Nonfullerene Acceptor Molecules for Bulk Heterojuncti

Chemical Reviews

118, 3447-3507

DOI: 10.1021/acs.chemrev.7b00535

Citation Report

#	Article	IF	Citations
1	Generating a three-dimensional non-fullerene electron acceptor by combining inexpensive spiro[fluorene-9,9â€²-xanthene] and cyanopyridone functionalities. Materials Chemistry Frontiers, 2018, 2, 1090-1096.	3.2	22
2	An Aâ€“Dâ€“Aâ€²â€“Dâ€“A type small molecule acceptor with wide absorption spectrum and near-infrared absorption. Materials Chemistry Frontiers, 2018, 2, 2333-2339.	3.2	15
3	Naphthalene and perylene diimides â€“ better alternatives to fullerenes for organic electronics?. Chemical Communications, 2018, 54, 13763-13772.	2.2	185
4	Structural assembly from 1D to 3D motivated by the linear co-ligands, and the magnetic and photocatalytic properties of five Ni^{II} coordination polymers with 5-(4â€²-carboxylphenyl)nicotinic acid. New Journal of Chemistry, 2018, 42, 17991-18000.	1.4	7
5	Benzyl and fluorinated benzyl side chains for perylene diimide non-fullerene acceptors. Materials Chemistry Frontiers, 2018, 2, 2272-2276.	3.2	19
6	The effect of side-chain substitution on the aggregation and photovoltaic performance of diketopyrrolopyrrole-alt-dicarboxylic ester bithiophene polymers. Journal of Materials Chemistry A, 2018, 6, 20904-20915.	5.2	18
7	A bright outlook on organic photoelectrochemical cells for water splitting. Journal of Materials Chemistry A, 2018, 6, 21809-21826.	5.2	53
8	High-performance ternary organic solar cells with photoresponses beyond 1000 nm. Journal of Materials Chemistry A, 2018, 6, 24210-24215.	5.2	31
9	Donor polymer based on alkylthiophene side chains for efficient non-fullerene organic solar cells: insights into fluorination and side chain effects on polymer aggregation and blend morphology. Journal of Materials Chemistry A, 2018, 6, 23270-23277.	5.2	16
10	Self-doping small molecular conjugated electrolytes enabled by n-type side chains for highly efficient non-fullerene polymer solar cells. Journal of Materials Chemistry A, 2018, 6, 22503-22507.	5.2	31
11	One-pot synthesis of electron-acceptor composite enables efficient fullerene-free ternary organic solar cells. Journal of Materials Chemistry A, 2018, 6, 22519-22525.	5.2	35
12	High-Crystallinity Ï€-Conjugated Small Molecules Based on Thienyleneâ€“Vinyleneâ€“Thienylene: Critical Role of Self-Organization in Photovoltaic, Charge-Transport, and Morphological Properties. ACS Applied Materials & Interfaces, 2018, 10, 42756-42765.	4.0	8
13	High Efficiency Non-fullerene Organic Tandem Photovoltaics Based on Ternary Blend Subcells. Nano Letters, 2018, 18, 7977-7984.	4.5	27
14	Effects of the Number of Bromine Substitution on Photovoltaic Efficiency and Energy Loss of Benzo[1,2â€b:4,5â€bâ€²]diselenopheneâ€based Narrowâ€Bandgap Multibrominated Nonfullerene Acceptors. Solar Rrl, 2019, 3, 1800250.	3.1	46
15	Selenopheno[3,2-b]thiophene-Based Narrow-Bandgap Nonfullerene Acceptor Enabling 13.3% Efficiency for Organic Solar Cells with Thickness-Insensitive Feature. ACS Energy Letters, 2018, 3, 2967-2976.	8.8	139
16	Molecular Engineering and Structure-Related Properties of Squaraine Dyes Based on the Core and Wings Concept. ACS Omega, 2018, 3, 15416-15425.	1.6	1
17	Simple-structured small molecule acceptors constructed by a weakly electron-deficient thiazolothiazole core for high-efficiency non-fullerene organic solar cells. Journal of Materials Chemistry A, 2018, 6, 24267-24276.	5.2	78
18	Multi-component non-fullerene acceptors with tunable bandgap structures for efficient organic solar cells. Journal of Materials Chemistry A, 2018, 6, 23644-23649.	5.2	47

#	Article	IF	Citations
19	Non-fullerene acceptor engineering with three-dimensional thiophene/selenophene-annulated perylene diimides for high performance polymer solar cells. Journal of Materials Chemistry C, 2018, 6, 12601-12607.	2.7	21
20	Chlorinated Wide-Bandgap Donor Polymer Enabling Annealing Free Nonfullerene Solar Cells with the Efficiency of 11.5%. Journal of Physical Chemistry Letters, 2018, 9, 6955-6962.	2.1	70
21	Introducing Four 1,1-Dicyanomethylene-3-indanone End-Capped Groups as an Alternative Strategy for the Design of Small-Molecular Nonfullerene Acceptors. Journal of Physical Chemistry C, 2018, 122, 29122-29128.	1.5	79
22	UV-Cross-linkable Donorâ€“Acceptor Polymers Bearing a Photostable Conjugated Backbone for Efficient and Stable Organic Photovoltaics. ACS Applied Materials & Interfaces, 2018, 10, 35430-35440.	4.0	22
23	Effect of Molecular Shape on the Properties of Non-Fullerene Acceptors: Contrasting Calamitic Versus 3D Design Principles. ACS Applied Energy Materials, 2018, 1, 6513-6523.	2.5	10
24	Efficient Ternary Organic Photovoltaics Using Two Conjugated Polymers and a Nonfullerene Acceptor with Complementary Absorption and Cascade Energy-Level Alignment. Journal of Physical Chemistry C, 2018, 122, 24585-24591.	1.5	13
25	Efficient Polymer Solar Cells with Open-Circuit Voltage of 1.01 V and Power Conversion Efficiency of 8.09%. ACS Omega, 2018, 3, 11562-11568.	1.6	6
26	Interlayer Modification Using Eco-friendly Glucose-Based Natural Polymers in Polymer Solar Cells. ACS Sustainable Chemistry and Engineering, 2018, 6, 14621-14630.	3.2	33
27	Side-chain effect of perylene diimide tetramer-based non-fullerene acceptors for improving the performance of organic solar cells. Materials Chemistry Frontiers, 2018, 2, 2104-2108.	3.2	13
28	Efficient Ternary Organic Solar Cells with Two Compatible Nonâ€Fullerene Materials as One Alloyed Acceptor. Small, 2018, 14, e1802983.	5.2	55
29	Suppression of Recombination Energy Losses by Decreasing the Energetic Offsets in Perylene Diimide-Based Nonfullerene Organic Solar Cells. ACS Energy Letters, 2018, 3, 2729-2735.	8.8	50
30	Improved performance of non-fullerene polymer solar cells by simple structural change of asymmetric acceptor based on indenothiophene. Synthetic Metals, 2018, 246, 164-171.	2.1	5
31	Across the Board: Antonio Facchetti. ChemSusChem, 2018, 11, 3829-3833.	3.6	2
32	Explicit Method To Evaluate the External Reorganization Energy of Charge-Transfer Reactions in Oligoacene Crystals Using the State-Specific Polarizable Force Field. Journal of Physical Chemistry A, 2018, 122, 8957-8964.	1.1	10
33	Chlorine Atom-Induced Molecular Interlocked Network in a Non-Fullerene Acceptor. ACS Applied Materials & Interfaces, 2018, 10, 39992-40000.	4.0	113
34	Starâ€Shaped and Fused Electron Acceptors based on C 3 h â€Symmetric Coplanar Trindeno[1,â€‰2â€b:â€‰4,â€‰5â€bâ€²:â€‰7,â€‰8â€bâ€²â€²]trithiophene Core for Nonâ€Fullerene Solar Cells. Chemistry - A European Journal, 2018, 25, 1055-1063.	5.6	12
35	Asymmetrical vs Symmetrical Selenophene-Annulated Fused Perylenediimide Acceptors for Efficient Non-Fullerene Polymer Solar Cells. ACS Applied Energy Materials, 2018, 1, 6577-6585.	2.5	42
36	Pyran-annulated perylene diimide derivatives as non-fullerene acceptors for high performance organic solar cells. Journal of Materials Chemistry C, 2018, 6, 11111-11117.	2.7	16

