Bin Zhao

List of Publications by Year
in descending order

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112 papers	2,925 citations	147566 31 h-index	197535 49 g-index
112 all docs	112 docs citations	112 times ranked	4348 citing authors

#	Article	IF	Citations
1	Holey Graphene Nanomanufacturing: Structure, Composition, and Electrochemical Properties. Advanced Functional Materials, 2015, 25, 2920-2927.	7.8	150
2	Chemically Crushed Wood Cellulose Fiber towards High-Performance Sodium-Ion Batteries. ACS Applied Materials & Interfaces, 2015, 7, 23291-23296.	4.0	123
3	Efficient triphenylamine dyes for solar cells: Effects of alkyl-substituents and Ï€-conjugated thiophene unit. Dyes and Pigments, 2009, 83, 187-197.	2.0	118
4	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.	1.5	110
5	Chemically modified graphene oxides as a hole transport layer in organic solar cells. Chemical Communications, 2012, 48, 8078.	2.2	105
6	Thiophene-linked porphyrin derivatives for dye-sensitized solar cells. Chemical Communications, 2009, , 2499.	2.2	97
7	Transient Rechargeable Batteries Triggered by Cascade Reactions. Nano Letters, 2015, 15, 4664-4671.	4.5	77
8	Low bandgap isoindigo-based copolymers: design, synthesis and photovoltaic applications. Polymer Chemistry, 2011, 2, 1156-1162.	1.9	66
9	Development of a new benzo(1,2-b:4,5-bâ€²)dithiophene-based copolymer with conjugated dithienylbenzothiadiazoleâ€“vinylene side chains for efficient solar cells. Chemical Communications, 2011, 47, 9381.	2.2	65
10	Efficient triphenylamine-based dyes featuring dual-role carbazole, fluorene and spirobifluorene moieties. Organic Electronics, 2011, 12, 125-135.	1.4	65
11	Effect of 3D Ï€â‹¯Ï€ Stacking on Photovoltaic and Electroluminescent Properties in Triphenylamine-containing Poly(p-phenylenevinylene) Derivatives. Macromolecules, 2008, 41, 5716-5722.	2.2	62
12	Flexible Counter Electrodes Based on Mesoporous Carbon Aerogel for High-Performance Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2011, 115, 22615-22621.	1.5	61
13	Effects of aromatic Ï€-conjugated bridges on optical and photovoltaic properties of N,N-diphenylhydrazone-based metal-free organic dyes. Organic Electronics, 2011, 12, 1992-2002.	1.4	57
14	Synthesis and characterization of porphyrin-terthiophene and oligothiophene Ï€-conjugated copolymers for polymer solar cells. European Polymer Journal, 2010, 46, 1084-1092.	2.6	56
15	Synthesis and photovoltaic properties of polythiophene stars with porphyrin core. Journal of Materials Chemistry, 2010, 20, 1140-1146.	6.7	56
16	Stainless steel mesh-based flexible quasi-solid dye-sensitized solar cells. Solar Energy Materials and Solar Cells, 2010, 94, 1005-1010.	3.0	51
17	Low-cost dyes based on methylthiophene for high-performance dye-sensitized solar cells. Dyes and Pigments, 2010, 87, 181-187.	2.0	51
18	Benzodifuran-Based Ï€-Conjugated Copolymers for Bulk Heterojunction Solar Cells. Macromolecules, 2010, 43, 8058-8062.	2.2	51

