

Efficient organic solar cells processed from hydrocarbons

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Different Device Architectures for Bulk-Heterojunction Solar Cells. <i>Frontiers in Materials</i> , 2016, 3, .	1.2	10
2	Effect of the π -conjugation length on the properties and photovoltaic performance of A π -D π -A type oligothiophenes with a 4,8-bis(thienyl)benzo[1,2- <i>b</i> :4,5- <i>b'</i>]-dithiophene core. <i>Beilstein Journal of Organic Chemistry</i> , 2016, 12, 1788-1797.	1.3	23
3	High performance p-type molecular electron donors for OPV applications via alkylthiophene catenation chromophore extension. <i>Beilstein Journal of Organic Chemistry</i> , 2016, 12, 2298-2314.	1.3	25
4	Graphene and Carbon Quantum Dot-Based Materials in Photovoltaic Devices: From Synthesis to Applications. <i>Nanomaterials</i> , 2016, 6, 157.	1.9	126
5	Morphology-Controlled High-Efficiency Small Molecule Organic Solar Cells without Additive Solvent Treatment. <i>Nanomaterials</i> , 2016, 6, 64.	1.9	10
6	X-Ray Nanoscopy of a Bulk Heterojunction. <i>PLoS ONE</i> , 2016, 11, e0158345.	1.1	7
7	Geometrically controlled organic small molecule acceptors for efficient fullerene-free organic photovoltaic devices. <i>Journal of Materials Chemistry A</i> , 2016, 4, 12308-12318.	5.2	58
8	High-Performance Polymer Solar Cells with PCE of 10.42% via Al-Doped ZnO Cathode Interlayer. <i>Advanced Materials</i> , 2016, 28, 7405-7412.	11.1	138
9	A Wide Bandgap Polymer with Strong π - π Interaction for Efficient Fullerene-Free Polymer Solar Cells. <i>Advanced Energy Materials</i> , 2016, 6, 1600742.	10.2	76
10	Bulk-Heterojunction Organic Solar Cells: Five Core Technologies for Their Commercialization. <i>Advanced Materials</i> , 2016, 28, 7821-7861.	11.1	404
11	Optimized domain size and enlarged D/A interface by tuning intermolecular interaction in all-polymer ternary solar cells. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2016, 54, 1811-1819.	2.4	27
12	Understanding photo-degradation mechanism in P3HT:PCBM bulk heterojunction solar cells: AMPS-D simulation study. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2016, 213, 2518-2524.	0.8	13
13	Alloy Acceptor: Superior Alternative to PCBM toward Efficient and Stable Organic Solar Cells. <i>Advanced Materials</i> , 2016, 28, 8021-8028.	11.1	207
14	Aqueous Solution Processed Photoconductive Cathode Interlayer for High Performance Polymer Solar Cells with Thick Interlayer and Thick Active Layer. <i>Advanced Materials</i> , 2016, 28, 7521-7526.	11.1	102
15	Modification of Donor/Acceptor Interface for Efficient Organic Photovoltaics. <i>Journal of Photopolymer Science and Technology</i> = [Fotoporima Konwakai Shi], 2016, 29, 533-536.	0.1	1
16	Processing temperature control of a diketopyrrolopyrrole-alt-thieno[2,3- <i>b</i>]thiophene polymer for high-mobility thin-film transistors and polymer solar cells with high open-circuit voltages. <i>Polymer</i> , 2016, 105, 79-87.	1.8	7
17	Disentangling energetic and charge-carrier dynamic influences on the open-circuit voltage in bulk-heterojunction solar-cells. <i>Journal of Applied Physics</i> , 2016, 120, .	1.1	2
18	The impact of ultra-thin titania interlayers on open circuit voltage and carrier lifetime in thin film solar cells. <i>Applied Physics Letters</i> , 2016, 108, 113301.	1.5	9

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19	Fluorination-enabled optimal morphology leads to over 11% efficiency for inverted small-molecule organic solar cells. <i>Nature Communications</i> , 2016, 7, 13740.	5.8	549
20	Suppression of Homocoupling Side Reactions in Direct Arylation Polycondensation for Producing High Performance OPV Materials. <i>Macromolecules</i> , 2016, 49, 9388-9395.	2.2	39
21	Elucidating Batch-to-Batch Variation Caused by Homocoupled Side Products in Solution-Processable Organic Solar Cells. <i>Chemistry of Materials</i> , 2016, 28, 9088-9098.	3.2	25
22	Tellurophene-Based N-type Copolymers for Photovoltaic Applications. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 34620-34629.	4.0	35
23	Electrospinning for nano- to mesoscale photonic structures. <i>Nanophotonics</i> , 2017, 6, 765-787.	2.9	19
24	Current status and challenges of the modeling of organic photodiodes and solar cells. , 2016, , .		3
