

Single-layered organic photovoltaics with double cascades 18% efficiencies

Nature Communications

12, 309

DOI: [10.1038/s41467-020-20580-8](https://doi.org/10.1038/s41467-020-20580-8)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Semitransparent polymer solar cells floating on water: selected transmission windows and active control of algal growth. <i>Journal of Materials Chemistry C</i> , 2021, 9, 13132-13143.	2.7	8
2	Recent progress of metal-halide perovskite-based tandem solar cells. <i>Materials Chemistry Frontiers</i> , 2021, 5, 4538-4564.	3.2	15
3	Machine learning-assisted development of organic photovoltaics <i>via</i> high-throughput <i>in situ</i> formulation. <i>Energy and Environmental Science</i> , 2021, 14, 3438-3446.	15.6	29
4	Progress and prospects of the morphology of non-fullerene acceptor based high-efficiency organic solar cells. <i>Energy and Environmental Science</i> , 0, , .	15.6	149
5	Electron-deficient diketone unit engineering for non-fused ring acceptors enabling over 13% efficiency in organic solar cells. <i>Journal of Materials Chemistry A</i> , 2021, 9, 14948-14957.	5.2	50
6	Bathocuproine as a cathode interlayer for nonfullerene organic solar cells with efficiency over 17%. <i>Journal of Materials Chemistry A</i> , 2021, 9, 23269-23275.	5.2	11
7	Design of ultra-high luminescent polymers for organic photovoltaic cells with low energy loss. <i>Chemical Communications</i> , 2021, 57, 9132-9135.	2.2	12
8	Adenine-based polymer modified zinc oxide for efficient inverted organic solar cells. <i>Journal of Materials Chemistry C</i> , 2021, 9, 11851-11858.	2.7	9
9	Non-fullerene electron acceptors with benzotrithiophene with π -extension terminal groups for the development of high-efficiency organic solar cells. <i>Journal of Materials Chemistry C</i> , 2021, 9, 13896-13903.	2.7	15
10	Zinc oxide nanoparticles as electron transporting interlayer in organic solar cells. <i>Journal of Materials Chemistry C</i> , 2021, 9, 14093-14114.	2.7	33
11	Efficient and moisture-resistant organic solar cells <i>via</i> simultaneously reducing the surface defects and hydrophilicity of an electron transport layer. <i>Journal of Materials Chemistry C</i> , 2021, 9, 13500-13508.	2.7	15
12	Molecular design revitalizes the low-cost PTV-polymer for highly efficient organic solar cells. <i>National Science Review</i> , 2021, 8, nwab031.	4.6	70
13	Over 70% Fill Factor of All-Polymer Solar Cells Guided by the Law of Similarity and Intermiscibility. <i>Solar Rrl</i> , 2021, 5, 2100019.	3.1	6
14	Flexible organic solar cells for biomedical devices. <i>Nano Research</i> , 2021, 14, 2891-2903.	5.8	19
15	Developing Halogen-Free Polymer Donors for Efficient Nonfullerene Organic Solar Cells by Addition of Highly Electron-Deficient Diketopyrrolopyrrole Unit. <i>Solar Rrl</i> , 2021, 5, 2100142.	3.1	9
16	High-Efficiency Organic Photovoltaics using Eutectic Acceptor Fibrils to Achieve Current Amplification. <i>Advanced Materials</i> , 2021, 33, e2007177.	11.1	111
17	Ternary-organic photovoltaics with J71 as donor and two compatible nonfullerene acceptors. <i>Journal of Polymer Science</i> , 0, , .	2.0	2
18	High-Performance Ternary Organic Solar Cells Enabled by Synergizing Fullerene and Non-fullerene Acceptors. <i>Organic Materials</i> , 2021, 03, 254-276.	1.0	6

#	ARTICLE	IF	CITATIONS
19	Progress in Semitransparent Organic Solar Cells. <i>Solar Rrl</i> , 2021, 5, 2100041.	3.1	44
20	Co ²⁺ -Tuned Tin Oxide Interfaces for Enhanced Stability of Organic Solar Cells. <i>Langmuir</i> , 2021, 37, 3173-3179.	1.6	7
21	Exploring Ternary Organic Solar Cells for the Improved Efficiency of 16.5% with the Compatible Nonacyclic Carbazole-Based Nonfullerene Acceptors as the Third Component. <i>ACS Applied Energy Materials</i> , 2021, 4, 2847-2855.	2.5	23
22	Tuning the absorption and optoelectronic properties of naphthalene diimide based solar cells with non-fullerene acceptors. <i>Chemical Papers</i> , 2021, 75, 4327-4336.	1.0	10
23	A Quinoxaline-Based Copolymer Donor Achieving 17.62% Efficiency of Organic Solar Cells. <i>Advanced Materials</i> , 2021, 33, e2100474.	11.1	155
24	Large-Area Blade-Coated Solar Cells: Advances and Perspectives. <i>Advanced Energy Materials</i> , 2021, 11, 2100378.	10.2	77
25	Manipulating Crystallization Kinetics of Conjugated Polymers in Nonfullerene Photovoltaic Blends toward Refined Morphologies and Higher Performances. <i>Macromolecules</i> , 2021, 54, 4030-4041.	2.2	16
26	Novel High-Efficiency Polymer Acceptors via Random Ternary Copolymerization Engineering Enables All-Polymer Solar Cells with Excellent Performance and Stability. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 17892-17901.	4.0	11
27	Enhancing Photovoltaic Performances of Naphthalene-Based Unfused-Ring Electron Acceptors upon Regioisomerization. <i>Solar Rrl</i> , 2021, 5, 2100094.	3.1	21
28	Hybrid Perovskite Quantum Dot/Non-Fullerene Molecule Solar Cells with Efficiency Over 15%. <i>Advanced Functional Materials</i> , 2021, 31, 2101272.	7.8	44
29	Mapping the Side-Chain Length of Small-Molecule Acceptors towards the Optimal Hierarchical Morphology in Ternary Organic Solar Cells. <i>Organic Materials</i> , 2021, 03, 191-197.	1.0	0
30	High-Efficiency Organic Solar Cells Based on a Low-Cost Fully Non-Fused Electron Acceptor. <i>Advanced Functional Materials</i> , 2021, 31, 2101742.	7.8	98
31	Selective Extraction of Nonfullerene Acceptors from Bulk-Heterojunction Layer in Organic Solar Cells for Detailed Analysis of Microstructure. <i>Materials</i> , 2021, 14, 2107.	1.3	3
32	Fluorination Enables Tunable Molecular Interaction and Photovoltaic Performance in Non-Fullerene Solar Cells Based on Ester-Substituted Polythiophene. <i>Frontiers in Chemistry</i> , 2021, 9, 687996.	1.8	6
33	Highly Efficient Non-Fused-Ring Electron Acceptors Enabled by the Conformational Lock and Structural Isomerization Effects. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 25214-25223.	4.0	30
34	18.4% Organic Solar Cells Using a High Ionization Energy Self-Assembled Monolayer as Hole-Extraction Interlayer. <i>ChemSusChem</i> , 2021, 14, 3569-3578.	3.6	121
35	Synergistic Engineering of Substituents and Backbones on Donor Polymers: Toward Terpolymer Design of High-Performance Polymer Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 23993-24004.	4.0	22
36	All-polymer solar cells with over 16% efficiency and enhanced stability enabled by compatible solvent and polymer additives. <i>Aggregate</i> , 2022, 3, e58.	5.2	85

#	ARTICLE	IF	CITATIONS
37	Recent progress of Yâ€series electron acceptors for organic solar cells. Nano Select, 2021, 2, 2029-2039.	1.9	35
38	Suppressing Energetic Disorder Enables Efficient Indoor Organic Photovoltaic Cells With a PTV Derivative. Frontiers in Chemistry, 2021, 9, 684241.	1.8	9
39	High-performance polymer solar cells with efficiency over 18% enabled by asymmetric side chain engineering of non-fullerene acceptors. Science China Chemistry, 2021, 64, 1192-1199.	4.2	181
40	An ultraviolet-ozone post-treatment to remove the inherent impurities in all-ambient solution-processed CsPbBr ₃ perovskite films. Applied Physics Letters, 2021, 118, 221604.	1.5	5
41	Dodecacyclicâ€Fused Electron Acceptors with Multiple Electronâ€Deficient Units for Efficient Organic Solar Cells. ChemSusChem, 2021, 14, 3544-3552.	3.6	15
42	Organic Solar Cells with 18% Efficiency Enabled by an Alloy Acceptor: A Twoâ€inâ€One Strategy. Advanced Materials, 2021, 33, e2100830.	11.1	323
43	Easy-processing saccharin doped ZnO electron extraction layer in efficient polymer solar cells. Solar Energy, 2021, 220, 706-712.	2.9	3
44	Molecular Properties and Aggregation Behavior of Small-Molecule Acceptors Calculated by Molecular Simulation. ACS Omega, 2021, 6, 14467-14475.	1.6	5
45	Control of aggregated structure of photovoltaic polymers for highâ€efficiency solar cells. Aggregate, 2021, 2, e46.	5.2	60
46	Tuning Aggregation Behavior of Polymer Donor <i>via</i> ^{sc} Molecularâ€Weight Control for Achieving 17.1% Efficiency Inverted Polymer Solar Cells. Chinese Journal of Chemistry, 2021, 39, 1941-1947.	2.6	33
47	Recent advances of interface engineering for non-fullerene organic solar cells. Organic Electronics, 2021, 93, 106141.	1.4	27
48	Two star-shaped small molecule donors based on benzodithiophene unit for organic solar cells. Chinese Chemical Letters, 2022, 33, 247-251.	4.8	21
49	A unified description of non-radiative voltage losses in organic solar cells. Nature Energy, 2021, 6, 799-806.	19.8	235
50	Airâ€Processed Efficient Organic Solar Cells from Aromatic Hydrocarbon Solvent without Solvent Additive or Postâ€Treatment: Insights into Solvent Effect on Morphology. Energy and Environmental Materials, 2022, 5, 977-985.	7.3	59
51	Narrowâ€Bandgap Singleâ€Component Polymer Solar Cells with Approaching 9% Efficiency. Advanced Materials, 2021, 33, e2101295.	11.1	53
52	Tricyclic or Pentacyclic D Units: Design of Dâ€A-Type Copolymers for High <i>V</i> _{OC} Organic Photovoltaic Cells. ACS Applied Materials & Interfaces, 2021, 13, 30756-30765.	4.0	16
53	An Overview of Highâ€Performance Indoor Organic Photovoltaics. ChemSusChem, 2021, 14, 3428-3448.	3.6	21
54	Porphyrin Acceptors with Two Perylene Diimide Dimers for Organic Solar Cells. ChemSusChem, 2021, 14, 3614-3621.	3.6	2