#	Article	IF	Citations
37	The effect of imide substituents on the optical properties of perylene diimide derivatives. Luminescence, 2018, 33, 1209-1216.	1.5	7
38	A tetrameric perylene diimide non-fullerene acceptor via unprecedented direct (hetero)arylation cross-coupling reactions. Chemical Communications, 2018, 54, 11443-11446.	2.2	28
39	Reduced Energy Offsets and Low Energy Losses Lead to Efficient (â^¼10% at 1 sun) Ternary Organic Solar Cells. ACS Energy Letters, 2018, 3, 2418-2424.	8.8	20
40	Use of two structurally similar small molecular acceptors enabling ternary organic solar cells with high efficiencies and fill factors. Energy and Environmental Science, 2018, 11, 3275-3282.	15.6	261
41	Extension of indacenodithiophene backbone conjugation enables efficient asymmetric Aâ€“Dâ€“A type non-fullerene acceptors. Journal of Materials Chemistry A, 2018, 6, 18847-18852.	5.2	80
42	Synthesis of star-shaped non-fullerene acceptors and their applications in organic solar cells. Synthetic Metals, 2018, 245, 167-174.	2.1	3
43	Lowâ€Temperature Processable Highâ€Performance Dâ€“Aâ€Type Random Copolymers for Nonfullerene Polymer Solar Cells and Application to Flexible Devices. Advanced Energy Materials, 2018, 8, 1801601.	10.2	31
44	Small-Molecule Electron Acceptors for Efficient Non-fullerene Organic Solar Cells. Frontiers in Chemistry, 2018, 6, 414.	1.8	62
45	Atomistic Insight Into Donor/Acceptor Interfaces in Highâ€Efficiency Nonfullerene Organic Solar Cells. Solar Rrl, 2018, 2, 1800190.	3.1	47
46	Regioregular and Regioirregular Poly(selenophene-perylene diimide) Acceptors for Polymerâ€“Polymer Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 32397-32403.	4.0	21
47	Alkyl Chain End Group Engineering of Small Molecule Acceptors for Non-Fullerene Organic Solar Cells. ACS Applied Energy Materials, 2018, 1, 4724-4730.	2.5	19
48	Electron-poor arylenediimides. Organic Chemistry Frontiers, 2018, 5, 2254-2276.	2.3	93
49	Measuring Temperature-Dependent Miscibility for Polymer Solar Cell Blends: An Easily Accessible Optical Method Reveals Complex Behavior. Chemistry of Materials, 2018, 30, 3943-3951.	3.2	38
50	A Concise and Efficient Route to Electronâ€Accepting 2,2â€²â€[2,2â€²â€Arenediylbis(11â€oxoanthra[1,2â€b]thiopheneâ€6â€ylidene)]dipropanedinitriles. European Journal of Organic Chemistry, 2018, 2018, 2259-2266.	2.8	4
51	Sulfanilic Acid Pending on a Graphene Scaffold: Novel, Efficient Synthesis and Much Enhanced Polymer Solar Cell Efficiency and Stability Using It as a Hole Extraction Layer. ACS Applied Materials & Interfaces, 2018, 10, 24679-24688.	4.0	12
52	Design and synthesis of medium-bandgap small-molecule electron acceptors for efficient tandem solar cells. Journal of Materials Chemistry A, 2018, 6, 13588-13592.	5.2	16
53	Bandgap Narrowing in Nonâ€Fullerene Acceptors: Single Atom Substitution Leads to High Optoelectronic Response Beyond 1000 nm. Advanced Energy Materials, 2018, 8, 1801212.	10.2	125
54	Fluorination vs. chlorination: a case study on high performance organic photovoltaic materials. Science China Chemistry, 2018, 61, 1328-1337.	4.2	177

#	Article	IF	Citations
55	Nonfullerene Polymer Solar Cells Reaching a 9.29% Efficiency Using a BODIPY-Thiophene Backboned Donor Material. ACS Applied Energy Materials, 2018, 1, 3359-3368.	2.5	22
56	Enhancing the performance of non-fullerene organic solar cells via end group engineering of fused-ring electron acceptors. Journal of Materials Chemistry A, 2018, 6, 16638-16644.	5.2	47
57	A chlorinated low-bandgap small-molecule acceptor for organic solar cells with 14.1% efficiency and low energy loss. Science China Chemistry, 2018, 61, 1307-1313.	4.2	210
58	The Crucial Role of Chlorinated Thiophene Orientation in Conjugated Polymers for Photovoltaic Devices. Angewandte Chemie, 2018, 130, 13093-13097.	1.6	8
59	Synergistic Effects of Fluorination and Alkylthiolation on the Photovoltaic Performance of the Poly(benzodithiophene-benzothiadiazole) Copolymers. ACS Applied Energy Materials, 2018, 1, 4686-4694.	2.5	9
60	Modulation of End Groups for Lowâ€Bandgap Nonfullerene Acceptors Enabling Highâ€Performance Organic Solar Cells. Advanced Energy Materials, 2018, 8, 1801203.	10.2	99
61	Novel Star-Shaped Helical Perylene Diimide Electron Acceptors for Efficient Additive-Free Nonfullerene Organic Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 27894-27901.	4.0	59
62	Synergetic effects of acid treatment and localized surface plasmon resonance in PEDOT:PSS layers by doping HAuCl4 for efficient polymer solar cells. Organic Electronics, 2018, 62, 121-132.	1.4	14
63	Extended Conjugation Length of Nonfullerene Acceptors with Improved Planarity via Noncovalent Interactions for Highâ€Performance Organic Solar Cells. Advanced Energy Materials, 2018, 8, 1801618.	10.2	102
64	The Crucial Role of Chlorinated Thiophene Orientation in Conjugated Polymers for Photovoltaic Devices. Angewandte Chemie - International Edition, 2018, 57, 12911-12915.	7.2	87
65	Nonfullerene Acceptors with Enhanced Solubility and Ordered Packing for High-Efficiency Polymer Solar Cells. ACS Energy Letters, 2018, 3, 1832-1839.	8.8	115
66	Overcoming Spaceâ€Charge Effect for Efficient Thickâ€Film Nonâ€Fullerene Organic Solar Cells. Advanced Energy Materials, 2018, 8, 1801609.	10.2	62
67	Design of Nonfullerene Acceptors with Nearâ€Infrared Light Absorption Capabilities. Advanced Energy Materials, 2018, 8, 1801209.	10.2	95
68	Nonfullerene small-molecule acceptors with perpendicular side-chains for fullerene-free solar cells. Journal of Materials Chemistry A, 2018, 6, 15433-15455.	5.2	76
69	How To Optimize Materials and Devices via Design of Experiments and Machine Learning: Demonstration Using Organic Photovoltaics. ACS Nano, 2018, 12, 7434-7444.	7.3	219
70	Naphthobistriazole-based wide bandgap donor polymers for efficient non-fullerene organic solar cells: Significant fine-tuning absorption and energy level by backbone fluorination. Nano Energy, 2018, 53, 258-269.	8.2	37
71	Organic and solution-processed tandem solar cells with 17.3% efficiency. Science, 2018, 361, 1094-1098.	6.0	2,262
72	A tetrachlorinated molecular non-fullerene acceptor for high performance near-IR absorbing organic solar cells. Journal of Materials Chemistry C, 2018, 6, 9060-9064.	2.7	17