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26	Dialkylthio benzo[1,2-b:4,5-b ²]difuran polymer for efficient organic photovoltaics with solvent treatment in active layers. <i>Dyes and Pigments</i> , 2016, 131, 356-363.	2.0	7
27	Recent progress towards fluorinated copolymers for efficient photovoltaic applications. <i>Chinese Chemical Letters</i> , 2016, 27, 1241-1249.	4.8	56
28	Bithiophenesulfonamide Building Block for π -Conjugated Donor-Acceptor Semiconductors. <i>Journal of the American Chemical Society</i> , 2016, 138, 6944-6947.	6.6	58
29	Green-solvent-processable organic solar cells. <i>Materials Today</i> , 2016, 19, 533-543.	8.3	252
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31	Regioregular D ₁ -A-D ₂ -A Terpolymer with Controlled Thieno[3,4- <i>b</i>]thiophene Orientation for High-Efficiency Polymer Solar Cells Processed with Nonhalogenated Solvents. <i>Macromolecules</i> , 2016, 49, 3328-3335.	2.2	46
32	Loss mechanisms in organic solar cells based on perylene diimide acceptors studied by time-resolved photoluminescence. <i>Proceedings of SPIE</i> , 2016, , .	0.8	1
33	Correlation between polymer molecular weight and optimal fullerene content in efficient polymer solar cells. <i>Organic Electronics</i> , 2016, 34, 229-236.	1.4	9
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35	Synthesis, optoelectronic properties and photovoltaic performances of wide band-gap copolymers based on dibenzosilole and quinoxaline units, rivals to P3HT. <i>Polymer Chemistry</i> , 2016, 7, 4160-4175.	1.9	20
36	Highly efficient polymer solar cells with printed photoactive layer: rational process transfer from spin-coating. <i>Journal of Materials Chemistry A</i> , 2016, 4, 16036-16046.	5.2	57

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38	Influence of molecular structure on the performance of low V_{oc} loss polymer solar cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 15232-15239.	5.2	15
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45	Tetrafluoroquinoxaline based polymers for non-fullerene polymer solar cells with efficiency over 9%. <i>Nano Energy</i> , 2016, 30, 312-320.	8.2	94
46	Tuning the fused aromatic rings to enhance photovoltaic performance in wide band-gap polymer solar cells. <i>Polymer</i> , 2016, 104, 130-137.	1.8	10
47	Highly Efficient Inverted Organic Photovoltaics Containing Aliphatic Hyperbranched Polymers as Cathode Modified Layers. <i>Macromolecules</i> , 2016, 49, 7837-7843.	2.2	23
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56	A Vinylene-bridged Peryleneimide-based Polymeric Acceptor Enabling Efficient All-polymer Solar Cells Processed under Ambient Conditions. <i>Advanced Materials</i> , 2016, 28, 8483-8489.	11.1	222
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74	Nonfullerene Small Molecular Acceptors with a Three-Dimensional (3D) Structure for Organic Solar Cells. <i>Chemistry of Materials</i> , 2016, 28, 6770-6778.	3.2	57
75	High open circuit voltage polymer solar cells enabled by employing thiazoles in semiconducting polymers. <i>Polymer Chemistry</i> , 2016, 7, 5730-5738.	1.9	32
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133	A Novel Bis-Lactam Acceptor with Outstanding Molar Extinction Coefficient and Structural Planarity for Donor-Acceptor Type Conjugated Polymer. <i>Macromolecules</i> , 2016, 49, 8489-8497.	2.2	26
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702	All-Oxide MoO _x /SnO _x Charge Recombination Interconnects for Inverted Organic Tandem Solar Cells. <i>Advanced Energy Materials</i> , 2018, 8, 1702533.	10.2	30
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708	Fine-Tuning of Molecular Packing and Energy Level through Methyl Substitution Enabling Excellent Small Molecule Acceptors for Nonfullerene Polymer Solar Cells with Efficiency up to 12.54%. <i>Advanced Materials</i> , 2018, 30, 1706124.	11.1	253
709	Chemical reaction between an ITIC electron acceptor and an amine-containing interfacial layer in non-fullerene solar cells. <i>Journal of Materials Chemistry A</i> , 2018, 6, 2273-2278.	5.2	113
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718	Alkali Salt-Doped Highly Transparent and Thickness-Insensitive Electron-Transport Layer for High-Performance Polymer Solar Cell. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 1939-1947.	4.0	18
