Jianhua Chen

List of Publications by Year in descending order

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Version: 2024-02-01

46	1,986	218592	254106
papers	citations	26 h-index	43 g-index

47	47	47	2154
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Teaching an Old Anchoring Group New Tricks: Enabling Low-Cost, Eco-Friendly Hole-Transporting Materials for Efficient and Stable Perovskite Solar Cells. Journal of the American Chemical Society, 2020, 142, 16632-16643.	6.6	154
2	Transition metal-catalysed molecular n-doping of organic semiconductors. Nature, 2021, 599, 67-73.	13.7	152
3	Recent progress in luminescent liquid crystal materials: design, properties and application for linearly polarised emission. Journal of Materials Chemistry C, 2015, 3, 7993-8005.	2.7	151
4	A pentacyclic aromatic lactam building block for efficient polymer solar cells. Energy and Environmental Science, 2013, 6, 3224.	15.6	143
5	A Narrowâ€Bandgap nâ€Type Polymer Semiconductor Enabling Efficient Allâ€Polymer Solar Cells. Advanced Materials, 2019, 31, e1905161.	11.1	121
6	Stable Organic Diradicals Based on Fused Quinoidal Oligothiophene Imides with High Electrical Conductivity. Journal of the American Chemical Society, 2020, 142, 4329-4340.	6.6	95
7	High-Efficiency All-Polymer Solar Cells with Poly-Small-Molecule Acceptors Having Ï€-Extended Units with Broad Near-IR Absorption. ACS Energy Letters, 2021, 6, 728-738.	8.8	74
8	Porous Semiconducting Polymers Enable Highâ€Performance Electrochemical Transistors. Advanced Materials, 2021, 33, e2007041.	11.1	61
9	Ladderâ€Type Heteroareneâ€Based Organic Semiconductors. Chemistry - an Asian Journal, 2018, 13, 2587-2600.	1.7	60
10	Fused Bithiophene Imide Dimerâ€Based nâ€Type Polymers for Highâ€Performance Organic Electrochemical Transistors. Angewandte Chemie - International Edition, 2021, 60, 24198-24205.	7.2	60
11	Readily Accessible Benzo[d]thiazole Polymers for Nonfullerene Solar Cells with >16% Efficiency and Potential Pitfalls. ACS Energy Letters, 2020, 5, 1780-1787.	8.8	58
12	Hole (donor) and electron (acceptor) transporting organic semiconductors for bulk-heterojunction solar cells. EnergyChem, 2020, 2, 100042.	10.1	55
13	Enhancing Polymer Photovoltaic Performance via Optimized Intramolecular Ester-Based Noncovalent SulfurÂ·Â·Â·Oxygen Interactions. Macromolecules, 2018, 51, 3874-3885.	2.2	53
14	Imideâ€Functionalized Heteroareneâ€Based nâ€Type Terpolymers Incorporating Intramolecular Noncovalent Sulfurâ˜â˜™â˜Oxygen Interactions for Additiveâ€Free Allâ€Polymer Solar Cells. Advanced Functional Materials, 2019, 29, 1903970.	7.8	53
15	Phthalimideâ€Based High Mobility Polymer Semiconductors for Efficient Nonfullerene Solar Cells with Power Conversion Efficiencies over 13%. Advanced Science, 2019, 6, 1801743.	5.6	45
16	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
17	Improved photovoltaic performance of a nonfullerene acceptor based on a benzo[b]thiophene fused end group with extended Ï€-conjugation. Journal of Materials Chemistry A, 2019, 7, 9822-9830.	5.2	38
18	Backbone Conformation Tuning of Carboxylate-Functionalized Wide Band Gap Polymers for Efficient Non-Fullerene Organic Solar Cells. Macromolecules, 2019, 52, 341-353.	2.2	37

