Bin Zhao

List of Publications by Citations

110 papers	2,544 citations	29 h-index	45 g-index
112 ext. papers	2,728 ext. citations	5.6 avg, IF	4.7 L-index

#	Paper	IF	Citations
110	Holey Graphene Nanomanufacturing: Structure, Composition, and Electrochemical Properties. *Advanced Functional Materials*, **2015**, 25, 2920-2927	15.6	123
109	Efficient triphenylamine dyes for solar cells: Effects of alkyl-substituents and π-conjugated thiophene unit. *Dyes and Pigments*, **2009**, 83, 187-197	4.6	110
108	High Molar Extinction Coefficient Branchlike Organic Dyes Containing Di(p-tolyl)phenylamine Donor for Dye-Sensitized Solar Cells Applications. *Journal of Physical Chemistry C*, **2010**, 114, 3280-3286	3.8	105
107	Chemically Crushed Wood Cellulose Fiber towards High-Performance Sodium-Ion Batteries. *ACS Applied Materials & Interfaces*, **2015**, 7, 23291-6	9.5	101
106	Chemically modified graphene oxides as a hole transport layer in organic solar cells. *Chemical Communications*, **2012**, 48, 8078-80	5.8	99
105	Thiophene-linked porphyrin derivatives for dye-sensitized solar cells. *Chemical Communications*, **2009**, 2499-501	5.8	93
104	Low bandgap isoindigo-based copolymers: design, synthesis and photovoltaic applications. *Polymer Chemistry*, **2011**, 2, 1156-1162	4.9	63
103	Development of a new benzo(1,2-b:4,5-b′)dithiophene-based copolymer with conjugated dithienylbenzothiadiazole-vinylene side chains for efficient solar cells. *Chemical Communications*, **2011**, 47, 9381-3	5.8	62
102	Transient Rechargeable Batteries Triggered by Cascade Reactions. *Nano Letters*, **2015**, 15, 4664-71	11.5	60
101	Flexible Counter Electrodes Based on Mesoporous Carbon Aerogel for High-Performance Dye-Sensitized Solar Cells. *Journal of Physical Chemistry C*, **2011**, 115, 22615-22621	3.8	60
100	Efficient triphenylamine-based dyes featuring dual-role carbazole, fluorene and spirobifluorene moieties. *Organic Electronics*, **2011**, 12, 125-135	3.5	59
99	Effect of 3D π-Stacking on Photovoltaic and Electroluminescent Properties in Triphenylamine-containing Poly(p-phenylenevinylene) Derivatives. *Macromolecules*, **2008**, 41, 5716-5722	5.5	57
98	Synthesis and photovoltaic properties of polythiophene stars with porphyrin core. *Journal of Materials Chemistry*, **2010**, 20, 1140-1146		54
97	Synthesis and characterization of porphyrin-terthiophene and oligothiophene π-conjugated copolymers for polymer solar cells. *European Polymer Journal*, **2010**, 46, 1084-1092	5.2	54
96	Effects of aromatic π-conjugated bridges on optical and photovoltaic properties of N,N-diphenylhydrazone-based metal-free organic dyes. *Organic Electronics*, **2011**, 12, 1992-2002	3.5	52
95	Benzodifuran-Based π-Conjugated Copolymers for Bulk Heterojunction Solar Cells. *Macromolecules*, **2010**, 43, 8058-8062	5.5	50
94	Stainless steel mesh-based flexible quasi-solid dye-sensitized solar cells. *Solar Energy Materials and Solar Cells*, **2010**, 94, 1005-1010	6.4	48

93	Low-cost dyes based on methylthiophene for high-performance dye-sensitized solar cells. *Dyes and Pigments*, **2010**, 87, 181-187	4.6	48
92	Poly[N-isopropylacrylamide-co-3-(trimethoxysilyl)-propylmethacrylate] Coated Aqueous Dispersed Thermosensitive Fe3O4 Nanoparticles. *Journal of Physical Chemistry C*, **2009**, 113, 10090-10096	3.8	47
