He Yan

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267 78 31,033 173 h-index g-index citations papers 16.6 36,815 279 7.54 L-index avg, IF ext. citations ext. papers

#	Paper	IF	Citations
267	Aggregation and morphology control enables multiple cases of high-efficiency polymer solar cells. Nature Communications, 2014 , 5, 5293	17.4	2609
266	A high-mobility electron-transporting polymer for printed transistors. <i>Nature</i> , 2009 , 457, 679-86	50.4	2542
265	Efficient organic solar cells processed from hydrocarbon solvents. <i>Nature Energy</i> , 2016 , 1,	62.3	1876
264	Non-fullerene acceptors for organic solar cells. <i>Nature Reviews Materials</i> , 2018 , 3,	73.3	1634
263	Nonfullerene Acceptor Molecules for Bulk Heterojunction Organic Solar Cells. <i>Chemical Reviews</i> , 2018 , 118, 3447-3507	68.1	1051
262	Fast charge separation in a non-fullerene organic solar cell with a small driving force. <i>Nature Energy</i> , 2016 , 1,	62.3	967
261	Highly stretchable polymer semiconductor films through the nanoconfinement effect. <i>Science</i> , 2017 , 355, 59-64	33.3	651
260	Efficiency enhancement of perovskite solar cells through fast electron extraction: the role of graphene quantum dots. <i>Journal of the American Chemical Society</i> , 2014 , 136, 3760-3	16.4	590
259	Material insights and challenges for non-fullerene organic solar cells based on small molecular acceptors. <i>Nature Energy</i> , 2018 , 3, 720-731	62.3	580
258	Alkyl Chain Tuning of Small Molecule Acceptors for Efficient Organic Solar Cells. <i>Joule</i> , 2019 , 3, 3020-3	033 ;.8	504
257	Naphthalenedicarboximide- vs perylenedicarboximide-based copolymers. Synthesis and semiconducting properties in bottom-gate N-channel organic transistors. <i>Journal of the American Chemical Society</i> , 2009 , 131, 8-9	16.4	501
256	Design rules for minimizing voltage losses in high-efficiency organic solar cells. <i>Nature Materials</i> , 2018 , 17, 703-709	27	500
255	Non-fullerene acceptors with branched side chains and improved molecular packing to exceed 18% efficiency in organic solar cells. <i>Nature Energy</i> , 2021 , 6, 605-613	62.3	457
254	Quantitative relations between interaction parameter, miscibility and function in organic solar cells. <i>Nature Materials</i> , 2018 , 17, 253-260	27	409
253	All-solid-state hybrid solar cells based on a new organometal halide perovskite sensitizer and one-dimensional TiO2 nanowire arrays. <i>Nanoscale</i> , 2013 , 5, 3245-8	7.7	375
252	Low-voltage organic field-effect transistors and inverters enabled by ultrathin cross-linked polymers as gate dielectrics. <i>Journal of the American Chemical Society</i> , 2005 , 127, 10388-95	16.4	369
251	Terthiophene-based D-A polymer with an asymmetric arrangement of alkyl chains that enables efficient polymer solar cells. <i>Journal of the American Chemical Society</i> , 2015 , 137, 14149-57	16.4	358

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250	High-Performance Ternary Organic Solar Cell Enabled by a Thick Active Layer Containing a Liquid Crystalline Small Molecule Donor. <i>Journal of the American Chemical Society</i> , 2017 , 139, 2387-2395	16.4	351
249	High-efficiency non-fullerene organic solar cells enabled by a difluorobenzothiadiazole-based donor polymer combined with a properly matched small molecule acceptor. <i>Energy and Environmental Science</i> , 2015 , 8, 520-525	35.4	350
248	A tetraphenylethylene core-based 3D structure small molecular acceptor enabling efficient non-fullerene organic solar cells. <i>Advanced Materials</i> , 2015 , 27, 1015-20	24	334
