Chaohua Cui

List of Publications by Year
in descending order

72 papers	6,456 citations	81839 39 h-index	76872 74 g-index
75 all docs	75 docs citations	75 times ranked	6097 citing authors

#	Article	IF	Citations
1	Molecular Optimization on Polymer Acceptor Enables Efficient Allâ€Polymer Solar Cell with High Openâ€Circuit Voltage of 1.10ÂV. Macromolecular Rapid Communications, 2022, 43, e2100925.	2.0	7
2	Indacenodithiophene-based small-molecule donor with strong crystallinity for efficient organic solar cells. Chemical Communications, 2021, 57, 10767-10770.	2.2	5
3	Morphology optimization of photoactive layers in organic solar cells. Aggregate, 2021, 2, e31.	5.2	63
4	A Largeâ€Bandgap Guest Material Enabling Improved Efficiency and Reduced Energy Loss for Ternary Polymer Solar Cells. Solar Rrl, 2021, 5, 2100013.	3.1	5
5	Front Cover: Morphology optimization of photoactive layers in organic solar cells. Aggregate, 2021, 2, e52.	5.2	1
6	Anthraceneâ€Assisted Morphology Optimization in Photoactive Layer for Highâ€Efficiency Polymer Solar Cells. Advanced Functional Materials, 2021, 31, 2103944.	7.8	51
7	Volatilizable Solid Additiveâ€Assisted Treatment Enables Organic Solar Cells with Efficiency over 18.8% and Fill Factor Exceeding 80%. Advanced Materials, 2021, 33, e2105301.	11.1	222
8	Synergistic effect of solvent and solid additives on morphology optimization for high-performance organic solar cells. Science China Chemistry, 2021, 64, 2017-2024.	4.2	16
9	Impact of fluorine substituted Ï€-bridges on the photovoltaic performance of organic small-molecule donor materials. Molecular Systems Design and Engineering, 2021, 6, 739-747.	1.7	2
10	Effects of Heteroatom Substitution on the Photovoltaic Performance of Donor Materials in Organic Solar Cells. Accounts of Materials Research, 2021, 2, 986-997.	5.9	25
11	Rationally pairing photoactive materials for high-performance polymer solar cells with efficiency of 16.53%. Science China Chemistry, 2020, 63, 265-271.	4.2	139
12	Impact of Isomer Design on Physicochemical Properties and Performance in High-Efficiency All-Polymer Solar Cells. Macromolecules, 2020, 53, 9026-9033.	2.2	25
13	A small-molecule/fullerene acceptor alloy: a powerful tool to enhance the device efficiency and thermal stability of ternary polymer solar cells. Journal of Materials Chemistry C, 2020, 8, 11223-11238.	2.7	21
14	Selective Hole and Electron Transport in Efficient Quaternary Blend Organic Solar Cells. Joule, 2020, 4, 1790-1805.	11.7	110
15	Conjugated side-chain engineering of polymer donors enabling improved efficiency for polymer solar cells. Journal of Materials Chemistry A, 2020, 8, 15919-15926.	5.2	9
16	Simultaneously Improved Efficiency and Stability in All-Polymer Solar Cells by a Pâ€"iâ€"N Architecture. ACS Energy Letters, 2019, 4, 2277-2286.	8.8	127
17	Conjugated side-chain optimization of indacenodithiophene-based nonfullerene acceptors for efficient polymer solar cells. Journal of Materials Chemistry C, 2019, 7, 10028-10038.	2.7	18
18	Effects of the length and steric hindrance of Ï€-bridge on molecular configuration and optoelectronic properties of diindole[3,2-b:4,5-bâ€²]pyrrole-based small molecules. Dyes and Pigments, 2019, 171, 107687.	2.0	6

