

Qiaoshi An

List of Publications by Year in descending order

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papers

6,759
citations

61984

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114465

63
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all docs

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docs citations

63
times ranked

3730
citing authors

#	ARTICLE	IF	CITATIONS
1	Versatile ternary organic solar cells: a critical review. <i>Energy and Environmental Science</i> , 2016, 9, 281-322.	30.8	585
2	Asymmetrical Ladder-type Donor-Induced Polar Small Molecule Acceptor to Promote Fill Factors Approaching 77% for High-Performance Nonfullerene Polymer Solar Cells. <i>Advanced Materials</i> , 2018, 30, e1800052.	21.0	252
3	Alloy-like ternary polymer solar cells with over 17.2% efficiency. <i>Science Bulletin</i> , 2020, 65, 538-545.	9.0	252
4	Solvent additive-free ternary polymer solar cells with 16.27% efficiency. <i>Science Bulletin</i> , 2019, 64, 504-506.	9.0	247
5	Ternary nonfullerene polymer solar cells with efficiency >13.7% by integrating the advantages of the materials and two binary cells. <i>Energy and Environmental Science</i> , 2018, 11, 2134-2141.	30.8	223
6	Efficient ternary non-fullerene polymer solar cells with PCE of 11.92% and FF of 76.5%. <i>Energy and Environmental Science</i> , 2018, 11, 841-849.	30.8	210
7	Alloy Acceptor: Superior Alternative to PCBM toward Efficient and Stable Organic Solar Cells. <i>Advanced Materials</i> , 2016, 28, 8021-8028.	21.0	207
8	Over 14.5% efficiency and 71.6% fill factor of ternary organic solar cells with 300 nm thick active layers. <i>Energy and Environmental Science</i> , 2020, 13, 958-967.	30.8	198
9	Highly efficient ternary polymer solar cells by optimizing photon harvesting and charge carrier transport. <i>Nano Energy</i> , 2016, 22, 241-254.	16.0	196
10	Efficient Ternary Polymer Solar Cells with Two Well-compatible Donors and One Ultranarrow Bandgap Nonfullerene Acceptor. <i>Advanced Energy Materials</i> , 2018, 8, 1702854.	19.5	195
11	High-efficiency and air stable fullerene-free ternary organic solar cells. <i>Nano Energy</i> , 2018, 45, 177-183.	16.0	193
12	Two compatible polymer donors contribute synergistically for ternary organic solar cells with 17.53% efficiency. <i>Energy and Environmental Science</i> , 2020, 13, 5039-5047.	30.8	189
13	Semitransparent ternary nonfullerene polymer solar cells exhibiting 9.40% efficiency and 24.6% average visible transmittance. <i>Nano Energy</i> , 2019, 55, 424-432.	16.0	179
14	Nematic liquid crystal materials as a morphology regulator for ternary small molecule solar cells with power conversion efficiency exceeding 10%. <i>Journal of Materials Chemistry A</i> , 2017, 5, 3589-3598.	10.3	173
15	Over 14% efficiency all-polymer solar cells enabled by a low bandgap polymer acceptor with low energy loss and efficient charge separation. <i>Energy and Environmental Science</i> , 2020, 13, 5017-5027.	30.8	170
16	Over 13% Efficiency Ternary Nonfullerene Polymer Solar Cells with Tilted Up Absorption Edge by Incorporating a Medium Bandgap Acceptor. <i>Advanced Energy Materials</i> , 2018, 8, 1801968.	19.5	167
17	Achieving EQE of 16,700% in P3HT:PC71BM based photodetectors by trap-assisted photomultiplication. <i>Scientific Reports</i> , 2015, 5, 9181.	3.3	165
18	Ternary Nonfullerene Polymer Solar Cells with a Power Conversion Efficiency of 11.6% by Inheriting the Advantages of Binary Cells. <i>ACS Energy Letters</i> , 2018, 3, 555-561.	17.4	161