247	Donor polymer design enables efficient non-fullerene organic solar cells. <i>Nature Communications</i> , 2016 , 7, 13094	17.4	298
246	A Wide-Bandgap Donor Polymer for Highly Efficient Non-fullerene Organic Solar Cells with a Small Voltage Loss. <i>Journal of the American Chemical Society</i> , 2017 , 139, 6298-6301	16.4	288
245	A monothiophene unit incorporating both fluoro and ester substitution enabling high-performance donor polymers for non-fullerene solar cells with 16.4% efficiency. <i>Energy and Environmental Science</i> , 2019 , 12, 3328-3337	35.4	273
244	High-performance hole-transport layers for polymer light-emitting diodes. Implementation of organosiloxane cross-linking chemistry in polymeric electroluminescent devices. <i>Journal of the American Chemical Society</i> , 2005 , 127, 3172-83	16.4	273
243	Interface Engineering for All-Inorganic CsPbI Br Perovskite Solar Cells with Efficiency over 14. <i>Advanced Materials</i> , 2018 , 30, e1802509	24	269
242	Ring-Fusion of Perylene Diimide Acceptor Enabling Efficient Nonfullerene Organic Solar Cells with a Small Voltage Loss. <i>Journal of the American Chemical Society</i> , 2017 , 139, 16092-16095	16.4	249
241	Improved Performance of All-Polymer Solar Cells Enabled by Naphthodiperylenetetraimide-Based Polymer Acceptor. <i>Advanced Materials</i> , 2017 , 29, 1700309	24	245
240	Fine-Tuning Energy Levels via Asymmetric End Groups Enables Polymer Solar Cells with Efficiencies over 17%. <i>Joule</i> , 2020 , 4, 1236-1247	27.8	237
239	Use of two structurally similar small molecular acceptors enabling ternary organic solar cells with high efficiencies and fill factors. <i>Energy and Environmental Science</i> , 2018 , 11, 3275-3282	35.4	227
238	Delocalization of exciton and electron wavefunction in non-fullerene acceptor molecules enables efficient organic solar cells. <i>Nature Communications</i> , 2020 , 11, 3943	17.4	222
237	High-Performance Non-Fullerene Polymer Solar Cells Based on a Pair of Donor-Acceptor Materials with Complementary Absorption Properties. <i>Advanced Materials</i> , 2015 , 27, 7299-304	24	219
236	High-efficiency all-polymer solar cells based on a pair of crystalline low-bandgap polymers. <i>Advanced Materials</i> , 2014 , 26, 7224-30	24	218
235	Improving open-circuit voltage by a chlorinated polymer donor endows binary organic solar cells efficiencies over 17%. <i>Science China Chemistry</i> , 2020 , 63, 325-330	7.9	213
234	Pronounced Effects of a Triazine Core on Photovoltaic Performance-Efficient Organic Solar Cells Enabled by a PDI Trimer-Based Small Molecular Acceptor. <i>Advanced Materials</i> , 2017 , 29, 1605115	24	205
233	Asymmetrical Ladder-Type Donor-Induced Polar Small Molecule Acceptor to Promote Fill Factors Approaching 77% for High-Performance Nonfullerene Polymer Solar Cells. <i>Advanced Materials</i> , 2018 , 30, e1800052	24	199

232	A Vinylene-Bridged Perylenediimide-Based Polymeric Acceptor Enabling Efficient All-Polymer Solar Cells Processed under Ambient Conditions. <i>Advanced Materials</i> , 2016 , 28, 8483-8489	24	190
231	Mechanically Robust All-Polymer Solar Cells from Narrow Band Gap Acceptors with Hetero-Bridging Atoms. <i>Joule</i> , 2020 , 4, 658-672	27.8	189
230	A nonfullerene acceptor with a 1000 nm absorption edge enables ternary organic solar cells with improved optical and morphological properties and efficiencies over 15%. <i>Energy and Environmental Science</i> , 2019 , 12, 2529-2536	35.4	188
