Yangjun Xia

List of Publications by Year
in descending order

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65 papers	1,511 citations	279798 23 h-index	330143 37 g-index
65 all docs	65 docs citations	65 times ranked	1089 citing authors

#	Article	IF	Citations
1	The comprehensive utilization of the synergistic effect of fullerene and non-fullerene acceptors to achieve highly efficient polymer solar cells. Journal of Materials Chemistry A, 2019, 7, 15841-15850.	10.3	118
2	High-performance all-polymer solar cells based on fluorinated naphthalene diimide acceptor polymers with fine-tuned crystallinity and enhanced dielectric constants. Nano Energy, 2018, 45, 368-379.	16.0	101
3	Enhanced efficiency of polymer solar cells through synergistic optimization of mobility and tuning donor alloys by adding high-mobility conjugated polymers. Journal of Materials Chemistry C, 2018, 6, 11015-11022.	5.5	87
4	Self-doping n-type polymer as a cathode interface layer enables efficient organic solar cells by increasing built-in electric field and boosting interface contact. Journal of Materials Chemistry C, 2019, 7, 11152-11159.	5.5	87
5	Enhanced Organic Photovoltaic Performance through Modulating Vertical Composition Distribution and Promoting Crystallinity of the Photoactive Layer by Diphenyl Sulfide Additives. ACS Applied Materials & Interfaces, 2019, 11, 7022-7029.	8.0	79
6	Insights into Excitonic Dynamics of Terpolymer-Based High-Efficiency Nonfullerene Polymer Solar Cells: Enhancing the Yield of Charge Separation States. ACS Applied Materials & Interfaces, 2020, 12, 8475-8484.	8.0	62
7	Significantly Boosting Efficiency of Polymer Solar Cells by Employing a Nontoxic Halogen-Free Additive. ACS Applied Materials & Interfaces, 2021, 13, 11117-11124.	8.0	54
8	Non-toxic green food additive enables efficient polymer solar cells through adjusting the phase composition distribution and boosting charge transport. Journal of Materials Chemistry C, 2020, 8, 2483-2490.	5.5	51
9	Efficient inverted organic solar cells with a thin natural biomaterial l-Arginine as electron transport layer. Solar Energy, 2020, 196, 168-176.	6.1	51
10	Non-Halogenated Polymer Donor-Based Organic Solar Cells with a Nearly 15% Efficiency Enabled by a Classic Ternary Strategy. ACS Applied Energy Materials, 2021, 4, 1774-1783.	5.1	47
11	Synthetically controlling the optoelectronic properties of dithieno[2,3-d:2â€²,3â€²-dâ€²]benzo[1,2-b:4,5-bâ€²]dithiophene-alt-diketopyrrolopyrrole-conjugated polymers for efficient solar cells. Journal of Materials Chemistry A, 2014, 2, 15316-15325.	10.3	46
12	Two Compatible Acceptors as an Alloy Model with a Halogen-Free Solvent for Efficient Ternary Polymer Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 9386-9397.	8.0	46
13	Naphtho[1,2-c:5,6-câ€²]bis[1,2,5]thiadiazole-based conjugated polymers consisting of oligothiophenes for efficient polymer solar cells. Polymer, 2017, 121, 183-195.	3.8	40
14	Enhanced organic photovoltaic performance through promoting crystallinity of photoactive layer and conductivity of hole-transporting layer by V2O5 doped PEDOT:PSS hole-transporting layers. Solar Energy, 2020, 211, 1102-1109.	6.1	40
15	Ternary solar cells via ternary polymer donors and third component PC71BM to optimize morphology with 13.15% efficiency. Solar Energy, 2021, 222, 18-26.	6.1	37
16	An Alcohol-Soluble Polymer Electron Transport Layer Based on Perylene Diimide Derivatives for Polymer Solar Cells. IEEE Journal of Photovoltaics, 2019, 9, 1678-1685.	2.5	34