#	Article	IF	Citations
73	Branched 2â€Ethylhexyl Substituted Indacenodithieno[3,2â€b]Thiophene Core Enabling Wideâ€Bandgap Small Molecule for Fulleneâ€Based Organic Solar Cells with 9.15% Efficiency: Effect of Length and Position of Fused Polycyclic Aromatic Units. Solar Rrl, 2018, 2, 1800108.	3.1	8
74	Subphthalocyanine-cored star-shaped electron acceptors with perylene diimide wings for non-fullerene solar cells. Journal of Materials Chemistry C, 2018, 6, 7141-7148.	2.7	16
75	Star-shaped small molecule acceptors with a subphthalocyanine core for solution-processed non-fullerene solar cells. Dyes and Pigments, 2019, 160, 243-251.	2.0	20
76	Alkyl side-chain and fluorination engineering in the indeno[1,2-b]fluorene-based small-molecule acceptors for efficient non-fullerene organic solar cells. Dyes and Pigments, 2019, 160, 432-438.	2.0	12
77	Molecular Tuning of Titanium Complexes with Controllable Work Function for Efficient Organic Photovoltaics. Journal of Physical Chemistry C, 2019, 123, 20800-20807.	1.5	4
78	Preparation of Tetrazole-fused Ï€-Conjugated Molecules and Their Fluorescence Behavior. Chemistry Letters, 2019, 48, 662-665.	0.7	3
79	Fused Cyclopentadithienothiophene Acceptor Enables Ultrahigh Shortâ€Circuit Current and High Efficiency >11% in Asâ€Cast Organic Solar Cells. Advanced Functional Materials, 2019, 29, 1904956.	7.8	26
80	Amorphous electron donors with controllable morphology for non-fullerene polymer solar cells. Journal of Materials Chemistry C, 2019, 7, 10881-10890.	2.7	5
81	Methane-perylene diimide-based small molecule acceptors for high efficiency non-fullerene organic solar cells. Journal of Materials Chemistry C, 2019, 7, 10901-10907.	2.7	19
82	16.67% Rigid and 14.06% Flexible Organic Solar Cells Enabled by Ternary Heterojunction Strategy. Advanced Materials, 2019, 31, e1902210.	11.1	497
83	Z-Shaped Fused-Chrysene Electron Acceptors for Organic Photovoltaics. ACS Applied Materials & Interfaces, 2019, 11, 33006-33011.	4.0	18
84	Morphology of small molecular donor/polymer acceptor blends in organic solar cells: effect of the Ï€â€“Ï€ stacking capability of the small molecular donors. Journal of Materials Chemistry C, 2019, 7, 10521-10529.	2.7	17
85	Nearâ€Infrared Nonfullerene Acceptors Based on Benzobis(thiazole) Unit for Efficient Organic Solar Cells with Low Energy Loss. Small Methods, 2019, 3, 1900531.	4.6	76
86	Homocoupling Defects of a Small Donor Molecule for Organic Photovoltaics: Quantification of the Eutectic State Diagram by Rapid Heatâ€“Cool Differential Scanning Calorimetry. Journal of Physical Chemistry C, 2019, 123, 22634-22642.	1.5	1
87	Tetrahydroxyâ€Perylene Bisimide Embedded in a Zinc Oxide Thin Film as an Electronâ€Transporting Layer for Highâ€Performance Nonâ€Fullerene Organic Solar Cells. Angewandte Chemie, 2019, 131, 13185-13189.	1.6	23
88	Quadrupolar Cyclopenta[hi]aceanthryleneâ€Based Electron Donorâ€Acceptorâ€Donor Conjugates: Charge Transfer versus Charge Separation. Angewandte Chemie - International Edition, 2019, 58, 14644-14652.	7.2	13
89	Rational design non-fullerene acceptor-based high efficiency BHJ polymer solar cells through theoretical investigations. Journal of Photochemistry and Photobiology A: Chemistry, 2019, 383, 111985.	2.0	6
90	Exploring Deep and Shallow Trap States in a Non-Fullerene Acceptor ITIC-Based Organic Bulk Heterojunction Photovoltaic System. Journal of Physical Chemistry C, 2019, 123, 20691-20697.	1.5	15

#	Article	IF	Citations
91	Perylene derivatives for solar cells and energy harvesting: a review of materials, challenges and advances. Journal of Materials Science: Materials in Electronics, 2019, 30, 15803-15824.	1.1	35
92	A multi-objective optimization-based layer-by-layer blade-coating approach for organic solar cells: rational control of vertical stratification for high performance. Energy and Environmental Science, 2019, 12, 3118-3132.	15.6	142
93	Facile synthesis of high-performance nonfullerene acceptor isomers via a one stone two birds strategy. Journal of Materials Chemistry A, 2019, 7, 20667-20674.	5.2	19
94	13.9%â€Efficiency and Ecoâ€Friendly Nonfullerene Polymer Solar Cells Obtained by Balancing Molecular Weight and Solubility in Chlorinated Thiopheneâ€Based Polymer Backbones. Small, 2019, 15, e1902598.	5.2	42
95	Tuning of the conformation of asymmetric nonfullerene acceptors for efficient organic solar cells. Journal of Materials Chemistry A, 2019, 7, 22279-22286.	5.2	67
96	Design of a Rigid Scaffold Structure toward Efficient and Stable Organic Photovoltaics. Matter, 2019, 1, 402-411.	5.0	8
97	Regio-Specific Selenium Substitution in Non-Fullerene Acceptors for Efficient Organic Solar Cells. Chemistry of Materials, 2019, 31, 6770-6778.	3.2	60
98	Molecular Orientation Unified Nonfullerene Acceptor Enabling 14% Efficiency Asâ€Cast Organic Solar Cells. Advanced Functional Materials, 2019, 29, 1903269.	7.8	56
99	A two-dimensional halogenated thiophene side-chain strategy for balancing Voc and Jsc and improving efficiency of non-fullerene small molecule acceptor-based organic solar cells. Journal of Materials Chemistry A, 2019, 7, 20274-20284.	5.2	33
100	Synthesis and Physical Study of Perylene and Anthracene Polynitrile as Electron Acceptors. Organic Letters, 2019, 21, 5397-5401.	2.4	3
101	Star-Shaped Fused-Ring Electron Acceptors with a C_{3h}-Symmetric and Electron-Rich Benzotri(cyclopentadithiophene) Core for Efficient Nonfullerene Organic Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 28115-28124.	4.0	25
102	Quantifying the Nongeminate Recombination Dynamics in Nonfullerene Bulk Heterojunction Organic Solar Cells. Advanced Energy Materials, 2019, 9, 1901438.	10.2	115
103	Highâ€Efficiency Asâ€Cast Organic Solar Cells Based on Acceptors with Steric Hindrance Induced Planar Terminal Group. Advanced Energy Materials, 2019, 9, 1901280.	10.2	86
104	Starâ€Shaped Nonâ€Fullerene Small Acceptors for Organic Solar Cells. ChemSusChem, 2019, 12, 4570-4600.	3.6	36
105	Tuning the absorption range of naphthothiophene diimide-based acceptors for organic solar cells. Dyes and Pigments, 2019, 171, 107691.	2.0	0
106	Alkyl Chain Length Effects of Polymer Donors on the Morphology and Device Performance of Polymer Solar Cells with Different Acceptors. Advanced Energy Materials, 2019, 9, 1901740.	10.2	88
107	Ring fusion attenuates the device performance: star-shaped long helical perylene diimide based non-fullerene acceptors. Journal of Materials Chemistry C, 2019, 7, 9564-9572.	2.7	25
108	C60-small arylamine push-pull dyads for single-material organic solar cells. Dyes and Pigments, 2019, 171, 107748.	2.0	9

