Minmin Shi

List of Publications by Year in Descending Order

99 papers	8,975 citations	39 h-index	94 g-index
104 ext. papers	10,463 ext. citations	9.7 avg, IF	6.63 L-index

#	Paper	IF	Citations
99	High-Efficiency ITO-Free Organic Photovoltaics with Superior Flexibility and Up-Scalability.. *Advanced Materials*, **2022**, e2200044	24	6
98	Desired open-circuit voltage increase enables efficiencies approaching 19% in symmetric-asymmetric molecule ternary organic photovoltaics. *Joule*, **2022**, 6, 662-675	27.8	29
97	Conformation Locking of Simple Nonfused Electron Acceptors Via Multiple Intramolecular Noncovalent Bonds to Improve the Performances of Organic Solar Cells. *ACS Applied Energy Materials*, **2021**, 4, 819-827	6.1	10
96	Conformation tuning of simple non-fused electron acceptors via oxygen and sulfur substitutions and its effects on photovoltaics. *Multifunctional Materials*, **2021**, 4, 024003	5.2	0
95	Synergistic Effects of Chlorination and Branched Alkyl Side Chain on the Photovoltaic Properties of Simple Non-Fullerene Acceptors with Quinoxaline as the Core. *ChemSusChem*, **2021**, 14, 3599-3606	8.3	7
94	Non-fullerene acceptors with nitrogen-containing six-membered heterocycle cores for the applications in organic solar cells. *Solar Energy Materials and Solar Cells*, **2021**, 225, 111046	6.4	7
93	Layer-by-Layer Processed Ternary Organic Photovoltaics with Efficiency over 18. *Advanced Materials*, **2021**, 33, e2007231	24	243
92	Unveiling structure-performance relationships from multi-scales in non-fullerene organic photovoltaics. *Nature Communications*, **2021**, 12, 4627	17.4	29
91	A Benzobis(thiazole)-Based Wide Bandgap Polymer Donor Enables over 15% Efficiency Organic Photovoltaics with a Flat Energetic Offset. *Macromolecules*, **2021**, 54, 7862-7869	5.5	3
90	Asymmetric Electron Acceptors for High-Efficiency and Low-Energy-Loss Organic Photovoltaics. *Advanced Materials*, **2020**, 32, e2001160	24	162
89	Near-Infrared Electron Acceptors with Unfused Architecture for Efficient Organic Solar Cells. *ACS Applied Materials & Interfaces*, **2020**, 12, 16700-16706	9.5	53
88	Over 17% efficiency ternary organic solar cells enabled by two non-fullerene acceptors working in an alloy-like model. *Energy and Environmental Science*, **2020**, 13, 635-645	35.4	462
87	New Phase for Organic Solar Cell Research: Emergence of Y-Series Electron Acceptors and Their Perspectives. *ACS Energy Letters*, **2020**, 5, 1554-1567	20.1	301
86	A nuanced approach for assessing OPV materials for large scale applications. *Sustainable Energy and Fuels*, **2020**, 4, 940-949	5.8	8
85	Influences of Quinoid Structures on Stability and Photovoltaic Performance of Nonfullerene Acceptors. *Solar Rrl*, **2020**, 4, 2000286	7.1	10
84	Combining Fused-Ring and Unfused-Core Electron Acceptors Enables Efficient Ternary Organic Solar Cells with Enhanced Fill Factor and Broad Compositional Tolerance. *Solar Rrl*, **2019**, 3, 1900317	7.1	24
83	Enhanced intramolecular charge transfer of unfused electron acceptors for efficient organic solar cells. *Materials Chemistry Frontiers*, **2019**, 3, 513-519	7.8	37

82	Highly Efficient Fullerene-Free Organic Solar Cells Operate at Near Zero Highest Occupied Molecular Orbital Offsets. *Journal of the American Chemical Society*, **2019**, 141, 3073-3082	16.4	251
81	Simple non-fused electron acceptors for efficient and stable organic solar cells. *Nature Communications*, **2019**, 10, 2152	17.4	214