#	ARTICLE	IF	CITATIONS
55	Probing morphology and chemistry in complex soft materials with in situ resonant soft x-ray scattering. <i>Journal of Physics Condensed Matter</i> , 2021, 33, 313001.	0.7	5
56	Enhancing the photovoltaic performance with two similar structure polymers as donors by broadening the absorption spectrum and optimizing the molecular arrangement. <i>Organic Electronics</i> , 2021, 93, 106153.	1.4	6
57	Exploring the Charge Dynamics and Energy Loss in Ternary Organic Solar Cells with a Fill Factor Exceeding 80%. <i>Advanced Energy Materials</i> , 2021, 11, 2101338.	10.2	62
58	Achieving over 10% Efficiency in Poly(3-hexylthiophene)-Based Organic Solar Cells via Solid Additives. <i>ChemSusChem</i> , 2021, 14, 3607-3613.	3.6	43
59	A benzo[ghi]-perylene triimide based double-cable conjugated polymer for single-component organic solar cells. <i>Chinese Chemical Letters</i> , 2022, 33, 466-469.	4.8	23
60	13.4% Efficiency from All-Small-Molecule Organic Solar Cells Based on a Crystalline Donor with Chlorine and Trialkylsilyl Substitutions. <i>ChemSusChem</i> , 2021, 14, 3535-3543.	3.6	15
61	Improved Photovoltaic Performance of Polymer Solar Cells via a Volatile and Nonhalogen Additive to Optimize Crystallinity. <i>ACS Applied Energy Materials</i> , 2021, 4, 7129-7137.	2.5	17
62	Ternary solar cells via ternary polymer donors and third component PC71BM to optimize morphology with 13.15% efficiency. <i>Solar Energy</i> , 2021, 222, 18-26.	2.9	37
63	Recent Progress of Organic Photovoltaics with Efficiency over 17%. <i>Energies</i> , 2021, 14, 4200.	1.6	75
64	Controlling Polymer Morphology in Blade-Coated All-Polymer Solar Cells. <i>Chemistry of Materials</i> , 2021, 33, 5951-5961.	3.2	14
65	Highly Efficient Ternary Solar Cells with Efficient Förster Resonance Energy Transfer for Simultaneously Enhanced Photovoltaic Parameters. <i>Advanced Functional Materials</i> , 2021, 31, 2105304.	7.8	30
66	Molecular packing modulation enabling optimized blend morphology and efficient all small molecule organic solar cells. <i>Dyes and Pigments</i> , 2021, 191, 109387.	2.0	10
67	Digital printing of a novel electrode for stable flexible organic solar cells with a power conversion efficiency of 8.5%. <i>Scientific Reports</i> , 2021, 11, 14212.	1.6	10
68	Conductive Ionenenes Promote Interfacial Self-Doping for Efficient Organic Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 41810-41817.	4.0	18
69	Characteristics of Non-Fullerene Acceptor-Based Organic Photovoltaic Active Layers Using X-ray Scattering and Solid-State NMR. <i>Journal of Physical Chemistry C</i> , 2021, 125, 15863-15871.	1.5	2
70	~1.2 V open-circuit voltage from organic solar cells. <i>Journal of Semiconductors</i> , 2021, 42, 070202.	2.0	11
71	17.6% Efficient Quasiplanar Heterojunction Organic Solar Cells from a Chlorinated 3D Network Acceptor. <i>Advanced Materials</i> , 2021, 33, e2102778.	11.1	87
72	Boosting Highly Efficient Hydrocarbon Solvent-Processed All-Polymer-Based Organic Solar Cells by Modulating Thin-Film Morphology. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 34301-34307.	4.0	20

#	ARTICLE	IF	CITATIONS
73	Unveiling structure-performance relationships from multi-scales in non-fullerene organic photovoltaics. <i>Nature Communications</i> , 2021, 12, 4627.	5.8	98
74	Tackling voltage losses. <i>Nature Energy</i> , 2021, 6, 775-776.	19.8	0
75	A Well-Mixed Phase Formed by Two Compatible Non-Fullerene Acceptors Enables Ternary Organic Solar Cells with Efficiency over 18.6%. <i>Advanced Materials</i> , 2021, 33, e2101733.	11.1	354
76	Nanocrystal-enabled front surface bandgap gradient for the reduction of surface recombination in inverted perovskite solar cells. <i>Solar Rrl</i> , 2021, 5, 2100489.	3.1	3
77	Roles and Impacts of Ancillary Materials for Multi-Component Blend Organic Photovoltaics towards High Efficiency and Stability. <i>ChemSusChem</i> , 2021, 14, 3475-3487.	3.6	4
78	High-Performance Simple Nonfused Ring Electron Acceptors with Diphenylamino Flanking Groups. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 39652-39659.	4.0	47
79	Marcus Hole Transfer Governs Charge Generation and Device Operation in Nonfullerene Organic Solar Cells. <i>ACS Energy Letters</i> , 2021, 6, 2971-2981.	8.8	41
80	All-polymer solar cells. <i>Journal of Semiconductors</i> , 2021, 42, 080301.	2.0	36
81	Influence of thermal annealing on the charge generation and transport in PM6-based non-fullerene solar cells. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 22879-22889.	1.1	1
82	Regioregular narrow bandgap copolymer with strong aggregation ability for high-performance semitransparent photovoltaics. <i>Nano Energy</i> , 2021, 86, 106098.	8.2	31
83	High-performance alloy-like ternary organic solar cells with two compatible non-fullerene acceptors. <i>Organic Electronics</i> , 2021, 95, 106201.	1.4	6
84	Completely non-fused electron acceptor with 3D-interpenetrated crystalline structure enables efficient and stable organic solar cell. <i>Nature Communications</i> , 2021, 12, 5093.	5.8	210
85	Realizing Stable High-Performance and Low-Energy-Loss Ternary Photovoltaics through Judicious Selection of the Third Component. <i>Solar Rrl</i> , 2021, 5, 2100450.	3.1	18
86	Concurrently Improved <i>J</i> , Fill Factor, and Stability in a Ternary Organic Solar Cell Enabled by a C-Shaped Non-fullerene Acceptor and Its Structurally Similar Third Component. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 40766-40777.	4.0	18
87	Improved Charge Transport and Reduced Carrier Recombination of Nonfullerene Organic Solar Cells with the Binary Solvent. <i>ACS Applied Energy Materials</i> , 2021, 4, 8175-8182.	2.5	9
88	Modulating Chlorination Position on Polymer Donors for Highly Efficient Nonfullerene Organic Solar Cells. <i>Solar Rrl</i> , 2021, 5, 2100510.	3.1	8
89	Interfacial and Permeating Modification Effect of n-type Non-fullerene Acceptors toward High-Performance Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 40778-40787.	4.0	17
90	Short Excited-State Lifetimes Mediate Charge-Recombination Losses in Organic Solar Cell Blends with Low Charge-Transfer Driving Force. <i>Advanced Materials</i> , 2022, 34, e2101784.	11.1	11

#	ARTICLE	IF	CITATIONS
91	The performance-stability conundrum of BTP-based organic solar cells. <i>Joule</i> , 2021, 5, 2129-2147.	11.7	133
92	Mechanical Robust Flexible Single-Component Organic Solar Cells. <i>Small Methods</i> , 2021, 5, e2100481.	4.6	33
93	Impact of inkjet printing parameters on the morphology and device performance of organic photovoltaics. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 465105.	1.3	4
94	Design and synthesis of the quinacridone-based donor polymers for application to organic solar cells. <i>Journal of Industrial and Engineering Chemistry</i> , 2021, 101, 135-143.	2.9	12
95	Aminonaphthalimide-Based Molecular Cathode Interlayers for As-Cast Organic Solar Cells. <i>ChemSusChem</i> , 2021, 14, 4783-4792.	3.6	14
96	Using Two Compatible Donor Polymers Boosts the Efficiency of Ternary Organic Solar Cells to 17.7%. <i>Chemistry of Materials</i> , 2021, 33, 7254-7262.	3.2	35
97	Nanoscale heterogeneous distribution of surface energy at interlayers in organic bulk-heterojunction solar cells. <i>Joule</i> , 2021, 5, 3154-3168.	11.7	45
98	Semitransparent organic solar cells based on all-low-bandgap donor and acceptor materials and their performance potential. <i>Materials Today Energy</i> , 2021, 21, 100807.	2.5	23
99	Low-cost and efficient organic solar cells based on polythiophene and poly(thiophene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 422 Td	5.2	38
100	A Multi-modal Approach to Understanding Degradation of Organic Photovoltaic Materials. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 44641-44655.	4.0	2
101	Reduced non-radiative charge recombination enables organic photovoltaic cell approaching 19% efficiency. <i>Joule</i> , 2021, 5, 2408-2419.	11.7	419
102	Unprecedented Long-Term Thermal Stability of 1D/2A Terpolymer-Based Polymer Solar Cells Processed with Nonhalogenated Solvent. <i>Solar Rrl</i> , 2021, 5, 2100513.	3.1	7
103	Graphdiyne oxide modified nano CuO as inorganic hole transport layer for efficient and stable organic solar cells. <i>2D Materials</i> , 2021, 8, 044015.	2.0	4
104	Reconciling the Driving Force and the Barrier to Charge Separation in Donor-Nonfullerene Acceptor Films. <i>ACS Energy Letters</i> , 2021, 6, 3572-3581.	8.8	10
105	Ternary organic solar cells with improved efficiency and stability enabled by compatible dual-acceptor strategy. <i>Organic Electronics</i> , 2021, 96, 106227.	1.4	16
106	Non-fullerene acceptor organic photovoltaics with intrinsic operational lifetimes over 30 years. <i>Nature Communications</i> , 2021, 12, 5419.	5.8	128
107	Emerging Chemistry in Enhancing the Chemical and Photochemical Stabilities of Fused-Ring Electron Acceptors in Organic Solar Cells. <i>Advanced Functional Materials</i> , 2021, 31, 2106735.	7.8	36
108	Germanium nanoparticles film as a room-temperature electron transport layer for organic solar cells. <i>Solar Energy</i> , 2021, 226, 421-426.	2.9	3

