Jiangang Liu

List of Publications by Year
in descending order

77 papers	2,039 citations	257357 24 h-index	276775 41 g-index
78 all docs	78 docs citations	78 times ranked	2899 citing authors

#	Article	IF	Citations
1	Advanced functional polymer materials. Materials Chemistry Frontiers, 2020, 4, 1803-1915.	3.2	117
2	A New Method to Improve Poly(3-hexyl thiophene) (P3HT) Crystalline Behavior: Decreasing Chains Entanglement To Promote Orderâˆ’Disorder Transformation in Solution. Langmuir, 2010, 26, 471-477.	1.6	110
3	Structure and Morphology Control in Thin Films of Conjugated Polymers for an Improved Charge Transport. Polymers, 2013, 5, 1272-1324.	2.0	88
4	Reducing the confinement of PBDB-T to ITIC to improve the crystallinity of PBDB-T/ITIC blends. Journal of Materials Chemistry A, 2018, 6, 15610-15620.	5.2	86
5	The mechanisms for introduction of n-dodecylthiol to modify the P3HT/PCBM morphology. Organic Electronics, 2010, 11, 775-783.	1.4	82
6	Separating Crystallization Process of P3HT and Oâ€IDTBR to Construct Highly Crystalline Interpenetrating Network with Optimized Vertical Phase Separation. Advanced Functional Materials, 2019, 29, 1807591.	7.8	82
7	Oriented Poly(3-hexylthiophene) Nanofibril with the Ï€âˆ'Ï€ Stacking Growth Direction by Solvent Directional Evaporation. Langmuir, 2011, 27, 4212-4219.	1.6	78
8	Donor/Acceptor Molecular Orientation-Dependent Photovoltaic Performance in All-Polymer Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 25352-25361.	4.0	78
9	Enhancing the crystallization and optimizing the orientation of perovskite films via controlling nucleation dynamics. Journal of Materials Chemistry A, 2016, 4, 223-232.	5.2	75
10	Constructing the nanointerpenetrating structure of PCDTBT:PC70BM bulk heterojunction solar cells induced by aggregation of PC70BM via mixed-solvent vapor annealing. Journal of Materials Chemistry A, 2013, 1, 6216.	5.2	72
11	Manipulating the solubility properties of polymer donors for high-performance layer-by-layer processed organic solar cells. Energy and Environmental Science, 2021, 14, 5919-5928.	15.6	55
12	Uniaxial alignment of triisopropylsilylethynyl pentacene via zone-casting technique. Physical Chemistry Chemical Physics, 2013, 15, 14396.	1.3	54
13	Balancing the H- and J-aggregation in DTS(PTTh₂)₂/PC₇₀BM to yield a high photovoltaic efficiency. Journal of Materials Chemistry C, 2015, 3, 8183-8192.	2.7	45
14	Improving the Morphology of PCDTBT:PC₇₀BM Bulk Heterojunction by Mixed-Solvent Vapor-Assisted Imprinting: Inhibiting Intercalation, Optimizing Vertical Phase Separation, and Enhancing Photon Absorption. Journal of Physical Chemistry C, 2014, 118, 4585-4595.	1.5	41
15	The formation of different structures of poly(3-hexylthiophene) film on a patterned substrate by dip coating from aged solution. Nanotechnology, 2010, 21, 145303.	1.3	38
16	Cooperative effects of solvent and polymer acceptor co-additives in P3HT:PDI solar cells: simultaneous optimization in lateral and vertical phase separation. Physical Chemistry Chemical Physics, 2014, 16, 4528.	1.3	34
17	Simultaneous Control over both Molecular Order and Long-Range Alignment in Films of the Donorâ€"Acceptor Copolymer. Langmuir, 2015, 31, 469-479.	1.6	34
18	Molecular Orientation and Phase Separation by Controlling Chain Segment and Molecule Movement in P3HT/N2200 Blends. Macromolecules, 2016, 49, 6987-6996.	2.2	34