80	Near-Infrared Nonfullerene Acceptors Based on Benzobis(thiazole) Unit for Efficient Organic Solar Cells with Low Energy Loss. *Small Methods*, **2019**, 3, 1900531	12.8	50
79	Toward Highly Thermal Stable Perovskite Solar Cells by Rational Design of Interfacial Layer. *IScience*, **2019**, 22, 534-543	6.1	22
78	Tuning terminal aromatics of electron acceptors to achieve high-efficiency organic solar cells. *Journal of Materials Chemistry A*, **2019**, 7, 27632-27639	13	57
77	A non-fullerene acceptor enables efficient P3HT-based organic solar cells with small voltage loss and thickness insensitivity. *Chinese Chemical Letters*, **2019**, 30, 1277-1281	8.1	19
76	Influence of Bridging Groups on the Photovoltaic Properties of Wide-Bandgap Poly(BDTT-alt-BDD)s. *ACS Applied Materials & Interfaces*, **2019**, 11, 1394-1401	9.5	5
75	An Unfused-Core-Based Nonfullerene Acceptor Enables High-Efficiency Organic Solar Cells with Excellent Morphological Stability at High Temperatures. *Advanced Materials*, **2018**, 30, 1705208	24	272
74	A Near-Infrared Photoactive Morphology Modifier Leads to Significant Current Improvement and Energy Loss Mitigation for Ternary Organic Solar Cells. *Advanced Science*, **2018**, 5, 1800755	13.6	85
73	Enhanced Charge Transfer between Fullerene and Non-Fullerene Acceptors Enables Highly Efficient Ternary Organic Solar Cells. *ACS Applied Materials & Interfaces*, **2018**, 10, 42444-42452	9.5	49
72	Enhancement of intra- and inter-molecular π-conjugated effects for a non-fullerene acceptor to achieve high-efficiency organic solar cells with an extended photoresponse range and optimized morphology. *Materials Chemistry Frontiers*, **2018**, 2, 2006-2012	7.8	33
71	Revealing the effects of molecular packing on the performances of polymer solar cells based on A□□□A type non-fullerene acceptors. *Journal of Materials Chemistry A*, **2018**, 6, 12132-12141	13	80
70	Phosphate ester side-chain-modified conjugated polymer for hybrid solar cells. *Journal of Applied Polymer Science*, **2017**, 134,	2.9	2
69	Energy-level modulation of non-fullerene acceptors to achieve high-efficiency polymer solar cells at a diminished energy offset. *Journal of Materials Chemistry A*, **2017**, 5, 9649-9654	13	72
68	Electron acceptors with varied linkages between perylene diimide and benzotrithiophene for efficient fullerene-free solar cells. *Journal of Materials Chemistry A*, **2017**, 5, 9396-9401	13	48
67	Molecular Engineered Hole-Extraction Materials to Enable Dopant-Free, Efficient p-i-n Perovskite Solar Cells. *Advanced Energy Materials*, **2017**, 7, 1700012	21.8	159
66	A non-fullerene electron acceptor with a spirobifluorene core and four diketopyrrolopyrrole arms end capped by 4-fluorobenzene. *Dyes and Pigments*, **2017**, 143, 217-222	4.6	13
65	Efficient and 1,8-diiodooctane-free ternary organic solar cells fabricated via nanoscale morphology tuning using small-molecule dye additive. *Nano Research*, **2017**, 10, 3765-3774	10	18

64	Molecular electron acceptors for efficient fullerene-free organic solar cells. *Physical Chemistry Chemical Physics*, **2017**, 19, 3440-3458	3.6	101
63	Efficient Organic Solar Cells with Non-Fullerene Acceptors. *Small*, **2017**, 13, 1701120	11	185
62	Design of charge transporting grids for efficient ITO-free flexible up-scaled organic photovoltaics. *Materials Chemistry Frontiers*, **2017**, 1, 304-309	7.8	16