229	Roll-to-Roll Printed Large-Area All-Polymer Solar Cells with 5% Efficiency Based on a Low Crystallinity Conjugated Polymer Blend. <i>Advanced Energy Materials</i> , 2017 , 7, 1602742	21.8	179
228	Design of Donor Polymers with Strong Temperature-Dependent Aggregation Property for Efficient Organic Photovoltaics. <i>Accounts of Chemical Research</i> , 2017 , 50, 2519-2528	24.3	176
227	Miscibility E unction Relations in Organic Solar Cells: Significance of Optimal Miscibility in Relation to Percolation. <i>Advanced Energy Materials</i> , 2018 , 8, 1703058	21.8	175
226	Efficient Nonfullerene Polymer Solar Cells Enabled by a Novel Wide Bandgap Small Molecular Acceptor. <i>Advanced Materials</i> , 2017 , 29, 1606054	24	169
225	Synthesis, Self-Assembly, and Solar Cell Performance of N-Annulated Perylene Diimide Non-Fullerene Acceptors. <i>Chemistry of Materials</i> , 2016 , 28, 7098-7109	9.6	166
224	High performance inverted structure perovskite solar cells based on a PCBM:polystyrene blend electron transport layer. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 9098-9102	13	160
223	Efficient All-Polymer Solar Cells based on a New Polymer Acceptor Achieving 10.3% Power Conversion Efficiency. <i>ACS Energy Letters</i> , 2019 , 4, 417-422	20.1	160
222	Morphology changes upon scaling a high-efficiency, solution-processed solar cell. <i>Energy and Environmental Science</i> , 2016 , 9, 2835-2846	35.4	152
221	Polyfluorene Derivatives are High-Performance Organic Hole-Transporting Materials for Inorganic Transporting Materials, 2014 , 24, 7357-7365	15.6	150
220	Influence of Processing Parameters and Molecular Weight on the Morphology and Properties of High-Performance PffBT4T-2OD:PC71BM Organic Solar Cells. <i>Advanced Energy Materials</i> , 2015 , 5, 15014	4 60 .8	149
219	Multi-scale ordering in highly stretchable polymer semiconducting films. <i>Nature Materials</i> , 2019 , 18, 594	4- <u>46</u> 01	146
218	Precisely Controlling the Position of Bromine on the End Group Enables Well-Regular Polymer Acceptors for All-Polymer Solar Cells with Efficiencies over 15. <i>Advanced Materials</i> , 2020 , 32, e2005942	24	144
217	Reduced Intramolecular Twisting Improves the Performance of 3D Molecular Acceptors in Non-Fullerene Organic Solar Cells. <i>Advanced Materials</i> , 2016 , 28, 8546-8551	24	143
216	15.34% efficiency all-small-molecule organic solar cells with an improved fill factor enabled by a fullerene additive. <i>Energy and Environmental Science</i> , 2020 , 13, 2134-2141	35.4	139
215	Adding a Third Component with Reduced Miscibility and Higher LUMO Level Enables Efficient Ternary Organic Solar Cells. <i>ACS Energy Letters</i> , 2020 , 5, 2711-2720	20.1	137

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Air Stable Cross-Linked Cytop Ultrathin Gate Dielectric for High Yield Low-Voltage Top-Gate Organic Field-Effect Transistors. <i>Chemistry of Materials</i> , 2010 , 22, 1559-1566	9.6	128
Dopant-Free Organic Hole-Transporting Material for Efficient and Stable Inverted All-Inorganic and Hybrid Perovskite Solar Cells. <i>Advanced Materials</i> , 2020 , 32, e1908011	24	120
Approaching 18% efficiency of ternary organic photovoltaics with wide bandgap polymer donor and well compatible Y6: Y6-1O as acceptor. <i>National Science Review</i> , 2021 , 8, nwaa305	10.8	119
Random terpolymer based on thiophene-thiazolothiazole unit enabling efficient non-fullerene organic solar cells. <i>Nature Communications</i> , 2020 , 11, 4612	17.4	119
A Difluorobenzoxadiazole Building Block for Efficient Polymer Solar Cells. <i>Advanced Materials</i> , 2016 , 28, 1868-73	24	118