91	Synthesis and Photovoltaic Properties of Copolymers Based on Benzo[1,2-b:4,5-b?]dithiophene and Thiophene with Different Conjugated Side Groups. *Macromolecules*, **2012**, 45, 2359-2366	5.5	46
90	Ratiometric imaging of lysosomal hypochlorous acid enabled by FRET-based polymer dots. *Polymer Chemistry*, **2017**, 8, 5795-5802	4.9	43
89	Enhanced power conversion efficiencies in bulk heterojunction solar cells based on conjugated polymer with isoindigo side chain. *Chemical Communications*, **2013**, 49, 3857-9	5.8	41
88	Low band gap copolymers consisting of porphyrins, thiophenes, and 2,1,3-benzothiadiazole moieties for bulk heterojunction solar cells. *Journal of Polymer Science Part A*, **2011**, 49, 2685-2692	2.5	41
87	The structural modification of thiophene-linked porphyrin sensitizers for dye-sensitized solar cells. *Dyes and Pigments*, **2011**, 88, 75-83	4.6	40
86	Multi-alkylthienyl appended porphyrins for efficient dye-sensitized solar cells. *Dyes and Pigments*, **2011**, 91, 404-412	4.6	40
85	Effect of oxadiazole side chains based on alternating fluorene–thiophene copolymers for photovoltaic cells. *European Polymer Journal*, **2009**, 45, 2079-2086	5.2	34
84	Effects of the acceptors in triphenylamine-based D–A–? dyes on photophysical, electrochemical, and photovoltaic properties. *Journal of Power Sources*, **2014**, 246, 831-839	8.9	32
83	Synthesis of new N, N-diphenylhydrazone dyes for solar cells: Effects of thiophene-derived π-conjugated bridge. *Dyes and Pigments*, **2012**, 92, 1042-1051	4.6	32
82	Porphyrins modified with a low-band-gap chromophore for dye-sensitized solar cells. *Organic Electronics*, **2012**, 13, 560-569	3.5	32
81	Flexible counter electrodes based on nitrogen-doped carbon aerogels with tunable pore structure for high-performance dye-sensitized solar cells. *Carbon*, **2014**, 77, 113-121	10.4	28
80	Benzodifuran-containing well-defined π-conjugated polymers for photovoltaic cells. *Journal of Polymer Science Part A*, **2012**, 50, 2935-2943	2.5	28
79	Hyperbranched conjugated polymers with donor–π–acceptor architecture as organic sensitizers for dye-sensitized solar cells. *European Polymer Journal*, **2010**, 46, 2033-2041	5.2	28
78	Synthesis and photovoltaic performances of conjugated copolymers with 4,7-dithien-5-yl-2,1,3-benzothiadiazole and di(p-tolyl)phenylamine side groups. *Journal of Materials Chemistry*, **2012**, 22, 22913		26
77	Electrical response and adsorption performance of novel composites from polystyrene filled with carbon aerogel in organic vapors. *Sensors and Actuators B: Chemical*, **2008**, 132, 60-66	8.5	26
76	The sensibility of the composites fabricated from polystyrene filling multi-walled carbon nanotubes for mixed vapors. *Composites Science and Technology*, **2008**, 68, 1357-1362	8.6	25

75	Non-conjugated polymers as thickness-insensitive electron transport materials in high-performance inverted organic solar cells. *Journal of Energy Chemistry*, **2020**, 47, 196-202	12	22
74	Simultaneously improving the photovoltaic parameters of organic solar cells via isomerization of benzo[b]benzo[4,5]thieno[2,3-d]thiophene-based octacyclic non-fullerene acceptors. *Journal of Materials Chemistry A*, **2020**, 8, 9684-9692	13	21
73	Polymer with a 3D conductive network: a thickness-insensitive electron transport layer for inverted polymer solar cells. *Journal of Materials Chemistry A*, **2018**, 6, 12969-12973	13	21