#	Article	IF	Citations
109	Rhodanine-based nonfullerene acceptors for organic solar cells. Science China Materials, 2019, 62, 1574-1596.	3.5	19
110	Structural engineering of pyrrolo[3,4-f]benzotriazole-5,7(2H,6H)-dione-based polymers for non-fullerene organic solar cells with an efficiency over 12%. Journal of Materials Chemistry A, 2019, 7, 19522-19530.	5.2	10
111	Tetrahydroxyâ€Perylene Bisimide Embedded in a Zinc Oxide Thin Film as an Electronâ€Transporting Layer for Highâ€Performance Nonâ€Fullerene Organic Solar Cells. Angewandte Chemie - International Edition, 2019, 58, 13051-13055.	7.2	54
112	Asymmetric Aâ€“Dâ€“Iâ€“A-type nonfullerene small molecule acceptors for efficient organic solar cells. Journal of Materials Chemistry A, 2019, 7, 19348-19354.	5.2	33
113	A fully fused non-fullerene acceptor containing angular-shaped S,N-heteroacene and perylene diimide for additive-free organic solar cells. New Journal of Chemistry, 2019, 43, 13775-13782.	1.4	5
114	Designing promising molecules for organic solar cells via machine learning assisted virtual screening. Journal of Materials Chemistry A, 2019, 7, 17480-17488.	5.2	80
115	Emerging research directions for n-type conjugated polymers. Journal of Materials Chemistry C, 2019, 7, 12809-12821.	2.7	59
116	Alkylthiazole-based semicrystalline polymer donors for fullerene-free organic solar cells. Polymer Chemistry, 2019, 10, 4314-4321.	1.9	14
117	Enhancing thermal stability of nonfullerene organic solar cells via fluoro-side-chain engineering. Journal of Materials Chemistry C, 2019, 7, 9513-9522.	2.7	31
118	Conjugated Copolymers of Poly(arylenevinylene)s: Synthesis by Ring-Opening Metathesis Polymerization, Film Morphology, and Resonant Luminescence from Microspheres. ACS Applied Polymer Materials, 2019, 1, 2240-2248.	2.0	6
119	Importance of Side-Chains on Molecular Characteristics of Interacting Organic Molecules. ACS Omega, 2019, 4, 10396-10404.	1.6	1
120	Chlorination Strategyâ€Induced Abnormal Nanomorphology Tuning in Highâ€Efficiency Organic Solar Cells: A Study of Phenylâ€Substituted Benzodithiopheneâ€Based Nonfullerene Acceptors. Solar Rrl, 2019, 3, 1900262.	3.1	17
121	Quadrupolar Cyclopenta[hi]aceanthryleneâ€Based Electron Donorâ€Acceptorâ€Donor Conjugates: Charge Transfer versus Charge Separation. Angewandte Chemie, 2019, 131, 14786-14794.	1.6	3
122	Supramolecular Nanowires from an Acceptorâ€“Donorâ€“Acceptor Conjugated Chromophore. Chemistry - A European Journal, 2019, 25, 16725-16731.	1.7	14
123	Thieno[2,3-f]benzofuran based donor-acceptor polymer for fullerene-free solar cells. European Polymer Journal, 2019, 120, 109205.	2.6	4
124	Alkyl Chain Tuning of Small Molecule Acceptors for Efficient Organic Solar Cells. Joule, 2019, 3, 3020-3033.	11.7	763
125	Interplay between Charge Carrier Mobility, Exciton Diffusion, Crystal Packing, and Charge Separation in Perylene Diimide-Based Heterojunctions. ACS Applied Energy Materials, 2019, 2, 8010-8021.	2.5	28
126	A New Wide Bandgap Donor Polymer for Efficient Nonfullerene Organic Solar Cells with a Large Openâ€Circuit Voltage. Advanced Science, 2019, 6, 1901773.	5.6	61

#	Article	IF	Citations
127	A wide bandgap conjugated polymer donor based on alkoxyl-fluorophenyl substituted benzodithiophene for high performance non-fullerene polymer solar cells. Journal of Materials Chemistry A, 2019, 7, 1307-1314.	5.2	24
128	Perylene diimide based star-shaped small molecular acceptors for high efficiency organic solar cells. Journal of Materials Chemistry C, 2019, 7, 819-825.	2.7	37
129	Rational Tuning of Molecular Interaction and Energy Level Alignment Enables Highâ€Performance Organic Photovoltaics. Advanced Materials, 2019, 31, e1904215.	11.1	162
130	Side chain effect on conjugated polymer/fullerene interfaces in organic solar cells: a DFT study. Physical Chemistry Chemical Physics, 2019, 21, 23978-23995.	1.3	5
131	Enhancing phase separation with a conformation-locked nonfullerene acceptor for over 14.4% efficiency solar cells. Journal of Materials Chemistry C, 2019, 7, 13279-13286.	2.7	20
132	Theoretical Insight into Multiple Charge-Transfer Mechanisms at the P3HT/Nonfullerenes Interface in Organic Solar Cells. ACS Sustainable Chemistry and Engineering, 2019, 7, 19699-19707.	3.2	27
133	P3HTâ€Based Polymer Solar Cells with 8.25% Efficiency Enabled by a Matched Molecular Acceptor and Smart Greenâ€Solvent Processing Technology. Advanced Materials, 2019, 31, e1906045.	11.1	118
134	Small Molecular Donor/Polymer Acceptor Type Organic Solar Cells: Effect of Molecular Weight on Active Layer Morphology. Macromolecules, 2019, 52, 8682-8689.	2.2	33
135	Additiveâ€Free Nonâ€Fullerene Organic Solar Cells. ChemElectroChem, 2019, 6, 5547-5562.	1.7	11
136	Twisting the TAPPs: Bay â€Substituted Nonâ€planar Tetraazaperoâ€pyrenes and their Reduced Anions. Chemistry - A European Journal, 2019, 25, 14669-14678.	1.7	12
137	Recent advances in molecular design of functional conjugated polymers for high-performance polymer solar cells. Progress in Polymer Science, 2019, 99, 101175.	11.8	140
138	Measuring Competing Recombination Losses in a Significantly Reduced Langevin System by Steady-State Photoinduced Absorption and Photocurrent Spectroscopy. Journal of Physical Chemistry C, 2019, 123, 27417-27422.	1.5	11
139	A distorted lactam unit with intramolecular hydrogen bonds as the electron donor of polymer solar cells. Journal of Materials Chemistry C, 2019, 7, 12290-12296.	2.7	4
140	Perylene Diimideâ€Based Nonfullerene Polymer Solar Cells with over 11% Efficiency Fabricated by Smart Molecular Design and Supramolecular Morphology Optimization. Advanced Functional Materials, 2019, 29, 1906587.	7.8	63
141	Original Suzukiâ€“Miyaura Coupling Using Nitro Derivatives for the Synthesis of Perylenediimideâ€Based Multimers. European Journal of Organic Chemistry, 2019, 2019, 7635-7643.	1.2	19
142	Rylene Annulated Subphthalocyanine: A Promising Cone-Shaped Non-Fullerene Acceptor for Organic Solar Cells. , 2019, 1, 404-409.		38
143	Fused octacyclic electron acceptor isomers for organic solar cells. Journal of Materials Chemistry A, 2019, 7, 21432-21437.	5.2	26
144	Ultra-narrow bandgap non-fullerene acceptors for organic solar cells with low energy loss. Materials Chemistry Frontiers, 2019, 3, 2157-2163.	3.2	19

