Shengjian Liu

List of Publications by Year
in descending order

69 papers	3,128 citations	147566 31 h-index	155451 55 g-index
71 all docs	71 docs citations	71 times ranked	3509 citing authors

#	Article	IF	Citations
1	High-Efficiency Polymer Solar Cells via the Incorporation of an Amino-Functionalized Conjugated Metallopolymer as a Cathode Interlayer. Journal of the American Chemical Society, 2013, 135, 15326-15329.	6.6	321
2	Enhanced Photovoltaic Performance by Modulating Surface Composition in Bulk Heterojunction Polymer Solar Cells Based on PBDTTTâ€Câ€T/PC₇₁BM. Advanced Materials, 2014, 26, 4043-4049.	11.1	203
3	Progress of the key materials for organic solar cells. Science China Chemistry, 2020, 63, 758-765.	4.2	158
4	Highly Efficient Inverted Polymer Solar Cells Based on a Cross-linkable Water-/Alcohol-Soluble Conjugated Polymer Interlayer. ACS Applied Materials & Interfaces, 2014, 6, 10429-10435.	4.0	155
5	Effect of Fluorine Content in Thienothiophene-Benzodithiophene Copolymers on the Morphology and Performance of Polymer Solar Cells. Chemistry of Materials, 2014, 26, 3009-3017.	3.2	136
6	Thieno[3,4â€‹<i>c</i>]pyrroleâ€4,6â€dioneâ€3,4â€difluorothiophene Polymer Acceptors for Efficient Allâ€Polymer Bulk Heterojunction Solar Cells. Angewandte Chemie - International Edition, 2016, 55, 12996-13000.	7.2	129
7	Synthesis of Quinoxaline-Based Donorâˆ’Acceptor Narrow-Band-Gap Polymers and Their Cyclized Derivatives for Bulk-Heterojunction Polymer Solar Cell Applications. Macromolecules, 2011, 44, 894-901.	2.2	127
8	A Series of New Mediumâ€Bandgap Conjugated Polymers Based on Naphtho[1,2â€c:5,6â€c]bis(2â€octylâ€[1,2,3]triazole) for Highâ€Performance Polymer Solar Cells. Advanced Materials, 2013, 25, 3683-3688.	11.1	125
9	Highly Efficient Electron Injection from Indium Tin Oxide/Cross-Linkable Amino-Functionalized Polyfluorene Interface in Inverted Organic Light Emitting Devices. Chemistry of Materials, 2011, 23, 4870-4876.	3.2	112
10	Synthesis, Characterization, and Photovoltaic Properties of Carbazole-Based Two-Dimensional Conjugated Polymers with Donor-Ï€-Bridge-Acceptor Side Chains. Chemistry of Materials, 2010, 22, 6444-6452.	3.2	95
11	Vertical Composition Distribution and Crystallinity Regulations Enable High-Performance Polymer Solar Cells with >17% Efficiency. ACS Energy Letters, 2020, 5, 3637-3646.	8.8	87
12	Highâ€Performance Inverted Organic Photovoltaics with Over 1â€Î¼m Thick Active Layers. Advanced Energy Materials, 2014, 4, 1400378.	10.2	83
13	Polymer Mainâ€Chain Substitution Effects on the Efficiency of Nonfullerene BHJ Solar Cells. Advanced Energy Materials, 2017, 7, 1700834.	10.2	80
14	Thieno[3,4â€‹<i>c</i>]Pyrroleâ€4,6â€Dioneâ€Based Polymer Acceptors for High Openâ€Circuit Voltage Allâ€Polymer Solar Cells. Advanced Energy Materials, 2017, 7, 1602574.	10.2	77
15	Donorâ€"Acceptor Copolymers Based on Thermally Cleavable Indigo, Isoindigo, and DPP Units: Synthesis, Field Effect Transistors, and Polymer Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 9038-9051.	4.0	69
16	Higher Mobility and Carrier Lifetimes in Solutionâ€Processable Smallâ€Molecule Ternary Solar Cells with 11% Efficiency. Advanced Energy Materials, 2019, 9, 1802836.	10.2	65
17	Carrier Transport and Recombination in Efficient â€œAllâ€Smallâ€Moleculeâ€• Solar Cells with the Nonfullerene Acceptor IDTBR. Advanced Energy Materials, 2018, 8, 1800264.	10.2	63
18	Isoindigoâ€3,4â€Difluorothiophene Polymer Acceptors Yield â€œAllâ€Polymerâ€• Bulkâ€Heterojunction Solar Cells with over 7â€‰% Efficiency. Angewandte Chemie - International Edition, 2018, 57, 531-535.	7.2	63