61	A non-fullerene acceptor with a fully fused backbone for efficient polymer solar cells with a high open-circuit voltage. *Journal of Materials Chemistry A*, **2016**, 4, 14983-14987	13	87
60	Nonfullerene Tandem Organic Solar Cells with High Open-Circuit Voltage of 1.97 V. *Advanced Materials*, **2016**, 28, 9729-9734	24	98
59	Tandem Organic Solar Cells: Nonfullerene Tandem Organic Solar Cells with High Open-Circuit Voltage of 1.97 V (Adv. Mater. 44/2016). *Advanced Materials*, **2016**, 28, 9870-9870	24	2
58	A bipolar diketopyrrolopyrrole molecule end capped with thiophene-2,3-dicarboxylate used as both electron donor and acceptor for organic solar cells. *Synthetic Metals*, **2016**, 222, 211-218	3.6	4
57	A simple perylene diimide derivative with a highly twisted geometry as an electron acceptor for efficient organic solar cells. *Journal of Materials Chemistry A*, **2016**, 4, 10659-10665	13	97
56	A spirobifluorene and diketopyrrolopyrrole moieties based non-fullerene acceptor for efficient and thermally stable polymer solar cells with high open-circuit voltage. *Energy and Environmental Science*, **2016**, 9, 604-610	35.4	316
55	Dopant-Free Hole-Transporting Material with a C3h Symmetrical Truxene Core for Highly Efficient Perovskite Solar Cells. *Journal of the American Chemical Society*, **2016**, 138, 2528-31	16.4	395
54	A non-fullerene electron acceptor modified by thiophene-2-carbonitrile for solution-processed organic solar cells. *Journal of Materials Chemistry A*, **2016**, 4, 3777-3783	13	67
53	Improved photon-to-electron response of ternary blend organic solar cells with a low band gap polymer sensitizer and interfacial modification. *Journal of Materials Chemistry A*, **2016**, 4, 1702-1707	13	41
52	Chemical modification of AlQ3 to a potential electron acceptor for solution-processed organic solar cells. *Tetrahedron Letters*, **2016**, 57, 2797-2799	2	
51	Roll coated large area ITO- and vacuum-free all organic solar cells from diketopyrrolopyrrole based non-fullerene acceptors with molecular geometry effects. *RSC Advances*, **2016**, 6, 41542-41550	3.7	11
50	The effect of molecular geometry on the photovoltaic property of diketopyrrolopyrrole based non-fullerene acceptors. *Synthetic Metals*, **2015**, 203, 249-254	3.6	9
49	Roll-coating fabrication of ITO-free flexible solar cells based on a non-fullerene small molecule acceptor. *RSC Advances*, **2015**, 5, 36001-36006	3.7	21
48	A solution-processable bipolar diketopyrrolopyrrole molecule used as both electron donor and acceptor for efficient organic solar cells. *Journal of Materials Chemistry A*, **2015**, 3, 1902-1905	13	71
47	Spiro Linkage as an Alternative Strategy for Promising Nonfullerene Acceptors in Organic Solar Cells. *Advanced Functional Materials*, **2015**, 25, 5954-5966	15.6	123

46	A direct arylation-derived DPP-based small molecule for solution-processed organic solar cells. *Nanotechnology*, **2014**, 25, 014006	3.4	27
45	A diketopyrrolopyrrole molecule end-capped with a furan-2-carboxylate moiety: the planarity of molecular geometry and photovoltaic properties. *Journal of Materials Chemistry A*, **2014**, 2, 6589	13	38
44	Crystal growth and characterization of fluorinated perylene diimides. *Chemical Research in Chinese Universities*, **2014**, 30, 63-67	2.2	4
43	Effect of end-groups on the photovoltaic property of diphenyl substituted diketopyrrolopyrrole derivatives. *Synthetic Metals*, **2014**, 188, 66-71	3.6	15