Achieving over 17% efficiency of ternary all-polymer solar cells with two well-compatible polymer acceptors. <i>Joule</i> , 2021 , 5, 1548-1565	27.8	118
Reduced Energy Loss Enabled by a Chlorinated Thiophene-Fused Ending-Group Small Molecular Acceptor for Efficient Nonfullerene Organic Solar Cells with 13.6% Efficiency. <i>Advanced Energy Materials</i> , 2019 , 9, 1900041	21.8	117
Asymmetric Acceptors with Fluorine and Chlorine Substitution for Organic Solar Cells toward 16.83% Efficiency. <i>Advanced Functional Materials</i> , 2020 , 30, 2000456	15.6	117
Multiple Cases of Efficient Nonfullerene Ternary Organic Solar Cells Enabled by an Effective Morphology Control Method. <i>Advanced Energy Materials</i> , 2018 , 8, 1701370	21.8	116
Efficient Nonfullerene Organic Solar Cells with Small Driving Forces for Both Hole and Electron Transfer. <i>Advanced Materials</i> , 2018 , 30, e1804215	24	116
Concurrent improvement in JSC and VOC in high-efficiency ternary organic solar cells enabled by a red-absorbing small-molecule acceptor with a high LUMO level. <i>Energy and Environmental Science</i> , 2020 , 13, 2115-2123	35.4	115
A Narrow-Bandgap n-Type Polymer with an Acceptor-Acceptor Backbone Enabling Efficient All-Polymer Solar Cells. <i>Advanced Materials</i> , 2020 , 32, e2004183	24	114
16% efficiency all-polymer organic solar cells enabled by a finely tuned morphology via the design of ternary blend. <i>Joule</i> , 2021 , 5, 914-930	27.8	110
Rationally pairing photoactive materials for high-performance polymer solar cells with efficiency of 16.53%. <i>Science China Chemistry</i> , 2020 , 63, 265-271	7.9	104
High-Performance Large-Area Organic Solar Cells Enabled by Sequential Bilayer Processing via Nonhalogenated Solvents. <i>Advanced Energy Materials</i> , 2019 , 9, 1802832	21.8	100
Highly efficient non-fullerene organic solar cells enabled by a delayed processing method using a non-halogenated solvent. <i>Energy and Environmental Science</i> , 2020 , 13, 4381-4388	35.4	95
Efficient non-fullerene polymer solar cells enabled by tetrahedron-shaped core based 3D-structure small-molecular electron acceptors. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 13632-13636	13	92
Asymmetrical Small Molecule Acceptor Enabling Nonfullerene Polymer Solar Cell with Fill Factor Approaching 79%. <i>ACS Energy Letters</i> , 2018 , 3, 1760-1768	20.1	90
	Organic Field-Effect Transistors. Chemistry of Materials, 2010, 22, 1559-1566 Dopant-Free Organic Hole-Transporting Material For Efficient and Stable Inverted All-Inorganic and Hybrid Perovskite Solar Cells. Advanced Materials, 2020, 32, e1908011 Approaching 18% efficiency of ternary organic photovoltaics with wide bandgap polymer donor and well compatible V6: V6-10 as acceptor. National Science Review, 2021, 8, nwaa305 Random terpolymer based on thiophene-thiazolothiazole unit enabling efficient non-fullerene organic solar cells. Nature Communications, 2020, 11, 4612 A Difluorobenzoxadiazole Building Block for Efficient Polymer Solar Cells. Advanced Materials, 2016, 28, 1868-73 Achieving over 17% efficiency of ternary all-polymer solar cells with two well-compatible polymer acceptors. Joule, 2021, 5, 1548-1565 Reduced Energy Loss Enabled by a Chlorinated Thiophene-Fused Ending-Group Small Molecular Acceptor for Efficient Nonfullerene Organic Solar Cells with 13.6% Efficiency. Advanced Energy Materials, 2019, 9, 1900041 Asymmetric Acceptors with Fluorine and Chlorine Substitution for Organic Solar Cells