

# Shengjian Liu

## List of Publications by Year in descending order

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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	ADA-DA small molecule acceptors with non-fully-fused core units. <i>Materials Chemistry Frontiers</i> , 2022, 6, 802-806.	3.2	3
2	Superior layer-by-layer deposition realizing P-N all-polymer solar cells with efficiency over 16% and fill factor over 77%. <i>Journal of Materials Chemistry A</i> , 2022, 10, 10880-10891.	5.2	18
3	A New Ester-Substituted Quinoxaline-Based Narrow Bandgap Polymer Donor for Organic Solar Cells. <i>Macromolecular Rapid Communications</i> , 2021, 42, e2000683.	2.0	7
4	A large-bandgap copolymer donor for efficient ternary organic solar cells. <i>Materials Chemistry Frontiers</i> , 2021, 5, 6139-6144.	3.2	13
5	Comparison of two side-chain design strategies for indacenodithienothiophene-naphthalene diimide polymer photovoltaic acceptors prepared by direct (hetero)arylation polycondensation. <i>Journal of Materials Chemistry C</i> , 2021, 9, 2198-2204.	2.7	8
6	Shorter alkyl chain in thieno[3,4-c]pyrrole-4,6-dione (TPD)-based large bandgap polymer donors - Yield efficient non-fullerene polymer solar cells. <i>Journal of Energy Chemistry</i> , 2021, 53, 69-76.	7.1	10
7	Low-bandgap conjugated polymers with photocurrent response over 1000Ånm. <i>Journal of Materials Science</i> , 2021, 56, 8334-8357.	1.7	12
8	Novel narrow bandgap polymer donors based on ester-substituted quinoxaline unit for organic photovoltaic application. <i>Solar Energy</i> , 2021, 220, 425-431.	2.9	2
9	Acrylate-Substituted Thiadiazoloquinoxaline Yields Ultralow Band Gap (0.56 eV) Conjugated Polymers for Efficient Photoacoustic Imaging. <i>ACS Applied Polymer Materials</i> , 2021, 3, 3247-3253.	2.0	8
10	Compatible Acceptors Mediate Morphology and Charge Generation, Transportation, Extraction, and Energy Loss in Efficient Ternary Polymer Solar Cells. <i>ACS Applied Energy Materials</i> , 2021, 4, 10187-10196.	2.5	4
11	Vertical Distribution in Inverted Nonfullerene Polymer Solar Cells by Layer-by-Layer Solution Fabrication Process. <i>Physica Status Solidi - Rapid Research Letters</i> , 2021, 15, 2100386.	1.2	8
12	Dopant-free F-substituted benzodithiophene copolymer hole-transporting materials for efficient and stable perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2020, 8, 1858-1864.	5.2	49
13	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. <i>ACS Energy Letters</i> , 2020, 5, 367-375.	8.8	33
14	Vertical Composition Distribution and Crystallinity Regulations Enable High-Performance Polymer Solar Cells with >17% Efficiency. <i>ACS Energy Letters</i> , 2020, 5, 3637-3646.	8.8	87
15	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. <i>Journal of Power Sources</i> , 2020, 480, 229098.	4.0	4
16	Quantitative Determination of the Vertical Segregation and Molecular Ordering of PBDB-T/ITIC Blend Films with Solvent Additives. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 24165-24173.	4.0	21
17	Fused-ring phenazine building blocks for efficient copolymer donors. <i>Materials Chemistry Frontiers</i> , 2020, 4, 1454-1458.	3.2	21
18	Pronounced Dependence of All-Polymer Solar Cells Photovoltaic Performance on the Alkyl Substituent Patterns in Large Bandgap Polymer Donors. <i>ChemPhysChem</i> , 2020, 21, 908-915.	1.0	7