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743	Measurement of nanoscale molten polymer droplet spreading using atomic force microscopy. <i>Review of Scientific Instruments</i> , 2018, 89, 033703.	0.6	7
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801	Efficient Large Area Organic Solar Cells Processed by Blade-Coating With Single-Component Green Solvent. <i>Solar Rrl</i> , 2018, 2, 1700169.	3.1	79
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1105	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.	15.6	337
1106	Unravelling donor-acceptor film morphology formation for environmentally-friendly OPV ink formulations. <i>Green Chemistry</i> , 2019, 21, 5090-5103.	4.6	31
1107	Ultra-narrow bandgap non-fullerene acceptors for organic solar cells with low energy loss. <i>Materials Chemistry Frontiers</i> , 2019, 3, 2157-2163.	3.2	19
1108	Performance Enhancement of Conventional Polymer Solar Cells with TTF-py-Modified PEDOT:PSS Film as the Hole Transport Layer. <i>ACS Applied Energy Materials</i> , 2019, 2, 6577-6583.	2.5	11
1109	Charge-transfer electronic states in organic solar cells. <i>Nature Reviews Materials</i> , 2019, 4, 689-707.	23.3	229
1110	Bichalcogenophene Imide-Based Homopolymers: Chalcogen-Atom Effects on the Optoelectronic Property and Device Performance in Organic Thin-Film Transistors. <i>Macromolecules</i> , 2019, 52, 7301-7312.	2.2	32
1111	Designing difluoro substituted benzene ring based fullerene free acceptors for small Naphthalene Di-Imide based molecules with DFT approaches. <i>Optical and Quantum Electronics</i> , 2019, 51, 1.	1.5	12
1112	Monolayer HfTeSe ₄ : A Promising Two-Dimensional Photovoltaic Material for Solar Cells with High Efficiency. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 37901-37907.	4.0	34
1113	Wide band-gap organic molecules containing benzodithiophene and difluoroquinoxaline derivatives for solar cell applications. <i>Molecular Crystals and Liquid Crystals</i> , 2019, 685, 29-39.	0.4	2
1114	Understanding of Imine Substitution in Wide-Bandgap Polymer Donor-Induced Efficiency Enhancement in All-Polymer Solar Cells. <i>Chemistry of Materials</i> , 2019, 31, 8533-8542.	3.2	49
1115	Bromination of the Small-Molecule Acceptor with Fixed Position for High-Performance Solar Cells. <i>Chemistry of Materials</i> , 2019, 31, 8044-8051.	3.2	62
1116	Connecting soft x-ray anisotropy with local order in conjugated polymers. <i>MRS Communications</i> , 2019, 9, 1168-1173.	0.8	4
1117	A generic green solvent concept boosting the power conversion efficiency of all-polymer solar cells to 11%. <i>Energy and Environmental Science</i> , 2019, 12, 157-163.	15.6	287
1118	Nano-crater morphology in hybrid electron-collecting buffer layers for high efficiency polymer:nonfullerene solar cells with enhanced stability. <i>Nanoscale Horizons</i> , 2019, 4, 464-471.	4.1	18
1119	Enhanced intermolecular interactions to improve twisted polymer photovoltaic performance. <i>Science China Chemistry</i> , 2019, 62, 370-377.	4.2	29
1120	Panchromatic Ternary Organic Solar Cells with Porphyrin Dimers and Absorption-Complementary Benzodithiophene-based Small Molecules. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 6283-6291.	4.0	49
1121	Combination of noncovalent conformational locks and side chain engineering to tune the crystallinity of nonfullerene acceptors for high-performance P3HT based organic solar cells. <i>Materials Chemistry Frontiers</i> , 2019, 3, 64-69.	3.2	24

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1122	Green solvent-processed efficient non-fullerene organic solar cells enabled by low-bandgap copolymer donors with EDOT side chains. <i>Journal of Materials Chemistry A</i> , 2019, 7, 716-726.	5.2	45
1123	High-performance organic solar cells based on polymer donor/small molecule donor/nonfullerene acceptor ternary blends. <i>Journal of Materials Chemistry A</i> , 2019, 7, 2268-2274.	5.2	42
1124	A decacyclic indacenodithiophene-based non-fullerene electron acceptor with meta-alkyl-phenyl substitutions for polymer solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 4063-4071.	5.2	17
