Chang He

List of Publications by Year
in descending order

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66 papers	7,349 citations	109137 35 h-index	110170 64 g-index
66 all docs	66 docs citations	66 times ranked	5836 citing authors

#	Article	IF	Citations
1	Singleâ€Junction Organic Photovoltaic Cells with Approaching 18% Efficiency. Advanced Materials, 2020, 32, e1908205.	11.1	1,407
2	Singleâ€Junction Organic Photovoltaic Cell with 19% Efficiency. Advanced Materials, 2021, 33, e2102420.	11.1	1,072
3	Controlled Synthesis and Optical Properties of Colloidal Ternary Chalcogenide CuInS₂ Nanocrystals. Chemistry of Materials, 2008, 20, 6434-6443.	3.2	519
4	Fine-Tuned Photoactive and Interconnection Layers for Achieving over 13% Efficiency in a Fullerene-Free Tandem Organic Solar Cell. Journal of the American Chemical Society, 2017, 139, 7302-7309.	6.6	427
5	Improved Charge Transport and Reduced Nonradiative Energy Loss Enable Over 16% Efficiency in Ternary Polymer Solar Cells. Advanced Materials, 2019, 31, e1902302.	11.1	364
6	New Wide Band Gap Donor for Efficient Fullerene-Free All-Small-Molecule Organic Solar Cells. Journal of the American Chemical Society, 2017, 139, 1958-1966.	6.6	260
7	Solution-Processable Organic Molecule Photovoltaic Materials with Bithienyl-benzodithiophene Central Unit and Indenedione End Groups. Chemistry of Materials, 2013, 25, 2274-2281.	3.2	180
8	Molecular design of a wide-band-gap conjugated polymer for efficient fullerene-free polymer solar cells. Energy and Environmental Science, 2017, 10, 546-551.	15.6	180
9	Environmentally Friendly Solventâ€Processed Organic Solar Cells that are Highly Efficient and Adaptable for the Bladeâ€Coating Method. Advanced Materials, 2018, 30, 1704837.	11.1	173
10	Improving the efficiency of solution processable organic photovoltaic devices by a star-shaped molecular geometry. Journal of Materials Chemistry, 2008, 18, 4085.	6.7	160
11	Solution-Processable Star-Shaped Molecules with Triphenylamine Core and Dicyanovinyl Endgroups for Organic Solar Cellsâ€. Chemistry of Materials, 2011, 23, 817-822.	3.2	158
12	Modulating Molecular Orientation Enables Efficient Nonfullerene Small-Molecule Organic Solar Cells. Chemistry of Materials, 2018, 30, 2129-2134.	3.2	157
13	15.3% efficiency all-small-molecule organic solar cells enabled by symmetric phenyl substitution. Science China Materials, 2020, 63, 1142-1150.	3.5	140
14	Solution-Processable Star-Shaped Photovoltaic Organic Molecule with Triphenylamine Core and Benzothiadiazoleâ^'Thiophene Arms. Macromolecules, 2009, 42, 7619-7622.	2.2	129
15	17% efficiency all-small-molecule organic solar cells enabled by nanoscale phase separation with a hierarchical branched structure. Energy and Environmental Science, 2021, 14, 5903-5910.	15.6	116
16	Binaphthylâ€Containing Greenâ€and Redâ€Emitting Molecules for Solutionâ€Processable Organic Lightâ€Emitting Diodes. Advanced Functional Materials, 2008, 18, 3299-3306.	7.8	108
17	Solution-Processable Organic Molecule with Triphenylamine Core and Two Benzothiadiazole-Thiophene Arms for Photovoltaic Application. Journal of Physical Chemistry C, 2010, 114, 3701-3706.	1.5	97
18	Improved Domain Size and Purity Enables Efficient Allâ€Smallâ€Molecule Ternary Solar Cells. Advanced Materials, 2017, 29, 1703777.	11.1	94