17	An alcohol-soluble small molecule as efficient cathode interfacial layer materials for polymer solar cells. Optical Materials, 2021, 113, 110909.	3.6	32
18	Medium band gap conjugated polymers from thienoacene derivatives and pentacyclic aromatic lactam as promising alternatives of poly(3â€hexylthiophene) in photovoltaic application. Journal of Polymer Science Part A, 2018, 56, 85-95.	2.3	30

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19	A New Alcoholâ€Soluble Polymer PFNâ€D as Cathode Interlayer to Optimize Performance of Conventional Polymer Solar Cells by Increasing Electron Mobility. Energy Technology, 2022, 10, .	3.8	30
20	Enhanced Photovoltaic Performance in D-Ï€-A Copolymers Containing Triisopropylsilylethynyl-Substituted Dithienobenzodithiophene by Modulating the Electron-Deficient Units. Polymers, 2019, 11, 12.	4.5	28
21	Enhance the efficiency of polymer solar cells through regulating phase segregation and improving charge transport via non-toxic halogen-free additive. Solar Energy, 2021, 218, 375-382.	6.1	26
22	Boosting Up Performance of Inverted Photovoltaic Cells from Bis(alkylthien-2-yl)dithieno[2,3-d:2â€²,3â€²-dâ€²]benzo[1,2-b:4â€²,5â€²-bâ€²]di thiophene-Based Copolymers by Advantageous Vertical Phase Separation. ACS Applied Materials & Interfaces, 2017, 9, 10937-10945.	8.0	25
23	An alkylthieno-2-yl flanked dithieno[2,3-d:2â€²,3â€²-dâ€²]benzo[1,2-b:4,5-bâ€²]dithiophene-based low band gap conjugated polymer for high performance photovoltaic solar cells. RSC Advances, 2015, 5, 12879-12885.	3.6	24
24	Large branched alkylthienyl bridged naphtho[1,2-c:5,6-câ€²]bis[1,2,5]thiadiazole-containing low bandgap copolymers: Synthesis and photovoltaic application. Journal of Macromolecular Science - Pure and Applied Chemistry, 2017, 54, 176-185.	2.2	22
25	Effect of alkylthiophene spacers and fluorine on the optoelectronic properties of 5,10-bis(dialkylthien-2-yl)dithieno[2,3-d:2â€²,3â€²-dâ€²]benzo[1,2-b:4,5-bâ€²]dithiophene-alt-benzothiadiazole derivative copolymers. RSC Advances, 2017, 7, 22845-22854.	3.6	22
26	Effects of alkyl side chain length of low bandgap naphtho[1,2â€c:5,6â€câ€²]bis[1,2,5]thiadiazoleâ€based copolymers on the optoelectronic properties of polymer solar cells. Journal of Polymer Science Part A, 2018, 56, 2059-2071.	2.3	20
27	Effect of fluorine atoms on optoelectronic, aggregation and dielectric constants of 2,1,3-benzothiadiazole-based alternating conjugated polymers. Dyes and Pigments, 2021, 193, 109486.	3.7	18
28	Dithieno[2,3-d:2â€²,3â€²-dâ€²]naphtho[1,2-b:3,4-bâ€²]dithiophene â€“ a novel electron-rich building block for low band gap conjugated polymers. Journal of Materials Chemistry C, 2014, 2, 1601.	5.5	17
29	Improved Photovoltaic Performance of Polymer Solar Cells via a Volatile and Nonhalogen Additive to Optimize Crystallinity. ACS Applied Energy Materials, 2021, 4, 7129-7137.	5.1	17
30	Ultrafast Kinetics Investigation of a Fluorinated-Benzothiadiazole Polymer with an Increased Excited State Transition Dipole Moment Applied in Organic Solar Cells. ACS Applied Energy Materials, 2021, 4, 9627-9638.	5.1	14
31	Synthesis and Photovoltaic Properties of Alternating Conjugated Polymers Derived from Indeno[1,2â€b]fluorene and Bithiophene or Thieno[3,2â€b]thiopheneâ€Cored Benzothiadiazole. Macromolecular Chemistry and Physics, 2011, 212, 1193-1201.	2.2	12
32	Synthesis of dithieno[2,3-d:2â€™,3â€™-dâ€™]benzo[1,2-b:4,5-bâ€™]dithiophene -alt-isoindigo conjugated polymer and enhancement of photovoltaic property with diphenyl sulfide additives. Journal of Polymer Research, 2015, 22, 1.	2.4	12