1125	Conjugated materials containing dithieno[3,2- <i>b</i> :2,3- <i>d</i>]pyrrole and its derivatives for organic and hybrid solar cell applications. <i>Journal of Materials Chemistry A</i> , 2019, 7, 64-96.	5.2	133
1126	Bio-Integrated Wearable Systems: A Comprehensive Review. <i>Chemical Reviews</i> , 2019, 119, 5461-5533.	23.0	822
1127	Highly Efficient Fullerene-Free Organic Solar Cells Operate at Near Zero Highest Occupied Molecular Orbital Offsets. <i>Journal of the American Chemical Society</i> , 2019, 141, 3073-3082.	6.6	362
1128	A naphthalimide end capped imide-fused benzothiadiazole based small molecule acceptor for organic solar cells. <i>New Journal of Chemistry</i> , 2019, 43, 3565-3571.	1.4	4
1129	A cyclometalating organic ligand with an Iridium center toward dramatically improved photovoltaic performance in organic solar cells. <i>Chemical Communications</i> , 2019, 55, 2640-2643.	2.2	31
1130	Simplified synthetic routes for low cost and high photovoltaic performance n-type organic semiconductor acceptors. <i>Nature Communications</i> , 2019, 10, 519.	5.8	231
1131	Molecular engineering of central fused-ring cores of non-fullerene acceptors for high-efficiency organic solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 4313-4333.	5.2	122
1132	N- π B Ladder Polymers Prepared by Postfunctionalization: Tuning of Electron Affinity and Evaluation as Acceptors in All-Polymer Solar Cells. <i>Macromolecules</i> , 2019, 52, 1013-1024.	2.2	37
1133	Tweaking the Molecular Geometry of a Tetraperylene π -diimide Acceptor. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 6970-6977.	4.0	20
1134	Near-IR Absorbing Zn-Porphyrin-Based Small-Molecule Donors for Organic Solar Cells with Low-Voltage Loss. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 7216-7225.	4.0	27
1135	New roles of fused-ring electron acceptors in organic solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 4766-4770.	5.2	5
1136	Fused nonacyclic electron acceptors with additional alkyl side chains for efficient polymer solar cells. <i>Organic Electronics</i> , 2019, 68, 151-158.	1.4	8
1137	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.	3.2	48
1138	Regio-asymmetric polymers based on fluorinated benzothiadiazole- π -benzodithiophene for polymer solar cells with a high open-circuit voltage. <i>New Journal of Chemistry</i> , 2019, 43, 3801-3809.	1.4	7
1139	Solution processed hybrid Graphene-MoO ₃ hole transport layers for improved performance of organic solar cells. <i>Organic Electronics</i> , 2019, 67, 95-100.	1.4	18

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1140	Ladder-type dithienocyclopentadibenzothiophene-cored wide-bandgap polymers for efficient non-fullerene solar cells with large open-circuit voltages. <i>Journal of Materials Chemistry A</i> , 2019, 7, 3307-3316.	5.2	9
1141	Non-fullerene organic solar cells based on a small molecule with benzo[1,2-c:4,5-c']dithiophene-4,8-dione as ĩ€-bridge. <i>Organic Electronics</i> , 2019, 67, 175-180.	1.4	9
1142	Understanding charge carrier dynamics in a P3HT:FLR blend. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 2771-2782.	1.3	7
1143	First-principles theoretical designing of planar non-fullerene small molecular acceptors for organic solar cells: manipulation of noncovalent interactions. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 2128-2139.	1.3	82
1144	Textile-based washable polymer solar cells for optoelectronic modules: toward self-powered smart clothing. <i>Energy and Environmental Science</i> , 2019, 12, 1878-1889.	15.6	136
1145	Low boiling point solvent additives enable vacuum drying-free processed 230Ånm thick PTB7-Th:PC₇₁BM active layers with more than 10% power conversion efficiency. <i>Journal of Materials Chemistry A</i> , 2019, 7, 1861-1869.	5.2	12
1146	A small molecule donor containing a non-fused ring core for all-small-molecule organic solar cells with high efficiency over 11%. <i>Journal of Materials Chemistry A</i> , 2019, 7, 3682-3690.	5.2	39
1147	Vinylene-bridged difluorobenzo[c][1,2,5]-thiadiazole (FBTzE): a new electron-deficient building block for high-performance semiconducting polymers in organic electronics. <i>Journal of Materials Chemistry C</i> , 2019, 7, 905-916.	2.7	11
1148	Phase Diagrams of Binary Low Bandgap Conjugated Polymer Solutions and Blends. <i>Macromolecules</i> , 2019, 52, 4317-4328.	2.2	23