#	ARTICLE	IF	CITATIONS
109	Enhancing the Photovoltaic Performance of Triplet Acceptors Enabled by Side-Chain Engineering. <i>Solar Rrl</i> , 2021, 5, 2100522.	3.1	12
110	Defect density and performance influenced by ozone treatment of ZnO interface in inverted organic solar cell. <i>Solar Energy</i> , 2021, 225, 942-949.	2.9	6
111	18.5% Efficiency Organic Solar Cells with a Hybrid Planar/Bulk Heterojunction. <i>Advanced Materials</i> , 2021, 33, e2103091.	11.1	136
112	18.77% Efficiency Organic Solar Cells Promoted by Aqueous Solution Processed Cobalt(II) Acetate Hole Transporting Layer. <i>Angewandte Chemie</i> , 2021, 133, 22728-22735.	1.6	28
113	Singlet and Triplet Excited-State Dynamics of a Nonfullerene Electron Acceptor Y6. <i>Journal of Physical Chemistry C</i> , 2021, 125, 20806-20813.	1.5	29
114	18.77% Efficiency Organic Solar Cells Promoted by Aqueous Solution Processed Cobalt(II) Acetate Hole Transporting Layer. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 22554-22561.	7.2	152
115	Transparent organic photovoltaics: A strategic niche to advance commercialization. <i>Joule</i> , 2021, 5, 2261-2272.	11.7	44
116	Melamine-Doped Cathode Interlayer Enables High-Efficiency Organic Solar Cells. <i>ACS Energy Letters</i> , 2021, 6, 3582-3589.	8.8	45
117	Highly crystalline acceptor materials based on benzodithiophene with different amount of fluorine substitution on alkoxyphenyl conjugated side chains for organic photovoltaics. <i>Materials Reports Energy</i> , 2021, 1, 100059.	1.7	2
118	A dithienobenzothiadiazole-quaterthiophene wide bandgap polymer enables non-fullerene based polymer solar cells with over 15% efficiency. <i>Polymer</i> , 2021, 233, 124193.	1.8	12
119	Effects of brominated terminal groups on the performance of fused-ring electron acceptors in organic solar cells. <i>Dyes and Pigments</i> , 2021, 194, 109652.	2.0	3
120	Perspective on the perovskite quantum dots for flexible photovoltaics. <i>Journal of Energy Chemistry</i> , 2021, 62, 505-507.	7.1	20
121	Nanoscale Phase Separation in Ternary Organic Solar Cells Based on PTB7:PC ₇₀ :BM:IC ₇₀ :BA. <i>Journal of Nanoscience and Nanotechnology</i> , 2021, 21, 5749-5755.	0.9	0
122	High-performance hole transport layer based on WS ₂ doped PEDOT:PSS for organic solar cells. <i>Organic Electronics</i> , 2021, 99, 106305.	1.4	18
123	Improvement in power conversion efficiency of all-polymer solar cells enabled by ultrafast channels for charge dynamics. <i>Materials Today Nano</i> , 2021, 16, 100133.	2.3	2
124	Highly stable inverted non-fullerene OSCs by surface modification of SnO ₂ with an easy-accessible material. <i>Chemical Engineering Journal</i> , 2021, 426, 131583.	6.6	8
125	Explore fused-ring core incorporated A-D-A type acceptors and their application in organic solar cells: Insight into molecular conformation, optical and electrochemical properties, film morphology, and energy loss. <i>Dyes and Pigments</i> , 2021, 196, 109572.	2.0	1
126	Fine-tuned crystallinity of polymerized non-fullerene acceptor via molecular engineering towards efficient all-polymer solar cell. <i>Chemical Engineering Journal</i> , 2022, 428, 131232.	6.6	20

#	ARTICLE	IF	CITATIONS
127	Boosting the photovoltaic performance of ladder-type heteroheptacene-based nonfullerene acceptors by incorporating auxochromic groups in the electron-rich core. <i>Chemical Engineering Journal</i> , 2022, 427, 131022.	6.6	7
128	Ester side chains engineered quinoxaline based D-A copolymers for high-efficiency all-polymer solar cells. <i>Chemical Engineering Journal</i> , 2022, 429, 132551.	6.6	16
129	A selenophene-containing near-infrared unfused acceptor for efficient organic solar cells. <i>Chemical Engineering Journal</i> , 2022, 429, 132298.	6.6	28
130	Hydrogen bond induced high-performance quaternary organic solar cells with efficiency up to 17.48% and superior thermal stability. <i>Materials Chemistry Frontiers</i> , 2021, 5, 3850-3858.	3.2	28
131	Medium band-gap non-fullerene acceptors based on a benzothiophene donor moiety enabling high-performance indoor organic photovoltaics. <i>Energy and Environmental Science</i> , 2021, 14, 4555-4563.	15.6	43
132	17.25% high efficiency ternary solar cells with increased open-circuit voltage using a high HOMO level small molecule guest donor in a PM6:Y6 blend. <i>Journal of Materials Chemistry A</i> , 2021, 9, 20493-20501.	5.2	24
133	Recent advances in PM6:Y6-based organic solar cells. <i>Materials Chemistry Frontiers</i> , 2021, 5, 3257-3280.	3.2	138
134	A metal chelation strategy suppressing chemical reduction between PEDOT and polyethylenimine for a printable low-work function electrode in organic solar cells. <i>Journal of Materials Chemistry A</i> , 2021, 9, 3918-3924.	5.2	9
135	Impact of fluorine substituted π -bridges on the photovoltaic performance of organic small-molecule donor materials. <i>Molecular Systems Design and Engineering</i> , 2021, 6, 739-747.	1.7	2
136	Manipulating the intermolecular stacking of polymeric donors for efficient organic solar cells. <i>Journal of Materials Chemistry C</i> , 2021, 9, 14209-14216.	2.7	8
137	Porphyrin-Based All-Small-Molecule Organic Solar Cells With Absorption-Complementary Nonfullerene Acceptor. <i>IEEE Journal of Photovoltaics</i> , 2022, 12, 316-321.	1.5	3
138	Uphill and downhill charge generation from charge transfer to charge separated states in organic solar cells. <i>Journal of Materials Chemistry C</i> , 2021, 9, 14463-14489.	2.7	10
139	Developing the Nondevelopable: Creating Curved π -Surface Electronics from Nonstretchable Devices. <i>Advanced Materials</i> , 2022, 34, e2106683.	11.1	22
140	Enabling High Efficiency of Hydrocarbon π -Solvent Processed Organic Solar Cells through Balanced Charge Generation and Non π -Radiative Loss. <i>Advanced Energy Materials</i> , 2021, 11, 2101768.	10.2	61
141	All π -Green Solvent π -Processed Planar Heterojunction Organic Solar Cells with Outstanding Power Conversion Efficiency of 16%. <i>Advanced Functional Materials</i> , 2022, 32, 2107567.	7.8	58
142	Advances and prospective in thermally stable nonfullerene polymer solar cells. <i>Science China Chemistry</i> , 2021, 64, 1875-1887.	4.2	31
143	Efficiency Improvement of All π -Small π -Molecule Organic Solar Cells Through Fused π -Aromatic π -Ring Side π -Chained Donors. <i>Solar Rrl</i> , 2021, 5, .	3.1	7
144	Simple Nonfused Ring Electron Acceptors with 3D Network Packing Structure Boosting the Efficiency of Organic Solar Cells to 15.44%. <i>Advanced Energy Materials</i> , 2021, 11, 2102591.	10.2	111

#	ARTICLE	IF	CITATIONS
145	Zirconium-Doped Zinc Oxide Nanoparticles as Cathode Interfacial Layers for Efficiently Rigid and Flexible Organic Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 10616-10621.	2.1	11
146	Surface Reconstruction for Stable Monolithic All-Inorganic Perovskite/Organic Tandem Solar Cells with over 21% Efficiency. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	47
147	Multi-Functional Solid Additive Induced Favorable Vertical Phase Separation and Ordered Molecular Packing for Highly Efficient Layer-by-Layer Organic Solar Cells. <i>Small</i> , 2021, 17, e2103497.	5.2	49
148	Gradual chlorination at different positions of D-A copolymers based on benzodithiophene and isoindigo for organic solar cells. <i>Materials Reports Energy</i> , 2021, 1, 100065.	1.7	3
149	Thermoplastic Elastomer Tunes Phase Structure and Promotes Stretchability of High-Efficiency Organic Solar Cells. <i>Advanced Materials</i> , 2021, 33, e2106732.	11.1	101
150	Simple Nonfused-Ring Electron Acceptors with Noncovalently Conformational Locks for Low-Cost and High-Performance Organic Solar Cells Enabled by End-Group Engineering. <i>Advanced Functional Materials</i> , 2022, 32, 2108861.	7.8	84
151	Direct Observation of the Charge Transfer States from a Non-Fullerene Organic Solar Cell with a Small Driving Force. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 10595-10602.	2.1	12
152	Polymer Solar Cells with 18.74% Efficiency: From Bulk Heterojunction to Interdigitated Bulk Heterojunction. <i>Advanced Functional Materials</i> , 2022, 32, 2108797.	7.8	116
153	New Electron Acceptor with End-Extended Conjugation for High-Performance Polymer Solar Cells. <i>Energy & Fuels</i> , 0, , .	2.5	5
154	A guest-assisted molecular-organization approach for >17% efficiency organic solar cells using environmentally friendly solvents. <i>Nature Energy</i> , 2021, 6, 1045-1053.	19.8	230
155	12-Quinoxaline[2,3-b]phenoxazines: Synthesis, optical, electrochemical properties and insight into photovoltaic application. <i>Dyes and Pigments</i> , 2022, 197, 109848.	2.0	7
156	Fused-heterocycle engineering on asymmetric non-fullerene acceptors enables organic solar cells approaching 29 mA/cm ² short-circuit current density. <i>Chemical Engineering Journal</i> , 2022, 430, 132830.	6.6	19
157	Solid additives in organic solar cells: progress and perspectives. <i>Journal of Materials Chemistry C</i> , 2022, 10, 2364-2374.	2.7	40
158	High-efficiency organic solar cells enabled by an alcohol-washable solid additive. <i>Science China Chemistry</i> , 2021, 64, 2161-2168.	4.2	32
159	Investigation of tunable halogen-free solvent engineering on aggregation and miscibility towards high-performance organic solar cells. <i>Nano Energy</i> , 2022, 91, 106678.	8.2	42
160	Near-Infrared Nonfullerene Acceptors Based on 4-Hydroxycyclopenta[1,2-b:5,4-b']dithiophene for Organic Solar Cells and Organic Field-Effect Transistors. <i>Chemistry - an Asian Journal</i> , 2021, 16, 4171-4178.	1.7	9
161	Introducing Low-Cost Pyrazine Unit into Terpolymer Enables High-Performance Polymer Solar Cells with Efficiency of 18.23%. <i>Advanced Functional Materials</i> , 2022, 32, 2109271.	7.8	49
162	Efficient Organic Solar Cells Enabled by Chlorinated Nonplanar Small Molecules. <i>ACS Applied Energy Materials</i> , 2021, 4, 12974-12981.	2.5	7

