Qunping Fan

List of Publications by Year
in descending order

75 papers	4,591 citations	117453 34 h-index	102304 66 g-index
75 all docs	75 docs citations	75 times ranked	2554 citing authors

#	Article	IF	Citations
1	Synergistic effect of fluorination on both donor and acceptor materials for high performance non-fullerene polymer solar cells with 13.5% efficiency. Science China Chemistry, 2018, 61, 531-537.	4.2	342
2	Mechanically Robust All-Polymer Solar Cells from Narrow Band Gap Acceptors with Hetero-Bridging Atoms. Joule, 2020, 4, 658-672.	11.7	279
3	Use of two structurally similar small molecular acceptors enabling ternary organic solar cells with high efficiencies and fill factors. Energy and Environmental Science, 2018, 11, 3275-3282.	15.6	261
4	Chlorine substituted 2D-conjugated polymer for high-performance polymer solar cells with 13.1% efficiency via toluene processing. Nano Energy, 2018, 48, 413-420.	8.2	257
5	High Efficiency (15.8%) All-Polymer Solar Cells Enabled by a Regioregular Narrow Bandgap Polymer Acceptor. Journal of the American Chemical Society, 2021, 143, 2665-2670.	6.6	245
6	Highâ€Performance Asâ€Cast Nonfullerene Polymer Solar Cells with Thicker Active Layer and Large Area Exceeding 11% Power Conversion Efficiency. Advanced Materials, 2018, 30, 1704546.	11.1	233
7	Adding a Third Component with Reduced Miscibility and Higher LUMO Level Enables Efficient Ternary Organic Solar Cells. ACS Energy Letters, 2020, 5, 2711-2720.	8.8	188
8	Over 14% efficiency all-polymer solar cells enabled by a low bandgap polymer acceptor with low energy loss and efficient charge separation. Energy and Environmental Science, 2020, 13, 5017-5027.	15.6	170
9	Two compatible nonfullerene acceptors with similar structures as alloy for efficient ternary polymer solar cells. Nano Energy, 2017, 38, 510-517.	8.2	149
10	Optimized Active Layer Morphologies via Ternary Copolymerization of Polymer Donors for 17.6â€‰% Efficiency Organic Solar Cells with Enhanced Fill Factor. Angewandte Chemie - International Edition, 2021, 60, 2322-2329.	7.2	138
11	Multiâ€Selenopheneâ€Containing Narrow Bandgap Polymer Acceptors for Allâ€Polymer Solar Cells with over 15â€‰% Efficiency and High Reproducibility. Angewandte Chemie - International Edition, 2021, 60, 15935-15943.	7.2	125
12	Highâ€Performance Nonâ€Fullerene Polymer Solar Cells Based on Fluorine Substituted Wide Bandgap Copolymers Without Extra Treatments. Solar Rrl, 2017, 1, 1700020.	3.1	107
13	A Nonâ€Conjugated Polymer Acceptor for Efficient and Thermally Stable Allâ€Polymer Solar Cells. Angewandte Chemie - International Edition, 2020, 59, 19835-19840.	7.2	105
14	Efficient ternary blend all-polymer solar cells with a polythiophene derivative as a hole-cascade material. Journal of Materials Chemistry A, 2016, 4, 14752-14760.	5.2	91
15	Allâ€polymer solar cells with over 16% efficiency and enhanced stability enabled by compatible solvent and polymer additives. Aggregate, 2022, 3, e58.	5.2	85
16	A New Polythiophene Derivative for High Efficiency Polymer Solar Cells with PCE over 9%. Advanced Energy Materials, 2016, 6, 1600430.	10.2	84
17	Side-chain engineering for efficient non-fullerene polymer solar cells based on a wide-bandgap polymer donor. Journal of Materials Chemistry A, 2017, 5, 9204-9209.	5.2	76
18	Nonhalogen solvent-processed polymer solar cells based on chlorine and trialkylsilyl substituted conjugated polymers achieve 12.8% efficiency. Journal of Materials Chemistry A, 2019, 7, 2351-2359.	5.2	71

