fabrication of flexible organic solar cells: comparison of fullerene and fullerene-free systems. Journal of Materials Chemistry A, 2016, 4, 1044-1051.	5.2	84
99	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.	3.2	84
100	All polymer photovoltaics: From small inverted devices to large roll-to-roll coated and printed solar cells. Solar Energy Materials and Solar Cells, 2013, 112, 157-162.	3.0	80
101	Diluting concentrated solution: a general, simple and effective approach to enhance efficiency of polymer solar cells. Energy and Environmental Science, 2015, 8, 2357-2364.	15.6	80
102	Alkoxy-Induced Near-Infrared Sensitive Electron Acceptor for High-Performance Organic Solar Cells. Chemistry of Materials, 2018, 30, 4150-4156.	3.2	79
103	Photomultiplication photodetectors with P3HT:fullerene-free material as the active layers exhibiting a broad response. Nanoscale, 2016, 8, 5578-5586.	2.8	77
104	Solution processable D-A-D molecules based on triphenylamine for efficient organic solar cells. Solar Energy Materials and Solar Cells, 2010, 94, 457-464.	3.0	76
105	Effect of Alkyl Side Chains of Conjugated Polymer Donors on the Device Performance of Non-Fullerene Solar Cells. Macromolecules, 2016, 49, 6445-6454.	2.2	76
106	Polymer Solar Cells with 90% External Quantum Efficiency Featuring an Ideal Lightâ€and Chargeâ€Manipulation Layer. Advanced Materials, 2018, 30, e1706083.	11.1	76
107	Highly Sensitive Organic Photodetectors with Tunable Spectral Response under Biâ€Directional Bias. Advanced Optical Materials, 2016, 4, 1711-1717.	3.6	75
108	Recent progress of all-polymer solar cells â€“ From chemical structure and device physics to photovoltaic performance. Materials Science and Engineering Reports, 2020, 140, 100542.	14.8	75

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109	Panchromatic Ternary Photovoltaic Cells Using a Nonfullerene Acceptor Synthesized Using Câ€“H Functionalization. Chemistry of Materials, 2018, 30, 309-313.	3.2	74
110	A fluorescent conjugated polymer for trace detection of diamines and biogenic polyamines. Journal of Materials Chemistry, 2010, 20, 9628.	6.7	72
111	Reducing Energy Disorder in Perovskite Solar Cells by Chelation. Journal of the American Chemical Society, 2022, 144, 5400-5410.	6.6	72
112	Conjugated Polymers of Rylene Diimide and Phenothiazine for n-Channel Organic Field-Effect Transistors. Macromolecules, 2012, 45, 4115-4121.	2.2	71
113	High-Performance Fused Ring Electron Acceptorâ€“Perovskite Hybrid. Journal of the American Chemical Society, 2018, 140, 14938-14944.	6.6	71
114	New Series of Blue-Emitting and Electron-Transporting Copolymers Based on Cyanostilbene. Chemistry of Materials, 2003, 15, 1963-1969.	3.2	70
115	A star-shaped oligothiophene end-capped with alkyl cyanoacetate groups for solution-processed organic solar cells. Chemical Communications, 2012, 48, 9655.	2.2	70
116	Assessing the energy offset at the electron donor/acceptor interface in organic solar cells through radiative efficiency measurements. Energy and Environmental Science, 2019, 12, 3556-3566.	15.6	69
117	An Acetylene-Containing Perylene Diimide Copolymer for High Mobility n-Channel Transistor in Air. Macromolecules, 2013, 46, 2152-2158.	2.2	66
118	Rylene Diimide Electron Acceptors for Organic Solar Cells. Trends in Chemistry, 2019, 1, 869-881.	4.4	66
119	Free charge photogeneration in a single component high photovoltaic efficiency organic semiconductor. Nature Communications, 2022, 13, .	5.8	66
120	The effect of anchoring group number on the performance of dye-sensitized solar cells. Dyes and Pigments, 2010, 87, 249-256.	2.0	65
121	Efficient Tandem Organic Photovoltaics with Tunable Rear Sub-cells. Joule, 2019, 3, 432-442.	11.7	65