toward 16.83% Efficiency. Advanced Functional Materials, 2020, 30, 2000456 Multiple Cases of Efficient Nonfullerene Ternary Organic Solar Cells Enabled by an Effective Morphology Control Method. Advanced Energy Materials, 2018, 8, 1701370 Efficient Nonfullerene Organic Solar Cells with Small Driving Forces for Both Hole and Electron Transfer. Advanced Materials, 2018, 30, e1804215 Concurrent improvement in JSC and VOC in high-efficiency ternary organic solar cells enabled by a red-absorbing small-molecule acceptor with a high LUMO level. Energy and Environmental Science, 2020, 13, 2115-2123 A Narrow-Bandgap n-Type Polymer with an Acceptor-Acceptor Backbone Enabling Efficient All-Polymer Solar Cells. Advanced Materials for high-performance polymer solar cells with efficiency of 16.53%. Science China Chemistry, 2020, 63, 265-271 High-Performance Large-Area Organic Solar cells enabled by sequential Bila	Organic Field-Effect Transistors. Chemistry of Materials, 2010, 22, 1559-1566 Dopant-Free Organic Hole-Transporting Material for Efficient and Stable Inverted All-Inorganic and Hybrid Perovskite Solar Cells. Advanced Materials, 2020, 32, e1908011 Approaching 18% efficiency of ternary organic photovoltaics with wide bandgap polymer donor and well compatible Y6: Y6-TO as acceptor. National Science Review, 2021, 8, nwaa305 Random terpolymer based on thiophene-thiazolothiazole unit enabling efficient non-fullerene organic solar cells. Nature Communications, 2020, 11, 4612 A Difluorobenzoxadiazole Building Block for Efficient Polymer Solar Cells. Advanced Materials, 2016, 28, 1868-73 Achieving over 17% efficiency of ternary all-polymer solar cells with two well-compatible polymer acceptors. Joule, 2021, 5, 1548-1565 Reduced Energy Loss Enabled by a Chlorinated Thiophene-Fused Ending-Group Small Molecular Acceptor for Efficient Nonfullerene Organic Solar Cells with 13.6% Efficiency. Advanced Energy Materials, 2019, 9, 1900041 Asymmetric Acceptors with Fluorine and Chlorine Substitution for Organic Solar Cells toward 16.83% Efficiency. Advanced Functional Materials, 2020, 30, 2000456 Multiple Cases of Efficient Nonfullerene Ternary Organic Solar Cells Enabled by an Effective Morphology Control Method. Advanced Energy Materials, 2018, 8, 1701370 Efficient Nonfullerene Organic Solar Cells with Small Driving Forces for Both Hole and Electron Transfer. Advanced Materials, 2018, 30, el 804215 Concurrent improvement in JSC and VOC in high-efficiency ternary organic solar cells enabled by a red-absorbing small-molecule acceptor with a high LUMO level. Energy and Environmental Science, 2020, 13, 2115-2123 A Narrow-Bandgap n-Type Polymer with an Acceptor-Acceptor Backbone Enabling Efficient All-Polymer Solar Cells. Advanced Materials, 2020, 32, e2004183 16% efficiency all-polymer organic solar cells enabled by a finely tuned morphology via the design of ternary blend. Joule, 2021, 5, 914-930 Rationally pairing pho

196	Dramatic performance enhancement for large bandgap thick-film polymer solar cells introduced by a difluorinated donor unit. <i>Nano Energy</i> , 2015 , 15, 607-615	17.1	89
195	Fluoranthene-based dopant-free hole transporting materials for efficient perovskite solar cells. <i>Chemical Science</i> , 2018 , 9, 2698-2704	9.4	87
194	Unconjugated Side-Chain Engineering Enables Small Molecular Acceptors for Highly Efficient Non-Fullerene Organic Solar Cells: Insights into the Fine-Tuning of Acceptor Properties and Micromorphology. <i>Advanced Functional Materials</i> , 2019 , 29, 1902155	15.6	86