#	Article	IF	Citations
145	Photoactive organic material discovery with combinatorial supramolecular assembly. Nanoscale Advances, 2019, 1, 3858-3869.	2.2	10
146	Ï€-Extension improves the photovoltaic performance: a helical perylene diimide oligomer based three-dimensional non-fullerene acceptor. Materials Chemistry Frontiers, 2019, 3, 2414-2420.	3.2	15
147	Intrinsic photo-degradation and mechanism of polymer solar cells: the crucial role of non-fullerene acceptors. Journal of Materials Chemistry A, 2019, 7, 25830-25837.	5.2	114
148	Revealing the Critical Role of the HOMO Alignment on Maximizing Current Extraction and Suppressing Energy Loss in Organic Solar Cells. IScience, 2019, 19, 883-893.	1.9	68
149	Tuning the molecular packing and energy levels of fullerene acceptors for polymer solar cells. Journal of Materials Chemistry C, 2019, 7, 12688-12694.	2.7	5
150	Optimizing domain size and phase purity in all-polymer solar cells by solution ordered aggregation and confinement effect of the acceptor. Journal of Materials Chemistry C, 2019, 7, 12560-12571.	2.7	42
151	Highly Efficient Indoor Organic Solar Cells by Voltage Loss Minimization through Fine-Tuning of Polymer Structures. ACS Applied Materials & Interfaces, 2019, 11, 36905-36916.	4.0	49
152	Reversible Chemical Reactivity of Non-Fullerene Acceptors for Organic Solar Cells under Acidic and Basic Environment. ACS Applied Energy Materials, 2019, 2, 7602-7608.	2.5	60
153	A non-fullerene acceptor based on alkylphenyl substituted benzodithiophene for high efficiency polymer solar cells with a small voltage loss and excellent stability. Journal of Materials Chemistry A, 2019, 7, 24366-24373.	5.2	28
154	Influence of Acceptor Type and Polymer Molecular Weight on the Mechanical Properties of Polymer Solar Cells. Chemistry of Materials, 2019, 31, 9057-9069.	3.2	102
155	Quadruply Bâ†N-Fused Dibenzo-azaacene with High Electron Affinity and High Electron Mobility. Journal of the American Chemical Society, 2019, 141, 17015-17021.	6.6	93
156	Enhancing photovoltaic performance by tuning the domain sizes of a small-molecule acceptor by side-chain-engineered polymer donors. Journal of Materials Chemistry A, 2019, 7, 3072-3082.	5.2	68
157	Separating Crystallization Process of P3HT and Oâ€DTBR to Construct Highly Crystalline Interpenetrating Network with Optimized Vertical Phase Separation. Advanced Functional Materials, 2019, 29, 1807591.	7.8	82
158	Designing Alternative Nonâ€Fullerene Molecular Electron Acceptors for Solutionâ€Processable Organic Photovoltaics. Chemical Record, 2019, 19, 1078-1092.	2.9	9
159	Low-Energy-Loss Polymer Solar Cells with 14.52% Efficiency Enabled by Wide-Band-Gap Copolymers. IScience, 2019, 12, 1-12.	1.9	62
160	Pyrene-fused PDI based ternary solar cells: high power conversion efficiency over 10%, and improved device thermal stability. Materials Chemistry Frontiers, 2019, 3, 93-102.	3.2	27
161	Quaternary polymer solar cells with over 13% efficiency enabled by improving film-morphologiesviabinary mixed fullerene additive. Materials Chemistry Frontiers, 2019, 3, 301-307.	3.2	11
162	Highly-efficient semi-transparent organic solar cells utilising non-fullerene acceptors with optimised multilayer MoO₃/Ag/MoO₃ electrodes. Materials Chemistry Frontiers, 2019, 3, 450-455.	3.2	40

#	Article	IF	Citations
163	Green solvent-processed efficient non-fullerene organic solar cells enabled by low-bandgap copolymer donors with EDOT side chains. Journal of Materials Chemistry A, 2019, 7, 716-726.	5.2	45
164	NIR absorbing ortho-Ï€-extended perylene bisimide as a promising material for bulk heterojunction organic solar cells. Journal of Materials Chemistry A, 2019, 7, 3012-3017.	5.2	5
165	A decacyclic indacenodithiophene-based non-fullerene electron acceptor with meta-alkyl-phenyl substitutions for polymer solar cells. Journal of Materials Chemistry A, 2019, 7, 4063-4071.	5.2	17
166	A naphthalimide end capped imide-fused benzothiadiazole based small molecule acceptor for organic solar cells. New Journal of Chemistry, 2019, 43, 3565-3571.	1.4	4
167	A Terminally Tetrafluorinated Nonfullerene Acceptor for Wellâ€Performing Alloy Ternary Solar Cells. Advanced Functional Materials, 2019, 29, 1805872.	7.8	70
168	Photostability of Fullerene and Non-Fullerene Polymer Solar Cells: The Role of the Acceptor. ACS Applied Materials & Interfaces, 2019, 11, 8310-8318.	4.0	91
169	Molecular engineering of central fused-ring cores of non-fullerene acceptors for high-efficiency organic solar cells. Journal of Materials Chemistry A, 2019, 7, 4313-4333.	5.2	122
170	Fluorination Effects on Indacenodithienothiophene Acceptor Packing and Electronic Structure, End-Group Redistribution, and Solar Cell Photovoltaic Response. Journal of the American Chemical Society, 2019, 141, 3274-3287.	6.6	336
171	Ultrafast hole transfer mediated by polaron pairs in all-polymer photovoltaic blends. Nature Communications, 2019, 10, 398.	5.8	56
172	Enabling low voltage losses and high photocurrent in fullerene-free organic photovoltaics. Nature Communications, 2019, 10, 570.	5.8	377
173	Achieving Balanced Charge Transport and Favorable Blend Morphology in Non-Fullerene Solar Cells via Acceptor End Group Modification. Chemistry of Materials, 2019, 31, 1752-1760.	3.2	48
174	A new dialkylthio-substituted naphtho[2,3-c]thiophene-4,9-dione based polymer donor for high-performance polymer solar cells. Energy and Environmental Science, 2019, 12, 675-683.	15.6	71
175	A universal layer-by-layer solution-processing approach for efficient non-fullerene organic solar cells. Energy and Environmental Science, 2019, 12, 384-395.	15.6	193
176	Understanding charge carrier dynamics in a P3HT:FLR blend. Physical Chemistry Chemical Physics, 2019, 21, 2771-2782.	1.3	7
177	First-principles theoretical designing of planar non-fullerene small molecular acceptors for organic solar cells: manipulation of noncovalent interactions. Physical Chemistry Chemical Physics, 2019, 21, 2128-2139.	1.3	82
178	Slow magnetic relaxation in a {EuCu₅} metallacrown. Dalton Transactions, 2019, 48, 1686-1692.	1.6	24
179	Pairing 1D/2D-conjugation donors/acceptors towards high-performance organic solar cells. Materials Chemistry Frontiers, 2019, 3, 276-283.	3.2	9
180	Multifunctional asymmetrical molecules for high-performance perovskite and organic solar cells. Journal of Materials Chemistry A, 2019, 7, 2412-2420.	5.2	14