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19	Random Polymer Donor for High-Performance Polymer Solar Cells with Efficiency over 14%. ACS Applied Materials & Interfaces, 2019, 11, 40339-40346.	4.0	15
20	Toward Scalable PbS Quantum Dot Solar Cells Using a Tailored Polymeric Hole Conductor. ACS Energy Letters, 2019, 4, 2850-2858.	8.8	61
21	Ternary Polymer Solar Cells Facilitating Improved Efficiency and Stability. Advanced Materials, 2019, 31, e1904601.	11.1	90
22	Low-bandgap D-A1-D-A2 type copolymers based on TPTI unit for efficient fullerene and nonfullerene polymer solar cells. Polymer, 2019, 182, 121850.	1.8	3
23	Towards improved efficiency of polymer solar cells <i>via</i> chlorination of a benzo[1,2-<i>b</i>:4,5-<i>b</i>â€²]dithiophene based polymer donor. Journal of Materials Chemistry A, 2019, 7, 2261-2267.	5.2	20
24	A new dialkylthio-substituted naphtho[2,3-<i>c</i>]thiophene-4,9-dione based polymer donor for high-performance polymer solar cells. Energy and Environmental Science, 2019, 12, 675-683.	15.6	71
25	High-Performance Polymer Solar Cells with Minimal Energy Loss Enabled by a Main-Chain-Twisted Nonfullerene Acceptor. Chemistry of Materials, 2019, 31, 4222-4227.	3.2	52
26	High-performance conjugated polymer donor materials for polymer solar cells with narrow-bandgap nonfullerene acceptors. Energy and Environmental Science, 2019, 12, 3225-3246.	15.6	236
27	Realizing Enhanced Efficiency in Nonhalogen Solvent Processed Ternary Polymer Solar Cells by Incorporating Compatible Polymer Donor. Solar Rrl, 2018, 2, 1800060.	3.1	27
28	New Strategy for Twoâ€Step Sequential Deposition: Incorporation of Hydrophilic Fullerene in Second Precursor for Highâ€Performance pâ€iâ€n Planar Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1703054.	10.2	124
29	The effect of alkylthio side chains in oligothiophene-based donor materials for organic solar cells. Molecular Systems Design and Engineering, 2018, 3, 131-141.	1.7	13
30	Molecular design with silicon core: toward commercially available hole transport materials for high-performance planar pâ€"iâ€"n perovskite solar cells. Journal of Materials Chemistry A, 2018, 6, 404-413.	5.2	60
31	Flexible and Semitransparent Organic Solar Cells. Advanced Energy Materials, 2018, 8, 1701791.	10.2	556
32	Achieving efficient thick active layer and large area ternary polymer solar cells by incorporating a new fused heptacyclic non-fullerene acceptor. Journal of Materials Chemistry A, 2018, 6, 20313-20326.	5.2	34
33	Recent Progress in Fused-Ring Based Nonfullerene Acceptors for Polymer Solar Cells. Frontiers in Chemistry, 2018, 6, 404.	1.8	24
34	Conjugated polymer donor with alkylthio-thiophene Ï€-bridge for efficient polymer solar cells. Organic Electronics, 2018, 63, 289-295.	1.4	5
35	A new polymer donor for efficient polymer solar cells: simultaneously realizing high short-circuit current density and transparency. Journal of Materials Chemistry A, 2018, 6, 14700-14708.	5.2	22
36	Synthesis and optoelectronic property manipulation of conjugated polymer photovoltaic materials based on benzo[d]-dithieno[3,2-b;2â€²,3â€²-f]azepine. Polymer, 2018, 147, 184-195.	1.8	3

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37	Highâ€Performance Colorful Semitransparent Polymer Solar Cells with Ultrathin Hybridâ€Metal Electrodes and Fineâ€Tuned Dielectric Mirrors. Advanced Functional Materials, 2017, 27, 1605908.	7.8	157
38	Evaluation of Electron Donor Materials for Solutionâ€Processed Organic Solar Cells via a Novel Figure of Merit. Advanced Energy Materials, 2017, 7, 1700465.	10.2	114
39	Achieving over 9.8% Efficiency in Nonfullerene Polymer Solar Cells by Environmentally Friendly Solvent Processing. ACS Applied Materials & Interfaces, 2017, 9, 37078-37086.	4.0	32
40	Fullerene Derivatives for the Applications as Acceptor and Cathode Buffer Layer Materials for Organic and Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1601251.	10.2	152
41	Fully Solutionâ€Processed Small Molecule Semitransparent Solar Cells: Optimization of Transparent Cathode Architecture and Four Absorbing Layers. Advanced Functional Materials, 2016, 26, 4543-4550.	7.8	73
42	Effects of Alkylthio and Alkoxy Side Chains in Polymer Donor Materials for Organic Solar Cells. Macromolecular Rapid Communications, 2016, 37, 287-302.	2.0	71
43	Transfer-Printed PEDOT:PSS Electrodes Using Mild Acids for High Conductivity and Improved Stability with Application to Flexible Organic Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 14029-14036.	4.0	145
44	High performance all-small-molecule solar cells: engineering the nanomorphology via processing additives. Journal of Materials Chemistry A, 2016, 4, 14234-14240.	5.2	43
45	Conjugated Oligothiophene Derivatives Based on Bithiophene with Unsaturated Bonds as Building Blocks for Solutionâ€Processed Bulk Heterojunction Organic Solar Cells. Chemistry - an Asian Journal, 2016, 11, 3557-3567.	1.7	8
46	Manipulating the photovoltaic properties of small-molecule donor materials by tailoring end-capped alkylthio substitution. RSC Advances, 2016, 6, 108908-108916.	1.7	7
47	Sideâ€Chain Engineering for Enhancing the Properties of Small Molecule Solar Cells: A Tradeâ€off Beyond Efficiency. Advanced Energy Materials, 2016, 6, 1600515.	10.2	62
48	High-performance polymer solar cells based on a 2D-conjugated polymer with an alkylthio side-chain. Energy and Environmental Science, 2016, 9, 885-891.	15.6	165
49	Toward high open-circuit voltage by smart chain engineering in 2D-conjugated polymer for polymer solar cells. Solar Energy Materials and Solar Cells, 2016, 149, 162-169.	3.0	11
50	Highâ€Performance Organic Solar Cells Based on a Small Molecule with Alkylthioâ€Thienylâ€Conjugated Side Chains without Extra Treatments. Advanced Materials, 2015, 27, 7469-7475.	11.1	186
51	Polymer Solar Cells: Singleâ€Junction Polymer Solar Cells Exceeding 10% Power Conversion Efficiency (Adv. Mater. 6/2015). Advanced Materials, 2015, 27, 1132-1132.	11.1	15
52	Cooperative assembly of an active layer utilizing the synergistic effect of a functional fullerene triad as an acceptor for efficient P3HT-based PSCs. Journal of Materials Chemistry A, 2015, 3, 17991-18000.	5.2	7
53	Metallated conjugation in small-sized-molecular donors for solution-processed organic solar cells. Science China Chemistry, 2015, 58, 347-356.	4.2	12
54	Singleâ€Junction Polymer Solar Cells Exceeding 10% Power Conversion Efficiency. Advanced Materials, 2015, 27, 1035-1041.	11.1	1,004