1149	Mediumâ€Bandgap Conjugated Polymer Donors for Organic Photovoltaics. <i>Macromolecular Rapid Communications</i> , 2019, 40, e1900074.	2.0	30
1150	Effect of electronâ€withdrawing groups on photovoltaic performance of thiopheneâ€vinylâ€thiophene derivative and benzochalcogenadiazole based copolymers: A computational study. <i>International Journal of Quantum Chemistry</i> , 2019, 119, e25982.	1.0	8
1151	Chlorinated Thiophene End Groups for Highly Crystalline Alkylated Non-Fullerene Acceptors toward Efficient Organic Solar Cells. <i>Chemistry of Materials</i> , 2019, 31, 6672-6676.	3.2	48
1152	Short-Axis Methyl Substitution Approach on Indacenodithiophene: A New Multi-Fused Ladder-Type Arene for Organic Solar Cells. <i>Frontiers in Chemistry</i> , 2019, 7, 372.	1.8	4
1153	Efficient DPP Donor and Nonfullerene Acceptor Organic Solar Cells with High Photonâ€toâ€Current Ratio and Low Energetic Loss. <i>Advanced Functional Materials</i> , 2019, 29, 1902441.	7.8	43
1154	Light manipulating electrode based on high optical haze aluminum-doped zinc oxide for highly efficient indium-tin-oxide free organic solar cells with over 13% efficiency. <i>Journal of Materials Chemistry C</i> , 2019, 7, 8515-8521.	2.7	11
1155	Double Negatively Curved C ₇₀ Growth through a Heptagonâ€involving Pathway. <i>Angewandte Chemie</i> , 2019, 131, 14233-14237.	1.6	3
1156	Double Negatively Curved C₇₀ Growth through a Heptagonâ€involving Pathway. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 14095-14099.	7.2	12
1157	Synergistic Effects of Sideâ€Chain Engineering and Fluorination on Small Molecule Acceptors to Simultaneously Broaden Spectral Response and Minimize Voltage Loss for 13.8% Efficiency Organic Solar Cells. <i>Solar Rrl</i> , 2019, 3, 1900169.	3.1	22

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1159	Tuning electronic properties of molecular acceptor- π -porphyrin- π -acceptor donors via π -linkage structural engineering. <i>Organic Electronics</i> , 2019, 73, 146-151.	1.4	8
1160	Effect of Replacing Thiophene by Selenophene on the Photovoltaic Performance of Wide Bandgap Copolymer Donors. <i>Macromolecules</i> , 2019, 52, 4776-4784.	2.2	26
1161	Temperature-Dependent Aggregation Donor Polymers Enable Highly Efficient Sequentially Processed Organic Photovoltaics Without the Need of Orthogonal Solvents. <i>Advanced Functional Materials</i> , 2019, 29, 1902478.	7.8	50
1162	Light management through up-conversion and scattering mechanism of rare earth nanoparticle in polymer photovoltaics. <i>Optical Materials</i> , 2019, 94, 286-293.	1.7	10
1163	Probing Organic Thin Films by Coherent X-ray Imaging and X-ray Scattering. <i>ACS Applied Polymer Materials</i> , 2019, 1, 1787-1797.	2.0	2
1164	Strategic end-halogenation of π -conjugated small molecules enabling fine morphological control and enhanced performance of organic solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 14806-14815.	5.2	21
1165	Simply planarizing nonfused perylene diimide based acceptors toward promising non-fullerene solar cells. <i>Journal of Materials Chemistry C</i> , 2019, 7, 8092-8100.	2.7	17
1166	Solution-Processed Semitransparent Organic Photovoltaics: From Molecular Design to Device Performance. <i>Advanced Materials</i> , 2019, 31, e1900904.	11.1	168
1167	Fused-Ring Core Engineering for Small Molecule Acceptors Enable High-Performance Nonfullerene Polymer Solar Cells. <i>Small Methods</i> , 2019, 3, 1900280.	4.6	17
1168	Vertical Distribution to Optimize Active Layer Morphology for Efficient All-Polymer Solar Cells by J71 as a Compatibilizer. <i>Macromolecules</i> , 2019, 52, 4359-4369.	2.2	38
1169	Fundamental Understanding of Solar Cells. , 2019, , 1-17.		3
1170	New Directions for Organic Thin-Film Solar Cells: Stability and Performance. , 2019, , 195-244.		3
1171	Single-Junction Polymer Solar Cells with 16.35% Efficiency Enabled by a Platinum(II) Complexation Strategy. <i>Advanced Materials</i> , 2019, 31, e1901872.	11.1	498
1172	Origin of Photocurrent and Voltage Losses in Organic Solar Cells. <i>Advanced Theory and Simulations</i> , 2019, 2, 1900067.	1.3	46
1173	Introducing Fluorine and Sulfur Atoms into Quinoxaline-Based p-type Polymers To Gradually Improve the Performance of Fullerene-Free Organic Solar Cells. <i>ACS Macro Letters</i> , 2019, 8, 743-748.	2.3	83