33	Synthesis of modified benzothiadiazole-thiophene-cored acceptor and carbazole/indolocarbazole alternating conjugated polymers and their photovoltaic applications. Polymer Bulletin, 2015, 72, 565-581.	3.3	11
34	Synthesis of Ï€-Extended Dithienobenzodithiophene-Containing Medium Bandgap Copolymers and Their Photovoltaic Application. Journal of Macromolecular Science - Pure and Applied Chemistry, 2015, 52, 934-941.	2.2	11
35	Impact of alkyl side chain on the photostability and optoelectronic properties of indacenodithieno[3,2â€•b]thiopheneâ€•alt â€naphtho[1,2â€•c :5,6â€•c â€²]bis[1,2,5]thiadiazole medium bandgap copolymers. Polymer International, 2020, 69, 192-205.	3.1	11
36	Systematically investigating the influence of inserting alkylthiophene spacers on the aggregation, photo-stability and optoelectronic properties of copolymers from dithieno[2,3-d:2â€²,3â€²-dâ€²]benzo[1,2-b:4,5-bâ€²]dithiophene and benzothiadiazole derivatives. Polymer Chemistry, 2019, 10, 972-982.	3.9	10

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37	Enhancement Efficiency of Organic Photovoltaic Cells via Green Solvents and Nontoxic Halogenâ€Free Additives. Advanced Sustainable Systems, 2021, 5, 2100235.	5.3	10
38	Construction of effective organic solar cell using phenanthroline derivatives as cathode interface layer. Optical Materials, 2021, 122, 111647.	3.6	10
39	36% Enhanced Efficiency of Ternary Organic Solar Cells by Doping a NT-Based Polymer as an Electron-Cascade Donor. Polymers, 2018, 10, 703.	4.5	9
40	Solution-processible Cd-doped ZnO nanoparticles as an electron transport layer to achieve high performance polymer solar cells through improve conductivity and light transmittance. Molecular Crystals and Liquid Crystals, 2019, 692, 74-82.	0.9	9
41	Synthesis and characterization of alternating and random conjugated polymers derived from dithieno[2,3-d:2â€²,3â€²-dâ€²]benzo[1,2-b:4,5-bâ€²]dithiophene and 2,1,3-benzothiadiazole derivatives. Polymer Journal, 2015, 47, 803-809.	2.7	8
42	Enhanced efficiency of ternary organic solar cells by doping a polymer material in P3HT:PC₆₁BM. Polymers for Advanced Technologies, 2018, 29, 914-920.	3.2	8
43	In Situ Growth of Metal Sulfide Nanocrystals in Poly(3-hexylthiophene): [6,6]-Phenyl C61-Butyric Acid Methyl Ester Films for Inverted Hybrid Solar Cells with Enhanced Photocurrent. Nanoscale Research Letters, 2018, 13, 184.	5.7	8
44	A two-dimension medium band gap conjugated polymer based on 5,10-bis(alkylthien-2-yl)dithieno[3,2-d:3â€²,2â€²-dâ€²]benzo[1,2-b:4,5-bâ€²]dithiophene: Synthesis and photovoltaic application. Journal of Macromolecular Science - Pure and Applied Chemistry, 2016, 53, 538-545.	2.2	7
45	Impact of fluorination on photovoltaic performance in high thermo- and photo-stability perylene diimide-based nonfullerene small molecular acceptors. Optical Materials, 2021, 121, 111593.	3.6	7
46	Alternating narrow band gap copolymers derived from indeno[1,2â€²b]fluorene and thiopheneâ€coredâ€thieno[3,4â€²b]pyrazine derivativesâ€”Synthesis, characterization and comparative studies of photochemical stability. Journal of Polymer Science Part A, 2011, 49, 2969-2979.	2.3	6
47	Effect of Flank Rotation on the Photovoltaic Properties of Dithieno[2,3-d:2â€²,3â€²-dâ€²]benzo[1,2-b:4,5-bâ€²]dithiophene-Based Narrow Band Gap Copolymers. Polymers, 2019, 11, 239.	4.0	6
48	Effect of fluorine atoms on the dielectric constants, optoelectronic properties and charge carrier kinetic characteristics of indacenodithieno[3,2-b]thiophene based non-fullerene acceptors for efficient organic solar cells. Solar Energy, 2022, 236, 206-214.	6.1	6