122	Printing fabrication of large-area non-fullerene organic solar cells. Materials Horizons, 2022, 9, 194-219.	6.4	65
123	Synthesis of Copolymers Based on Thiazolothiazole and Their Applications in Polymer Solar Cells. Journal of Physical Chemistry C, 2010, 114, 16843-16848.	1.5	64
124	High Performance Nanocrystals of a Donorâ€“Acceptor Conjugated Polymer. Chemistry of Materials, 2013, 25, 2649-2655.	3.2	64
125	Photophysical Properties of Intramolecular Charge Transfer in Two Newly Synthesized Tribranched Donorâ€Ï€â€Acceptor Chromophores. Journal of Physical Chemistry A, 2010, 114, 7345-7352.	1.1	63
126	Nonfullerene nâ€Type Organic Semiconductors for Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1900860.	10.2	63

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127	Multi-responsive nitrobenzene-based amphiphilic random copolymer assemblies. Chemical Communications, 2013, 49, 3516.	2.2	62
128	High-Performance Fullerene-Free Polymer Solar Cells Featuring Efficient Photocurrent Generation from Dual Pathways and Low Nonradiative Recombination Loss. ACS Energy Letters, 2019, 4, 8-16.	8.8	62
129	A Copolymer of Benzodithiophene with TIPS Side Chains for Enhanced Photovoltaic Performance. Macromolecules, 2011, 44, 9173-9179.	2.2	61
130	Color and transparency-switchable semitransparent polymer solar cells towards smart windows. Science Bulletin, 2020, 65, 217-224.	4.3	60
131	Transparent Holeâ€Transporting Frameworks: A Unique Strategy to Design Highâ€Performance Semitransparent Organic Photovoltaics. Advanced Materials, 2020, 32, e2003891.	11.1	60
132	Efficiency enhancement in small molecule bulk heterojunction organic solar cells via additive. Applied Physics Letters, 2010, 97, .	1.5	59
133	Ambient roll-to-roll fabrication of flexible solar cells based on small molecules. Journal of Materials Chemistry C, 2013, 1, 8007.	2.7	59
134	Fluorinated fused nonacyclic interfacial materials for efficient and stable perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 21414-21421.	5.2	59
135	Narrow bandgap non-fullerene acceptor based on a thiophene-fused benzothiadiazole unit with a high short-circuit current density of over 20 mA cm^{â^'2}. Journal of Materials Chemistry A, 2018, 6, 6393-6401.	5.2	59
136	Perylene Diimide-Based Oligomers and Polymers for Organic Optoelectronics. Accounts of Materials Research, 2022, 3, 309-318.	5.9	58
137	Photoinduced Intramolecular Electron Transfer in Conjugated Perylene Bisimide-Dithienothiophene Systems: A Comparative Study of a Small Molecule and a Polymer. Journal of Physical Chemistry A, 2009, 113, 5039-5046.	1.1	57
138	Layerâ€byâ€Layer Solutionâ€Processed Lowâ€Bandgap Polymerâ€PC₆₁BM Solar Cells with High Efficiency. Advanced Energy Materials, 2014, 4, 1301349.	10.2	57
139	Synthesis and Photovoltaic Properties of a Copolymer of Benzo[1,2-b:4,5-bâ€²]dithiophene and Bithiazole. Macromolecules, 2010, 43, 8714-8717.	2.2	56
140	Highly Transparent Organic Solar Cells with Allâ€Nearâ€Infrared Photoactive Materials. Small Methods, 2019, 3, 1900424.	4.6	55
141	Towards high-efficiency non-fullerene organic solar cells: Matching small molecule/polymer donor/acceptor. Organic Electronics, 2014, 15, 2270-2276.	1.4	53
142	Efficient Quaternary Organic Solar Cells with Parallelâ€Alloy Morphology. Advanced Functional Materials, 2019, 29, 1806804.	7.8	53
143	A perylene diimide based polymer: a dual function interfacial material for efficient perovskite solar cells. Materials Chemistry Frontiers, 2017, 1, 1079-1086.	3.2	51
144	Pushing the Efficiency of High Openâ€Circuit Voltage Binary Organic Solar Cells by Vertical Morphology Tuning. Advanced Science, 2022, 9, e2200578.	5.6	51