72	Synthesis, characterization, and photovoltaic performance of the polymers based on thiophene-2,5-bis((2-ethylhexyl)oxy) benzene-thiophene. *Organic Electronics*, **2015**, 20, 142-149	3.5	20
71	Synthesis and characterization of trivalent metal porphyrin with NCS ligand for application in dye-sensitized solar cells. *Solar Energy Materials and Solar Cells*, **2011**, 95, 1174-1181	6.4	20
70	Preparation and photoluminescence properties of electrospun nanofibers containing PMO-PPV and Eu(ODBM)3phen. *Materials Letters*, **2008**, 62, 2419-2421	3.3	20
69	Synthesis and photovoltaic properties of copolymers based on benzo[1,2-b:4,5-b?]dithiophene and thiophene with electron-withdrawing side chains. *Journal of Polymer Science Part A*, **2011**, 49, 3604-3614	2.5	19
68	Alkynyl-Functionalized Pyrene-Cored Perylene Diimide Electron Acceptors for Efficient Nonfullerene Organic Solar Cells. *ACS Applied Energy Materials*, **2019**, 2, 3918-3926	6.1	18
67	Development of a new diindenopyrazine–benzotriazole copolymer for multifunctional application in organic field-effect transistors, polymer solar cells and light-emitting diodes. *Organic Electronics*, **2012**, 13, 1671-1679	3.5	18
66	Achieving 17.38% efficiency of ternary organic solar cells enabled by a large-bandgap donor with noncovalent conformational locking. *Journal of Materials Chemistry A*, **2021**, 9, 11734-11740	13	17
65	Rational design of truxene-bridged PDI trimers as acceptors for efficient organic solar cells. *Dyes and Pigments*, **2018**, 156, 276-284	4.6	15
64	Effect of conjugated side groups on the photovoltaic performances of triphenylamine-based dyes sensitized solar cells. *Dyes and Pigments*, **2016**, 124, 222-231	4.6	14
63	Synthesis and photovoltaic properties of the acceptor pended push–pull conjugated polymers incorporating thieno[3,2-b] thiophene in the backbone chain or side chains. *Dyes and Pigments*, **2015**, 120, 44-51	4.6	14
62	A conductive liquid crystal via facile doping of an n-type benzodifurandione derivative. *Journal of Materials Chemistry A*, **2015**, 3, 6929-6934	13	14
61	A2-D-A1-D-A2-type small molecule acceptors incorporated with electron-deficient core for non-fullerene organic solar cells. *Solar Energy*, **2020**, 197, 511-518	6.8	14
60	Synergistic Effect of Fluorine Substitution and Thio-Alkylation on Photovoltaic Performances of Alternating Conjugated Polymers Based on Alkylthio-Substituted Benzothiadiazole-Quaterthiophene. *ACS Applied Energy Materials*, **2018**, 1, 2192-2199	6.1	14
59	Controlling the morphology and hole mobility of terpolymers for polymer solar cells. *RSC Advances*, **2016**, 6, 13177-13184	3.7	14
58	Synthesis and optoelectronic properties of liquid-crystalline copolymers based on fluorene and triphenylamine-containing oligo(p-phenylenevinylene) derivatives for white light emission. *Journal of Polymer Science Part A*, **2009**, 47, 3296-3308	2.5	14

57	Synthesis and photovoltaic properties of poly(p-phenylenevinylene) derivatives with two triphenylamine and bithiophene conjugated side chains. *European Polymer Journal*, **2009**, 45, 2726-2731	5.2	13
56	A trilobal non-fullerene electron acceptor based on benzo[1,2- b :3,4- b ?:5,6- b ?] trithiophene and perylenediimide for polymer solar cells. *Synthetic Metals*, **2017**, 227, 122-130	3.6	11