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19	Impact of Polymer Backbone Fluorination on the Charge Generation/Recombination Patterns and Vertical Phase Segregation in Bulk Heterojunction Organic Solar Cells. <i>Frontiers in Chemistry</i> , 2020, 8, 144.	1.8	6
20	Progress of the key materials for organic solar cells. <i>Science China Chemistry</i> , 2020, 63, 758-765.	4.2	158
21	Synergistic Effects of Polymer Donor Backbone Fluorination and Nitrogenation Translate into Efficient Non-Fullerene Bulk-Heterojunction Polymer Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 9545-9554.	4.0	19
22	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. <i>Frontiers in Chemistry</i> , 2020, 8, 255.	1.8	3
23	Quantification of Photophysical Processes in All-Polymer Bulk Heterojunction Solar Cells. <i>Solar Rrl</i> , 2020, 4, 2000181.	3.1	8
24	Thienyl Sidechain Substitution and Backbone Fluorination of Benzodithiophene-Based Donor Polymers Concertedly Minimize Carrier Losses in ITIC-Based Organic Solar Cells. <i>Journal of Physical Chemistry C</i> , 2020, 124, 10420-10429.	1.5	10
25	Impact of Donor-Acceptor Interaction and Solvent Additive on the Vertical Composition Distribution of Bulk Heterojunction Polymer Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 45979-45990.	4.0	40
26	Understanding of Imine Substitution in Wide-Bandgap Polymer Donor-Induced Efficiency Enhancement in All-Polymer Solar Cells. <i>Chemistry of Materials</i> , 2019, 31, 8533-8542.	3.2	49
27	<i>N</i> -Acylisoindigo Derivatives as Polymer Acceptors for All-Polymer Bulk Heterojunction Solar Cells. <i>Macromolecular Chemistry and Physics</i> , 2019, 220, 1900029.	1.1	4
28	Effect of Alkyl Side Chains on Intercrystallite Ordering in Semiconducting Polymers. <i>Macromolecules</i> , 2019, 52, 2853-2862.	2.2	15
29	Higher Mobility and Carrier Lifetimes in Solution-Processable Small-Molecule Ternary Solar Cells with 11% Efficiency. <i>Advanced Energy Materials</i> , 2019, 9, 1802836.	10.2	65
30	F-Substituted oligothiophenes serve as nonfullerene acceptors in polymer solar cells with open-circuit voltages >1 V. <i>Journal of Materials Chemistry A</i> , 2018, 6, 9368-9372.	5.2	21
31	Carrier Transport and Recombination in Efficient Small-Molecule Solar Cells with the Nonfullerene Acceptor IDTBR. <i>Advanced Energy Materials</i> , 2018, 8, 1800264.	10.2	63
32	Isoindigo-3,4-difluorothiophene Polymer Acceptors Yield All-Polymer Bulk Heterojunction Solar Cells with over 7% Efficiency. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 531-535.	7.2	63
33	Isoindigo-3,4-difluorothiophene Polymer Acceptors Yield All-Polymer Bulk Heterojunction Solar Cells with over 7% Efficiency. <i>Angewandte Chemie</i> , 2018, 130, 540-544.	1.6	13
34	Impact of Polymer Side Chain Modification on OPV Morphology and Performance. <i>Chemistry of Materials</i> , 2018, 30, 7872-7884.	3.2	38
35	Thieno[3,4-c]pyrrole-4,6-dione-Based Polymer Acceptors for High Open-Circuit Voltage All-Polymer Solar Cells. <i>Advanced Energy Materials</i> , 2017, 7, 1602574.	10.2	77
36	Polymer Main-Chain Substitution Effects on the Efficiency of Nonfullerene BHJ Solar Cells. <i>Advanced Energy Materials</i> , 2017, 7, 1700834.	10.2	80

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37	Novel donor-acceptor type conjugated polymers based on quinoxalino[6,5-f]quinoxaline for photovoltaic applications. <i>Materials Chemistry Frontiers</i> , 2017, 1, 499-506.	3.2	28
38	Thieno[3,4- <i>b</i> ]pyrrole-4,6-dione-3,4-difluorothiophene Polymer Acceptors for Efficient All-Polymer Bulk Heterojunction Solar Cells. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 12996-13000.	7.2	129
39	Thieno[3,4- <i>b</i> ]pyrrole-4,6-dione-3,4-difluorothiophene Polymer Acceptors for Efficient All-Polymer Bulk Heterojunction Solar Cells. <i>Angewandte Chemie</i> , 2016, 128, 13190-13194.	1.6	27
40	Optimizing Light Harvesting Polymers via Side Chain Engineering. <i>Advanced Functional Materials</i> , 2015, 25, 6458-6469.	7.8	33
41	Efficient Inverted Polymer Solar Cells Through Modified Electron Extraction Layer. <i>IEEE Journal of Photovoltaics</i> , 2015, 5, 912-916.	1.5	7
42	Synthesis of two-dimensional $\pi$ -conjugated polymers pendent with benzothiadiazole and naphtho[1,2- <i>c</i> :5,6- <i>c'</i> ]bis[1,2,5]thiadiazole moieties for polymer solar cells. <i>Science China Chemistry</i> , 2015, 58, 257-266.	4.2	29
43	Dithienosilole-benzothiadiazole-based ternary copolymers with a $D_{2h}$ structure for polymer solar cells. <i>Polymer Chemistry</i> , 2015, 6, 4154-4161.	1.9	23
44	Donor-Acceptor Copolymers Based on Thermally Cleavable Indigo, Isoindigo, and DPP Units: Synthesis, Field Effect Transistors, and Polymer Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 9038-9051.	4.0	69
45	Tailoring $\pi$ -conjugated dithienosilole-benzothiadiazole oligomers for organic solar cells. <i>New Journal of Chemistry</i> , 2015, 39, 3658-3664.	1.4	7
46	An alcohol soluble amino-functionalized organoplatinum( $\kappa^2$ ) complex as the cathode interlayer for highly efficient polymer solar cells. <i>Journal of Materials Chemistry C</i> , 2015, 3, 4372-4379.	2.7	28
47	Design and synthesis of star-burst triphenylamine-based $\pi$ -conjugated molecules. <i>Dyes and Pigments</i> , 2015, 113, 1-7.	2.0	35
48	Synthesis and Photovoltaic Performance of Water/Alcohol Soluble Small Phorphyrin Derivatives for Polymer Solar Cells. <i>Acta Chimica Sinica</i> , 2015, 73, 1153.	0.5	12
49	Novel aminoalkyl-functionalized blue-, green- and red-emitting polyfluorenes. <i>Organic Electronics</i> , 2014, 15, 850-857.	1.4	10
50	Enhanced Photovoltaic Performance by Modulating Surface Composition in Bulk Heterojunction Polymer Solar Cells Based on PBDTTT-C <sub>60</sub> /PC <sub>71</sub> BM. <i>Advanced Materials</i> , 2014, 26, 4043-4049.	11.1	203
51	High efficiency solution processed inverted white organic light emitting diodes with a cross-linkable amino-functionalized polyfluorene as a cathode interlayer. <i>Journal of Materials Chemistry C</i> , 2014, 2, 3270-3277.	2.7	41
52	Three pyrido[2,3,4- <i>lmn</i> ]phenanthridine derivatives and their large band gap copolymers for organic solar cells. <i>Journal of Materials Chemistry A</i> , 2014, 2, 321-325.	5.2	26
53	High-detectivity inverted near-infrared polymer photodetectors using cross-linkable conjugated polyfluorene as an electron extraction layer. <i>Journal of Materials Chemistry C</i> , 2014, 2, 9592-9598.	2.7	38
54	Effect of Fluorine Content in Thienothiophene-Benzodithiophene Copolymers on the Morphology and Performance of Polymer Solar Cells. <i>Chemistry of Materials</i> , 2014, 26, 3009-3017.	3.2	136