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19	Poly[N-isopropylacrylamide-co-3-(trimethoxysilyl)-propylmethacrylate] Coated Aqueous Dispersed Thermosensitive Fe₃O₄ Nanoparticles. Journal of Physical Chemistry C, 2009, 113, 10090-10096.	1.5	48
20	Synthesis and Photovoltaic Properties of Copolymers Based on Benzo[1,2-b:4,5-bâ€²]dithiophene and Thiophene with Different Conjugated Side Groups. Macromolecules, 2012, 45, 2359-2366.	2.2	48
21	Ratiometric imaging of lysosomal hypochlorous acid enabled by FRET-based polymer dots. Polymer Chemistry, 2017, 8, 5795-5802.	1.9	47
22	Low band gap copolymers consisting of porphyrins, thiophenes, and 2,1,3â€benzothiadiazole moieties for bulk heterojunction solar cells. Journal of Polymer Science Part A, 2011, 49, 2685-2692.	2.5	46
23	Enhanced power conversion efficiencies in bulk heterojunction solar cells based on conjugated polymer with isoindigo side chain. Chemical Communications, 2013, 49, 3857.	2.2	43
24	The structural modification of thiophene-linked porphyrin sensitizers for dye-sensitized solar cells. Dyes and Pigments, 2011, 88, 75-83.	2.0	41
25	Multi-alkylthienyl appended porphyrins for efficient dye-sensitized solar cells. Dyes and Pigments, 2011, 91, 404-412.	2.0	40
26	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.	5.2	38
27	Effects of the acceptors in triphenylamine-based Dâ€“Aâ€²â€“Ï€â€“A dyes on photophysical, electrochemical, and photovoltaic properties. Journal of Power Sources, 2014, 246, 831-839.	4.0	37
28	Effect of oxadiazole side chains based on alternating fluoreneâ€“thiophene copolymers for photovoltaic cells. European Polymer Journal, 2009, 45, 2079-2086.	2.6	36
29	Synthesis of new N, N-diphenylhydrazone dyes for solar cells: Effects of thiophene-derived Ï€-conjugated bridge. Dyes and Pigments, 2012, 92, 1042-1051.	2.0	34
30	Porphyrins modified with a low-band-gap chromophore for dye-sensitized solar cells. Organic Electronics, 2012, 13, 560-569.	1.4	33
31	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.	5.4	33
32	Non-conjugated polymers as thickness-insensitive electron transport materials in high-performance inverted organic solar cells. Journal of Energy Chemistry, 2020, 47, 196-202.	7.1	32
33	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.	4.0	29
34	Hyperbranched conjugated polymers with donor-Ï€-acceptor architecture as organic sensitizers for dye-sensitized solar cells. European Polymer Journal, 2010, 46, 2033-2041.	2.6	29
35	Benzodifuranâ€containing wellâ€defined Ï€â€conjugated polymers for photovoltaic cells. Journal of Polymer Science Part A, 2012, 50, 2935-2943.	2.5	29
36	Alkynyl-Functionalized Pyrene-Cored Perylene Diimide Electron Acceptors for Efficient Nonfullerene Organic Solar Cells. ACS Applied Energy Materials, 2019, 2, 3918-3926.	2.5	29

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37	The sensibility of the composites fabricated from polystyrene filling multi-walled carbon nanotubes for mixed vapors. Composites Science and Technology, 2008, 68, 1357-1362.	3.8	28
38	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.	5.2	28
39	An asymmetric small-molecule donor enables over 18% efficiency in ternary organic solar cells. Journal of Materials Chemistry A, 2022, 10, 9746-9752.	5.2	27
40	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.	6.7	26
41	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.	5.2	25
42	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.	6.6	24
43	Preparation and photoluminescence properties of electrospun nanofibers containing PMO-PPV and Eu(ODBM)3phen. Materials Letters, 2008, 62, 2419-2421.	1.3	22
44	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.	3.0	22
45	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.	1.4	22
46	Development of a new diindenopyrazineâ€“benzotriazole copolymer for multifunctional application in organic field-effect transistors, polymer solar cells and light-emitting diodes. Organic Electronics, 2012, 13, 1671-1679.	1.4	21
47	Synthesis and photovoltaic properties of copolymers based on benzo[1,2â€b:4,5â€bâ€²]dithiophene and thiophene with electronâ€withdrawing side chains. Journal of Polymer Science Part A, 2011, 49, 3604-3614.	2.5	19
48	Improved photovoltaic properties of PM6-based terpolymer donors containing benzothiadiazole with a siloxane-terminated side chain. Polymer Chemistry, 2020, 11, 6178-6186.	1.9	19
49	Simultaneously Enhancing the J_{sc} and V_{oc} of Ternary Organic Solar Cells by Incorporating a Medium-Band-Gap Acceptor. ACS Applied Energy Materials, 2021, 4, 3480-3486.	2.5	19
50	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.	2.9	18
51	Rational design of truxene-bridged PDI trimers as acceptors for efficient organic solar cells. Dyes and Pigments, 2018, 156, 276-284.	2.0	17
52	Controlling the morphology and hole mobility of terpolymers for polymer solar cells. RSC Advances, 2016, 6, 13177-13184.	1.7	15
53	Effect of conjugated side groups on the photovoltaic performances of triphenylamine-based dyes sensitized solar cells. Dyes and Pigments, 2016, 124, 222-231.	2.0	15
54	Effects of monohalogenated terminal units of non-fullerene acceptors on molecular aggregation and photovoltaic performance. Solar Energy, 2020, 208, 866-872.	2.9	15