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19	Dielectric materials for electrolyte gated transistor applications. Journal of Materials Chemistry C, 2021, 9, 9348-9376.	2.7	36
20	Flexible complementary circuits operating at sub-0.5 V via hybrid organicâ€“inorganic electrolyte-gated transistors. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	34
21	Tuning the central fused ring and terminal units to improve the photovoltaic performance of Ar(Aâ€“D)₂ type small molecules in solution-processed organic solar cells. Journal of Materials Chemistry A, 2016, 4, 4952-4961.	5.2	32
22	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
23	Ï€-Extended Naphthalene Diimide Derivatives for n-Type Semiconducting Polymers. Chemistry of Materials, 2020, 32, 5317-5326.	3.2	32
24	Phthalimide-Based Wide Bandgap Donor Polymers for Efficient Non-Fullerene Solar Cells. Macromolecules, 2017, 50, 8928-8937.	2.2	31
25	Engineering Intrinsic Flexibility in Polycrystalline Molecular Semiconductor Films by Grain Boundary Plasticization. Journal of the American Chemical Society, 2020, 142, 5487-5492.	6.6	30
26	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
27	Improving Photovoltaic Performance of the Linear A-Ar-A-type Small Molecules with Diketopyrropyrrole Arms by Tuning the Linkage Position of the Anthracene Core. ACS Applied Materials & Interfaces, 2015, 7, 18292-18299.	4.0	25
28	Dithienylbenzodiimide: a new electron-deficient unit for n-type polymer semiconductors. Journal of Materials Chemistry C, 2017, 5, 9559-9569.	2.7	24
29	Drastic Effects of Fluorination on Backbone Conformation of Head-to-Head Bithiophene-Based Polymer Semiconductors. ACS Macro Letters, 2018, 7, 519-524.	2.3	22
30	Heteroalkylâ€Substitution in Molecular Organic Semiconductors: Chalcogen Effect on Crystallography, Conformational Lock, and Charge Transport. Advanced Functional Materials, 2022, 32, .	7.8	22
31	A Solution Processable Dithioalkyl Dithienothiophene (DSDTT) Based Small Molecule and Its Blends for High Performance Organic Field Effect Transistors. ACS Nano, 2021, 15, 727-738.	7.3	21
32	Photovoltaic Small Molecules of TPA(F_xBT-T-Cz)₃: Tuning Open-Circuit Voltage over 1.0 V for Their Organic Solar Cells by Increasing Fluorine Substitution. ACS Applied Materials & Interfaces, 2016, 8, 30320-30327.	4.0	20
33	A new donorâ€“acceptorâ€“donor ternary copolymer pending additional diketopyrrolopyrrole unit in the side of a donor for efficient solar cells. Organic Electronics, 2013, 14, 1510-1515.	1.4	16
34	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
35	Synthesis and photovoltaic performances of benzo[1,2â€b:4,5â€b']dithiopheneâ€altâ€2,3â€diphenylquinoxaline copolymers pending functional groups on phenyl rings. Journal of Polymer Science Part A, 2013, 51, 1051-1057.	2.5	15
36	Fused Bithiophene Imide Dimerâ€Based nâ€Type Polymers for Highâ€Performance Organic Electrochemical Transistors. Angewandte Chemie, 2021, 133, 24400-24407.	1.6	14

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37	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
38	Synthesis, characterization and photovoltaic properties of two-dimensional conjugated polybenzodithiophene derivatives appending diketopyrrolopyrrole units as side chain. Polymer, 2014, 55, 4857-4864.	1.8	11
39	Benzodi(pyridothiophene): a novel acceptor unit for application in A₁â€“Aâ€“A₁ type photovoltaic small molecules. Physical Chemistry Chemical Physics, 2016, 18, 1507-1515.	1.3	11
40	Polyfluorene derivatives pending iridium complexes: Improved optoelectronic properties by introducing Dâ€A units and altering pendent mode. Journal of Polymer Science Part A, 2012, 50, 1900-1905.	2.5	10
41	Improving photovoltaic properties of linear small molecules with TPAâ€“DPP segment by tuning their frameworks. Synthetic Metals, 2015, 199, 400-407.	2.1	10
42	Dâ€A Conjugated Polymers Based on Tetracyclic Acceptor Units: Synthesis and Application in Organic Solar Cells. Macromolecular Chemistry and Physics, 2013, 214, 2054-2060.	1.1	8
43	Polymer Semiconductors: Phthalimide-Based High Mobility Polymer Semiconductors for Efficient Nonfullerene Solar Cells with Power Conversion Efficiencies over 13% (Adv. Sci. 2/2019). Advanced Science, 2019, 6, 1970012.	5.6	8
44	Improved photovoltaic performance of 2,7-pyrene based small molecules via the use of 3-carbazole as terminal unit. Tetrahedron, 2018, 74, 3989-3995.	1.0	7
45	Improving photovoltaic properties of the linear A-Ar-A type small molecules with rhodanine by extending arylene core. Dyes and Pigments, 2017, 139, 42-49.	2.0	6
46	Sideâ€Chain Optimization of Phthalimideâ€'Bithiophene Copolymers for Efficient Allâ€Polymer Solar Cells with Large Fill Factors. Asian Journal of Organic Chemistry, 2018, 7, 2239-2247.	1.3	4