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19	Over 16.7% efficiency of ternary organic photovoltaics by employing extra PC71BM as morphology regulator. <i>Science China Chemistry</i> , 2020, 63, 83-91.	8.2	160
20	Highly Efficient Parallel-Like Ternary Organic Solar Cells. <i>Chemistry of Materials</i> , 2017, 29, 2914-2920.	6.7	152
21	Semitransparent polymer solar cells with 12.37% efficiency and 18.6% average visible transmittance. <i>Science Bulletin</i> , 2020, 65, 131-137.	9.0	151
22	Energy level modulation of non-fullerene acceptors enables efficient organic solar cells with small energy loss. <i>Journal of Materials Chemistry A</i> , 2018, 6, 2468-2475.	10.3	145
23	Achieving 14.11% efficiency of ternary polymer solar cells by simultaneously optimizing photon harvesting and exciton distribution. <i>Journal of Materials Chemistry A</i> , 2019, 7, 7843-7851.	10.3	130
24	A Synergistic Strategy of Manipulating the Number of Selenophene Units and Dissymmetric Central Core of Small Molecular Acceptors Enables Polymer Solar Cells with 17.5% Efficiency. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 19241-19252.	13.8	129
25	Rational compatibility in a ternary matrix enables all-small-molecule organic solar cells with over 16% efficiency. <i>Energy and Environmental Science</i> , 2021, 14, 3945-3953.	30.8	124
26	Trap-Assisted Photomultiplication Polymer Photodetectors Obtaining an External Quantum Efficiency of 37%–500%. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 5890-5897.	8.0	118
27	Ternary polymer solar cells with alloyed donor achieving 14.13% efficiency and 78.4% fill factor. <i>Nano Energy</i> , 2019, 60, 768-774.	16.0	117
28	Simultaneous Improvement in Short Circuit Current, Open Circuit Voltage, and Fill Factor of Polymer Solar Cells through Ternary Strategy. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 3691-3698.	8.0	114
29	Non-fullerene acceptors with hetero-dihalogenated terminals induce significant difference in single crystallography and enable binary organic solar cells with 17.5% efficiency. <i>Energy and Environmental Science</i> , 2022, 15, 320-333.	30.8	95
30	Thick-Film Organic Solar Cells Achieving over 11% Efficiency and Nearly 70% Fill Factor at Thickness over 400 nm. <i>Advanced Functional Materials</i> , 2020, 30, 1908336.	14.9	94
31	Improved Efficiency of Bulk Heterojunction Polymer Solar Cells by Doping Low-Bandgap Small Molecules. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 6537-6544.	8.0	91
32	Side Group Engineering of Small Molecular Acceptors for High-Performance Fullerene-Free Polymer Solar Cells: Thiophene Being Superior to Selenophene. <i>Advanced Functional Materials</i> , 2017, 27, 1702194.	14.9	88
33	Efficient ternary organic photovoltaics with two polymer donors by minimizing energy loss. <i>Journal of Materials Chemistry A</i> , 2020, 8, 1265-1272.	10.3	84
34	Simultaneously improved efficiency and average visible transmittance of semitransparent polymer solar cells with two ultra-narrow bandgap nonfullerene acceptors. <i>Journal of Materials Chemistry A</i> , 2018, 6, 21485-21492.	10.3	80
35	A two-step strategy to clarify the roles of a solution processed PFN interfacial layer in highly efficient polymer solar cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 18432-18441.	10.3	79
36	Isogenous Asymmetric and Symmetric Acceptors Enable Efficient Ternary Organic Solar Cells with Thin and 300 nm Thick Active Layers Simultaneously. <i>Advanced Functional Materials</i> , 2022, 32, .	14.9	75