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55	Highly Efficient Inverted Polymer Solar Cells Based on a Cross-linkable Water-/Alcohol-Soluble Conjugated Polymer Interlayer. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 10429-10435.	4.0	155
56	High-Performance Inverted Organic Photovoltaics with Over 1 $\mu\text{m}$ Thick Active Layers. <i>Advanced Energy Materials</i> , 2014, 4, 1400378.	10.2	83
57	Synthesis and optoelectronic properties of amino-functionalized carbazole-based conjugated polymers. <i>Science China Chemistry</i> , 2013, 56, 1119-1128.	4.2	17
58	High-Efficiency Polymer Solar Cells via the Incorporation of an Amino-Functionalized Conjugated Metallopolymer as a Cathode Interlayer. <i>Journal of the American Chemical Society</i> , 2013, 135, 15326-15329.	6.6	321
59	A supramolecular large band gap host for phosphorescent organic light-emitting diodes. <i>RSC Advances</i> , 2013, 3, 3829.	1.7	9
60	A Series of New Medium-Bandgap Conjugated Polymers Based on Naphtho[1,2- <i>b</i> :5,6- <i>b'</i> ]bis(2-octyl[1,2,3]triazole) for High-Performance Polymer Solar Cells. <i>Advanced Materials</i> , 2013, 25, 3683-3688.	11.1	125
61	Supramolecular light-emitting polymers for solution-processed optoelectronic devices. <i>Journal of Materials Chemistry</i> , 2012, 22, 12759.	6.7	42
62	New acceptor-pended conjugated polymers based on 3,6- and 2,7-carbazole for polymer solar cells. <i>Polymer</i> , 2012, 53, 5675-5683.	1.8	31
63	Alkali metal salts doped pluronic block polymers as electron injection/transport layers for high performance polymer light-emitting diodes. <i>Science China Chemistry</i> , 2012, 55, 766-771.	4.2	9
64	Highly Efficient Electron Injection from Indium Tin Oxide/Cross-Linkable Amino-Functionalized Polyfluorene Interface in Inverted Organic Light Emitting Devices. <i>Chemistry of Materials</i> , 2011, 23, 4870-4876.	3.2	112
65	Synthesis of Quinoxaline-Based Donor-Acceptor Narrow-Band-Gap Polymers and Their Cyclized Derivatives for Bulk-Heterojunction Polymer Solar Cell Applications. <i>Macromolecules</i> , 2011, 44, 894-901.	2.2	127
66	Two-dimensional like conjugated copolymers for high efficiency bulk-heterojunction solar cell application: Band gap and energy level engineering. <i>Science China Chemistry</i> , 2011, 54, 685-694.	4.2	33
67	A novel crosslinkable electron injection/transporting material for solution processed polymer light-emitting diodes. <i>Science China Chemistry</i> , 2011, 54, 1745-1749.	4.2	40
68	Synthesis, Characterization, and Photovoltaic Properties of Carbazole-Based Two-Dimensional Conjugated Polymers with Donor- $\pi$ -Bridge-Acceptor Side Chains. <i>Chemistry of Materials</i> , 2010, 22, 6444-6452.	3.2	95
69	Quantifying the Yield of Photophysical Processes in All-Polymer Bulk Heterojunction Solar Cells. , 0, , .		0