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19	Efficient Nonhalogenated Solvent-Processed Ternary All-Polymer Solar Cells with a Favorable Morphology Enabled by Two Well-Compatible Donors. ACS Applied Materials & Interfaces, 2019, 11, 32200-32208.	4.0	32
20	Achieving balanced intermixed and pure crystalline phases in PDI-based non-fullerene organic solar cells via selective solvent additives. Physical Chemistry Chemical Physics, 2014, 16, 26917-26928.	1.3	31
21	Donorâ€“acceptor cocrystal based on hexakis(alkoxy)triphenylene and perylenediimide derivatives with an ambipolar transporting property. Nanoscale, 2015, 7, 1944-1955.	2.8	31
22	Domain size control in all-polymer solar cells. IScience, 2022, 25, 104090.	1.9	29
23	Control over fibril width via different solubility additives for diketopyrrolopyrrole-based photovoltaic devices. Organic Electronics, 2015, 24, 280-287.	1.4	28
24	Optimized domain size and enlarged D/A interface by tuning intermolecular interaction in all-polymer ternary solar cells. Journal of Polymer Science, Part B: Polymer Physics, 2016, 54, 1811-1819.	2.4	27
25	Controlling PCBM aggregation in P3HT/PCBM film by a selective solvent vapor annealing. Science Bulletin, 2013, 58, 2767-2774.	1.7	26
26	Restricting the liquidâ€“liquid phase separation of PTB7-Th:PF12TBT:PC₇₁BM by enhanced PTB7-Th solution aggregation to optimize the interpenetrating network. RSC Advances, 2017, 7, 17913-17922.	1.7	25
27	Fibrillar Morphology of Derivatives of Poly(3-alkylthiophene)s by Solvent Vapor Annealing: Effects of Conformational Transition and Conjugate Length. Journal of Physical Chemistry B, 2013, 117, 5996-6006.	1.2	24
28	Tuning the Ï€â€Ï€ stacking distance and <scp>J</scp>â€aggregation of <scp>DPP</scp>â€based conjugated polymer via introducing insulating polymer. Journal of Polymer Science, Part B: Polymer Physics, 2016, 54, 838-847.	2.4	23
29	Improve exciton generation and dissociation by increasing fullerene content in the mixed phase of P3HT/fullerene. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2016, 506, 723-731.	2.3	22
30	Increasing H-aggregation of p-DTS(FBTTh2)2 to improve photovoltaic efficiency by solvent vapor annealing. Organic Electronics, 2016, 37, 6-13.	1.4	21
31	The influence of additive property on performance of organic bulk heterojunction solar cells. Polymer Bulletin, 2012, 68, 2145-2174.	1.7	20
32	Investigating the effect of cosolvents on P3HT/O-IDTBR film-forming kinetics and film morphology. Journal of Energy Chemistry, 2020, 51, 333-341.	7.1	20
33	Phase Diagram of Conjugated Polymer Blend P3HT/PF12TBT and the Morphology-Dependent Photovoltaic Performance. Journal of Physical Chemistry C, 2015, 119, 1729-1736.	1.5	19
34	Conjugated polymer single crystals and nanowires. Polymer Crystallization, 2019, 2, e10064.	0.5	19
35	Optimizing the Phase-Separated Domain Size of the Active Layer via Sequential Crystallization in All-Polymer Solar Cells. Journal of Physical Chemistry Letters, 2020, 11, 2314-2321.	2.1	19
36	Naphthalenothiophene Imide-Based Polymer Donor for High-Performance Polymer Solar Cells. Chemistry of Materials, 2021, 33, 1976-1982.	3.2	19