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19	Metal-organic frameworks bonded with metal N-heterocyclic carbenes for efficient catalysis. National Science Review, 2022, 9, .	4.6	92
20	Synthesis and photovoltaic properties of a star-shaped molecule with triphenylamine as core and benzo[1,2,5]thiadiazol vinylene as arms. Solar Energy Materials and Solar Cells, 2009, 93, 108-113.	3.0	89
21	The Crucial Role of Chlorinated Thiophene Orientation in Conjugated Polymers for Photovoltaic Devices. Angewandte Chemie - International Edition, 2018, 57, 12911-12915.	7.2	87
22	Effects of energy-level offset between a donor and acceptor on the photovoltaic performance of non-fullerene organic solar cells. Journal of Materials Chemistry A, 2019, 7, 18889-18897.	5.2	87
23	Effects of Shortened Alkyl Chains on Solutionâ€Processable Small Molecules with Oxoâ€Alkylated Nitrile Endâ€Capped Acceptors for Highâ€Performance Organic Solar Cells. Advanced Energy Materials, 2014, 4, 1400538.	10.2	79
24	Organic solar cells based on the spin-coated blend films of TPA-th-TPA and PCBM. Solar Energy Materials and Solar Cells, 2006, 90, 1815-1827.	3.0	73
25	Effect of side-chain end groups on the optical, electrochemical, and photovoltaic properties of side-chain conjugated polythiophenes. Journal of Polymer Science Part A, 2006, 44, 4916-4922.	2.5	70
26	Alternating copolymers of electronâ€rich arylamine and electronâ€deficient 2,1,3â€benzothiadiazole: Synthesis, characterization and photovoltaic properties. Journal of Polymer Science Part A, 2007, 45, 3861-3871.	2.5	66
27	Correlations among Chemical Structure, Backbone Conformation, and Morphology in Two Highly Efficient Photovoltaic Polymer Materials. Macromolecules, 2016, 49, 120-126.	2.2	59
28	Synthesis and photovoltaic properties of two-dimension-conjugated Dâ€“A copolymers based on benzodithiophene or benzodifuran units. Polymer Chemistry, 2013, 4, 1474-1481.	1.9	55
29	Multifunctional Gold Nanoparticles@Imidazolium-Based Cationic Covalent Triazine Frameworks for Efficient Tandem Reactions. CCS Chemistry, 2021, 3, 2368-2380.	4.6	55
30	Triphenylamine-containing Dâ€“Aâ€“D molecules with (dicyanomethylene)pyran as an acceptor unit for bulk-heterojunction organic solar cells. Journal of Materials Chemistry, 2011, 21, 3768.	6.7	53
31	Triphenylamine-containing linear D-A-D molecules with benzothiadiazole as acceptor unit for bulk-heterojunction organic solar cells. Organic Electronics, 2011, 12, 614-622.	1.4	53
32	Tunable Electron Donating and Accepting Properties Achieved by Modulating the Steric Hindrance of Side Chains in A-D-A Small-Molecule Photovoltaic Materials. Chemistry of Materials, 2018, 30, 619-628.	3.2	49
33	Conducting polyaniline nanofiber networks prepared by the doping induction of camphor sulfonic acid. Journal of Applied Polymer Science, 2003, 87, 1537-1540.	1.3	45
34	Poly(alkylthio-p-phenylenevinylene): Synthesis and electroluminescent and photovoltaic properties. Journal of Polymer Science Part A, 2006, 44, 1279-1290.	2.5	40
35	Influence of Covalent and Noncovalent Backbone Rigidification Strategies on the Aggregation Structures of a Wide-Band-Gap Polymer for Photovoltaic Cells. Chemistry of Materials, 2020, 32, 1993-2003.	3.2	36
36	Solution-processable star-shaped photovoltaic organic molecule with triphenylamine core and thieno[3,2-b]thiopheneâ€“dicyanovinyl arms. Organic Electronics, 2012, 13, 2546-2552.	1.4	35