#	ARTICLE	IF	CITATIONS
163	Organic Thin Films Deposited by Matrix-Assisted Pulsed Laser Evaporation (MAPLE) for Photovoltaic Cell Applications: A Review. <i>Coatings</i> , 2021, 11, 1368.	1.2	7
164	Asymmetric Non-Fullerene Small-Molecule Acceptors toward High-Performance Organic Solar Cells. <i>ACS Central Science</i> , 2021, 7, 1787-1797.	5.3	58
165	Upper and Apparent Lower Critical Solution Temperature Branches in the Phase Diagram of Polymer:Small Molecule Semiconducting Systems. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 10845-10853.	2.1	7
166	Manipulating the Crystalline Morphology in the Nonfullerene Acceptor Mixture to Improve the Carrier Transport and Suppress the Energetic Disorder. <i>Small Science</i> , 2022, 2, 2100092.	5.8	5
167	Organoboron molecules and polymers for organic solar cell applications. <i>Chemical Society Reviews</i> , 2022, 51, 153-187.	18.7	92
168	Near-infrared absorbing polymer acceptors enabled by selenophene-fused core and halogenated end-group for binary all-polymer solar cells with efficiency over 16%. <i>Nano Energy</i> , 2022, 92, 106718.	8.2	65
169	Contrasting the Charge Carrier Mobility of Isotactic, Syndiotactic, and Atactic Poly(<i>N</i> -carbazolylethylthio)propyl methacrylate). <i>ACS Macro Letters</i> , 2021, 10, 1493-1500.	2.3	5
170	Increasing donor-acceptor spacing for reduced voltage loss in organic solar cells. <i>Nature Communications</i> , 2021, 12, 6679.	5.8	56
171	Ternary Blend Organic Solar Cells: Understanding the Morphology from Recent Progress. <i>Advanced Materials</i> , 2022, 34, e2107476.	11.1	100
172	Doping Approaches for Organic Semiconductors. <i>Chemical Reviews</i> , 2022, 122, 4420-4492.	23.0	153
173	Ladder-Type Fused Benzodithiophene Extended along the Short-Axis Direction as a New Donor Building Block for Efficient Organic Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 57693-57702.	4.0	4
174	Efficient Organic Solar Cells Enabled by Simple Non-Fused Electron Donors with Low Synthetic Complexity. <i>Small</i> , 2022, 18, e2104623.	5.2	30
175	Systematically Controlling Acceptor Fluorination Optimizes Hierarchical Morphology, Vertical Phase Separation, and Efficiency in Non-Fullerene Organic Solar Cells. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	46
176	Insulating Polymers as Additives to Bulk-Heterojunction Organic Solar Cells: The Effect of Miscibility. <i>ChemPhysChem</i> , 2022, 23, .	1.0	20
177	Direct Observations of Uniform Bulk Heterojunctions and the Energy Level Alignments in Nonfullerene Organic Photovoltaic Active Layers. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 56430-56437.	4.0	0
178	Polymerized Small-Molecule Acceptor as an Interface Modulator to Increase the Performance of All-Molecule Solar Cells. <i>Advanced Energy Materials</i> , 2022, 12, 2102394.	10.2	15
179	A review on oxide/metal/oxide thin films on flexible substrates as electrodes for organic and perovskite solar cells. <i>Optical Materials: X</i> , 2022, 13, 100122.	0.3	11
180	A polymer donor with versatility for fabricating high-performance ternary organic photovoltaics. <i>Chemical Engineering Journal</i> , 2022, 431, 133950.	6.6	25

#	ARTICLE	IF	CITATIONS
181	Wide-bandgap organic solar cells with a novel perylene-based non-fullerene acceptor enabling open-circuit voltages beyond 1.4 V. <i>Journal of Materials Chemistry A</i> , 2022, 10, 2888-2906.	5.2	21
182	Delicate crystallinity control enables high-efficiency P3HT organic photovoltaic cells. <i>Journal of Materials Chemistry A</i> , 2022, 10, 3418-3429.	5.2	45
183	Versatile third components in organic ternary solar cells. <i>Solar Energy</i> , 2022, 231, 732-757.	2.9	5
184	Achieving high efficiency and well-kept ductility in ternary all-polymer organic photovoltaic blends thanks to two well miscible donors. <i>Matter</i> , 2022, 5, 725-734.	5.0	145
185	Stable dinitrile end-capped closed-shell non-quinodimethane as a donor, an acceptor and an additive for organic solar cells. <i>Materials Advances</i> , 2022, 3, 1759-1766.	2.6	1
186	peri-N-amine-perylenes, with and without phenyl bridge: Photophysical studies and their OLED applications. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2022, 426, 113710.	2.0	3
187	High-performance heptacyclic ladder-type heteroarene-based electron acceptors enabled by bulky neighboring side-chains and end-group fluorination. <i>Chemical Engineering Journal</i> , 2022, 432, 134393.	6.6	8
188	Ternary organic solar cells: A review of the role of the third element. <i>Nano Energy</i> , 2022, 94, 106915.	8.2	87
189	Copper phosphotungstate as low cost, solution-processed, stable inorganic anode interfacial material enables organic photovoltaics with over 18% efficiency. <i>Nano Energy</i> , 2022, 94, 106923.	8.2	20
190	ZnO:Bio-inspired polydopamine functionalized Ti3C2Tx composite electron transport layers for highly efficient polymer solar cells. <i>Journal of Alloys and Compounds</i> , 2022, 900, 163381.	2.8	8
191	Enabling Roll-Processed and Flexible Organic Solar Cells Based On PffBT4T Through Temperature-Controlled Slot-Die Coating. <i>IEEE Journal of Photovoltaics</i> , 2022, , 1-9.	1.5	1
192	Polymerized Small Molecular Acceptor with Branched Side Chains for All Polymer Solar Cells with Efficiency over 16.7%. <i>Advanced Materials</i> , 2022, 34, e2110155.	11.1	79
193	Conjugated Mesopolymer Achieving 15% Efficiency Single-junction Organic Solar Cells. <i>Advanced Science</i> , 2022, 9, e2105430.	5.6	20
194	Engineering of the alkyl chain branching point on a lactone polymer donor yields 17.81% efficiency. <i>Journal of Materials Chemistry A</i> , 2022, 10, 3314-3320.	5.2	17
195	Symmetry-Breaking Charge Separation in Molecular Constructs for Efficient Light Energy Conversion. <i>ACS Energy Letters</i> , 2022, 7, 696-711.	8.8	35
196	Realizing 19.05% Efficiency Polymer Solar Cells by Progressively Improving Charge Extraction and Suppressing Charge Recombination. <i>Advanced Materials</i> , 2022, 34, e2109516.	11.1	394
197	Hybrid Cathode Interlayer Enables 17.4% Efficiency Binary Organic Solar Cells. <i>Advanced Science</i> , 2022, 9, e2105575.	5.6	31
198	Correlating Electronic Structure and Device Physics with Mixing Region Morphology in High-Efficiency Organic Solar Cells. <i>Advanced Science</i> , 2022, 9, e2104613.	5.6	10

#	ARTICLE	IF	CITATIONS
199	Tin Oxide Electron Transport Layers for Air-/Solution-Processed Conventional Organic Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 1568-1577.	4.0	9
200	Tandem Organic Solar Cell with 20.2% Efficiency. Joule, 2022, 6, 171-184.	11.7	584
201	Origin of the Additive-Induced V_{OC} Change in Non-Fullerene Organic Solar Cells. Small, 2022, 18, e2107106.	5.2	15
202	Quaternary Organic Solar Cells Enable Suppressed Energy Loss. Solar Rrl, 2022, 6, .	3.1	7
203	Monolithic perovskite/organic tandem solar cells with 23.6% efficiency enabled by reduced voltage losses and optimized interconnecting layer. Nature Energy, 2022, 7, 229-237.	19.8	137
204	Design of Near-Infrared Nonfullerene Acceptor with Ultralow Nonradiative Voltage Loss for High-Performance Semitransparent Ternary Organic Solar Cells. Angewandte Chemie, 2022, 134, .	1.6	15
205	High-Performance Indoor Organic Solar Cells Based on a Double-Cable Conjugated Polymer. Solar Rrl, 2022, 6, .	3.1	12
206	Compromising Charge Generation and Recombination with Asymmetric Molecule for High-Performance Binary Organic Photovoltaics with Over 18% Certified Efficiency. Advanced Functional Materials, 2022, 32, .	7.8	62
207	Coordination-Induced Defects Elimination of SnO_2 Nanoparticles via a Small Electrolyte Molecule for High-Performance Inverted Organic Solar Cells. Advanced Optical Materials, 2022, 10, .	3.6	12
208	Efficient interface modification via multi-site coordination for improved efficiency and stability in organic solar cells. Energy and Environmental Science, 2022, 15, 822-829.	15.6	49
209	Fabrication of inverted organic solar cells on stainless steel substrate with electrodeposited and spin coated ZnO buffer layers. Journal of Polymer Engineering, 2022, .	0.6	0
210	Achieving Efficient Polymer Solar Cells Based on Near-Infrared Absorptive Backbone Twisted Nonfullerene Acceptors through a Synergistic Strategy of an Indacenodiselenophene Fused-Ring Core and a Chlorinated Terminal Group. ACS Applied Energy Materials, 2022, 5, 1322-1330.	2.5	6
211	Simple furan-based polymers with the self-healing function enable efficient eco-friendly organic solar cells with high stability. Journal of Materials Chemistry C, 2022, 10, 506-516.	2.7	12
212	High-Throughput Screening of Blade-Coated Polymer:Polymer Solar Cells: Solvent Determines Achievable Performance. ChemSusChem, 2022, 15, .	3.6	9
213	Molecular optimization of incorporating pyran fused acceptor-donor-acceptor type acceptors enables over 15% efficiency in organic solar cells. Journal of Materials Chemistry C, 2022, 10, 1977-1983.	2.7	6
214	Design of Near-Infrared Nonfullerene Acceptor with Ultralow Nonradiative Voltage Loss for High-Performance Semitransparent Ternary Organic Solar Cells. Angewandte Chemie - International Edition, 2022, 61, .	7.2	85
215	Characterizing and Improving the Thermal Stability of Organic Photovoltaics Based on Halogen-Rich Non-Fullerene Acceptors. ACS Applied Materials & Interfaces, 2022, 14, 5692-5698.	4.0	10
216	Photoinduced Charge Transfer and Recombination Dynamics in Star Nonfullerene Organic Solar Cells. Journal of Physical Chemistry Letters, 2022, 13, 1123-1130.	2.1	27