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55	Improvement of open-circuit voltage and photovoltaic properties of 2D-conjugated polymers by alkylthio substitution. Energy and Environmental Science, 2014, 7, 2276-2284.	15.6	493
56	Efficient Polymer Solar Cells Based on Poly(3-hexylthiophene) and Indeneâ€“C₆₀ Bisadduct Fabricated with Non-halogenated Solvents. ACS Applied Materials & Interfaces, 2014, 6, 8190-8198.	4.0	86
57	A new two-dimensional oligothiophene end-capped with alkyl cyanoacetate groups for highly efficient solution-processed organic solar cells. Chemical Communications, 2013, 49, 4409.	2.2	66
58	Effect of Branched Side Chains on the Physicochemical and Photovoltaic Properties of Poly(3â€hexylthiophene) Isomers. Macromolecular Chemistry and Physics, 2012, 213, 2267-2274.	1.1	12
59	Side Chain Engineering of Polythiophene Derivatives with a Thienyleneâ€“Vinylene Conjugated Side Chain for Application in Polymer Solar Cells. Macromolecules, 2012, 45, 2312-2320.	2.2	50
60	Synthesis and photovoltaic properties of Dâ€“A copolymers of benzodithiophene and naphtho[2,3-c]thiophene-4,9-dione. Polymer Chemistry, 2012, 3, 99-104.	1.9	29
61	Poly(thieno[3,2-<i>b</i>]thiophene-<i>alt</i>-bithiazole): A Dâ€“A Copolymer Donor Showing Improved Photovoltaic Performance with Indene-C₆₀ Bisadduct Acceptor. Macromolecules, 2012, 45, 6930-6937.	2.2	71
62	Solution-processed vanadium oxide as a hole collection layer on an ITO electrode for high-performance polymer solar cells. Physical Chemistry Chemical Physics, 2012, 14, 14589.	1.3	75
63	High efficiency polymer solar cells based on poly(3-hexylthiophene)/indene-C70 bisadduct with solvent additive. Energy and Environmental Science, 2012, 5, 7943.	15.6	400
64	Highâ€Efficiency Polymer Solar Cells Based on Poly(3â€pentylthiophene) with Indeneâ€C₇₀ Bisadduct as an Acceptor. Advanced Energy Materials, 2012, 2, 966-969.	10.2	24
65	Solution-processed nickel acetate as hole collection layer for polymer solar cells. Physical Chemistry Chemical Physics, 2012, 14, 14217.	1.3	75
66	Synthesis and photovoltaic properties of alternative copolymers of benzo[1,2-b:4,5-bâ€²]dithiophene and thiophene. Polymer Bulletin, 2012, 68, 2107-2119.	1.7	2
67	Efficient Polymer Solar Cells Based on Poly(3â€hexylthiophene):Indeneâ€C₇₀ Bisadduct with a MoO₃ Buffer Layer. Advanced Functional Materials, 2012, 22, 585-590.	7.8	88
68	A Dâ€“A copolymer of dithienosilole and a new acceptor unit of naphtho[2,3-c]thiophene-4,9-dione for efficient polymer solar cells. Chemical Communications, 2011, 47, 11345.	2.2	68
69	Synthesis and Characterization of Dioctyloxybenzo[1,2-<i>b</i>:4,3-<i>b</i>â€²]dithiophene-Containing Copolymers for Polymer Solar Cells. Macromolecules, 2011, 44, 7625-7631.	2.2	63
70	Efficiency Enhancement of Polymer Solar Cells Based on Poly(3â€hexylthiophene)/Indeneâ€C₇₀ Bisadduct via Methylthiophene Additive. Advanced Energy Materials, 2011, 1, 1058-1061.	10.2	80
71	Enhanced Performance and Stability of a Polymer Solar Cell by Incorporation of Vertically Aligned, Crossâ€Linked Fullerene Nanorods. Angewandte Chemie - International Edition, 2011, 50, 9386-9390.	7.2	162
72	Performance improvement of polymer solar cells by using a solvent-treated poly(3,4-ethylenedioxythiophene):poly(styrenesulfonate) buffer layer. Applied Physics Letters, 2011, 98, .	1.5	61