193	Modulation of End Groups for Low-Bandgap Nonfullerene Acceptors Enabling High-Performance Organic Solar Cells. <i>Advanced Energy Materials</i> , 2018 , 8, 1801203	21.8	86
192	NIR-controlled morphology transformation and pulsatile drug delivery based on multifunctional phototheranostic nanoparticles for photoacoustic imaging-guided photothermal-chemotherapy. <i>Biomaterials</i> , 2018 , 176, 1-12	15.6	84
191	High-Efficiency Indoor Organic Photovoltaics with a Band-Aligned Interlayer. <i>Joule</i> , 2020 , 4, 1486-1500	27.8	80
190	Selective Hole and Electron Transport in Efficient Quaternary Blend Organic Solar Cells. <i>Joule</i> , 2020 , 4, 1790-1805	27.8	79
189	A 0D/3D Heterostructured All-Inorganic Halide Perovskite Solar Cell with High Performance and Enhanced Phase Stability. <i>Advanced Materials</i> , 2019 , 31, e1904735	24	77
188	Self-propagating molecular assemblies as interlayers for efficient inverted bulk-heterojunction solar cells. <i>Journal of the American Chemical Society</i> , 2010 , 132, 12528-30	16.4	77
187	8.78% Efficient All-Polymer Solar Cells Enabled by Polymer Acceptors Based on a B<-N Embedded Electron-Deficient Unit. <i>Advanced Materials</i> , 2019 , 31, e1904585	24	74
186	Asymmetric Alkoxy and Alkyl Substitution on Nonfullerene Acceptors Enabling High-Performance Organic Solar Cells. <i>Advanced Energy Materials</i> , 2021 , 11, 2003141	21.8	74
185	Efficient Low-Bandgap Polymer Solar Cells with High Open-Circuit Voltage and Good Stability. <i>Advanced Energy Materials</i> , 2015 , 5, 1501282	21.8	73
184	A Nonfullerene Semitransparent Tandem Organic Solar Cell with 10.5% Power Conversion Efficiency. <i>Advanced Energy Materials</i> , 2018 , 8, 1800529	21.8	71
183	Near-Infrared Small Molecule Acceptor Enabled High-Performance Nonfullerene Polymer Solar Cells with Over 13% Efficiency. <i>Advanced Functional Materials</i> , 2018 , 28, 1803128	15.6	70
182	Electrical stability of inkjet-patterned organic complementary inverters measured in ambient conditions. <i>Applied Physics Letters</i> , 2009 , 94, 233307	3.4	70
181	The synergy of hostguest nonfullerene acceptors enables 16%-efficiency polymer solar cells with increased open-circuit voltage and fill-factor. <i>Materials Horizons</i> , 2019 , 6, 2094-2102	14.4	64
180	An All-Solution Processed Recombination Layer with Mild Post-Treatment Enabling Efficient Homo-Tandem Non-fullerene Organic Solar Cells. <i>Advanced Materials</i> , 2017 , 29, 1604231	24	63
179	Achieving 16.68% efficiency ternary as-cast organic solar cells. <i>Science China Chemistry</i> , 2021 , 64, 581-58	3 9 .9	63

178	Fine-tuning of side-chain orientations on nonfullerene acceptors enables organic solar cells with 17.7% efficiency. <i>Energy and Environmental Science</i> , 2021 , 14, 3469-3479	35.4	62
177	Self-Doped, n-Type Perylene Diimide Derivatives as Electron Transporting Layers for High-Efficiency Polymer Solar Cells. <i>Advanced Energy Materials</i> , 2017 , 7, 1700232	21.8	61
176	Pseudo-bilayer architecture enables high-performance organic solar cells with enhanced exciton diffusion length. <i>Nature Communications</i> , 2021 , 12, 468	17.4	61
175	Effect of Ring-Fusion on Miscibility and Domain Purity: Key Factors Determining the Performance of PDI-Based Nonfullerene Organic Solar Cells. <i>Advanced Energy Materials</i> , 2018 , 8, 1800234	21.8	59
174	Altering the Positions of Chlorine and Bromine Substitution on the End Group Enables High-Performance Acceptor and Efficient Organic Solar Cells. <i>Advanced Energy Materials</i> , 2020 , 10, 2002	2649	59