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55	Cationic Polyelectrolytes with Alkylsulfonate Counterions as a Cathode Interface Layer for High-Performance Polymer Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 44679-44688.	4.0	15
56	Ternary polymerization strategy to approach 12% efficiency in all-polymer solar cells processed by green solvent and additive. Chemical Engineering Journal, 2022, 429, 132407.	6.6	15
57	Synthesis and optoelectronic properties of liquidâ€crystalline copolymers based on fluorene and triphenylamineâ€containing oligo(pâ€phenylenevinylene) derivatives for white light emission. Journal of Polymer Science Part A, 2009, 47, 3296-3308.	2.5	14
58	Synthesis and photovoltaic properties of the acceptor pended pushâ€“pull conjugated polymers incorporating thieno[3,2â€“b] thiophene in the backbone chain or side chains. Dyes and Pigments, 2015, 120, 44-51.	2.0	14
59	A conductive liquid crystal via facile doping of an n-type benzodifurandione derivative. Journal of Materials Chemistry A, 2015, 3, 6929-6934.	5.2	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.	2.5	14
61	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.	0.8	13
62	Synthesis and photovoltaic properties of poly(p-phenylenevinylene) derivatives with two triphenylamine and bithiophene conjugated side chains. European Polymer Journal, 2009, 45, 2726-2731.	2.6	13
63	Effect of Soft Segments of Waterborne Polyurethane on Organic Vapor Sensitivity of Carbon Black Filled Waterborne Polyurethane Composites. Polymer Journal, 2006, 38, 799-806.	1.3	12
64	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.	2.6	12
65	Inverted polymer solar cells with TiO2 electron extraction layers prepared by magnetron sputtering. Science China Chemistry, 2013, 56, 1573-1577.	4.2	12
66	A trilobal non-fullerene electron acceptor based on benzo[1,2- b :3,4- b â€²:5,6- b â€³] trithiophene and perylenediimide for polymer solar cells. Synthetic Metals, 2017, 227, 122-130.	2.1	12
67	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.	5.2	12
68	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.	2.0	12
69	Two novel triphenylamine-substituted poly(p-phenylenevinylene) derivatives: synthesis, photo- and electroluminescent properties. European Polymer Journal, 2008, 44, 2348-2355.	2.6	11
70	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.	1.7	11
71	Synthesis and photovoltaic properties of conjugated copolymers with benzo[1,2-b:4,5-bâ€²]dithiophene and thiadiazolo[3,4-c]pyridine moieties. European Polymer Journal, 2013, 49, 2738-2747.	2.6	11
72	Novel solution-processible small molecules based on benzo[1,2-b:3,4-bâ€²:5,6-bâ€²â€²]trithiophene for effective organic photovoltaics with high open-circuit voltage. RSC Advances, 2015, 5, 14540-14546.	1.7	11

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73	Development of s-tetrazine-based polymers for efficient polymer solar cells by controlling appropriate molecular aggregation. Dyes and Pigments, 2019, 171, 107717.	2.0	11
74	Analysis of gas sensing behaviors of carbon black/waterborne polyurethane composites in low concentration organic vapors. Journal of Materials Science, 2007, 42, 4575-4580.	1.7	10
75	Synergetic Effect of Efficient Energy Transfer and 3D Ï€âˆ'Ï€ Stack for White Emission Based on the Block Copolymers Containing Nonconjugated Spacer. Journal of Physical Chemistry B, 2009, 113, 4203-4208.	1.2	10
76	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
77	Bandgap and Molecularâ€Energyâ€Level Control of Conjugatedâ€Polymer Photovoltaic Materials Based on 6,12â€Dihydroâ€diindeno[1,2â€b;10,20â€e]pyrazine. Macromolecular Chemistry and Physics, 2013, 214, 1147-1157.	1.1	9
78	Improved photovoltaic performance of D-A1-D-A2 terpolymer via synergetic effects of copolymerization and blending. Dyes and Pigments, 2019, 160, 79-85.	2.0	9
79	Non-conjugated electrolytes as thickness-insensitive interfacial layers for high-performance organic solar cells. Journal of Materials Chemistry A, 2021, 9, 22926-22933.	5.2	9
80	Synthesis, characterization, and photophysical properties of novel poly(pâ€phenylene vinylene) derivatives with conjugated thiophene as side chains. Journal of Applied Polymer Science, 2011, 120, 3387-3394.	1.3	8
81	Synthesis and photovoltaic properties of organic small molecules containing triphenylamine and benzothiadiazole moieties with different terminal groups. Dyes and Pigments, 2013, 98, 464-470.	2.0	8
82	Developing s-Tetrazine-Based Terpolymer for High-Performance Polymer Solar Cells by Tuning Side Chains. ACS Applied Energy Materials, 2021, 4, 11624-11633.	2.5	8
83	Poly(p-phenylenevinylene) derivatives with conjugated thiophene side chains: Synthesis, photophysics and photovoltaics. Synthetic Metals, 2010, 160, 1291-1298.	2.1	7
84	Synthesis and photovoltaic properties of phthalocyanine end-capped copolymers with conjugated dithienylbenzothiadiazoleâ€"vinylene side chains. European Polymer Journal, 2012, 48, 1805-1813.	2.6	7
85	2-Ethynyl-6-methylthieno[3,2- b]thiophene as an efficient Ï€ spacer for porphyrin-based dyes. Dyes and Pigments, 2015, 122, 168-176.	2.0	7
86	An axisymmetric heptacyclic lactam unit for efficient polymer solar cells. Journal of Materials Chemistry C, 2018, 6, 6911-6915.	2.7	7
87	Preparation of Polymer/TiO₂Hybrid Nanofibers Microporous Membranes and Its Application in Dye-Sensitized Solar Cells. Acta Chimica Sinica, 2012, 70, 1604.	0.5	7
88	Synthesis and electroluminescent properties of substituted benzoate bis (8-hydroxyquinaldine) gallium (III) complexes. Journal of Materials Science, 2004, 39, 1405-1406.	1.7	6
89	Improved photovoltaic properties of the copolymers based on diketopyrrolopyrrole with broad absorption and high open-circuit voltage. Dyes and Pigments, 2016, 133, 16-24.	2.0	6
90	Rapid Dissolving-Debonding Strategy for Optically Transparent Paper Production. Scientific Reports, 2016, 5, 17703.	1.6	6