#	Article	IF	Citations
181	Terminal group engineering for small-molecule donors boosts the performance of nonfullerene organic solar cells. Journal of Materials Chemistry A, 2019, 7, 2541-2546.	5.2	45
182	Chlorinated Thiophene End Groups for Highly Crystalline Alkylated Non-Fullerene Acceptors toward Efficient Organic Solar Cells. Chemistry of Materials, 2019, 31, 6672-6676.	3.2	48
183	Solar cell efficiency tables (version 54). Progress in Photovoltaics: Research and Applications, 2019, 27, 565-575.	4.4	1,096
184	The Accelerating World of Graphdiynes. Advanced Materials, 2019, 31, e1804211.	11.1	86
185	Recent Advances, Design Guidelines, and Prospects of All-Polymer Solar Cells. Chemical Reviews, 2019, 119, 8028-8086.	23.0	566
186	A comprehensive review on the reasons behind low power conversion efficiency of dibenzo derivatives based donors in bulk heterojunction organic solar cells. Organic Electronics, 2019, 73, 182-204.	1.4	24
187	Diffusion-Limited Crystallization: A Rationale for the Thermal Stability of Non-Fullerene Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 21766-21774.	4.0	82
188	Over 16% efficiency organic photovoltaic cells enabled by a chlorinated acceptor with increased open-circuit voltages. Nature Communications, 2019, 10, 2515.	5.8	1,431
189	Side-Chain Engineering To Optimize the Charge Transport Properties of Isoindigo-Based Random Terpolymers for High-Performance Organic Field-Effect Transistors. Macromolecules, 2019, 52, 4765-4775.	2.2	23
190	End Group Tuning in Acceptorâ€“Donorâ€“Acceptor Nonfullerene Small Molecules for High Fill Factor Organic Solar Cells. Advanced Functional Materials, 2019, 29, 1808429.	7.8	41
191	Temperatureâ€Dependent Aggregation Donor Polymers Enable Highly Efficient Sequentially Processed Organic Photovoltaics Without the Need of Orthogonal Solvents. Advanced Functional Materials, 2019, 29, 1902478.	7.8	50
192	Strategic end-halogenation of Ï€-conjugated small molecules enabling fine morphological control and enhanced performance of organic solar cells. Journal of Materials Chemistry A, 2019, 7, 14806-14815.	5.2	21
193	Simply planarizing nonfused perylene diimide based acceptors toward promising non-fullerene solar cells. Journal of Materials Chemistry C, 2019, 7, 8092-8100.	2.7	17
194	Solutionâ€Processed Semitransparent Organic Photovoltaics: From Molecular Design to Device Performance. Advanced Materials, 2019, 31, e1900904.	11.1	168
195	Rylene Diimide Electron Acceptors for Organic Solar Cells. Trends in Chemistry, 2019, 1, 869-881.	4.4	66
196	Singleâ€Junction Polymer Solar Cells with 16.35% Efficiency Enabled by a Platinum(II) Complexation Strategy. Advanced Materials, 2019, 31, e1901872.	11.1	498
197	Origin of Photocurrent and Voltage Losses in Organic Solar Cells. Advanced Theory and Simulations, 2019, 2, 1900067.	1.3	46
198	Rational Design of a Narrow-Bandgap Conjugated Polymer Using the Quinoidal Thieno[3,2-b]thiophene-Based Building Block for Organic Field-Effect Transistor Applications. Macromolecules, 2019, 52, 4749-4756.	2.2	41

#	Article	IF	Citations
199	Achieving Both Enhanced Voltage and Current through Fineâ€Tuning Molecular Backbone and Morphology Control in Organic Solar Cells. Advanced Energy Materials, 2019, 9, 1901024.	10.2	73
200	Synthesis, Characterization, and Crystal Structures of Imides Condensed with p-Phenylamino(Phenyl) Amine and Fluorescence Property. Materials, 2019, 12, 1873.	1.3	1
201	Fullerene-free polymer solar cells enabled with a PhI-based wide band gap donor polymer: promoting efficienciesviaacceptor screening and device engineering. Journal of Materials Chemistry C, 2019, 7, 8442-8449.	2.7	7
202	The interface effect between ZIXLIB crystal surface and C60: Strong charge-transfer (CT) vs weak CT state. Chemical Physics Letters, 2019, 730, 266-270.	1.2	1
203	Efficient ternary organic solar cells based on a twin spiro-type non-fullerene acceptor. Science Bulletin, 2019, 64, 1087-1094.	4.3	11
204	Achieving a High Fill Factor and Stability in Perylene Diimideâ€"Based Polymer Solar Cells Using the Molecular Lock Effect between 4,4â€²â€Bipyridine and a Tri(8â€hydroxyquinoline)aluminum(III) Core. Advanced Functional Materials, 2019, 29, 1902079.	7.8	33
205	Miscibility Tuning for Optimizing Phase Separation and Vertical Distribution toward Highly Efficient Organic Solar Cells. Advanced Science, 2019, 6, 1900565.	5.6	87
206	A p-Ï€* conjugated triarylborane as an alcohol-processable n-type semiconductor for organic optoelectronic devices. Journal of Materials Chemistry C, 2019, 7, 7427-7432.	2.7	42
207	Effect of Ï€-bridges on the performance of indeno[1,2-b]fluorene-based non-fullerene small molecular acceptors. Dyes and Pigments, 2019, 169, 22-28.	2.0	0
208	Efficient Polymeric Donor for Both Visible and Near-Infrared-Absorbing Organic Solar Cells. ACS Applied Energy Materials, 2019, 2, 4284-4291.	2.5	6
209	Influence of the backbone structure of the donor material and device processing conditions on the photovoltaic properties of small molecular BHJSCs. Solar Energy, 2019, 186, 84-93.	2.9	9
210	Design of wide-bandgap polymers with deeper ionization potential enables efficient ternary non-fullerene polymer solar cells with 13% efficiency. Journal of Materials Chemistry A, 2019, 7, 14153-14162.	5.2	27
211	Side-chain effect on the photovoltaic performance of conjugated polymers based on benzodifuran and benzodithiophene-4,8-dione. MRS Advances, 2019, 4, 2001-2007.	0.5	0
212	Impact of the Bonding Sites at the Inner or Outer Ï€-Bridged Positions for Non-Fullerene Acceptors. ACS Applied Materials & Interfaces, 2019, 11, 19444-19451.	4.0	24
213	High-Performance Polymer Solar Cells with Minimal Energy Loss Enabled by a Main-Chain-Twisted Nonfullerene Acceptor. Chemistry of Materials, 2019, 31, 4222-4227.	3.2	52
214	Stable large area organic solar cells realized by using random terpolymers donors combined with a ternary blend. Journal of Materials Chemistry A, 2019, 7, 14199-14208.	5.2	45
215	Local Excitation/Charge-Transfer Hybridization Simultaneously Promotes Charge Generation and Reduces Nonradiative Voltage Loss in Nonfullerene Organic Solar Cells. Journal of Physical Chemistry Letters, 2019, 10, 2911-2918.	2.1	73
216	Side-Chain Engineering of Nonfullerene Acceptors for Near-Infrared Organic Photodetectors and Photovoltaics. ACS Energy Letters, 2019, 4, 1401-1409.	8.8	182

#	Article	IF	Citations
217	Asymmetric Nonfullerene Small Molecule Acceptors for Organic Solar Cells. Advanced Energy Materials, 2019, 9, 1900999.	10.2	190
218	Increasing Quantum Efficiency of Polymer Solar Cells with Efficient Exciton Splitting and Long Carrier Lifetime by Molecular Doping at Heterojunctions. ACS Energy Letters, 2019, 4, 1356-1363.	8.8	45
219	Tuning Charge Generation Process of Rylene Imide-Based Solar Cells via Chalcogen-Atom-Annulation. Chemistry of Materials, 2019, 31, 3636-3643.	3.2	22
220	A Wideâ€Bandgap Conjugated Polymer Based on Quinoxalino[6,5â€fâ€‰â€‰]quinoxaline for Fullerene and Nonâ€Fullerene Polymer Solar Cells. Macromolecular Rapid Communications, 2019, 40, e1900120.	2.0	15
221	Tuning the Structure and Electronic Properties of Bâ€“N Fused Dipyridylanthracene and Implications on the Self-Sensitized Reactivity with Singlet Oxygen. Journal of the American Chemical Society, 2019, 141, 7453-7462.	6.6	93
222	Synthesis of Sulfurâ€Hybridized Pyracylene and the Unexpected Phenyl Shift Mediated Rearrangement of Scholl Reaction. European Journal of Organic Chemistry, 2019, 2019, 3061-3070.	1.2	10
223	Unconjugated Sideâ€Chain Engineering Enables Small Molecular Acceptors for Highly Efficient Nonâ€Fullerene Organic Solar Cells: Insights into the Fineâ€Tuning of Acceptor Properties and Micromorphology. Advanced Functional Materials, 2019, 29, 1902155.	7.8	105
224	Facile Synthesis of Polycyclic Aromatic Hydrocarbon (PAH)â€“Based Acceptors with Fineâ€Tuned Optoelectronic Properties: Toward Efficient Additiveâ€Free Nonfullerene Organic Solar Cells. Advanced Energy Materials, 2019, 9, 1803976.	10.2	51
225	Slot-die printed non-fullerene organic solar cells with the highest efficiency of 12.9% for low-cost PV-driven water splitting. Nano Energy, 2019, 61, 559-566.	8.2	65
226	New Dâ€“Aâ€“A-Configured Small-Molecule Donors for High-Efficiency Vacuum-Processed Organic Photovoltaics under Ambient Light. ACS Applied Materials & Interfaces, 2019, 11, 8337-8349.	4.0	50
227	Comprehensive Investigation and Analysis of Bulk-Heterojunction Microstructure of High-Performance PCE11:PCBM Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 18555-18563.	4.0	30
228	Nonhalogenated Solvent-Processed Fullerene-Free Ambient Stable Organic Solar Cells: Impact of Molecular Weight of New Ï€-Conjugated Donor Polymer on Efficiency. ACS Applied Energy Materials, 2019, 2, 4159-4166.	2.5	22
229	Delineation of Thermodynamic and Kinetic Factors that Control Stability in Non-fullerene Organic Solar Cells. Joule, 2019, 3, 1328-1348.	11.7	143
230	Efficient as-cast semi-transparent organic solar cells with efficiency over 9% and a high average visible transmittance of 27.6%. Physical Chemistry Chemical Physics, 2019, 21, 10660-10666.	1.3	29
231	P3HT Molecular Weight Determines the Performance of P3HT:Oâ€IDTBR Solar Cells. Solar Rrl, 2019, 3, 1900023.	3.1	27
232	An efficient, three-dimensional non-fullerene electron acceptor: functionalizing tetraphenylethylene with naphthalene diimides. Materials Chemistry Frontiers, 2019, 3, 1231-1237.	3.2	16
233	Electronic and optical properties of Ï€-bridged perylenediimide derivatives: the role of Ï€-bridges. Journal of Materials Chemistry A, 2019, 7, 12532-12537.	5.2	9
234	Recent Progress in Molecular Design of Fused Ring Electron Acceptors for Organic Solar Cells. Small, 2019, 15, e1900134.	5.2	126