173	Isomerization of Perylene Diimide Based Acceptors Enabling High-Performance Nonfullerene Organic Solar Cells with Excellent Fill Factor. <i>Advanced Science</i> , 2019 , 6, 1802065	13.6	56
172	A perylene diimide-based electron transport layer enabling efficient inverted perovskite solar cells. Journal of Materials Chemistry A, 2018 , 6, 16868-16873	13	56
171	A Non-Conjugated Polymer Acceptor for Efficient and Thermally Stable All-Polymer Solar Cells. Angewandte Chemie - International Edition, 2020 , 59, 19835-19840	16.4	55
170	Regio-Regular Polymer Acceptors Enabled by Determined Fluorination on End Groups for All-Polymer Solar Cells with 15.2 % Efficiency. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 1013	1 7 -1 6 1	4 ₹ 3
169	Dopamine Semiquinone Radical Doped PEDOT:PSS: Enhanced Conductivity, Work Function and Performance in Organic Solar Cells. <i>Advanced Energy Materials</i> , 2020 , 10, 2000743	21.8	52
168	A Facile Method to Fine-Tune Polymer Aggregation Properties and Blend Morphology of Polymer Solar Cells Using Donor Polymers with Randomly Distributed Alkyl Chains. <i>Advanced Energy Materials</i> , 2018 , 8, 1701895	21.8	52
167	A PCBM Electron Transport Layer Containing Small Amounts of Dual Polymer Additives that Enables Enhanced Perovskite Solar Cell Performance. <i>Advanced Science</i> , 2016 , 3, 1500353	13.6	52
166	Surprising Effects upon Inserting Benzene Units into a Quaterthiophene-Based D-A PolymerImproving Non-Fullerene Organic Solar Cells via Donor Polymer Design. <i>Advanced Energy Materials</i> , 2017 , 7, 1602304	21.8	50
165	Integrated circuits based on conjugated polymer monolayer. <i>Nature Communications</i> , 2018 , 9, 451	17.4	50
164	Realization of high-efficiency/high-luminance small-molecule organic light-emitting diodes: synergistic effects of siloxane anode functionalization/hole-injection layers, and hole/exciton-blocking/electron-transport layers. <i>Applied Physics Letters</i> , 2003 , 82, 331-333	3.4	48
163	Rational Anode Engineering Enables Progresses for Different Types of Organic Solar Cells. <i>Advanced Energy Materials</i> , 2021 , 11, 2100492	21.8	48
162	Influence of Donor Polymer on the Molecular Ordering of Small Molecular Acceptors in Nonfullerene Polymer Solar Cells. <i>Advanced Energy Materials</i> , 2018 , 8, 1701674	21.8	46
161	Understanding the Effect of End Group Halogenation in Tuning Miscibility and Morphology of High-Performance Small Molecular Acceptors. <i>Solar Rrl</i> , 2020 , 4, 2000250	7.1	45

160	Tailoring non-fullerene acceptors using selenium-incorporated heterocycles for organic solar cells with over 16% efficiency. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 23756-23765	13	42
159	Solar-powered overall water splitting system combing metal-organic frameworks derived bimetallic nanohybrids based electrocatalysts and one organic solar cell. <i>Nano Energy</i> , 2019 , 56, 82-91	17.1	42
158	Comparing non-fullerene acceptors with fullerene in polymer solar cells: a case study with FTAZ and PyCNTAZ. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 4886-4893	13	41
157	A Trialkylsilylthienyl Chain-Substituted Small-Molecule Acceptor with Higher LUMO Level and Reduced Band Gap for Over 16% Efficiency Fullerene-Free Ternary Solar Cells. <i>Chemistry of Materials</i> , 2019 , 31, 8908-8917	9.6	41
156	Synergy of Liquid-Crystalline Small-Molecule and Polymeric Donors Delivers Uncommon Morphology Evolution and 16.6% Efficiency Organic Photovoltaics. <i>Advanced Science</i> , 2020 , 7, 2000149	13.6	41