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19	Understanding of Imine Substitution in Wide-Bandgap Polymer Donor-Induced Efficiency Enhancement in All-Polymer Solar Cells. Chemistry of Materials, 2019, 31, 8533-8542.	3.2	49
20	Dopant-free F-substituted benzodithiophene copolymer hole-transporting materials for efficient and stable perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 1858-1864.	5.2	49
21	Supramolecular light-emitting polymers for solution-processed optoelectronic devices. Journal of Materials Chemistry, 2012, 22, 12759.	6.7	42
22	High efficiency solution processed inverted white organic light emitting diodes with a cross-linkable amino-functionalized polyfluorene as a cathode interlayer. Journal of Materials Chemistry C, 2014, 2, 3270-3277.	2.7	41
23	A novel crosslinkable electron injection/transporting material for solution processed polymer light-emitting diodes. Science China Chemistry, 2011, 54, 1745-1749.	4.2	40
24	Impact of Donorâ€“Acceptor Interaction and Solvent Additive on the Vertical Composition Distribution of Bulk Heterojunction Polymer Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 45979-45990.	4.0	40
25	High-detectivity inverted near-infrared polymer photodetectors using cross-linkable conjugated polyfluorene as an electron extraction layer. Journal of Materials Chemistry C, 2014, 2, 9592-9598.	2.7	38
26	Impact of Polymer Side Chain Modification on OPV Morphology and Performance. Chemistry of Materials, 2018, 30, 7872-7884.	3.2	38
27	Design and synthesis of star-burst triphenyamine-based Ï€-conjugated molecules. Dyes and Pigments, 2015, 113, 1-7.	2.0	35
28	Two-dimensional like conjugated copolymers for high efficiency bulk-heterojunction solar cell application: Band gap and energy level engineering. Science China Chemistry, 2011, 54, 685-694.	4.2	33
29	Optimizing Lightâ€Harvesting Polymers via Side Chain Engineering. Advanced Functional Materials, 2015, 25, 6458-6469.	7.8	33
30	Bithieno[3,4-c]pyrrole-4,6-dione-Mediated Crystallinity in Large-Bandgap Polymer Donors Directs Charge Transportation and Recombination in Efficient Nonfullerene Polymer Solar Cells. ACS Energy Letters, 2020, 5, 367-375.	8.8	33
31	New acceptor-pended conjugated polymers based on 3,6- and 2,7-carbazole for polymer solar cells. Polymer, 2012, 53, 5675-5683.	1.8	31
32	Synthesis of two-dimensional Ï€-conjugated polymers pendent with benzothiadiazole and naphtho[1,2-c:5,6-c]bis[1,2,5]thiadiazole moieties for polymer solar cells. Science China Chemistry, 2015, 58, 257-266.	4.2	29
33	An alcohol soluble amino-functionalized organoplatinum(<scp>ii</scp>) complex as the cathode interlayer for highly efficient polymer solar cells. Journal of Materials Chemistry C, 2015, 3, 4372-4379.	2.7	28
34	Novel donorâ€“acceptor type conjugated polymers based on quinoxalino[6,5-f]quinoxaline for photovoltaic applications. Materials Chemistry Frontiers, 2017, 1, 499-506.	3.2	28
35	Thieno[3,4â€‹<i>c</i>]pyrroleâ€4,6â€dioneâ€3,4â€difluorothiophene Polymer Acceptors for Efficient Allâ€Polymer Bulk Heterojunction Solar Cells. Angewandte Chemie, 2016, 128, 13190-13194.	1.6	27
36	Three pyrido[2,3,4,5-lmn]phenanthridine derivatives and their large band gap copolymers for organic solar cells. Journal of Materials Chemistry A, 2014, 2, 321-325.	5.2	26

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37	Dithienosilole-benzothiadiazole-based ternary copolymers with a D₁â€“Aâ€“D₂â€“A structure for polymer solar cells. Polymer Chemistry, 2015, 6, 4154-4161.	1.9	23
38	F-Substituted oligothiophenes serve as nonfullerene acceptors in polymer solar cells with open-circuit voltages >1 V. Journal of Materials Chemistry A, 2018, 6, 9368-9372.	5.2	21
39	Quantitative Determination of the Vertical Segregation and Molecular Ordering of PBDB-T/ITIC Blend Films with Solvent Additives. ACS Applied Materials & Interfaces, 2020, 12, 24165-24173.	4.0	21
40	Fused-ring phenazine building blocks for efficient copolymer donors. Materials Chemistry Frontiers, 2020, 4, 1454-1458.	3.2	21
41	Synergistic Effects of Polymer Donor Backbone Fluorination and Nitrogenation Translate into Efficient Non-Fullerene Bulk-Heterojunction Polymer Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 9545-9554.	4.0	19
42	Superior layer-by-layer deposition realizing Pâ€“iâ€“N all-polymer solar cells with efficiency over 16% and fill factor over 77%. Journal of Materials Chemistry A, 2022, 10, 10880-10891.	5.2	18
43	Synthesis and optoelectronic properties of amino-functionalized carbazole-based conjugated polymers. Science China Chemistry, 2013, 56, 1119-1128.	4.2	17
44	Effect of Alkyl Side Chains on Intercrystallite Ordering in Semiconducting Polymers. Macromolecules, 2019, 52, 2853-2862.	2.2	15
45	Isoindigoâ€3,4â€Difluorothiophene Polymer Acceptors Yield â€œAllâ€Polymerâ€•Bulkâ€Heterojunction Solar Cells with over 7â€‰% Efficiency. Angewandte Chemie, 2018, 130, 540-544.	1.6	13
46	A large-bandgap copolymer donor for efficient ternary organic solar cells. Materials Chemistry Frontiers, 2021, 5, 6139-6144.	3.2	13
47	Low-bandgap conjugated polymers with photocurrent response over 1000Ânm. Journal of Materials Science, 2021, 56, 8334-8357.	1.7	12
48	Synthesis and Photovoltaic Performance of Water/Alcohol Soluble Small Phorphyrin Derivatives for Polymer Solar Cells. Acta Chimica Sinica, 2015, 73, 1153.	0.5	12
49	Novel aminoalkyl-functionalized blue-, green- and red-emitting polyfluorenes. Organic Electronics, 2014, 15, 850-857.	1.4	10
50	Thienyl Sidechain Substitution and Backbone Fluorination of Benzodithiophene-Based Donor Polymers Concertedly Minimize Carrier Losses in ITIC-Based Organic Solar Cells. Journal of Physical Chemistry C, 2020, 124, 10420-10429.	1.5	10
51	Shorter alkyl chain in thieno[3,4-c]pyrrole-4,6-dione (TPD)-based large bandgap polymer donors â€“ Yield efficient non-fullerene polymer solar cells. Journal of Energy Chemistry, 2021, 53, 69-76.	7.1	10
52	Alkali metal salts doped pluronic block polymers as electron injection/transport layers for high performance polymer light-emitting diodes. Science China Chemistry, 2012, 55, 766-771.	4.2	9
53	A supramolecular large band gap host for phosphorescent organic light-emitting diodes. RSC Advances, 2013, 3, 3829.	1.7	9
54	Quantification of Photophysical Processes in Allâ€Polymer Bulk Heterojunction Solar Cells. Solar Rrl, 2020, 4, 2000181.	3.1	8