55	Rational design of a difluorobenzo[c]cinnoline-based low-bandgap copolymer for high-performance polymer solar cells. *Journal of Materials Chemistry A*, **2017**, 5, 7300-7304	13	11
54	The effect of the length of alkyl side-chains on the molecular aggregation and photovoltaic performance of the isoindigo-based polymers. *Dyes and Pigments*, **2017**, 139, 403-411	4.6	11
53	Inverted polymer solar cells with TiO2 electron extraction layers prepared by magnetron sputtering. *Science China Chemistry*, **2013**, 56, 1573-1577	7.9	11
52	Low-cost quasi-solid-state dye-sensitized solar cells based on a metal-free organic dye and a carbon aerogel counter electrode. *Journal of Materials Science*, **2011**, 46, 7482-7488	4.3	11
51	Molecular design of organic dyes based on vinylene hexylthiophene bridge for dye-sensitized solar cells. *Science in China Series B: Chemistry*, **2009**, 52, 1198-1209		11
50	Synthesis and photovoltaic performances of 2,5-dioctyloxy-1,4-phenylenevinylene and terthiophene copolymers with di(p-tolyl)phenylamine and oxadiazole side groups. *European Polymer Journal*, **2010**, 46, 673-680	5.2	11
49	Two novel triphenylamine-substituted poly(p-phenylenevinylene) derivatives: synthesis, photo- and electroluminescent properties. *European Polymer Journal*, **2008**, 44, 2348-2355	5.2	11
48	Synthesis and photovoltaic properties of conjugated copolymers with benzo[1,2-b:4,5-b?]dithiophene and thiadiazolo[3,4-c]pyridine moieties. *European Polymer Journal*, **2013**, 49, 2738-2747	5.2	10
47	Novel solution-processible small molecules based on benzo[1,2-b:3,4-b?:5,6-b??]trithiophene for effective organic photovoltaics with high open-circuit voltage. *RSC Advances*, **2015**, 5, 14540-14546	3.7	10
46	Synergetic effect of efficient energy transfer and 3D pi-pi stack for white emission based on the block copolymers containing nonconjugated spacer. *Journal of Physical Chemistry B*, **2009**, 113, 4203-8	3.4	10
45	Bandgap and Molecular-Energy-Level Control of Conjugated-Polymer Photovoltaic Materials Based on 6,12-Dihydro-diindeno[1,2-b;10,20-e]pyrazine. *Macromolecular Chemistry and Physics*, **2013**, 214, 1147-1157	2.6	9
44	Synthesis and white electroluminescent properties of multicomponent copolymers containing polyfluorene, oligo(phenylenevinylene), and porphyrin derivatives. *Journal of Polymer Science Part A*, **2009**, 47, 5291-5303	2.5	9
43	Development of s-tetrazine-based polymers for efficient polymer solar cells by controlling appropriate molecular aggregation. *Dyes and Pigments*, **2019**, 171, 107717	4.6	8
42	Synthesis and photovoltaic properties of organic small molecules containing triphenylamine and benzothiadiazole moieties with different terminal groups. *Dyes and Pigments*, **2013**, 98, 464-470	4.6	8
41	Analysis of gas sensing behaviors of carbon black/waterborne polyurethane composites in low concentration organic vapors. *Journal of Materials Science*, **2007**, 42, 4575-4580	4.3	8
40	Effect of Soft Segments of Waterborne Polyurethane on Organic Vapor Sensitivity of Carbon Black Filled Waterborne Polyurethane Composites. *Polymer Journal*, **2006**, 38, 799-806	2.7	8

39	Effects of monohalogenated terminal units of non-fullerene acceptors on molecular aggregation and photovoltaic performance. *Solar Energy*, **2020**, 208, 866-872	6.8	8