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37	Highly sensitive polymer photodetectors with a broad spectral response range from UV light to the near infrared region. <i>Journal of Materials Chemistry C</i> , 2015, 3, 7386-7393.	5.5	72
38	Efficient small molecular ternary solar cells by synergistically optimized photon harvesting and phase separation. <i>Journal of Materials Chemistry A</i> , 2015, 3, 16653-16662.	10.3	72
39	Designing an asymmetrical isomer to promote the LUMO energy level and molecular packing of a non-fullerene acceptor for polymer solar cells with 12.6% efficiency. <i>Chemical Science</i> , 2018, 9, 8142-8149.	7.4	67
40	A liquid crystal material as the third component for ternary polymer solar cells with an efficiency of 10.83% and enhanced stability. <i>Journal of Materials Chemistry A</i> , 2017, 5, 13145-13153.	10.3	65
41	Efficient Ternary Organic Solar Cells with Two Compatible Non-Fullerene Materials as One Alloyed Acceptor. <i>Small</i> , 2018, 14, e1802983.	10.0	55
42	Two-Pronged Effect of Warm Solution and Solvent-Vapor Annealing for Efficient and Stable All-Small-Molecule Organic Solar Cells. <i>ACS Energy Letters</i> , 2021, 6, 2898-2906.	17.4	50
43	Over 17.6% Efficiency Organic Photovoltaic Devices with Two Compatible Polymer Donors. <i>Solar Rrl</i> , 2021, 5, 2100175.	5.8	49
44	Efficient ternary polymer solar cells with a parallel-linkage structure. <i>Journal of Materials Chemistry C</i> , 2015, 3, 11930-11936.	5.5	33
45	Simultaneously Enhanced Efficiency and Stability of Polymer Solar Cells by Employing Solvent Additive and Upside-down Drying Method. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 8863-8871.	8.0	32
46	An asymmetrical fused-ring electron acceptor designed by a cross-conceptual strategy achieving 15.6% efficiency. <i>Journal of Materials Chemistry A</i> , 2020, 8, 14583-14591.	10.3	32
47	Ternary non-fullerene polymer solar cells with an efficiency of 11.6% by simultaneously optimizing photon harvesting and phase separation. <i>Journal of Materials Chemistry A</i> , 2018, 6, 11751-11758.	10.3	30
48	Tuning nanoscale morphology using mixed solvents and solvent vapor treatment for high performance polymer solar cells. <i>RSC Advances</i> , 2014, 4, 48724-48733.	3.6	29
49	Intramolecular Chloro-Sulfur Interaction and Asymmetric Side-Chain Isomerization to Balance Crystallinity and Miscibility in All-Small-Molecule Solar Cells. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	29
50	Enhanced performance of polymer solar cells by employing a ternary cascade energy structure. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 16103-16109.	2.8	24
51	A Synergistic Strategy of Manipulating the Number of Selenophene Units and Dissymmetric Central Core of Small Molecular Acceptors Enables Polymer Solar Cells with 17.5% Efficiency. <i>Angewandte Chemie</i> , 2021, 133, 19390-19401.	2.0	22
52	Side-chain Engineering of Benzo[1,2-b:4,5-b']dithiophene Core-structured Small Molecules for High-Performance Organic Solar Cells. <i>Scientific Reports</i> , 2016, 6, 25355.	3.3	18
53	Two Well-Compatible Acceptors with Efficient Energy Transfer Enable Ternary Organic Photovoltaics Exhibiting a 13.36% Efficiency. <i>Small</i> , 2019, 15, e1902602.	10.0	14
54	Efficient ternary organic photovoltaic cells with better trade-off photon harvesting and phase separation by doping DIB-SQ. <i>Journal of Materials Chemistry C</i> , 2016, 4, 7809-7816.	5.5	12

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55	13.26% Efficiency Polymer Solar Cells by Optimizing Photogenerated Exciton Distribution and Phase Separation with the Third Component. <i>Solar Rrl</i> , 2019, 3, 1900269.	5.8	12
56	Dramatically Boosted Efficiency of Small Molecule Solar Cells by Synergistically Optimizing Molecular Aggregation and Crystallinity. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 1982-1989.	6.7	10
57	Two-dimensional Conjugated Benzo[1,2-b:4,5-b']diselenophene-based Copolymer Donor Enables Large Open-circuit Voltage and High Efficiency in Selenophene-based Organic Solar Cells. <i>ChemSusChem</i> , 2021, 14, 4454-4465.	6.8	10
58	Revealing the Sole Impact of Acceptor's Molecular Conformation to Energy Loss and Device Performance of Organic Solar Cells through Positional Isomers. <i>Advanced Science</i> , 2022, 9, e2103428.	11.2	9
59	Adjusting acceptor redistribution for highly efficient solvent additive-free polymer solar cells. <i>Journal of Materials Chemistry C</i> , 2016, 4, 3202-3208.	5.5	8
60	Highly efficient polymer solar cells by step-by-step optimizing donor molecular packing and acceptor redistribution. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 709-716.	2.8	8
61	Nonfullerene organic photovoltaic cells exhibiting 13.76% efficiency by employing upside-down solvent vapor annealing. <i>International Journal of Energy Research</i> , 2019, 43, 8716.	4.5	5
62	Intramolecular Chloro-Sulfur Interaction and Asymmetric Side-Chain Isomerization to Balance Crystallinity and Miscibility in All-small-molecule Solar Cells. <i>Angewandte Chemie</i> , 2022, 134, .	2.0	3
63	Improved efficiency of ternary the blend polymer solar cells by doping a narrow band gap polymer material. <i>Science China: Physics, Mechanics and Astronomy</i> , 2015, 58, 1-5.	5.1	1