155	Over 15% Efficiency Polymer Solar Cells Enabled by Conformation Tuning of Newly Designed Asymmetric Small-Molecule Acceptors. <i>Advanced Functional Materials</i> , 2020 , 30, 2000383	15.6	41
154	Inverted planar perovskite solar cells based on CsI-doped PEDOT:PSS with efficiency beyond 20% and small energy loss. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 21662-21667	13	40
153	Small molecule organic light-emitting diodes can exhibit high performance without conventional hole transport layers. <i>Applied Physics Letters</i> , 2002 , 81, 3528-3530	3.4	40
152	All-Polymer Solar Cells with over 12% Efficiency and a Small Voltage Loss Enabled by a Polymer Acceptor Based on an Extended Fused Ring Core. <i>Advanced Energy Materials</i> , 2020 , 10, 2001408	21.8	40
151	Selenophene-Incorporated Quaterchalcogenophene-Based DonorAcceptor Copolymers To Achieve Efficient Solar Cells with Jsc Exceeding 20 mA/cm2. <i>Chemistry of Materials</i> , 2017 , 29, 10045-100	182 ⁶	39
150	Improving the performance of near infrared binary polymer solar cells by adding a second non-fullerene intermediate band-gap acceptor. <i>Journal of Materials Chemistry C</i> , 2020 , 8, 909-915	7.1	39
149	Deciphering the Role of Chalcogen-Containing Heterocycles in Nonfullerene Acceptors for Organic Solar Cells. <i>ACS Energy Letters</i> , 2020 , 5, 3415-3425	20.1	39
148	Controlling the Surface Organization of Conjugated Donor-Acceptor Polymers by their Aggregation in Solution. <i>Advanced Materials</i> , 2016 , 28, 9430-9438	24	39
147	Fluorinated End Group Enables High-Performance All-Polymer Solar Cells with Near-Infrared Absorption and Enhanced Device Efficiency over 14%. <i>Advanced Energy Materials</i> , 2021 , 11, 2003171	21.8	39
146	Long-lived and disorder-free charge transfer states enable endothermic charge separation in efficient non-fullerene organic solar cells. <i>Nature Communications</i> , 2020 , 11, 5617	17.4	38
145	A 16.4% efficiency organic photovoltaic cell enabled using two donor polymers with their side-chains oriented differently by a ternary strategy. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 3676-36	8 5	37
144	Dithieno[3,2-:2@@pyrrol-Fused Asymmetrical Electron Acceptors: A Study into the Effects of Nitrogen-Functionalization on Reducing Nonradiative Recombination Loss and Dipole Moment on Morphology. <i>Advanced Science</i> , 2020 , 7, 1902657	13.6	37
143	Significantly improving the performance of polymer solar cells by the isomeric ending-group based small molecular acceptors: Insight into the isomerization. <i>Nano Energy</i> , 2019 , 66, 104146	17.1	36

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142	Achieving Balanced Charge Transport and Favorable Blend Morphology in Non-Fullerene Solar Cells via Acceptor End Group Modification. <i>Chemistry of Materials</i> , 2019 , 31, 1752-1760	9.6	36
141	The influence of spacer units on molecular properties and solar cell performance of non-fullerene acceptors. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 20108-20112	13	36
140	Efficient and UV-stable perovskite solar cells enabled by side chain-engineered polymeric hole-transporting layers. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 12999-13004	13	36
139	Tuning Energy Levels without Negatively Affecting Morphology: A Promising Approach to Achieving Optimal Energetic Match and Efficient Nonfullerene Polymer Solar Cells. <i>Advanced Energy Materials</i> , 2017 , 7, 1602119	21.8	35
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