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37	Polymer assisted solution-processing of rubrene spherulites via solvent vapor annealing. RSC Advances, 2012, 2, 5779.	1.7	16
38	Polymer-regulated epitaxial crystallization of methanofullerene on mica. Physical Chemistry Chemical Physics, 2013, 15, 1208-1215.	1.3	16
39	Vapor-assisted imprinting to pattern poly(3-hexylthiophene) (P3HT) film with oriented arrangement of nanofibrils and flat-on conformation of P3HT chains. Polymer, 2013, 54, 423-430.	1.8	16
40	Blending Donors with Different Molecular Weights: An Efficient Strategy to Resolve the Conflict between Coherence Length and Intermixed Phase in Polymer/Nonfullerene Solar Cells. Small, 2022, 18, e2103804.	5.2	16
41	Long diketopyrrolopyrrole-based polymer nanowires prepared by decreasing the aggregate speed of the polymer in solution. Polymer, 2017, 118, 135-142.	1.8	15
42	Hierarchical network-like structure of poly(3-hexlthiophene) (P3HT) by accelerating the disentanglement of P3HT in a P3HT/PS (polystyrene) blend. RSC Advances, 2013, 3, 17195.	1.7	14
43	Nano-fibrils formation of pBTTT via adding alkylthiol into solutions: Control ofÂmorphology and crystalline structure. Polymer, 2013, 54, 948-957.	1.8	14
44	Uniform, high crystalline, (100) crystal orientated perovskite films without PbI2 residue by controlling the nanostructure of PbI2. Organic Electronics, 2018, 53, 26-34.	1.4	14
45	Decreased domain size and improved crystallinity by adjusting solventâ€“polymer interaction parameters in allâ€polymer solar cells. Journal of Polymer Science, Part B: Polymer Physics, 2015, 53, 288-296.	2.4	13
46	Tuning molecule diffusion to control the phase separation of the p-DTS(FBTTh₂)₂/EP-PDI blend system via thermal annealing. Journal of Materials Chemistry C, 2017, 5, 6842-6851.	2.7	13
47	Design optimized intermixed phase by tuning polymer-fullerene intercalation for free charge generation. Chinese Chemical Letters, 2019, 30, 1405-1409.	4.8	13
48	Decreasing the aggregation of PCBM in P3HT/PCBM blend films by cooling the solution. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2013, 421, 135-141.	2.3	12
49	Aligned films of the DPP-Based conjugated polymer by solvent vapor enhanced drop casting. Polymer, 2016, 104, 123-129.	1.8	12
50	Dual FÃ¶rster resonance energy transfer and morphology control to boost the power conversion efficiency of all-polymer OPVs. RSC Advances, 2017, 7, 13289-13298.	1.7	12
51	Nanowires of conjugated polymer prepared by tuning the interaction between the solvent and polymer. Polymer, 2018, 149, 23-29.	1.8	12
52	Balancing Crystal Size in Small-Molecule Nonfullerene Solar Cells through Fine-Tuning the Film-Forming Kinetics to Fabricate Interpenetrating Network. ACS Omega, 2018, 3, 7603-7612.	1.6	12
53	Manipulating the Crystallization of Methanofullerene Thin Films with Polymer Additives. Macromolecular Chemistry and Physics, 2012, 213, 2081-2090.	1.1	11
54	Ordered fibrillar morphology of donorâ€“acceptor conjugated copolymers at multiple scales via blending with flexible polymers and solvent vapor annealing: insight into photophysics and mechanism. Physical Chemistry Chemical Physics, 2014, 16, 1441-1450.	1.3	11