38	Cationic Polyelectrolytes with Alkylsulfonate Counterions as a Cathode Interface Layer for High-Performance Polymer Solar Cells. *ACS Applied Materials & Interfaces*, **2020**, 12, 44679-44688	9.5	8
37	Improved photovoltaic performance of D-A1-D-A2 terpolymer via synergetic effects of copolymerization and blending. *Dyes and Pigments*, **2019**, 160, 79-85	4.6	7
36	Synthesis and photovoltaic properties of phthalocyanine end-capped copolymers with conjugated dithienylbenzothiadiazole□inylene side chains. *European Polymer Journal*, **2012**, 48, 1805-1813	5.2	7
35	Synthesis, characterization, and photophysical properties of novel poly(p-phenylene vinylene) derivatives with conjugated thiophene as side chains. *Journal of Applied Polymer Science*, **2011**, 120, 3387-3394	2.9	7
34	Simultaneously Enhancing the Jsc and Voc of Ternary Organic Solar Cells by Incorporating a Medium-Band-Gap Acceptor. *ACS Applied Energy Materials*, **2021**, 4, 3480-3486	6.1	7
33	2-Ethynyl-6-methylthieno[3,2- b]thiophene as an efficient □spacer for porphyrin-based dyes. *Dyes and Pigments*, **2015**, 122, 168-176	4.6	6
32	Rapid Dissolving-Debonding Strategy for Optically Transparent Paper Production. *Scientific Reports* , **2015**, 5, 17703	4.9	6
31	Poly(p-phenylenevinylene) derivatives with conjugated thiophene side chains: Synthesis, photophysics and photovoltaics. *Synthetic Metals*, **2010**, 160, 1291-1298	3.6	6
30	Synthesis and electroluminescent properties of substituted benzoate bis (8-hydroxyquinaldine) gallium (III) complexes. *Journal of Materials Science*, **2004**, 39, 1405-1406	4.3	6
29	Preparation of Polymer/TiO2Hybrid Nanofibers Microporous Membranes and Its Application in Dye-Sensitized Solar Cells. *Acta Chimica Sinica*, **2012**, 70, 1604	3.3	6
28	Improved photovoltaic properties of PM6-based terpolymer donors containing benzothiadiazole with a siloxane-terminated side chain. *Polymer Chemistry*, **2020**, 11, 6178-6186	4.9	6
27	Improved photovoltaic properties of the copolymers based on diketopyrrolopyrrole with broad absorption and high open-circuit voltage. *Dyes and Pigments*, **2016**, 133, 16-24	4.6	6
26	Regular terpolymers with benzothiadiazole side groups for improving the performances of polymer solar cells. *Dyes and Pigments*, **2017**, 143, 261-269	4.6	5
25	Benzothienoisoindigo-based polymers for efficient polymer solar cells with an open-circuit voltage of 0.96 V. *Polymer*, **2019**, 175, 339-346	3.9	5
24	Synthesis and Photovoltaic Properties of the Copolymers Based on Carbazole with Tetrathiophene Porphyrin Side Chains Linked by a Flexible Alkyl-interval. *Chinese Journal of Chemistry*, **2018**, 36, 599-604	4.9	5
23	Two A2-D-A1-D-A2 small molecules with isoindigo as the central core for efficient organic photovoltaics. *Dyes and Pigments*, **2018**, 156, 403-409	4.6	5
22	Synthesis and photovoltaic properties of new branchlike organic dyes containing benzothiadiazole or triphenylamine-linked consecutive vinylenes units. *Dyes and Pigments*, **2013**, 97, 405-411	4.6	5

21	EFFICIENT TiO2 NANOPARTICLES/NANORODS COMPOSITE ELECTRODES FOR DYE-SENSITIZED SOLAR CELLS. *Nano*, **2012**, 07, 1250010	1.1	5
20	Non-conjugated electrolytes as thickness-insensitive interfacial layers for high-performance organic solar cells. *Journal of Materials Chemistry A*,	13	5