#	Article	IF	Citations
235	Modulating morphology via side-chain engineering of fused ring electron acceptors for high performance organic solar cells. Science China Chemistry, 2019, 62, 790-796.	4.2	26
236	Subphthalocyanine Triimides: Solution Processable Bowl-Shaped Acceptors for Bulk Heterojunction Solar Cells. Organic Letters, 2019, 21, 3382-3386.	2.4	38
237	Benzo[1,2-b:4,5-bâ€²]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. Journal of Materials Chemistry A, 2019, 7, 11802-11813.	5.2	38
238	Chlorine Effects of Heterocyclic Ringâ€Based Donor Polymer for Lowâ€Cost and Highâ€Performance Nonfullerene Polymer Solar Cells. Solar Rrl, 2019, 3, 1900094.	3.1	31
239	Random Copolymers Outperform Gradient and Block Copolymers in Stabilizing Organic Photovoltaics. Advanced Functional Materials, 2019, 29, 1900467.	7.8	6
240	A diketopyrrolopyrrole-based nonfullerene acceptor for organic solar cells with a high open-circuit voltage of 1.17â€‰V. Polymer Journal, 2019, 51, 895-904.	1.3	4
241	High open-circuit voltage organic solar cells enabled by a difluorobenzoxadiazole-based conjugated polymer donor. Science China Chemistry, 2019, 62, 829-836.	4.2	10
242	Cooling-Induced NIR Emission Enhancement and Targeting Fluorescence Imaging of Biperylene Monoimide and Glycodendrimer Conjugates. ACS Macro Letters, 2019, 8, 381-386.	2.3	8
243	Improved photovoltaic performance of a nonfullerene acceptor based on a benzo[b]thiophene fused end group with extended Ï€-conjugation. Journal of Materials Chemistry A, 2019, 7, 9822-9830.	5.2	38
244	Low-bandgap non-fullerene acceptors based on selenophene Ï€ spacer and alkylated indaceno[1,2-b:5,6-bâ€²]dithiophene for organic solar cells. Organic Electronics, 2019, 69, 200-207.	1.4	10
245	Prediction of Oscillator Strength and Transition Dipole Moments with the Nuclear Ensemble Approach for Thermally Activated Delayed Fluorescence Emitters. Journal of Physical Chemistry C, 2019, 123, 10081-10086.	1.5	53
246	An extraordinary cyclohexylmethyl side chain dominating polymeric donor packing patterns and energy levels for efficient non-fullerene polymer solar cells. Journal of Materials Chemistry A, 2019, 7, 10505-10513.	5.2	18
247	Intramolecular Ï€-stacked perylene-diimide acceptors for non-fullerene organic solar cells. Journal of Materials Chemistry A, 2019, 7, 8136-8143.	5.2	34
248	A direct comparison of monomeric vs. dimeric and non-annulated vs. N-annulated perylene diimide electron acceptors for organic photovoltaics. New Journal of Chemistry, 2019, 43, 5187-5195.	1.4	28
249	Asymmetric fused-ring electron acceptor with two distinct terminal groups for efficient organic solar cells. Journal of Materials Chemistry A, 2019, 7, 8055-8060.	5.2	45
250	Progress in the synthesis of perylene bisimide dyes. Organic Chemistry Frontiers, 2019, 6, 1272-1318.	2.3	238
251	A ring fused N-annulated PDI non-fullerene acceptor for high open circuit voltage solar cells processed from non-halogenated solvents. Synthetic Metals, 2019, 250, 55-62.	2.1	23
252	Pluripotent Features of Doubly Thiopheneâ€Fused Benzodiphospholes as Organic Functional Materials. Chemistry - A European Journal, 2019, 25, 6425-6438.	1.7	11

#	Article	IF	Citations
253	A Tandem Organic Solar Cell with PCE of 14.52% Employing Subcells with the Same Polymer Donor and Two Absorption Complementary Acceptors. Advanced Materials, 2019, 31, e1804723.	11.1	48
254	The recent progress of wide bandgap donor polymers towards non-fullerene organic solar cells. Chinese Chemical Letters, 2019, 30, 809-825.	4.8	69
255	Energy level modulation of ITIC derivatives: Effects on the photodegradation of conventional and inverted organic solar cells. Organic Electronics, 2019, 69, 255-262.	1.4	31
256	Diketopyrrolopyrrole-based conjugated materials for non-fullerene organic solar cells. Journal of Materials Chemistry A, 2019, 7, 10174-10199.	5.2	111
257	High performance PDI based ternary organic solar cells fabricated with non-halogenated solvent. Organic Electronics, 2019, 73, 205-211.	1.4	29
258	Key Parameters Requirements for Nonâ€Fullereneâ€Based Organic Solar Cells with Power Conversion Efficiency >20%. Advanced Science, 2019, 6, 1802028.	5.6	149
259	Green-Solvent-Processed Conjugated Polymers for Organic Solar Cells: The Impact of Oligoethylene Glycol Side Chains. ACS Applied Polymer Materials, 2019, 1, 804-814.	2.0	39
260	Highly Efficient, Stable, and Ductile Ternary Nonfullerene Organic Solar Cells from a Twoâ€Donor Polymer Blend. Advanced Materials, 2019, 31, e1808279.	11.1	79
261	Chlorination strategy on polymer donors toward efficient solar conversions. Journal of Energy Chemistry, 2019, 39, 208-216.	7.1	36
262	Ternary polymer solar cells with alloyed donor achieving 14.13% efficiency and 78.4% fill factor. Nano Energy, 2019, 60, 768-774.	8.2	117
263	Fluorination-modulated end units for high-performance non-fullerene acceptors based organic solar cells. Science China Materials, 2019, 62, 1210-1217.	3.5	14
264	New Random Copolymer Acceptors Enable Additive-Free Processing of 10.1% Efficient All-Polymer Solar Cells with Near-Unity Internal Quantum Efficiency. ACS Energy Letters, 2019, 4, 1162-1170.	8.8	134
265	An A2â€“Ïâ€“A1â€“Ïâ€“A2-type small molecule donor for high-performance organic solar cells. Journal of Materials Chemistry C, 2019, 7, 5381-5384.	2.7	12
266	An Operando Study on the Photostability of Nonfullerene Organic Solar Cells. Solar Rrl, 2019, 3, 1900077.	3.1	59
267	Possible efficiency boosting of non-fullerene acceptor solar cell using device simulation. Optical Materials, 2019, 91, 239-245.	1.7	83
268	Photocatalytic effect of ZnO on the stability of nonfullerene acceptors and its mitigation by SnO‹sub›2‹/sub›for nonfullerene organic solar cells. Materials Horizons, 2019, 6, 1438-1443.	6.4	182
269	Inverse Optical Cavity Design for Ultrabroadband Light Absorption Beyond the Conventional Limit in Lowâ€Bandgap Nonfullerene Acceptorâ€“Based Solar Cells. Advanced Energy Materials, 2019, 9, 1900463.	10.2	24
270	An easily available near-infrared absorbing non-fullerene photovoltaic electron acceptor with indeno[1,2-b]indole as the central core. Dyes and Pigments, 2019, 166, 467-472.	2.0	8