#	ARTICLE	IF	CITATIONS
217	Strengthening the Intermolecular Interaction of Prototypical Semicrystalline Conjugated Polymer Enables Improved Photocurrent Generation at the Heterojunction. <i>Macromolecular Rapid Communications</i> , 2022, 43, e2100871.	2.0	9
218	Slot-Die-Coated Organic Solar Cells Optimized through Multistep Crystallization Kinetics. <i>Solar Rrl</i> , 2022, 6, .	3.1	7
219	Recent progress in all-small-molecule organic photovoltaics. <i>Journal of Materials Chemistry A</i> , 2022, 10, 6291-6329.	5.2	58
220	Enabling high-performance, centimeter-scale organic solar cells through three-dimensional charge transport. <i>Cell Reports Physical Science</i> , 2022, , 100761.	2.8	4
221	Solvent Tuning of the Active Layer Morphology of Non-Fullerene Based Organic Solar Cells. <i>Solar Rrl</i> , 2022, 6, .	3.1	4
222	High fill factor organic solar cells with increased dielectric constant and molecular packing density. <i>Joule</i> , 2022, 6, 444-457.	11.7	117
223	High-Polarizability Organic Ferroelectric Materials Doping for Enhancing the Built-in Electric Field of Perovskite Solar Cells Realizing Efficiency over 24%. <i>Advanced Materials</i> , 2022, 34, e2110482.	11.1	65
224	Alkyl side chain engineering enables high performance as-cast organic solar cells of over 17% efficiency. <i>Fundamental Research</i> , 2023, 3, 611-617.	1.6	10
225	Highlights of mainstream solar cell efficiencies in 2021. <i>Frontiers in Energy</i> , 2022, 16, 1-8.	1.2	19
226	Balancing the Molecular Aggregation and Vertical Phase Separation in the Polymer: Nonfullerene Blend Films Enables 13.09% Efficiency of Organic Solar Cells with Inkjet-Printed Active Layer. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	17
227	Chloride side-chain engineered quinoxaline-based D-A copolymer enabling non-fullerene organic solar cells with over 16% efficiency. <i>Chemical Engineering Journal</i> , 2022, 437, 135182.	6.6	19
228	Near-infrared non-fused ring acceptors with light absorption up to 1000 nm for efficient and low-energy loss organic solar cells. <i>Materials Today Energy</i> , 2022, 24, 100938.	2.5	16
229	A linear 2D-conjugated polymer based on 4,8-bis(4-chloro-5-tripropylsilyl-thiophen-2-yl)benzo[1,2- <i>b</i> :4,5- <i>b'</i>]dithiophene (BDT-T-SiCl) for low voltage loss organic photovoltaics. <i>Journal of Materials Chemistry A</i> , 2022, 10, 9869-9877.	5.2	17
230	A comparison of the positional effect of difluorination and the synergistic effect of siloxane-terminated side chains on benzodithiophene-based conjugated polymers for efficient photovoltaic application. <i>Journal of Materials Chemistry C</i> , 2022, 10, 7189-7200.	2.7	3
231	An asymmetric wide-bandgap acceptor simultaneously enabling highly efficient single-junction and tandem organic solar cells. <i>Energy and Environmental Science</i> , 2022, 15, 1585-1593.	15.6	89
232	Highly efficient organic solar cells with superior deformability enabled by diluting the small molecule acceptor content. <i>Journal of Materials Chemistry A</i> , 2022, 10, 8293-8302.	5.2	10
233	Cascaded energy landscape as a key driver for slow yet efficient charge separation with small energy offset in organic solar cells. <i>Energy and Environmental Science</i> , 2022, 15, 1545-1555.	15.6	53
234	A New PEDOT Derivative for Efficient Organic Solar Cell with a Fill Factor of 0.80. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	52

#	ARTICLE	IF	CITATIONS
235	Binding Energy of Triplet Excitons in Nonfullerene Acceptors: The Effects of Fluorination and Chlorination. <i>Journal of Physical Chemistry A</i> , 2022, 126, 1393-1402.	1.1	6
236	Electroactive Ionenes: Efficient Interlayer Materials in Organic Photovoltaics. <i>Accounts of Chemical Research</i> , 2022, 55, 1097-1108.	7.6	17
240	One-Pot Synthesis of Fully Conjugated Amphiphilic Block Copolymers Using Asymmetrically Functionalized Push-Pull Monomers. <i>Macromolecules</i> , 2022, 55, 2872-2881.	2.2	1
241	Synthesis and properties of a novel decacyclic <i>S</i> , <i>N</i> -heteroacene. <i>Acta Crystallographica Section C, Structural Chemistry</i> , 2022, 78, 250-256.	0.2	0
242	Tuning Morphology of Active Layer by using a Wide Bandgap Oligomer-Like Donor Enables Organic Solar Cells with Over 18% Efficiency. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	45
243	Computational chemistry advances on benzodithiophene-based organic photovoltaic materials. <i>Critical Reviews in Solid State and Materials Sciences</i> , 2023, 48, 333-360.	6.8	5
244	Geminate and Nongeminate Pathways for Triplet Exciton Formation in Organic Solar Cells. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	22
245	Hole/Electron Transporting Materials for Nonfullerene Organic Solar Cells. <i>Chemistry - A European Journal</i> , 2022, 28, .	1.7	20
246	Supramolecular <i>p/n</i> -heterojunction of C ₆₀ -functionalized bis(merocyanine) quadruple stack: A model system for charge carrier separation and recombination in organic solar cells. <i>Natural Sciences</i> , 2022, 2, .	1.0	0
247	Theory-Guided Material Design Enabling High-Performance Multifunctional Semitransparent Organic Photovoltaics without Optical Modulations. <i>Advanced Materials</i> , 2022, 34, e2200337.	11.1	42
248	Pushing the Efficiency of High Open-Circuit Voltage Binary Organic Solar Cells by Vertical Morphology Tuning. <i>Advanced Science</i> , 2022, 9, e2200578.	5.6	51
249	Recent Progress in Indacenodithiophene-Based Acceptor Materials for Non-Fullerene Organic Solar Cells. <i>Topics in Current Chemistry</i> , 2022, 380, 18.	3.0	11
250	Revealing the Sole Impact of Acceptor's Molecular Conformation to Energy Loss and Device Performance of Organic Solar Cells through Positional Isomers. <i>Advanced Science</i> , 2022, 9, e2103428.	5.6	9
251	Non-Fused Polymerized Small Molecular Acceptors for Efficient All-Polymer Solar Cells. <i>Solar Rrl</i> , 2022, 6, .	3.1	18
252	Properties and Applications of Copper(I) Thiocyanate Hole-Transport Interlayers Processed from Different Solvents. <i>Advanced Electronic Materials</i> , 2022, 8, .	2.6	9
253	Symmetrically Fluorinated Benzo[1,2- <i>b</i> :4,5- <i>b'</i>]dithiophene-Cored Donor for High-Performance All-Small-Molecule Organic Solar Cells with Improved Active Layer Morphology and Crystallinity. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 14532-14540.	4.0	10
254	Quasi-Bilayer All-Small-Molecule Solar Cells Based on a Chlorophyll Derivative and Non-Fullerene Materials with Untraditional Energy Alignments. <i>Journal of Physical Chemistry C</i> , 2022, 126, 4807-4814.	1.5	2
255	Desired open-circuit voltage increase enables efficiencies approaching 19% in symmetric-asymmetric molecule ternary organic photovoltaics. <i>Joule</i> , 2022, 6, 662-675.	11.7	212

#	ARTICLE	IF	CITATIONS
256	Nonalloy Model-Based Ternary Organic Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 12461-12468.	4.0	8
257	Insight the difference of free charge generation in two small molecular acceptor organic solar cells. Solar Energy, 2022, 235, 163-169.	2.9	1
258	Isogenous Asymmetric "Symmetric Acceptors Enable Efficient Ternary Organic Solar Cells with Thin and 300 nm Thick Active Layers Simultaneously. Advanced Functional Materials, 2022, 32, .	7.8	75
259	Oligomeric Acceptor: A "Two-in-One" Strategy to Bridge Small Molecules and Polymers for Stable Solar Devices. Angewandte Chemie, 0, , .	1.6	1
260	Elastomeric Indoor Organic Photovoltaics with Superb Photothermal Endurance. Advanced Functional Materials, 2022, 32, .	7.8	14
261	Carrier Generation Engineering toward 18% Efficiency Organic Solar Cells by Controlling Film Microstructure. Advanced Energy Materials, 2022, 12, .	10.2	25
262	Ferroelectric Polymer Drives Performance Enhancement of Non-fullerene Organic Solar Cells. Angewandte Chemie, 2022, 134, .	1.6	3
263	Green Solvent-Processed 17% Efficient Polymer Solar Cell Achieved Synergistically by Aligning Energy Levels and Improving Morphology with the Quaternary Strategy. Solar Rrl, 2022, 6, .	3.1	5
264	Oligomeric Acceptor: A "Two-in-One" Strategy to Bridge Small Molecules and Polymers for Stable Solar Devices. Angewandte Chemie - International Edition, 2022, 61, .	7.2	64
265	Two Better Compatible and Complementary Light Absorption Polymer Donors Contributing Synergistically to High Efficiency and Better Thermally Stable Ternary Organic Solar Cells. ACS Applied Energy Materials, 0, , .	2.5	7
266	Ferroelectric Polymer Drives Performance Enhancement of Non-fullerene Organic Solar Cells. Angewandte Chemie - International Edition, 2022, 61, .	7.2	29
267	Circular Discovery in Small Molecule and Conjugated Polymer Synthetic Methodology. Journal of the American Chemical Society, 2022, 144, 6123-6135.	6.6	25
268	Performances of two side-chain modified medium-bandgap alternating polymers with main-chain twisted non-fullerene acceptor. Synthetic Metals, 2022, 286, 117038.	2.1	0
269	Solid solution effect boosts the photovoltaic performance of PCDTBT-based organic solar cells. Organic Electronics, 2022, 104, 106489.	1.4	1
270	Morphology manipulation for highly miscible photovoltaic blend of carboxylate-substituted polythiophene:Y6. Dyes and Pigments, 2022, 202, 110269.	2.0	2
271	n-Doping of photoactive layer in binary organic solar cells realizes over 18.3% efficiency. Nano Energy, 2022, 96, 107133.	8.2	28
272	Block copolymer compatibilizer for efficient and stable nonfullerene organic solar cells. Chemical Engineering Journal, 2022, 438, 135543.	6.6	26
273	Dual-functional ambipolar non-fused ring electron acceptor as third component and designing similar molecular structure between two acceptors for high-performance ternary organic solar cells. Nano Energy, 2022, 98, 107186.	8.2	29