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55	Comparison of two side-chain design strategies for indacenodithienothiopheneâ€“naphthalene diimide polymer photovoltaic acceptors prepared by direct (hetero)arylation polycondensation. Journal of Materials Chemistry C, 2021, 9, 2198-2204.	2.7	8
56	Acrylate-Substituted Thiadiazoloquinoxaline Yields Ultralow Band Gap (0.56 eV) Conjugated Polymers for Efficient Photoacoustic Imaging. ACS Applied Polymer Materials, 2021, 3, 3247-3253.	2.0	8
57	Vertical Distribution in Inverted Nonfullerene Polymer Solar Cells by Layerâ€byâ€Layer Solution Fabrication Process. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2100386.	1.2	8
58	Efficient Inverted Polymer Solar Cells Through Modified Electron Extraction Layer. IEEE Journal of Photovoltaics, 2015, 5, 912-916.	1.5	7
59	Tailoring Ï€-conjugated dithienosiloleâ€“benzothiadiazole oligomers for organic solar cells. New Journal of Chemistry, 2015, 39, 3658-3664.	1.4	7
60	Pronounced Dependence of Allâ€Polymer Solar Cells Photovoltaic Performance on the Alkyl Substituent Patterns in Large Bandgap Polymer Donors. ChemPhysChem, 2020, 21, 908-915.	1.0	7
61	A New Esterâ€Substituted Quinoxalineâ€Based Narrow Bandgap Polymer Donor for Organic Solar Cells. Macromolecular Rapid Communications, 2021, 42, e2000683.	2.0	7
62	Impact of Polymer Backbone Fluorination on the Charge Generation/Recombination Patterns and Vertical Phase Segregation in Bulk Heterojunction Organic Solar Cells. Frontiers in Chemistry, 2020, 8, 144.	1.8	6
63	<i>N</i>â€Acylisoindigo Derivatives as Polymer Acceptors for â€œAllâ€Polymerâ€•Bulkâ€Heterojunction Solar Cells. Macromolecular Chemistry and Physics, 2019, 220, 1900029.	1.1	4
64	The alkyl chain positioning of thieno[3,4-c]pyrrole-4,6-dione (TPD)-Based polymer donors mediates the energy loss, charge transport and recombination in polymer solar cells. Journal of Power Sources, 2020, 480, 229098.	4.0	4
65	Compatible Acceptors Mediate Morphology and Charge Generation, Transpration, Extraction, and Energy Loss in Efficient Ternary Polymer Solar Cells. ACS Applied Energy Materials, 2021, 4, 10187-10196.	2.5	4
66	An Alternating D1-A-D2-A Conjugated Ternary Copolymer Containing [1,2,5]selenadiazolo[3,4-c]pyridine Unit With Photocurrent Response Up to 1,100 nm. Frontiers in Chemistry, 2020, 8, 255.	1.8	3
67	ADAâ€²DA small molecule acceptors with non-fully-fused core units. Materials Chemistry Frontiers, 2022, 6, 802-806.	3.2	3
68	Novel narrow bandgap polymer donors based on ester-substituted quinoxaline unit for organic photovoltaic application. Solar Energy, 2021, 220, 425-431.	2.9	2
69	Quantifying the Yield of Photophysical Processes in All-Polymer Bulk Heterojunction Solar Cells. , 0, , .		0