19	An asymmetric small-molecule donor enables over 18% efficiency in ternary organic solar cells. *Journal of Materials Chemistry A*,	13	5
18	An axisymmetric heptacyclic lactam unit for efficient polymer solar cells. *Journal of Materials Chemistry C*, **2018**, 6, 6911-6915	7.1	4
17	Phenylenevinylene copolymers of dihexylthienylbenzothiadiazole and triphenylamine or tetraphenylbenzidine: synthesis, characterization and photovoltaic properties. *Journal of Materials Science*, **2012**, 47, 5706-5714	4.3	4
16	Study on copolymerization behavior of 2-substituted 4-methylene-1,3-dioxolane with maleic anhydride and acrylonitrile. *Journal of Polymer Science Part A*, **1996**, 34, 2149-2156	2.5	4
15	Organic solar cells with efficiency of 17.6% and fill factor of 78.3% based on perylene-diimide derivative as cathode interface layer. *Chemical Engineering Journal*, **2022**, 443, 136455	14.7	4
14	Polymer with conjugated alkylthiophenylthienyl side chains for efficient photovoltaic cells. *Organic Electronics*, **2017**, 48, 298-307	3.5	3
13	Design and synthesis of the polymers based on alkylthiophenyl side chains and variant acceptor moieties for polymer solar cells. *RSC Advances*, **2016**, 6, 95306-95313	3.7	3
12	Effects of spin-coating speed on the morphology and photovoltaic performance of the diketopyrrolopyrrole-based terpolymer. *Science China Chemistry*, **2016**, 59, 466-471	7.9	2
11	Synthesis and photovoltaic properties of a phenylenevinylene copolymer with dithienylbenzothiadiazole and bis(di(p-tolyl)phenylamino)phenylene units. *European Polymer Journal*, **2011**, 47, 2424-2431	5.2	2
10	Synthesis and photovoltaic performance of dye-sensitizers based on thiophene-triphenylamine with varied substituents. *Scientia Sinica Chimica*, **2011**, 41, 982-988	1.6	2
9	SYNTHESIS AND ELECTROLUMINESCENT PROPERTIES OF A POLYFLUORENE GRAFTED OLIGO(PHENYLENEVINYLENE DERIVATIVE WITH TWO TRIPHENYLAMINE SIDE GROUP). *Acta Polymerica Sinica*, **2010**, 010, 501-507		2
8	Synthesis and Photovoltaic Properties of Conjugated Polymers Based on 1,2,4-Triazole Derivatives. *Acta Chimica Sinica*, **2012**, 70, 2433	3.3	2
7	Tuning the photovoltaic performances of the terpolymers based on thiophene-benzene-thiophene via the modification of alkyl side chains. *Journal of Applied Polymer Science*, **2016**, 133, n/a-n/a	2.9	1
6	Preventing isomerization of the fused-ring core by introducing a methyl group for efficient non-fullerene acceptors. *Journal of Materials Chemistry C*,	7.1	1
5	Ternary polymerization strategy to approach 12% efficiency in all-polymer solar cells processed by green solvent and additive. *Chemical Engineering Journal*, **2022**, 429, 132407	14.7	1
4	Polymerized naphthalimide derivatives as remarkable electron-transport layers for inverted organic solar cells.. *Macromolecular Rapid Communications*, **2022**, e2200119	4.8	1

3	Synthesis and photovoltaic properties of the polymers base on thiophene derivatives with electron-deficient 3-nitro-1,2,4-triazole side chains. *Thin Solid Films*, **2013**, 539, 267-273	2.2
2	Improved photovoltaic properties of copolymer donors by regulating alkyl and alkylsilyl side chains. *Dyes and Pigments*, **2022**, 197, 109842	4.6
1	Synthesis and Optoelectronic Properties of A-D-A Type Small Molecule Acceptors Containing Isatin-Fused Acenaphthenequinone Imide Terminal Groups. *Chinese Journal of Organic Chemistry*, **2021**, 2019	3