#	ARTICLE	IF	CITATIONS
274	Optical dispersion and photovoltaic performance of safranin thin films solar cells in hybrid organic-inorganic isotype heterojunction configuration. <i>Materials Research Bulletin</i> , 2022, 151, 111824.	2.7	17
275	P3HT-Based Organic Solar Cells with a Photoresponse to 1000 nm Enabled by Narrow Band Gap Nonfullerene Acceptors with High HOMO Levels. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 61487-61495.	4.0	16
276	Enhanced Charge Transport and Broad Absorption Enabling Record 18.13% Efficiency of PM6:Y6 Based Ternary Organic Photovoltaics with a High Fill Factor Over 80%. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	30
277	Dithienobenzothiadiazole-Bridged Nonfullerene Electron Acceptors for Efficient Organic Solar Cells. <i>ACS Applied Polymer Materials</i> , 2023, 5, 2298-2306.	2.0	6
278	Elucidating Charge Generation in Green-Solvent Processed Organic Solar Cells. <i>Molecules</i> , 2021, 26, 7439.	1.7	5
279	Recent progress in organic solar cells (Part I material science). <i>Science China Chemistry</i> , 2022, 65, 224-268.	4.2	349
280	Toward High-Performance Semitransparent Organic Photovoltaics with Narrow-Bandgap Donors and Non-Fullerene Acceptors. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	45
281	Miscibility-Controlled Mechanical and Photovoltaic Properties in Double-Cable Conjugated Polymer/Insulating Polymer Composites. <i>Macromolecules</i> , 2022, 55, 322-330.	2.2	16
282	<i>In situ</i> and <i>ex situ</i> investigations on ternary strategy and co-solvent effects towards high-efficiency organic solar cells. <i>Energy and Environmental Science</i> , 2022, 15, 2479-2488.	15.6	84
283	An Aggregation-Suppressed Polymer Blending Strategy Enables High-Performance Organic and Quantum Dot Hybrid Solar Cells. <i>Small</i> , 2022, 18, e2201387.	5.2	17
284	Fully solution-processed, light-weight, and ultraflexible organic solar cells. <i>Flexible and Printed Electronics</i> , 2022, 7, 025003.	1.5	10
285	Boosting the Photovoltaic Performance and Thermal Stability of Organic Solar Cells via an Insulating Fluoropolymer Additive. <i>ChemPlusChem</i> , 2022, 87, e202200045.	1.3	1
286	Photocatalytic hydrogen evolution based on carbon nitride and organic semiconductors. <i>Nanotechnology</i> , 2022, 33, 322001.	1.3	7
287	Relationship between molecular properties and degradation mechanisms of organic solar cells based on bis-adducts of phenyl-C ₆₁ butyric acid methyl ester. <i>Journal of Materials Chemistry C</i> , 2022, 10, 7875-7885.	2.7	2
288	Donor-Acceptor Copolymers with Rationally Regulated Side Chain Orientation for Polymer Solar Cells Processed by Non-Halogenated Solvent. <i>Organic Materials</i> , 2022, 4, 18-27.	1.0	3
289	High-Efficiency Microcavity Semitransparent Organic Photovoltaics with Simultaneously Improved Average Visible Transmittance and Color Rendering Index. <i>Solar Rrl</i> , 0, , 2200174.	3.1	8
290	Single-junction organic solar cells with over 19% efficiency enabled by a refined double-fibril network morphology. <i>Nature Materials</i> , 2022, 21, 656-663.	13.3	1,214
291	Comparing three numerical methods for current-voltage characteristics simulations of organic solar cells considering surface recombination effects. <i>Optical and Quantum Electronics</i> , 2022, 54, .	1.5	0

#	ARTICLE	IF	CITATIONS
292	Vertically optimized phase separation with improved exciton diffusion enables efficient organic solar cells with thick active layers. <i>Nature Communications</i> , 2022, 13, 2369.	5.8	122
293	Asymmetric electron acceptor enables highly luminescent organic solar cells with certified efficiency over 18%. <i>Nature Communications</i> , 2022, 13, 2598.	5.8	113
294	Anion-Doped Thickness-Insensitive Electron Transport Layer for Efficient Organic Solar Cells. <i>Macromolecular Rapid Communications</i> , 2022, 43, e2200190.	2.0	2
295	Novel Third Components with (Thio)barbituric Acid as the End Groups Improving the Efficiency of Ternary Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 23701-23708.	4.0	13
296	Fluid Mechanics Inspired Sequential Blade-Coating for High-Performance Large-Area Organic Solar Modules. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	36
297	Perylene bisimides-based molecular dyads with different alkyl linkers for single-component organic solar cells. <i>Dyes and Pigments</i> , 2022, 203, 110355.	2.0	6
298	A long-term stable organic semiconductor photocathode-based photoelectrochemical module system for hydrogen production. <i>Journal of Materials Chemistry A</i> , 2022, 10, 13247-13253.	5.2	5
299	Control of Phase Separation and Crystallization for High-Efficiency and Mechanically Deformable Organic Solar Cells. <i>Energy and Environmental Materials</i> , 2023, 6, .	7.3	6
300	Probing the Contribution of Lateral Pathways to Out-of-Plane Charge Transport in Organic Bulk Heterojunctions. <i>Advanced Electronic Materials</i> , 2022, 8, .	2.6	4
301	Monodispersed ZnO nanoink and ultra-smooth large-area ZnO films for high performance and stable organic solar cells. <i>Flexible and Printed Electronics</i> , 2022, 7, 025013.	1.5	9
302	Simultaneous Tuning of Alkyl Chains and End Groups in Non-fused Ring Electron Acceptors for Efficient and Stable Organic Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 24374-24385.	4.0	28
303	Achieving High-Efficiency Organic Photovoltaics from a New Completely Amorphous Donor Polymer. <i>Chemistry of Materials</i> , 2022, 34, 5103-5115.	3.2	9
304	High-Performance Non-fullerene organic solar cells enabled by noncovalent Conformational locks and Side-Chain engineering. <i>Chemical Engineering Journal</i> , 2022, 446, 137206.	6.6	10
305	Tunable Photovoltaics: Adapting Solar Cell Technologies to Versatile Applications. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	27
306	Subtle Effect of Alkyl Substituted π -Bridges on Dibenzo[a,c]phenazine Based Polymer Donors towards Enhanced Photovoltaic Performance. <i>Chinese Journal of Polymer Science (English Edition)</i> , 0, , .	2.0	1
307	Recent progress in organic solar cells (Part II device engineering). <i>Science China Chemistry</i> , 2022, 65, 1457-1497.	4.2	157
308	Complex multilength-scale morphology in organic photovoltaics. <i>Trends in Chemistry</i> , 2022, 4, 699-713.	4.4	13
309	Effect of π -Spacer Length in Novel Xanthene-Linked $\langle \text{D}^{\pi} \text{I}^{\pi} \text{A} \rangle_{2}$ -Type Danchoring Dyes for Dye-Sensitized Solar Cells. <i>ACS Applied Energy Materials</i> , 2022, 5, 6764-6771.	2.5	2

#	ARTICLE	IF	CITATIONS
310	Enhancing the organic solar cells performances by elevating cesium carboxylate content of graphene oxide based cathode interface layer. <i>Surfaces and Interfaces</i> , 2022, 31, 102068.	1.5	1
311	PTB7 and PTB7-Th as universal polymers to evaluate materials development aspects of organic solar cells including interfacial layers, new fullerenes, and non-fullerene electron acceptors. <i>Synthetic Metals</i> , 2022, 287, 117088.	2.1	6
312	Modulating the molecular orientation of linear benzodifuran-based isomeric polymers by exchanging the positions of chlorine and fluorine atoms. <i>Nano Energy</i> , 2022, 99, 107413.	8.2	27
313	Recent advances in small molecular design for high performance non-fullerene organic solar cells. <i>Molecular Systems Design and Engineering</i> , 2022, 7, 832-855.	1.7	12
314	Length Effect of Alkyl Linkers on the Crystalline Transition in Naphthalene Diimide-Based Double-Cable Conjugated Polymers. <i>Macromolecules</i> , 2022, 55, 5188-5196.	2.2	7
315	Mechanical-robust and recyclable polyimide substrates coordinated with cyclic Ti-oxo cluster for flexible organic solar cells. <i>Npj Flexible Electronics</i> , 2022, 6, .	5.1	17
316	18.01% Efficiency organic solar cell and 2.53% light utilization efficiency semitransparent organic solar cell enabled by optimizing PM6:Y6 active layer morphology. <i>Science China Chemistry</i> , 2022, 65, 1615-1622.	4.2	26
317	Hammer throw-liked hybrid cyclic and alkyl chains: A new side chain engineering for over 18 % efficiency organic solar cells. <i>Nano Energy</i> , 2022, 101, 107538.	8.2	27
318	Introduction of Water Treatment in Slot-Die Coated Organic Solar Cells to Improve Device Performance and Stability. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	5
319	Molecular-Shape-Controlled Nonfused Ring Electron Acceptors for High-Performance Organic Solar Cells with Tunable Phase Morphology. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 28807-28815.	4.0	16
320	Highly efficient fiber-shaped organic solar cells toward wearable flexible electronics. <i>Npj Flexible Electronics</i> , 2022, 6, .	5.1	26
321	Heterogeneous lattice strain strengthening in severely distorted crystalline solids. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	3.3	27
322	Ternary organic solar cells: Insights into charge and energy transfer processes. <i>Applied Physics Letters</i> , 2022, 120, .	1.5	3
323	Naphthalene as a Thermal-Annealing-Free Volatile Solid Additive in Non-Fullerene Polymer Solar Cells with Improved Performance and Reproducibility. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	29
324	Modulating the nanoscale morphology on carboxylate-pyrazine containing terpolymer toward 17.8% efficiency organic solar cells with enhanced thermal stability. <i>Chemical Engineering Journal</i> , 2022, 446, 137424.	6.6	14
325	Highly efficient layer-by-layer deposition solar cells achieved with halogen-free solvents and molecular engineering of non-fullerene acceptors. <i>Chemical Engineering Journal</i> , 2022, 448, 137621.	6.6	12
326	Spontaneous carrier generation and low recombination in high-efficiency non-fullerene solar cells. <i>Energy and Environmental Science</i> , 2022, 15, 3483-3493.	15.6	23
327	Self-Assembly Metal Chelate as Ultraviolet Filterable Interface Layer for Efficient Organic Solar Cells. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	7