1174	Benzothienoisindigo-based polymers for efficient polymer solar cells with an open-circuit voltage of 0.96 V. <i>Polymer</i> , 2019, 175, 339-346.	1.8	5
1175	Fluorene dimers as the cathode interlayers in organic solar cells. <i>Synthetic Metals</i> , 2019, 253, 110-115.	2.1	5

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1177	Understanding the effect of N2200 on performance of J71: ITIC bulk heterojunction in ternary non-fullerene solar cells. <i>Organic Electronics</i> , 2019, 71, 65-71.	1.4	14
1178	Influence of the backbone structure of the donor material and device processing conditions on the photovoltaic properties of small molecular BHJSCs. <i>Solar Energy</i> , 2019, 186, 84-93.	2.9	9
1179	Improved Charge Transport and Reduced Non-Geminate Recombination in Organic Solar Cells by Adding Size-Selected Graphene Oxide Nanosheets. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 20183-20191.	4.0	15
1180	Visible to Near-Infrared-Absorbing Polymers Containing Bithiazole and 2,3-Didodecyl-6,7-Difluoroquinoxaline Derivatives for Polymer Solar Cells. <i>Bulletin of the Korean Chemical Society</i> , 2019, 40, 686-690.	1.0	2
1181	Simple non-fused electron acceptors for efficient and stable organic solar cells. <i>Nature Communications</i> , 2019, 10, 2152.	5.8	348
1182	Ester-Functionalized Naphthobispyrazine as an Acceptor Building Unit for Semiconducting Polymers: Synthesis, Properties, and Photovoltaic Performance. <i>Macromolecules</i> , 2019, 52, 3909-3917.	2.2	9
1183	Stable large area organic solar cells realized by using random terpolymers donors combined with a ternary blend. <i>Journal of Materials Chemistry A</i> , 2019, 7, 14199-14208.	5.2	45
1184	Local Excitation/Charge-Transfer Hybridization Simultaneously Promotes Charge Generation and Reduces Nonradiative Voltage Loss in Nonfullerene Organic Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 2911-2918.	2.1	73
1185	Impressive Radiation Stability of Organic Solar Cells Based on Fullerene Derivatives and Carbazole-Containing Conjugated Polymers. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 21741-21748.	4.0	18
1186	Enhanced Hole Transport in Ternary Blend Polymer Solar Cells. <i>ChemPhysChem</i> , 2019, 20, 2683-2688.	1.0	8
1187	Synthesis, characterization and photovoltaic properties of platinum-containing poly(aryleneethynylene) polymers with electron-deficient diketopyrrolopyrrole unit. <i>Journal of Organometallic Chemistry</i> , 2019, 894, 1-9.	0.8	15
1188	A wide-bandgap D-A copolymer donor based on a chlorine substituted acceptor unit for high performance polymer solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 14070-14078.	5.2	68
1189	Random copolymerization realized high efficient polymer solar cells with a record fill factor near 80%. <i>Nano Energy</i> , 2019, 61, 228-235.	8.2	31
1190	Plasmonic Metal Nanoparticles with Core-Shell Structure for High-Performance Organic and Perovskite Solar Cells. <i>ACS Nano</i> , 2019, 13, 5397-5409.	7.3	93
1191	Thiophene: An eco-friendly solvent for organic solar cells. <i>Dyes and Pigments</i> , 2019, 168, 36-41.	2.0	8
1192	Progress in Triboelectric Materials: Toward High Performance and Widespread Applications. <i>Advanced Functional Materials</i> , 2019, 29, 1900098.	7.8	162
1193	Triimide-Functionalized n-Type Polymer Semiconductors Enabling All-Polymer Solar Cells with Power Conversion Efficiencies Approaching 9%. <i>Solar Rrl</i> , 2019, 3, 1900107.	3.1	43

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1194	Introduction of co-additives to form well dispersed photoactive layer to improve performance and stability of organic solar cells. <i>Solar Energy</i> , 2019, 185, 1-12.	2.9	14
1195	Additive-free non-fullerene organic solar cells with random copolymers as donors over 9% power conversion efficiency. <i>Chinese Chemical Letters</i> , 2019, 30, 1161-1167.	4.8	19
1196	Solar Energy Harvesting in Type II van der Waals Heterostructures of Semiconducting Group III Monochalcogenide Monolayers. <i>Journal of Physical Chemistry C</i> , 2019, 123, 12666-12675.	1.5	86
1197	Comprehensive Investigation and Analysis of Bulk-Heterojunction Microstructure of High-Performance PCE11:PCBM Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 18555-18563.	4.0	30