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55	Optimizing H-/J-Type Aggregation and Vertical Phase Separation To Improve Photovoltaic Efficiency of Small Molecule Solar Cells by Adding a Macromolecule Additive. ACS Applied Energy Materials, 2018, 1, 6338-6344.	2.5	11
56	Control the interplay of crystallization and phase separation of conjugated polymer blends by the relative rate of nucleation and growth. Polymer, 2019, 182, 121827.	1.8	11
57	To Reveal the Importance of the Crystallization Sequence on Micro-Morphological Structures of All-Crystalline Polymer Blends by <i>In Situ</i> Investigation. ACS Applied Materials & Interfaces, 2021, 13, 21756-21764.	4.0	11
58	Thermodynamic and kinetic insights for regulating molecular orientation in nonfullerene allâ€smallâ€molecule solar cells. , 2022, 1, .		11
59	Formation of parallel aligned nano-fibrils of a donorâ€"acceptor conjugated copolymer via controlling J-aggregates and post treatment. Soft Matter, 2013, 9, 9849.	1.2	10
60	Formation of parallel aligned nano-fibrils of poly(3,3â€²â€²â€²-didodecylquaterthiophene) induced by the unimer coils in solution. RSC Advances, 2013, 3, 12069.	1.7	10
61	Optimizing film morphology and crystal orientation of perovskite for efficient planar-heterojunction solar cells by slowing crystallization process. Organic Electronics, 2018, 62, 26-34.	1.4	10
62	Improving fiber alignment by increasing the planar conformation of isoindigo-based conjugated polymers. Materials Chemistry Frontiers, 2017, 1, 286-293.	3.2	9
63	Diketopyrrolopyrroleâ€based polymer nanowires: Control of chain conformation and nucleation. Journal of Polymer Science, Part B: Polymer Physics, 2018, 56, 833-841.	2.4	9
64	A quasi-ordered bulk heterojunction of P3HT/PCBM solar cells fabricated by zone-casting. Solar Energy Materials and Solar Cells, 2013, 117, 421-428.	3.0	8
65	The broken out and confinement phase separation structure evolution with the solution aggregation and relative crystallization degree in P3HT/N2200. Polymer, 2018, 138, 49-56.	1.8	8
66	A bi-continuous network structure of p-DTS(FBTTh₂)₂/EP-PDI via selective solvent vapor annealing. Journal of Materials Chemistry C, 2016, 4, 10095-10104.	2.7	7
67	Recent Advances of Filmâ€"Forming Kinetics in Organic Solar Cells. Energies, 2021, 14, 7604.	1.6	7
68	The molecular regioregularity induced morphological evolution of polymer blend thin films. Polymer, 2016, 86, 105-112.	1.8	6
69	Decreased domain size of <i>p</i>-DTS(FBTTh₂)₂/P(NDI2OD-T2) blend films due to their different solution aggregation behavior at different temperatures. Physical Chemistry Chemical Physics, 2017, 19, 32373-32380.	1.3	6
70	Diketopyrrolopyrroleâ€based polymer fibrils formation by changing molecular conformation during film formation. Journal of Polymer Science, Part B: Polymer Physics, 2018, 56, 1079-1086.	2.4	6
71	Morphology Control of Non-fullerene Blend Systems Based on Perylene. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2018, 34, 391-406.	2.2	6
72	Recent advances in intermixed phase of organic solar cells: Characterization, regulating strategies and device applications. Journal of Polymer Science, 2022, 60, 917-944.	2.0	5

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73	A morphological transition from sheet crystals to r crystals of triethylsilylethynyl anthradithiophene based on thermal annealing. RSC Advances, 2013, 3, 5529.	1.7	4
74	Morphological transformation of pyrazine-based acene-type molecules after blending with semiconducting polymers: from fibers to quadrilateral crystals. Soft Matter, 2013, 9, 5634.	1.2	1
75	Face-on orientation and vertical phase separation of p-DTS(FBTTh2)2/PC70BM induced by epitaxial crystallization of polymer interface layer. Organic Electronics, 2020, 77, 105512.	1.4	1
76	Editorial: Polymer Solar Cells: Molecular Design and Microstructure Control. Frontiers in Chemistry, 2020, 8, 697.	1.8	1
77	Optimized mixed phases to achieve improved performance of organic solar cells. MRS Communications, 2019, 9, 1235-1241.	0.8	0