49	Benzo[1,2-b:4,5-bâ€²]dithiophene-based conjugated polyelectrolyte for the cathode modification of inverted polymer solar cells. Journal of Macromolecular Science - Pure and Applied Chemistry, 2016, 53, 290-296.	2.2	5
50	Wide bandgap conjugated polymers based on bithiophene and benzotriazole for bulk heterojunction solar cells: Thiophene versus thieno[3,2-b]thiophene as Ï€-conjugated spacers. Journal of Macromolecular Science - Pure and Applied Chemistry, 2017, 54, 565-574.	2.2	5
51	Simultaneously enhancing the dielectric constant, photo-response and deepening HOMO levels of benzo[1,2-b;4,5-b']dithiophene derivatives-based conjugated polymers. Dyes and Pigments, 2020, 177, 108263.	3.7	5
52	Twisted Alkylthiothienâ€2â€yl Flanks and Extended Conjugation Length Synergistically Enhanced Photovoltaic Performance by Boosting Dielectric Constant and Carriers Kinetic Characteristics. Macromolecular Chemistry and Physics, 2021, 222, 2100030.	2.2	5
53	Synthesis and photovoltaic properties of alternating conjugated polymers derived from indolo[3,2-b]carbazole and thiophene/thieno[3,2-b]thiophene-cored benzoselenadiazole. Polymer Science - Series A, 2011, 53, 469-479.	1.0	4
54	Multistep Functional Embellishment for p-ZnTe as a Cathode to Boost the Faraday Efficiency of Nitrogen Conversion. ACS Applied Materials & Interfaces, 2021, 13, 8129-8137.	8.0	4

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55	Synthesis and characterization of alternating copolymers derived from indeno[1,2â€b]fluorene for blue lightâ€emitting diodes. Journal of Applied Polymer Science, 2012, 125, 1409-1417.	2.6	3
56	Synthesis of Alternating Lowâ€Bandgap Conjugated Polymers Based on Dithieno[2,3â€d:2â€²,3â€²â€dâ€²]naphtho[1,2â€b:3,4â€bâ€²]dithiophene and Enhancement of Photovoltaic Properties with Solvent Additives. Macromolecular Chemistry and Physics, 2015, 216, 733-741.	2.2	3
57	Synthesis and Photovoltaic Effect of Electron-Withdrawing Units for Low Band Gap Conjugated Polymers Bearing Bi(thienylenevinylene) Side Chains. Polymers, 2019, 11, 1461.	4.5	3
58	Impact of linker positions for thieno[3,2-b]thiophene in wide band gap benzo[1,2-b:4,5-bâ€²]dithiophene-based photovoltaic polymers. Journal of Materials Research, 2019, 34, 2057-2066.	2.6	2
59	Synthesis and photovoltaic investigation of dithieno[2,3â€d:2â€²,3â€²â€dâ€²]â€benzo[1,2â€b:3,4â€bâ€²:5,6â€dâ€³]trithiopheneâ€based conj polymer with an enlarged Ïâ€conjugated system. Polymers for Advanced Technologies, 2019, 30, 1290-1302.	3.2	2
60	Dithieno[2,3â€d:2â€²,3â€²â€dâ€²]naphtho[2,1â€b:3,4â€bâ€²]dithiophene based medium bandgap conjugated polymers for photovoltaic applications. Journal of Applied Polymer Science, 2016, 133, .	2.6	1
61	Efficiency boost significantly of ternary organic solar cells by doping low bandgap polymer. Molecular Crystals and Liquid Crystals, 2017, 650, 117-124.	0.9	1
62	Photodynamic Investigation on the Synergistic Effects of Aromatic Side Chains with Alkylthio Substituents in Nonfullerene Organic Solar Cells. ACS Applied Energy Materials, 2021, 4, 9913-9922.	5.1	1
63	p-nitrophenol-terminated alkyl side chain substituted polymer as high dielectric constant polymer additive enables efficient organic solar cells. Optical Materials, 2022, 127, 112347.	3.6	1
64	Synthesis and characterization of green to orange electroluminescent copolymers derived from fluorene and 2,3-dimethylnaphthalopyrazine. Polymer Science - Series B, 2010, 52, 614-620.	0.8	0
65	An ecoâ€friendly waterâ€soluble fluoreneâ€based polyelectrolyte as interfacial layer for efficient inverted polymer solar cells. Polymers for Advanced Technologies, 2018, 29, 2237-2244.	3.2	0