1198	Impact of Alkyl Side Chains on Optoelectronic and Photovoltaic Properties of Novel Benzodithiophenedione-Based Conjugated Polymers. <i>Physica Status Solidi - Rapid Research Letters</i> , 2019, 13, 1900154.	1.2	2
1199	Influence of the molecular weight in P3HT block on fully conjugated block copolymers. <i>Synthetic Metals</i> , 2019, 253, 20-25.	2.1	4
1200	Nonhalogenated Solvent-Processed Fullerene-Free Ambient Stable Organic Solar Cells: Impact of Molecular Weight of New π -Conjugated Donor Polymer on Efficiency. <i>ACS Applied Energy Materials</i> , 2019, 2, 4159-4166.	2.5	22
1201	Nonfullerene All-Small-Molecule Organic Solar Cells. <i>ACS Energy Letters</i> , 2019, 4, 1241-1250.	8.8	151
1202	A Nonfullerene Acceptor Containing Rhodanine and Barbituric Acid End Groups for Use in Organic Photovoltaic Devices. <i>Bulletin of the Korean Chemical Society</i> , 2019, 40, 435-438.	1.0	0
1203	Evidence for Strong and Weak Phenyl-C ₆₁ -Butyric Acid Methyl Ester Photodimer Populations in Organic Solar Cells. <i>Chemistry of Materials</i> , 2019, 31, 6076-6083.	3.2	11
1204	Synthesis of Cyano-Substituted Conjugated Polymers for Photovoltaic Applications. <i>Polymers</i> , 2019, 11, 746.	2.0	5
1205	Recent Progress in Molecular Design of Fused Ring Electron Acceptors for Organic Solar Cells. <i>Small</i> , 2019, 15, e1900134.	5.2	126
1206	Double Acceptor Block-Containing Copolymers with Deep HOMO Levels for Organic Solar Cells: Adjusting Carboxylate Substituent Position for Planarity. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 15853-15860.	4.0	20
1207	Molecular Orientation of Polymer Acceptor Dominates Open-Circuit Voltage Losses in All-Polymer Solar Cells. <i>ACS Energy Letters</i> , 2019, 4, 1057-1064.	8.8	45
1208	Room Temperature Processed Highly Efficient Large-Area Polymer Solar Cells Achieved with Molecular Engineering of Copolymers. <i>Advanced Energy Materials</i> , 2019, 9, 1900168.	10.2	50
1209	Benzo[1,2- <i>b</i> :4,5- <i>b'</i>]-diselenophene-fused nonfullerene acceptors with alternative aromatic ring-based and monochlorinated end groups: a new synergistic strategy to simultaneously achieve highly efficient organic solar cells with the energy loss of 0.49 eV. <i>Journal of Materials Chemistry A</i> , 2019, 7, 11802-11813.	5.2	38
1210	Random Copolymers Outperform Gradient and Block Copolymers in Stabilizing Organic Photovoltaics. <i>Advanced Functional Materials</i> , 2019, 29, 1900467.	7.8	6
1211	Trimetallic Metal-Organic Framework Derived Carbon-Based Nanoflower Electrocatalysts for Efficient Overall Water Splitting. <i>Advanced Materials Interfaces</i> , 2019, 6, 1900290.	1.9	72

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1213	High-performance non-fullerene polymer solar cells based on naphthobistriazole wide bandgap donor copolymers. <i>Journal of Materials Chemistry C</i> , 2019, 7, 4709-4715.	2.7	2
1214	A direct comparison of monomeric <i>vs.</i> dimeric and non-annulated <i>vs.</i> N-annulated perylene diimide electron acceptors for organic photovoltaics. <i>New Journal of Chemistry</i> , 2019, 43, 5187-5195.	1.4	28
1215	A High-Performance Non-Fullerene Acceptor Compatible with Polymers with Different Bandgaps for Efficient Organic Solar Cells. <i>Solar Rrl</i> , 2019, 3, 1800376.	3.1	37
1216	Fluorene-fused ladder-type non-fullerene small molecule acceptors for high-performance polymer solar cells. <i>Materials Chemistry Frontiers</i> , 2019, 3, 709-715.	3.2	11
1217	Revealing the diffusion of aluminum in organic solar cells. <i>Japanese Journal of Applied Physics</i> , 2019, 58, 050904.	0.8	2
1218	Doped-poly (para-nitroaniline- co-aniline): Synthesis, semiconductor characteristics, density, functional theory and photoelectric properties. <i>Journal of Alloys and Compounds</i> , 2019, 789, 670-683.	2.8	59
1219	A ring fused N-annulated PDI non-fullerene acceptor for high open circuit voltage solar cells processed from non-halogenated solvents. <i>Synthetic Metals</i> , 2019, 250, 55-62.	2.1	23
1220	Isomers of Dithienocyclopentapyrene-Based Non-Fullerene Electron Acceptors: Configuration Effect on Photoelectronic Properties. <i>Chemistry - A European Journal</i> , 2019, 25, 6385-6391.	1.7	10