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37	Environmentally-friendly solvent processed fullerene-free organic solar cells enabled by screening halogen-free solvent additives. Science China Materials, 2017, 60, 697-706.	3.5	33
38	Imidazoliumâ€Functionalized Cationic Covalent Triazine Frameworks Stabilized Copper Nanoparticles for Enhanced CO₂ Electroreduction. ChemCatChem, 2020, 12, 3530-3536.	1.8	31
39	Vacuum-assisted annealing method for high efficiency printable large-area polymer solar cell modules. Journal of Materials Chemistry C, 2019, 7, 3206-3211.	2.7	27
40	Phenanthro[1,10,9,8-cdefg]carbazole-containing copolymer for high performance thin-film transistors and polymer solar cells. Journal of Materials Chemistry, 2012, 22, 3696.	6.7	26
41	Solution-processable star-shaped photovoltaic organic molecules based on triphenylamine and benzothiadiazole with longer pi-bridge. Organic Electronics, 2012, 13, 166-172.	1.4	26
42	Electroluminescent and Photovoltaic Properties of the Crosslinkable Poly(phenylene vinylene) Derivative with Side Chains Containing Vinyl Groups. Macromolecular Chemistry and Physics, 2005, 206, 1311-1318.	1.1	24
43	Advances in Solution-Processed All-Small-Molecule Organic Solar Cells with Non-Fullerene Electron Acceptors. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2018, 34, 1202-1210.	2.2	24
44	Low band-gap conjugated polymer based on diketopyrrolopyrrole units and its application in organic photovoltaic cells. Journal of Materials Chemistry A, 2017, 5, 10416-10423.	5.2	23
45	Influence of the replacement of alkoxyl with alkylthienyl on photovoltaic properties of two small molecule donors for organic solar cells. Science China Chemistry, 2017, 60, 1340-1348.	4.2	23
46	A mesoporous cationic metalâ€“organic framework with a high density of positive charge for enhanced removal of dichromate from water. Dalton Transactions, 2019, 48, 6680-6684.	1.6	23
47	Solution-processed small molecules based on indacenodithiophene for high performance thin-film transistors and organic solar cells. Organic Electronics, 2014, 15, 1155-1165.	1.4	22
48	Optimization of active layer morphology by small-molecule donor design enables over 15% efficiency in small-molecule organic solar cells. Journal of Materials Chemistry A, 2021, 9, 13653-13660.	5.2	21
49	Modulation of terminal alkyl chain length enables over 15% efficiency in small-molecule organic solar cells. Science China Chemistry, 2021, 64, 1200-1207.	4.2	20
50	Improving the performance of polymer solar cells by altering polymer side chains and optimizing film morphologies. Organic Electronics, 2012, 13, 3234-3243.	1.4	19
51	Effect of molecular spatial configuration on the photovoltaic properties of triphenylamine-containing Dâ€“A structured organic molecules. Journal Physics D: Applied Physics, 2011, 44, 475101.	1.3	17
52	Red-emission organic light-emitting diodes based on solution-processable molecules with triphenylamine core and benzothiadiazole-thiophene arms. Science China Chemistry, 2011, 54, 695-698.	4.2	17
53	Effect of additives on the photovoltaic properties of organic solar cells based on triphenylamine-containing amorphous molecules. Science China Chemistry, 2014, 57, 966-972.	4.2	15
54	Control of Donorâ€“Acceptor Photophysics through Structural Modification of a â€œTwistingâ€• Pushâ€“Pull Molecule. Chemistry of Materials, 2019, 31, 6860-6869.	3.2	15

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55	Synthesis and photovoltaic properties of a star-shaped molecule based on a triphenylamine core and branched terthiophene end groups. Science China Chemistry, 2013, 56, 997-1003.	4.2	14
56	Inorganic Molecular Clusters with Facile Preparation and Neutral pH for Efficient Hole Extraction in Organic Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 39462-39470.	4.0	14
57	Thinner-film plastic photovoltaic cells based on different C60 derivatives. Polymers for Advanced Technologies, 2006, 17, 500-505.	1.6	11
58	Synthesis of ladderâ€like polynorbornenes with nâ€type perylenendiimide derivatives as bridges. Journal of Polymer Science Part A, 2012, 50, 1333-1341.	2.5	8
59	The Importance of End Groups for Solutionâ€Processed Smallâ€Molecule Bulkâ€Heterojunction Photovoltaic Cells. ChemSusChem, 2016, 9, 973-980.	3.6	8
60	The Crucial Role of Chlorinated Thiophene Orientation in Conjugated Polymers for Photovoltaic Devices. Angewandte Chemie, 2018, 130, 13093-13097.	1.6	8
61	Surface modification and shape adjustment of polymer semiconductor nanowires. Journal of Materials Chemistry, 2011, 21, 9626.	6.7	7
62	D-A-D structured organic molecules with diketopyrrolopyrrole acceptor unit for solution-processed organic solar cells. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20130009.	1.6	6
63	Probing molecular orientation at bulk heterojunctions by polarization-selective transient absorption spectroscopy. Science China Chemistry, 2021, 64, 1569-1576.	4.2	2
64	Terminal alkyl chain tuning of small molecule donor enables optimized morphology and efficient all-small-molecule organic solar cells. Dyes and Pigments, 2022, 200, 110147.	2.0	1
65	Optimized molecular orientation and domain size enables efficient non-fullerene small-molecule organic solar cells. , 0, , .		0
66	Optimized Charge Transport Channel Enables Thick-Film All-Small-Molecule Organic Solar Cells. Energy & Fuels, 2021, 35, 19756-19764.	2.5	0