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19	High-performance nonfullerene polymer solar cells with open-circuit voltage over 1 V and energy loss as low as 0.54 eV. Nano Energy, 2017, 40, 20-26.	8.2	70
20	High-performance nonfullerene polymer solar cells based on a fluorinated wide bandgap copolymer with a high open-circuit voltage of 1.04 V. Journal of Materials Chemistry A, 2017, 5, 22180-22185.	5.2	68
21	Fluorinated Photovoltaic Materials for Highâ€Performance Organic Solar Cells. Chemistry - an Asian Journal, 2019, 14, 3085-3095.	1.7	66
22	Near-infrared absorbing polymer acceptors enabled by selenophene-fused core and halogenated end-group for binary all-polymer solar cells with efficiency over 16%. Nano Energy, 2022, 92, 106718.	8.2	65
23	Enabling High Efficiency of Hydrocarbonâ€Solvent Processed Organic Solar Cells through Balanced Charge Generation and Nonâ€Radiative Loss. Advanced Energy Materials, 2021, 11, 2101768.	10.2	61
24	Selenium-Containing Medium Bandgap Copolymer for Bulk Heterojunction Polymer Solar Cells with High Efficiency of 9.8%. Chemistry of Materials, 2017, 29, 4811-4818.	3.2	60
25	16.3% Efficiency binary all-polymer solar cells enabled by a novel polymer acceptor with an asymmetrical selenophene-fused backbone. Science China Chemistry, 2022, 65, 309-317.	4.2	54
26	High-performance all-polymer solar cells enabled by a novel low bandgap non-fully conjugated polymer acceptor. Science China Chemistry, 2021, 64, 1380-1388.	4.2	51
27	Carboxylate substituted pyrazine: A simple and low-cost building block for novel wide bandgap polymer donor enables 15.3% efficiency in organic solar cells. Nano Energy, 2021, 82, 105679.	8.2	48
28	10.13% Efficiency Allâ€Polymer Solar Cells Enabled by Improving the Optical Absorption of Polymer Acceptors. Solar Rrl, 2020, 4, 2000142.	3.1	45
29	Donorâ€"acceptor copolymers based on benzo[1,2- b :4,5- b â€²]dithiophene and pyrene-fused phenazine for high-performance polymer solar cells. Organic Electronics, 2014, 15, 3375-3383.	1.4	44
30	Efficient polymer solar cells based on a new quinoxaline derivative with fluorinated phenyl side chain. Journal of Materials Chemistry C, 2016, 4, 2606-2613.	2.7	44
31	Polymer acceptors based on Y6 derivatives for all-polymer solar cells. Science Bulletin, 2021, 66, 1950-1953.	4.3	42
32	A Topâ€Down Strategy to Engineer ActiveLayer Morphology for Highly Efficient and Stable Allâ€Polymer Solar Cells. Advanced Materials, 2022, 34, .	11.1	41
33	Enhancing the photovoltaic properties of terpolymers containing benzo[1,2-b:4,5-bâ€²]dithiophene, phenanthro[4,5-abc]phenazine and benzo[c][1,2,5]thiadiazole by changing the substituents. Journal of Materials Chemistry C, 2015, 3, 6240-6248.	2.7	40
34	Overcoming the energy loss in asymmetrical non-fullerene acceptor-based polymer solar cells by halogenation of polymer donors. Journal of Materials Chemistry A, 2019, 7, 15404-15410.	5.2	39
35	Significant enhancement of the photovoltaic performance of organic small molecule acceptors <i>via</i> side-chain engineering. Journal of Materials Chemistry A, 2018, 6, 7988-7996.	5.2	38
36	A 1,1â€²-vinylene-fused indacenodithiophene-based low bandgap polymer for efficient polymer solar cells. Journal of Materials Chemistry A, 2017, 5, 5106-5114.	5.2	34