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91	Regular terpolymers with benzothiadiazole side groups for improving the performances of polymer solar cells. Dyes and Pigments, 2017, 143, 261-269.	2.0	6
92	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.	2.0	6
93	EFFICIENT TiO₂ NANOPARTICLES/NANORODS COMPOSITE ELECTRODES FOR DYE-SENSITIZED SOLAR CELLS. Nano, 2012, 07, 1250010.	0.5	5
94	Synthesis and photovoltaic properties of new branchlike organic dyes containing benzothiadiazole or triphenylamine-linked consecutive vinylenes units. Dyes and Pigments, 2013, 97, 405-411.	2.0	5
95	Polymer with conjugated alkylthiophenylthienyl side chains for efficient photovoltaic cells. Organic Electronics, 2017, 48, 298-307.	1.4	5
96	Synthesis and Photovoltaic Properties of the Copolymers Based on Carbazole with Tetrathiophene Porphyrin Side Chains Linked by a Flexible Alkylâ€interval. Chinese Journal of Chemistry, 2018, 36, 599-604.	2.6	5
97	Benzothienoisoindigo-based polymers for efficient polymer solar cells with an open-circuit voltage of 0.96â€V. Polymer, 2019, 175, 339-346.	1.8	5
98	Rhodium(<scp>iii</scp>)-catalyzed successive C(sp²)â€“H and C(sp²)â€“C(sp²) bond activation of aryl oximes: synthetic and mechanistic studies. Organic Chemistry Frontiers, 2022, 9, 822-830.	2.3	5
99	Polymerized Naphthalimide Derivatives as Remarkable Electronâ€Transport Layers for Inverted Organic Solar Cells. Macromolecular Rapid Communications, 2022, 43, e2200119.	2.0	5
100	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
101	Phenylenevinylene copolymers of dihexylthienylbenzothiadiazole and triphenylamine or tetraphenylbenzidine: synthesis, characterization and photovoltaic properties. Journal of Materials Science, 2012, 47, 5706-5714.	1.7	4
102	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.	1.7	4
103	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.	2.6	3
104	Preventing isomerization of the fused-ring core by introducing a methyl group for efficient non-fullerene acceptors. Journal of Materials Chemistry C, 2021, 9, 13357-13365.	2.7	3
105	Tuning the photovoltaic performances of the terpolymers based on thiopheneâ€benzeneâ€thiophene via the modification of alkyl side chains. Journal of Applied Polymer Science, 2016, 133, .	1.3	2
106	Effects of spin-coating speed on the morphology and photovoltaic performance of the diketopyrrolopyrrole-based terpolymer. Science China Chemistry, 2016, 59, 466-471.	4.2	2
107	Synthesis and photovoltaic performance of dye-sensitizers based on thiophene-triphenylamine with varied substituents. Scientia Sinica Chimica, 2011, 41, 982-988.	0.2	2
108	SYNTHESIS AND ELECTROLUMINESCENT PROPERTIES OF A POLYFLUORENE GRAFTED OLIGO(PHENYLENEVINYLENE DERIVATIVE WITH TWO TRIPHENYLAMINE SIDE GROUP). Acta Polymerica Sinica, 2010, 010, 501-507.	0.0	2

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109	Synthesis and Photovoltaic Properties of Conjugated Polymers Based on 1,2,4-Triazole Derivatives. Acta Chimica Sinica, 2012, 70, 2433.	0.5	2
110	Improved photovoltaic properties of copolymer donors by regulating alkyl and alkylsilyl side chains. Dyes and Pigments, 2022, 197, 109842.	2.0	2
111	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.	0.6	1
112	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.	0.8	0