1221	Dynamic PCBM:Dimer Population in Solar Cells under Light and Temperature Fluctuations. <i>Advanced Energy Materials</i> , 2019, 9, 1803948.	10.2	15
1222	In-depth probe of researching interfacial charge transfer process for organic solar cells: A promising bisadduct fullerene derivatives acceptor. <i>International Journal of Quantum Chemistry</i> , 2019, 119, e25938.	1.0	9
1223	The recent progress of wide bandgap donor polymers towards non-fullerene organic solar cells. <i>Chinese Chemical Letters</i> , 2019, 30, 809-825.	4.8	69
1224	An efficient strategy to supervise absorption, mobility, morphology of photovoltaic molecule by inserting a D-A unit. <i>Dyes and Pigments</i> , 2019, 166, 515-522.	2.0	9
1225	Diketopyrrolopyrrole-based conjugated materials for non-fullerene organic solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 10174-10199.	5.2	111
1226	High performance PDI based ternary organic solar cells fabricated with non-halogenated solvent. <i>Organic Electronics</i> , 2019, 73, 205-211.	1.4	29
1227	Regulating Bulk-Heterojunction Molecular Orientations through Surface Free Energy Control of Hole-Transporting Layers for High-Performance Organic Solar Cells. <i>Advanced Materials</i> , 2019, 31, e1806921.	11.1	86
1228	Synergistic Effect of Chlorination and Selenophene: Achieving Elevated Solar Conversion in Highly Aggregated Systems. <i>Macromolecules</i> , 2019, 52, 2393-2401.	2.2	16
1229	Impact of linker positions for thieno[3,2-b]thiophene in wide band gap benzo[1,2-b:4,5-b']dithiophene-based photovoltaic polymers. <i>Journal of Materials Research</i> , 2019, 34, 2057-2066.	1.2	2

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1230	Sequential Deposition of Organic Films with Eco-compatible Solvents Improves Performance and Enables Over 12% Efficiency Nonfullerene Solar Cells. <i>Advanced Materials</i> , 2019, 31, e1808153.	11.1	132
1231	Critical Role of Polystyrene Layer on Plasmonic Silver Nanoplates in Organic Photovoltaics. <i>ACS Applied Energy Materials</i> , 2019, 2, 2475-2485.	2.5	4
1232	Amino functionalized carbon nanotubes as hole transport layer for high performance polymer solar cells. <i>Inorganic Chemistry Communication</i> , 2019, 103, 142-148.	1.8	6
1233	A new small molecule donor for efficient and stable all small molecule organic solar cells. <i>Organic Electronics</i> , 2019, 70, 78-85.	1.4	20
1234	Benzotriazole-Based p-Type Polymers with Thieno[3,2- <i>b</i>]thiophene π -Bridges and Fluorine Substituents To Realize High V_{OC} . <i>ACS Applied Polymer Materials</i> , 2019, 1, 906-913.	2.0	26
1235	Highly Efficient, Stable, and Ductile Ternary Nonfullerene Organic Solar Cells from a Two-Donor Polymer Blend. <i>Advanced Materials</i> , 2019, 31, e1808279.	11.1	79
1236	Functional blends of organic materials for optoelectronic applications. , 2019, , 91-110.		0
1237	Enhanced stability of plasmonic polymer solar cells using ferrocenedicarboxylic acid modification. <i>Materials Research Express</i> , 2019, 6, 075508.	0.8	1
1238	Optimizing Polymer Solar Cells Using Non-Halogenated Solvent Blends. <i>Polymers</i> , 2019, 11, 544.	2.0	7
1239	Highly Efficient Indoor Organic Photovoltaics with Spectrally Matched Fluorinated Phenylene-alkoxybenzothiadiazole-Based Wide Bandgap Polymers. <i>Advanced Functional Materials</i> , 2019, 29, 1901171.	7.8	69
1240	Increase in efficiency on using selenophene instead of thiophene in π -bridges for D- π -DPP- π -D organic solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 11886-11894.	5.2	29
1241	Methyl Thioether Functionalization of a Polymeric Donor for Efficient Solar Cells Processed from Non-Halogenated Solvents. <i>Chemistry of Materials</i> , 2019, 31, 3025-3033.	3.2	23
1242	Simultaneously increasing open-circuit voltage and short-circuit current to minimize the energy loss in organic solar cells via designing asymmetrical non-fullerene acceptor. <i>Journal of Materials Chemistry A</i> , 2019, 7, 11053-11061.	5.2	37
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1364	Critical review of the molecular design progress in non-fullerene electron acceptors towards commercially viable organic solar cells. <i>Chemical Society Reviews</i> , 2019, 48, 1596-1625.	18.7	814
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