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37	Non-Fullerene Acceptor Doped Block Copolymer for Efficient and Stable Organic Solar Cells. ACS Energy Letters, 2022, 7, 2196-2202.	8.8	34
38	Reducing energy loss via tuning energy levels of polymer acceptors for efficient all-polymer solar cells. Science China Chemistry, 2020, 63, 1785-1792.	4.2	32
39	Acceptor-donor-acceptor small molecules containing benzo[1,2- b :4,5- b ']dithiophene and rhodanine units for solution processed organic solar cells. Dyes and Pigments, 2015, 116, 13-19.	2.0	31
40	Synthesis and photovoltaic properties of a simple non-fused small molecule acceptor. Organic Electronics, 2018, 58, 133-138.	1.4	30
41	High-performance organic solar cells based on a small molecule with thieno[3,2-b]thiophene as Ï€-bridge. Organic Electronics, 2018, 53, 273-279.	1.4	30
42	Improved photovoltaic performance of a 2D-conjugated benzodithiophene-based polymer by the side chain engineering of quinoxaline. Polymer Chemistry, 2015, 6, 4290-4298.	1.9	29
43	Efficient as-cast semi-transparent organic solar cells with efficiency over 9% and a high average visible transmittance of 27.6%. Physical Chemistry Chemical Physics, 2019, 21, 10660-10666.	1.3	29
44	Significantly increasing open-circuit voltage of the benzo[1,2-b:4,5-bâ€²]dithiophene-alt-5,8-dithienyl-quinoxaline copolymers based PSCs by appending dioctyloxy chains at 6,7-positions of quinoxaline. Organic Electronics, 2015, 17, 129-137.	1.4	28
45	Nonconjugated Terpolymer Acceptors with Two Different Fused-Ring Electron-Deficient Building Blocks for Efficient All-Polymer Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 6442-6449.	4.0	28
46	Efficient and thermally stable all-polymer solar cells based on a fluorinated wide-bandgap polymer donor with high crystallinity. Journal of Materials Chemistry A, 2018, 6, 16403-16411.	5.2	26
47	A wide bandgap conjugated polymer donor based on alkoxyl-fluorophenyl substituted benzodithiophene for high performance non-fullerene polymer solar cells. Journal of Materials Chemistry A, 2019, 7, 1307-1314.	5.2	24
48	A narrow-bandgap donor polymer for highly efficient as-cast non-fullerene polymer solar cells with a high open circuit voltage. Organic Electronics, 2018, 58, 82-87.	1.4	22
49	Synergistic Effects of Sideâ€Chain Engineering and Fluorination on Small Molecule Acceptors to Simultaneously Broaden Spectral Response and Minimize Voltage Loss for 13.8% Efficiency Organic Solar Cells. Solar Rrl, 2019, 3, 1900169.	3.1	22
50	Fluorination as an effective tool to increase the photovoltaic performance of indacenodithiophene-alt-quinoxaline based wide-bandgap copolymers. Organic Electronics, 2016, 33, 128-134.	1.4	21
51	Optimized Active Layer Morphologies via Ternary Copolymerization of Polymer Donors for 17.6â€‰% Efficiency Organic Solar Cells with Enhanced Fill Factor. Angewandte Chemie, 2021, 133, 2352-2359.	1.6	21
52	Modulating Crystallinity and Miscibility via Sideâ€chain Variation Enable High Performance <scp>Allâ€Smallâ€Molecule</scp> Organic Solar Cells. Chinese Journal of Chemistry, 2021, 39, 2147-2153.	2.6	21
53	Enhancing the photovoltaic properties of low bandgap terpolymers based on benzodithiophene and phenanthrophenazine by introducing different second acceptor units. Polymer Chemistry, 2016, 7, 1747-1755.	1.9	20
54	Synthesis and photovoltaic performance of DPP-based small molecules with tunable energy levels by altering the molecular terminals. Dyes and Pigments, 2016, 125, 151-158.	2.0	20