42	Highly efficient hybrid solar cells with tunable dipole at the donor-acceptor interface. *Nanoscale*, **2014**, 6, 10545-50	7.7	20
41	Improving polymer/nanocrystal hybrid solar cell performance via tuning ligand orientation at CdSe quantum dot surface. *ACS Applied Materials & Interfaces*, **2014**, 6, 19154-60	9.5	29
40	A novel electrochemically and thermally stable polythiophene for photovoltaic application. *Journal of Applied Polymer Science*, **2013**, 127, 161-168	2.9	6
39	Optical and electrical effects of plasmonic nanoparticles in high-efficiency hybrid solar cells. *Physical Chemistry Chemical Physics*, **2013**, 15, 17105-11	3.6	17
38	Graphene-like two-dimensional materials. *Chemical Reviews*, **2013**, 113, 3766-98	68.1	3191
37	Synthesis and photovoltaic properties from inverted geometry cells and roll-to-roll coated large area cells from dithienopyrrole-based donor–acceptor polymers. *Journal of Materials Chemistry A*, **2013**, 1, 1785-1793	13	30
36	New (DA1DA2)n-type conjugated polymers for photovoltaic applications: consensus between low band-gap and low HOMO energy level. *Tetrahedron*, **2013**, 69, 3419-3424	2.4	11
35	An ester-functionalized diketopyrrolopyrrole molecule with appropriate energy levels for application in solution-processed organic solar cells. *Journal of Materials Chemistry A*, **2013**, 1, 105-111	13	60
34	Effect of substituents on the aggregate structure and photovoltaic property of violanthrone derivatives. *Dyes and Pigments*, **2012**, 95, 377-383	4.6	6
33	Synthesis of monodisperse and single-crystal Fe3O4 hollow spheres by a solvothermal approach. *Materials Chemistry and Physics*, **2012**, 132, 987-992	4.4	10
32	Synthesis and photovoltaic properties of n-type conjugated polymers alternating 2,7-carbazole and arylene diimides. *Solar Energy Materials and Solar Cells*, **2012**, 103, 157-163	6.4	17
31	Hydrothermal synthesis of Cu2S nanocrystalline thin film on indium tin oxide substrate: Morphology, optical and electrical properties. *Thin Solid Films*, **2012**, 520, 5249-5253	2.2	5
30	Incorporation of ester groups into low band-gap diketopyrrolopyrrole containing polymers for solar cell applications. *Journal of Materials Chemistry*, **2012**, 22, 15710		40
29	High efficiency hybrid solar cells using post-deposition ligand exchange by monothiols. *Physical Chemistry Chemical Physics*, **2012**, 14, 12094-8	3.6	42

28	Fe3O4 nanobelts: one-pot and template-free synthesis, magnetic property, and application for lithium storage. *Nanotechnology*, **2012**, 23, 395601	3.4	18
27	Design and synthesis of carbonyl group modified conjugated polymers for photovoltaic application. *Polymer Bulletin*, **2012**, 68, 1867-1877	2.4	14
26	Potential Toxic Effects of Nano-Oxides **2012**, 347-373		1
25	Blending of HAuCl4 and histidine in aqueous solution: a simple approach to the Au10 cluster. *Nanoscale*, **2011**, 3, 2596-601	7.7	161
24	Diketo-pyrrolo-pyrrole-Based Medium Band Gap Copolymers for Efficient Plastic Solar Cells: Morphology, Transport, and Composition-Dependent Photovoltaic Behavior. *Journal of Physical Chemistry C*, **2011**, 115, 11282-11292	3.8	32
23	Si/ZnO core–shell nanowire arrays for photoelectrochemical water splitting. *International Journal of Hydrogen Energy*, **2011**, 36, 15153-15159	6.7	46
22	Synthesis and photovoltaic properties of ester group functionalized polythiophene derivatives. *Macromolecular Rapid Communications*, **2011**, 32, 506-11	4.8	32