#	ARTICLE	IF	CITATIONS
328	Planarized Polymer Acceptor Featuring High Electron Mobility for Efficient All-Polymer Solar Cells. Chinese Journal of Polymer Science (English Edition), 2022, 40, 968-978.	2.0	3
329	The structure-performance correlation of bulk-heterojunction organic solar cells with multi-length-scale morphology. Science China Chemistry, 2022, 65, 1634-1641.	4.2	5
330	Non-Halogenated Solvents and Layer-by-Layer Blade-Coated Ternary Organic Solar Cells via Cascade Acceptor Adjusting Morphology and Crystallization to Reduce Energy Loss. ACS Applied Materials & Interfaces, 2022, 14, 31054-31065.	4.0	15
331	High-Efficiency Ternary Organic Solar Cells with a Good Figure-of-Merit Enabled by Two Low-Cost Donor Polymers. ACS Energy Letters, 2022, 7, 2547-2556.	8.8	109
332	Targeted Adjusting Molecular Arrangement in Organic Solar Cells via a Universal Solid Additive. Advanced Functional Materials, 2022, 32, .	7.8	11
333	Highly Efficient Layer-by-Layer Processed Quaternary Organic Solar Cells with Improved Charge Transport and Reduced Energy Loss. Solar Rrl, 2022, 6, .	3.1	10
334	New Insights into Hybrid Materials Based on Conductive Polymers and Their Use in Energy-Related Applications. Materials, 2022, 15, 4928.	1.3	1
335	Traps and transport resistance are the next frontiers for stable non-fullerene acceptor solar cells. Nature Communications, 2022, 13, .	5.8	23
336	Organic materials based solar cells. Materials Today: Proceedings, 2022, , .	0.9	3
337	Recent Progress of Y6-Derived Asymmetric Fused Ring Electron Acceptors. Advanced Functional Materials, 2022, 32, .	7.8	114
338	Revealing aggregation of non-fullerene acceptors in intermixed phase by ultraviolet-visible absorption spectroscopy. Cell Reports Physical Science, 2022, 3, 100983.	2.8	6
339	Nanomorphology dependence of the environmental stability of organic solar cells. NPC Asia Materials, 2022, 14, .	3.8	3
340	High-Performance Semitransparent Organic Solar Cells: From Competing Indexes of Transparency and Efficiency Perspectives. Advanced Science, 2022, 9, .	5.6	31
341	Synergetic Strategy for Highly Efficient and Super Flexible Thick-film Organic Solar Cells. Advanced Energy Materials, 2022, 12, .	10.2	27
342	Interplay between charge separation and hole back transfer determines the efficiency of non-fullerene organic solar cells with low energy level offset. Organic Electronics, 2022, 108, 106601.	1.4	4
343	Isomerization of Noncovalently Conformational Lock in Nonfused Electron Acceptor toward Efficient Organic Solar Cells. ACS Applied Energy Materials, 2022, 5, 10224-10232.	2.5	11
344	Organic Solar Cell With Efficiency Over 20% and OC Exceeding 2.1 V Enabled by Tandem With All-inorganic Perovskite and Thermal Annealing-Free Process. Advanced Science, 2022, 9, .	5.6	27
345	Spectroelectrochemically determined energy levels of PM6:Y6 blends and their relevance to solar cell performance. Journal of Materials Chemistry C, 2022, 10, 11565-11578.	2.7	14

#	ARTICLE	IF	CITATIONS
346	Design Rules of the Mixing Phase and Impacts on Device Performance in High-Efficiency Organic Photovoltaics. <i>Research</i> , 2022, 2022, .	2.8	2
347	Highly Efficient Organic Solar Cells Enabled by the Incorporation of a Sulfonated Graphene Doped PEDOT:PSS Interlayer. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 34814-34821.	4.0	20
348	Renewed Prospects for Organic Photovoltaics. <i>Chemical Reviews</i> , 2022, 122, 14180-14274.	23.0	323
349	Achieving and Understanding of Highly Efficient Ternary Organic Photovoltaics: From Morphology and Energy Loss to Working Mechanism. <i>Small Methods</i> , 2022, 6, .	4.6	16
350	Understanding interfacial energy structures in organic solar cells using photoelectron spectroscopy: A review. <i>Journal of Applied Physics</i> , 2022, 132, .	1.1	3
351	Efficient Polymer Solar Cells Facilitated by Halogenated Substituted Wide-Bandgap Polymers and a Backbone Twisted Low-Bandgap Acceptor. <i>ChemistrySelect</i> , 2022, 7, .	0.7	0
352	Over 19.2% Efficiency of Organic Solar Cells Enabled by Precisely Tuning the Charge Transfer State Via Donor Alloy Strategy. <i>Advanced Science</i> , 2022, 9, .	5.6	93
353	A Random Terpolymer Donor with Similar Monomers Enables 18.28% Efficiency Binary Organic Solar Cells with Well Polymer Batch Reproducibility. <i>ACS Energy Letters</i> , 2022, 7, 3045-3057.	8.8	46
354	High-performance scalable organic photovoltaics with high thickness tolerance from 1 Åm ² to above 50 Åm ² . <i>Joule</i> , 2022, 6, 2406-2422.	11.7	24
355	Managing Challenges in Organic Photovoltaics: Properties and Roles of Donor/Acceptor Interfaces. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	15
356	Fundamentals of organic solar cells: A review on mobility issues and measurement methods. <i>Optik</i> , 2022, 267, 169730.	1.4	7
357	Efficient ternary organic photovoltaic using polymers donor with two absorption peaks and similar HOMO levels as third component materials. <i>Materials Today Chemistry</i> , 2022, 26, 101094.	1.7	1
358	A new perspective to develop regiorandom polymer acceptors with high active layer ductility, excellent device stability, and high efficiency approaching 17%. , 2023, 5, .		46
359	Investigating the morphology of bulk heterojunctions by laser photoemission electron microscopy. <i>Polymer Testing</i> , 2022, 116, 107791.	2.3	0
360	Highly efficient layer-by-layer large-scale manufacturing of polymer solar cells with minimized device-to-device variations by employing benzothiadiazole-based solid additives. <i>Journal of Materials Chemistry A</i> , 2022, 10, 20606-20615.	5.2	17
361	High-performance pseudo-bilayer ternary organic solar cells with PC ₇₁ BM as the third component. <i>Journal of Materials Chemistry A</i> , 2022, 10, 23124-23133.	5.2	12
362	Low energy loss (0.42 eV) and efficiency over 15% enabled by non-fullerene acceptors containing <i>N</i> -bis(trifluoromethyl)phenylbenzotriazole as the core in binary solar cells. <i>Journal of Materials Chemistry C</i> , 2022, 10, 13174-13182.	2.7	4
363	Bulk heterojunction organic photovoltaic cells based on D-A type BODIPY small molecules as non-fullerene acceptors. <i>Journal of Materials Chemistry C</i> , 2022, 10, 12776-12788.	2.7	12

#	ARTICLE	IF	CITATIONS
364	Side chain engineering of indacenodithieno[3,2- <i>b</i>]thiophene (IDTT)-based wide bandgap polymers for non-fullerene organic photovoltaics. <i>Journal of Materials Chemistry C</i> , 2022, 10, 14633-14642.	2.7	4
365	Solar Cell Technologies: An Overview. <i>Energy Systems in Electrical Engineering</i> , 2022, , 1-59.	0.5	0
366	Semitransparent organic solar cells with light utilization efficiency of 4% using fused-cyclopentadithiophene based near-infrared polymer donor. <i>Chemical Engineering Journal</i> , 2023, 452, 139423.	6.6	10
367	Efficient Ternary Polymer Solar Cells with Two Structurally Similar Fullerene-Free Acceptors to Redshift Absorption Peaks and Improve Exciton Dissociation. <i>ACS Applied Energy Materials</i> , 2022, 5, 11553-11560.	2.5	1
368	Surface recombination influence on photocurrent spectra of organic photovoltaic devices. <i>Optical and Quantum Electronics</i> , 2022, 54, .	1.5	0
369	Multicomponent Solar Cells with High Fill Factors and Efficiencies Based on Non-Fullerene Acceptor Isomers. <i>Molecules</i> , 2022, 27, 5802.	1.7	2
370	Organic Photovoltaic Cells Based on Nonhalogenated Polymer Donors and Nonhalogenated A-DA ² D-A-Type Nonfullerene Acceptors with High V_{OC} and Low Nonradiative Voltage Loss. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 41296-41303.	4.0	14
371	Surface Charge and Nanoparticle Chromophore Coupling to Achieve Fast Exciton Quenching and Efficient Charge Separation in Photoacoustic Imaging (PAI) and Photothermal therapy (PTT). <i>Advanced Therapeutics</i> , 2022, 5, .	1.6	2
372	ZnO Surface Passivation with Glucose Enables Simultaneously Improving Efficiency and Stability of Inverted Polymer: Non-fullerene Solar Cells. <i>Chinese Journal of Polymer Science (English Edition)</i> , 2022, 40, 1594-1603.	2.0	4
373	Recent Advances in the Research of Photo-Assisted Lithium-Based Rechargeable Batteries. <i>Chemistry - A European Journal</i> , 2022, 28, .	1.7	9
374	Precise Control of Selenium Functionalization in Non-Fullerene Acceptors Enabling High-Efficiency Organic Solar Cells. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	3
375	Multiphase Morphology with Enhanced Carrier Lifetime via Quaternary Strategy Enables High-Efficiency, Thick-Film, and Large-Area Organic Photovoltaics. <i>Advanced Materials</i> , 2022, 34, .	11.1	84
376	Precise Control of Selenium Functionalization in Non-Fullerene Acceptors Enabling High-Efficiency Organic Solar Cells. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	27
377	Non-Halogenated Solvent-Processed High-Efficiency Polymer Solar Cells: the Role of Diphenyl Ether in Morphology, Light-Trapping, Transport Properties. <i>Transactions of Tianjin University</i> , 0, , .	3.3	1
378	Facile access to high-performance organic solar cells through an A-D1-D2-A type unfused non-fullerene acceptors. <i>Dyes and Pigments</i> , 2023, 208, 110785.	2.0	5
379	Ternary organic photovoltaic using long wavelength light absorption polymer as guest donor with enhance photovoltaic performance. <i>Materials Today Chemistry</i> , 2022, 26, 101190.	1.7	1
380	Regulation of Polymer Configurations Enables Green Solvent-Processed Large-Area Binary All-Polymer Solar Cells With Breakthrough Performance and High Efficiency Stretchability Factor. <i>Advanced Materials</i> , 2023, 35, .	11.1	34
381	Importance of structural hinderance in performance-stability equilibrium of organic photovoltaics. <i>Nature Communications</i> , 2022, 13, .	5.8	50