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55	Weak Makes It Powerful: The Role of Cognate Small Molecules as an Alloy Donor in 2D/1A Ternary Fullerene Solar Cells for Finely Tuned Hierarchical Morphology in Thick Active Layers. Small Methods, 2020, 4, 1900766.	4.6	19
56	Benzodithiophene-based two-dimensional polymers with extended conjugated thienyltriphenylamine substituents for high-efficiency polymer solar cells. Organic Electronics, 2015, 23, 124-132.	1.4	16
57	A Nonâ€Conjugated Polymer Acceptor for Efficient and Thermally Stable Allâ€Polymer Solar Cells. Angewandte Chemie, 2020, 132, 20007-20012.	1.6	16
58	Ternary organic solar cells with improved efficiency and stability enabled by compatible dual-acceptor strategy. Organic Electronics, 2021, 96, 106227.	1.4	16
59	13.4â€‰% Efficiency from Allâ€Smallâ€Molecule Organic Solar Cells Based on a Crystalline Donor with Chlorine and Trialkylsilyl Substitutions. ChemSusChem, 2021, 14, 3535-3543.	3.6	15
60	Optimizing the Alkyl Side-Chain Design of a Wide Band-Gap Polymer Donor for Attaining Nonfullerene Organic Solar Cells with High Efficiency Using a Nonhalogenated Solvent. Chemistry of Materials, 2021, 33, 5981-5990.	3.2	15
61	Improved Photovoltaic Performance of a Sideâ€Chain Dâ€"A Polymer in Polymer Solar Cells by Shortening the Phenyl Spacer between the D and A Units. Macromolecular Chemistry and Physics, 2014, 215, 2075-2083.	1.1	11
62	Synthesis and photovoltaic properties of a small molecule acceptor with thienylenevinylene thiophene as Ï€ bridge. Dyes and Pigments, 2019, 160, 227-233.	2.0	10
63	Vinylene-Inserted Asymmetric Polymer Acceptor with Absorption Approaching 1000 nm for Versatile Applications in All-Polymer Solar Cells and Photomultiplication-Type Polymeric Photodetectors. ACS Applied Materials & Interfaces, 2022, 14, 26970-26977.	4.0	10
64	Non-fullerene organic solar cells based on a small molecule with benzo[1,2-c:4,5-c']dithiophene-4,8-dione as Ï€-bridge. Organic Electronics, 2019, 67, 175-180.	1.4	9
65	Lateral size reduction of graphene oxide preserving its electronic properties and chemical functionality. RSC Advances, 2020, 10, 29432-29440.	1.7	9
66	Highâ€Throughput Screening of Bladeâ€Coated Polymer:Polymer Solar Cells: Solvent Determines Achievable Performance. ChemSusChem, 2022, 15, .	3.6	9
67	Wide Bandgap Random Terpolymers for High Efficiency Halogen-Free Solvent Processed Polymer Solar Cells. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2018, 34, 1279-1285.	2.2	8
68	Siloxane-functional small molecule acceptor for high-performance organic solar cells with 16.6% efficiency. Chemical Engineering Journal, 2022, 442, 136018.	6.6	8
69	Synthesis and photovoltaic properties of two star-shaped molecules involving phenylquinoxaline as core and triphenylamine and thiophene units as arms. Synthetic Metals, 2015, 204, 25-31.	2.1	7
70	Multiâ€Selenopheneâ€Containing Narrow Bandgap Polymer Acceptors for Allâ€Polymer Solar Cells with over 15â€‰% Efficiency and High Reproducibility. Angewandte Chemie, 2021, 133, 16071-16079.	1.6	6
71	Polymer light-emitting devices based on europium(III) complex with 11-bromo-dipyrido[3,2-a:2â€²,3â€²-c]phenazine. Science China Chemistry, 2015, 58, 1152-1158.	4.2	5
72	Improved photovoltaic performance of Dâ€"Aâ€"D-type small molecules with isoindigo and pyrene units by inserting different Ï€-conjugated bridge. Tetrahedron, 2016, 72, 4543-4549.	1.0	5

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73	Highâ€Performance Nonfullerene Polymer Solar Cells Based on a Wideâ€Bandgap Polymer without Extra Treatment. Macromolecular Rapid Communications, 2019, 40, e1800660.	2.0	5
74	Enabling high-performance, centimeter-scale organic solar cells through three-dimensional charge transport. Cell Reports Physical Science, 2022, , 100761.	2.8	4
75	Enhancing the photovoltaic performance of chlorobenzene-cored unfused electron acceptors by introducing Sâ‹¯O noncovalent interaction. Chemical Engineering Journal, 2022, 446, 137375.	6.6	4