21	Synthesis, characterization, and photovoltaic property of a low band gap polymer alternating dithienopyrrole and thienopyrroledione units. *Polymer*, **2011**, 52, 2559-2564	3.9	33
20	A simple synthesis of Fe3O4 nanoclusters and their electromagnetic nanocomposites with polyaniline. *Materials Chemistry and Physics*, **2010**, 122, 588-594	4.4	33
19	Preparation and photo-induced charge transfer of the composites based on 3D structural CdS nanocrystals and MEH-PPV. *Solar Energy*, **2010**, 84, 771-776	6.8	17
18	Template-free synthesis of vertically aligned CdS nanorods and its application in hybrid solar cells. *Solar Energy Materials and Solar Cells*, **2010**, 94, 338-344	6.4	47
17	Phase controlled all-polymer bulk-heterojunction photovoltaic cells with high open-circuit voltage. *Solar Energy Materials and Solar Cells*, **2010**, 94, 2244-2250	6.4	15
16	Atomically monodispersed and fluorescent sub-nanometer gold clusters created by biomolecule-assisted etching of nanometer-sized gold particles and rods. *Chemistry - A European Journal*, **2009**, 15, 4944-51	4.8	142
15	Erbium bisphthalocyanine nanowires by electrophoretic deposition: Morphology control and optical properties. *Thin Solid Films*, **2009**, 517, 2099-2105	2.2	8
14	Effect of CsF interlayer on the performance of polymer bulk heterojunction solar cells. *Solar Energy Materials and Solar Cells*, **2009**, 93, 650-653	6.4	49
13	Shape-controlled syntheses of PbS submicro-/nano-crystals via hydrothermal method. *Journal of Crystal Growth*, **2009**, 311, 1533-1538	1.6	42
12	Solvent-dependent fluorescence property of multi-walled carbon nanotubes noncovalently functionalized by pyrene-derivatized polymer. *Nanotechnology*, **2009**, 20, 135705	3.4	14
11	Carrier Transport in Zinc Phthalocyanine Doped with a Fluorinated Perylene Derivative: Bulk Conductivity versus Interfacial Injection. *Journal of Physical Chemistry C*, **2009**, 113, 17160-17169	3.8	6

10	PREPARATION AND PHOTO-INDUCED CHARGE TRANSFER OF COMPOSITES BASED ON PCPDTBT. *Acta Polymerica Sinica*, **2009**, 009, 790-795		
9	Fe(3)O(4)@Au/polyaniline multifunctional nanocomposites: their preparation and optical, electrical and magnetic properties. *Nanotechnology*, **2008**, 19, 265702	3.4	45
8	One-Step Fabrication of CdS Nanorod Arrays via Solution Chemistry. *Journal of Physical Chemistry C*, **2008**, 112, 13457-13462	3.8	80
7	Synthesis of a novel perylene diimide derivative and its charge transfer interaction with C60. *Science in China Series B: Chemistry*, **2008**, 51, 152-157		2
6	Synthesis, electrochemical, and spectroscopic properties of soluble perylene monoimide diesters. *Tetrahedron*, **2008**, 64, 5404-5409	2.4	28
5	Water-soluble and highly fluorescent hybrids of multi-walled carbon nanotubes with uniformly arranged gold nanoparticles. *Nanotechnology*, **2007**, 18, 485603	3.4	14
4	High gas-sensitivity and selectivity of fluorinated zinc phthalocyanine film to some non-oxidizing gases at room temperature. *Thin Solid Films*, **2005**, 489, 257-261	2.2	23
3	Recent development of organic electron transport materials. *Progress in Natural Science: Materials International*, **2003**, 13, 81-87	3.6	3
2	A New End Group on Nonfullerene Acceptors Endows Efficient Organic Solar Cells with Low Energy Losses. *Advanced Functional Materials*,2108614	15.6	13
1	Improving the device performance of organic solar cells with immiscible solid additives. *Journal of Materials Chemistry C*,	7.1	2