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145	Charge transport mechanism in pressed pellets of polymer proton conductors. Solid State Ionics, 1997, 100, 217-224.	1.3	49
146	Low-Bandgap Conjugated Donorâ"Acceptor Copolymers Based on Porphyrin with Strong Two-Photon Absorption. Macromolecules, 2010, 43, 9620-9626.	2.2	49
147	Effect of the Longer Î²-Unsubstituted Oligothiophene Unit (6T and 7T) on the Organic Thin-Film Transistor Performances of Diketopyrrolopyrrole-Oligothiophene Copolymers. Chemistry of Materials, 2013, 25, 4290-4296.	3.2	49
148	Fast Response Organic Tandem Photodetector for Visible and Nearâ€Infrared Digital Optical Communications. Small, 2021, 17, e2101316.	5.2	49
149	Large Femtosecond Third-Order Nonlinear Optical Response in a Novel Donorâ"Acceptor Copolymer Consisting of Ethynylfluorene and Tetraphenyldiaminobiphenyl Units. Chemistry of Materials, 2001, 13, 1540-1544.	3.2	48
150	Efficient fullerene-free organic solar cells based on fused-ring oligomer molecules. Journal of Materials Chemistry A, 2016, 4, 1486-1494.	5.2	48
151	Enhancing performance of non-fullerene organic solar cells via side chain engineering of fused-ring electron acceptors. Dyes and Pigments, 2017, 139, 627-634.	2.0	48
152	Synthesis and electroluminescence of poly(aryleneethynylene)s based on fluorene containing holeÂtransport units. Journal of Materials Chemistry, 2001, 11, 1606-1611.	6.7	47
153	Topâ€Gate Organic Thinâ€Film Transistors Constructed by a General Lamination Approach. Advanced Materials, 2010, 22, 3537-3541.	11.1	47
154	Perylene and naphthalene diimide polymers for all-polymer solar cells: a comparative study of chemical copolymerization and physical blend. Polymer Chemistry, 2015, 6, 5254-5263.	1.9	47
155	Semitransparent, non-fullerene and flexible all-plastic solar cells. Polymer, 2016, 107, 108-112.	1.8	47
156	Enhancing the performance of non-fullerene organic solar cells via end group engineering of fused-ring electron acceptors. Journal of Materials Chemistry A, 2018, 6, 16638-16644.	5.2	47
157	A low temperature processed fused-ring electron transport material for efficient planar perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 24820-24825.	5.2	46
158	Enhancing the performance of the electron acceptor ITIC-Th via tailoring its end groups. Materials Chemistry Frontiers, 2018, 2, 537-543.	3.2	46
159	Highâ€Efficiency Perovskite Quantum Dot Hybrid Nonfullerene Organic Solar Cells with Nearâ€Zero Driving Force. Advanced Materials, 2020, 32, e2002066.	11.1	46
160	Light Harvesting at Oblique Incidence Decoupled from Transmission in Organic Solar Cells Exhibiting 9.8% Efficiency and 50% Visible Light Transparency. Advanced Energy Materials, 2020, 10, 1904196.	10.2	46
161	Evolved structure of thiazolothiazole based small molecules towards enhanced efficiency in organic solar cells. Organic Electronics, 2013, 14, 599-606.	1.4	45
162	Oligothiophene-bridged perylene diimide dimers for fullerene-free polymer solar cells: effect of bridge length. Journal of Materials Chemistry A, 2015, 3, 13000-13010.	5.2	45

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163	Efficient and stable organic solar cells via a sequential process. Journal of Materials Chemistry C, 2016, 4, 8086-8093.	2.7	45
164	Film-depth-dependent crystallinity for light transmission and charge transport in semitransparent organic solar cells. Journal of Materials Chemistry A, 2020, 8, 401-411.	5.2	45
165	A novel resistive-type humidity sensor based on poly(p-diethynylbenzene). Journal of Applied Polymer Science, 1999, 74, 2010-2015.	1.3	44
166	Fused-Ring Pyrazine Derivatives for n-Type Field-Effect Transistors. ACS Applied Materials & Interfaces, 2009, 1, 1122-1129.	4.0	44
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