#	ARTICLE	IF	CITATIONS
382	Ternary NiCuS electrocatalyst for iodide/triiodide reduction in dye-sensitized solar cells. <i>Materials Today: Proceedings</i> , 2022, , .	0.9	1
383	Highly Efficient Nonfullerene Organic Solar Cells with Nickel Oxide Hole-Transporting Layer: Using Dipole-Induced Energy-Level Modification. <i>Energy Technology</i> , 2022, 10, .	1.8	1
384	Design and Synthesis of <i>N</i> -Alkylaniline-Substituted Low Band-Gap Electron Acceptors for Photovoltaic Application. <i>Chinese Journal of Chemistry</i> , 2023, 41, 424-430.	2.6	14
385	Latest progress on fully non-fused electron acceptors for high-performance organic solar cells. <i>Chinese Chemical Letters</i> , 2023, 34, 107968.	4.8	13
386	Picosecond Charge-Transfer-State Dynamics in Wide Band Gap Polymer-Non-Fullerene Small-Molecule Blend Films Investigated via Transient Infrared Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 10418-10423.	2.1	1
387	An extensive XPS analysis on sensitized PBDB-T-SF thin films for photovoltaic applications. <i>Materials Today Communications</i> , 2022, 33, 104619.	0.9	1
388	Unraveling the Stretch-Induced Microstructural Evolution and Morphology-Stretchability Relationships of High-Performance Ternary Organic Photovoltaic Blends. <i>Advanced Materials</i> , 2023, 35, .	11.1	27
389	Improving the Photovoltaic Performance of Dithienobenzodithiophene-Based Polymers via Addition of an Additional Eluent in the Soxhlet Extraction Process. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 52244-52252.	4.0	4
390	What's Next for Organic Solar Cells? The Frontiers and Challenges. <i>Advanced Energy and Sustainability Research</i> , 2023, 4, .	2.8	9
391	Revealing Photodegradation Pathways of Organic Solar Cells by Spectrally Resolved Accelerated Lifetime Analysis. <i>Advanced Energy Materials</i> , 2023, 13, .	10.2	9
392	Charge-transfer states in photosynthesis and organic solar cells. <i>Frontiers in Photonics</i> , 0, 3, .	1.1	2
393	High-Performance Ternary Organic Photovoltaics Incorporating Small-Molecule Acceptors with an Unfused-Ring Core. <i>ACS Applied Energy Materials</i> , 2022, 5, 15423-15433.	2.5	7
394	Study on Optical Efficiency of Organic Photovoltaic Devices with Multi-Tip Metal Nanostructures. <i>Defect and Diffusion Forum</i> , 0, 421, 83-89.	0.4	0
395	Nonhalogenated Solution-Processed Donor-Dispersed Planar Heterojunction Organic Solar Cells with Enhanced Homogeneity in Vertical Phase Separation. <i>Solar Rrl</i> , 2023, 7, .	3.1	6
396	Regulating Charge Carrier Recombination in the Interconnecting Layer to Boost the Efficiency and Stability of Monolithic Perovskite/Organic Tandem Solar Cells. <i>Advanced Materials</i> , 2023, 35, .	11.1	15
397	Effects of stirring temperature of P3HT:PCBM solution on device performance of organic photovoltaics. <i>Journal of the Korean Physical Society</i> , 0, , .	0.3	0
398	Optimized Morphology Enables High-Efficiency Nonfullerene Ternary Organic Solar Cells. <i>Langmuir</i> , 2023, 39, 75-82.	1.6	1
399	Ternary PM6:Y6 Solar Cells with Single-Walled Carbon Nanotubes. <i>Small Science</i> , 2023, 3, .	5.8	1

#	ARTICLE	IF	CITATIONS
400	Printed Organic Photovoltaic Modules on Transferable Ultrathin Substrates as Additive Power Sources. <i>Small Methods</i> , 2023, 7, .	4.6	10
401	A Simple Cathode Interfacial Material Performs Well in Organic Solar Cells. <i>Energy Technology</i> , 0, , 2200986.	1.8	0
402	Guided Growth Ultrathin Metal Film Enabled Efficient Semi-transparent Organic Solar Cells. <i>Advanced Energy Materials</i> , 2023, 13, .	10.2	13
403	Film Formation Kinetics of Polymer Donor and Nonfullerene Acceptor Active Layers During Printing Out of 1,2,4-trimethylbenzene in Ambient Conditions. <i>Solar Rrl</i> , 2023, 7, .	3.1	1
404	Versatile Processability by Breaking the Symmetrical Chemical Structure of Nonfullerene Acceptors. <i>Solar Rrl</i> , 0, , 2201012.	3.1	1
405	Organic Solar Cells: Physical Principle and Recent Advances. <i>Chemistry - an Asian Journal</i> , 2023, 18, .	1.7	16
406	Medium Bandgap Nonfullerene Acceptor for Efficient Ternary Polymer Solar Cells with High Open-Circuit Voltage. <i>ACS Omega</i> , 2023, 8, 1989-2000.	1.6	0
407	Efficiency Improvement of Semitransparent Polymer Solar Cells with Invariable Color Render Index. <i>Journal of Electronic Materials</i> , 0, , .	1.0	0
408	Medium Bandgap Polymers for Efficient Non-Fullerene Polymer Solar Cells—An In-Depth Study of Structural Diversity of Polymer Structure. <i>International Journal of Molecular Sciences</i> , 2023, 24, 522.	1.8	3
409	Recent Developments of Polymer Solar Cells with Photovoltaic Performance over 17%. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	38
410	Benzothiadiazole-based materials for organic solar cells. <i>Chinese Chemical Letters</i> , 2024, 35, 108438.	4.8	1
411	Understanding Causalities in Organic Photovoltaics Device Degradation in a Machine-Learning-Driven High-Throughput Platform. <i>Advanced Materials</i> , 0, , .	11.1	10
412	A new BODIPY dimer containing carbazole group as a small molecule donor for ternary organic solar cells with the PCE up to 14.97%. <i>Dyes and Pigments</i> , 2023, 215, 111297.	2.0	5
413	Structural Fusion Yields Guest Acceptors that Enable Ternary Organic Solar Cells with 18.77% Efficiency. <i>Angewandte Chemie</i> , 2023, 135, .	1.6	0
414	Structural Fusion Yields Guest Acceptors that Enable Ternary Organic Solar Cells with 18.77% Efficiency. <i>Angewandte Chemie - International Edition</i> , 2023, 62, .	7.2	19
415	Charge-Separated States Determined Photoinduced Electron Transfer Efficiency in a D-D-A System in an External Electric Field. <i>Journal of Physical Chemistry C</i> , 2023, 127, 2805-2817.	1.5	2
416	Optical interference on the measurement of film-depth-dependent light absorption spectroscopy and a correction approach. <i>Review of Scientific Instruments</i> , 2023, 94, 023907.	0.6	0
417	The Multiplicity of π - π Interactions of Fused-Ring Electron Acceptor Polymorphs on the Exciton Migration and Charge Transport. <i>Journal of Physical Chemistry Letters</i> , 2023, 14, 2331-2338.	2.1	4

#	ARTICLE	IF	CITATIONS
418	Compromising Charge Generation and Recombination of Organic Photovoltaics with Mixed Diluent Strategy for Certified 19.4% Efficiency. <i>Advanced Materials</i> , 2023, 35, .	11.1	116
419	Interface Engineering for Highly Efficient Organic Solar Cells. <i>Advanced Materials</i> , 0, , .	11.1	40
420	Highlights of mainstream solar cell efficiencies in 2022. <i>Frontiers in Energy</i> , 2023, 17, 9-15.	1.2	9
421	Intrinsic Advantage of Fusedâ€Ring Nonfullerene Acceptorâ€Based Organic Solar Cells to Reduce Voltage Loss. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2023, 220, .	0.8	1
422	N-Annulated Perylene Diimide Non-Fullerene Acceptors for Organic Photovoltaics. <i>Colorants</i> , 2023, 2, 151-178.	0.9	7
423	Understanding Improved Performance of Vacuum-Deposited All Small-Molecule Organic Solar Cells Upon Postprocessing Thermal Treatment. <i>IEEE Journal of Photovoltaics</i> , 2023, 13, 411-418.	1.5	1
424	Dithienobenzoselenadiazole-Based Polymer Donors with Tuned Side Chains for Efficient Polymer Solar Cells. <i>ACS Applied Energy Materials</i> , 2023, 6, 4079-4088.	2.5	4
425	Subgap Absorption in Organic Semiconductors. <i>Journal of Physical Chemistry Letters</i> , 2023, 14, 3174-3185.	2.1	3
426	Selective fluorination on donor and acceptor for management of efficiency and energy loss in non-fullerene organic photovoltaics. <i>Science China Chemistry</i> , 2023, 66, 1190-1200.	4.2	6
427	Charge Concentration Limits the Hydrogen Evolution Rate in Organic Nanoparticle Photocatalysts. <i>Advanced Materials</i> , 0, , .	11.1	3
428	19.31% binary organic solar cell and low non-radiative recombination enabled by non-monotonic intermediate state transition. <i>Nature Communications</i> , 2023, 14, .	5.8	146
429	Dithieno[3,2â€f</i>:2â€2,3â€2â€h</i>]quinoxalineâ€Based Photovoltaicâ€Thermoelectric Dualâ€Functional Energyâ€Harvesting Wideâ€Bandgap Polymer and its Backbone Isomer. <i>Small</i> , 2023, 19, .	5.2	8
430	Refined molecular microstructure and optimized carrier management of multicomponent organic photovoltaics toward 19.3% certified efficiency. <i>Energy and Environmental Science</i> , 2023, 16, 2262-2273.	15.6	34
431	An Efficient Oneâ€Arrowâ€Twoâ€Hawks Strategy Achieves High Efficiency and Stable Batch Variance for Benzodifuranâ€based Polymer Solar Cells. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	7
432	Reducing Energy Loss in Polymer Solar Cell through Optimization of Novel Metal Nanocomposite. <i>Energy & Fuels</i> , 2023, 37, 6129-6137.	2.5	0
433	A cluster of bilayer diodes model for bulk heterojunction organic solar cells. <i>Optical and Quantum Electronics</i> , 2023, 55, .	1.5	0
434	Recent Progress in Largeâ€Area Organic Solar Cells. <i>Small Science</i> , 2023, 3, .	5.8	11
435	Lowâ€temperature prepared ZnO layer with electron beam annealing process for enhancing the environmental, thermal and operational stability of organic photovoltaics.. <i>Solar Rrl</i> , 0, , .	3.1	1

#	ARTICLE	IF	CITATIONS
436	Fused polycyclic lactam-based π -conjugated polymers for efficient nonfullerene organic solar cells. <i>Journal of Materials Chemistry A</i> , 2023, 11, 9840-9845.	5.2	3
437	Designing Electron-Deficient Diketone Unit Based Non-Fused Ring Acceptors with Amplified Optoelectronic Features for Highly Efficient Organic Solar Cells: A DFT Study. <i>Molecules</i> , 2023, 28, 3625.	1.7	10
459	A narrow-bandgap non-fullerene acceptor constructed with an S,N-heteroacene up to a dodecamer in size. <i>Journal of Materials Chemistry C</i> , 2023, 11, 12900-12905.	2.7	0
469	The impact of environmental conditions on the performance of polycrystalline photovoltaic panels. <i>AIP Conference Proceedings</i> , 2023, , .	0.3	0
475	Methylammonium-free wide-bandgap metal halide perovskites for tandem photovoltaics. <i>Nature Reviews Materials</i> , 2023, 8, 822-838.	23.3	2
497	Recent Progress in High-Performance Organic Photovoltaic Devices. , 2024, , .		0