#	Article	IF	Citations
271	Spinâ€Dependent Electronâ€“Hole Recombination and Dissociation in Nonfullerene Acceptor ITICâ€Based Organic Photovoltaic Systems. Solar Rrl, 2019, 3, 1900063.	3.1	16
272	Fluorination-substitution effect on all-small-molecule organic solar cells. Science China Chemistry, 2019, 62, 837-844.	4.2	32
273	Polythiophene Doping of the Cu-Based Metalâ€“Organic Framework (MOF) HKUST-1 Using Innate MOF-Initiated Oxidative Polymerization. Inorganic Chemistry, 2019, 58, 5561-5575.	1.9	20
274	Side-chain influences on the properties of benzodithiophene-alt-di(thiophen-2-yl)quinoxaline polymers for fullerene-free organic solar cells. Polymer, 2019, 172, 305-311.	1.8	13
275	Applying Heteroatom Substitution in Organic Photovoltaics. Chemical Record, 2019, 19, 1113-1122.	2.9	13
276	Nonfullerene Acceptor for Organic Solar Cells with Chlorination on Dithieno[3,2-b:2â€²,3â€²-d]pyrrol Fused-Ring. ACS Energy Letters, 2019, 4, 763-770.	8.8	102
277	Allâ€Day Operating Quaternary Blend Organic Photovoltaics. Advanced Functional Materials, 2019, 29, 1900154.	7.8	41
278	A benzo[1,2-d:4,5-dâ€²]bisthiazole-based wide-bandgap copolymer semiconductor for efficient fullerene-free organic solar cells with a small energy loss of 0.50 eV. Journal of Materials Chemistry A, 2019, 7, 5234-5238.	5.2	16
279	A probe into underlying factors affecting utrafast charge transfer at Donor/IDIC interface of all-small-molecule nonfullerene organic solar cells. Journal of Photochemistry and Photobiology A: Chemistry, 2019, 375, 1-8.	2.0	11
280	Multiple Fused Ring-Based Near-Infrared Nonfullerene Acceptors with an Interpenetrated Charge-Transfer Network. Chemistry of Materials, 2019, 31, 1664-1671.	3.2	67
281	Achieving 14.11% efficiency of ternary polymer solar cells by simultaneously optimizing photon harvesting and exciton distribution. Journal of Materials Chemistry A, 2019, 7, 7843-7851.	5.2	130
282	Boosting the Performance of Non-Fullerene Organic Solar Cells via Cross-Linked Donor Polymers Design. Macromolecules, 2019, 52, 2214-2221.	2.2	26
283	Unveiling Excitonic Dynamics in Highâ€Efficiency Nonfullerene Organic Solar Cells to Direct Morphological Optimization for Suppressing Charge Recombination. Advanced Science, 2019, 6, 1802103.	5.6	30
284	Impact of Bimolecular Recombination on the Fill Factor of Fullerene and Nonfullerene-Based Solar Cells: A Comparative Study of Charge Generation and Extraction. Journal of Physical Chemistry C, 2019, 123, 6823-6830.	1.5	20
285	Accurate Prediction for Dynamic Hybrid Local and Charge Transfer Excited States from Optimally Tuned Range-Separated Density Functionals. Journal of Physical Chemistry C, 2019, 123, 5616-5625.	1.5	19
287	Acceptor Gradient Polymer Donors for Non-Fullerene Organic Solar Cells. Chemistry of Materials, 2019, 31, 9729-9741.	3.2	15
288	Achieving high-performance non-halogenated nonfullerene acceptor-based organic solar cells with 13.7% efficiencyviaa synergistic strategy of an indacenodithieno[3,2-b]selenophene core unit and non-halogenated thiophene-based terminal group. Journal of Materials Chemistry A, 2019, 7, 24389-24399.	5.2	47
289	Sulfur-substituted perylene diimides: efficient tuning of LUMO levels and visible-light absorptionviasulfur redox. Chemical Communications, 2019, 55, 13570-13573.	2.2	17

#	Article	IF	Citations
290	High-performance conjugated polymer donor materials for polymer solar cells with narrow-bandgap nonfullerene acceptors. Energy and Environmental Science, 2019, 12, 3225-3246.	15.6	236
291	A 9,9â€²-bifluorenylidene derivative containing four 1,1-dicyanomethylene-3-indanone end-capped groups as an electron acceptor for organic photovoltaic cells. New Journal of Chemistry, 2019, 43, 18110-18119.	1.4	4
292	Realizing high-efficiency Multiple blend polymer solar cells via a unique parallel-series working mechanism. Journal of Materials Chemistry A, 2019, 7, 24937-24946.	5.2	18
293	16.55% efficiency ternary organic solar cells enabled by incorporating a small molecular donor. Journal of Materials Chemistry A, 2019, 7, 25894-25899.	5.2	88
294	Functionalizing tetraphenylpyrazine with perylene diimides (PDIs) as high-performance nonfullerene acceptors. Journal of Materials Chemistry C, 2019, 7, 14563-14570.	2.7	9
295	Miscibility Matching and Bimolecular Crystallization Affording High-Performance Ternary Nonfullerene Solar Cells. Chemistry of Materials, 2019, 31, 10211-10224.	3.2	38
296	Harnessing Direct (Hetero)Arylation in Pursuit of a Saddle-Shaped Perylene Diimide Tetramer. ACS Applied Energy Materials, 2019, 2, 8939-8945.	2.5	16
297	Rational Ionothermal Copolymerization of TCNQ with PCN Semiconductor for Enhanced Photocatalytic Full Water Splitting. ACS Applied Materials & Interfaces, 2019, 11, 46756-46766.	4.0	56
298	Small-Molecule Donor/Polymer Acceptor Type Organic Solar Cells: Effect of Terminal Groups of Small-Molecule Donors. Organic Materials, 2019, 01, 088-094.	1.0	4
299	Nonhalogenated-Solvent-Processed Efficient Polymer Solar Cells Enabled by Medium-Band-Gap Aâ^Ï€â€“Dâ^Ï€â€“A Small-Molecule Acceptors Based on a 6,12-Dihydro-diindolo[1,2-b:10,20-e]pyrazine Unit. ACS Applied Materials & Interfaces, 2019, 11, 48134-48146.	4.0	8
300	A zinc(<scp>ii</scp>) complex of di(naphthylethynyl)azadipyrromethene with low synthetic complexity leads to OPV with high industrial accessibility. Journal of Materials Chemistry A, 2019, 7, 24614-24625.	5.2	11
301	Suppressing photo-oxidation of non-fullerene acceptors and their blends in organic solar cells by exploring material design and employing friendly stabilizers. Journal of Materials Chemistry A, 2019, 7, 25088-25101.	5.2	107
302	Dithienothiapyran: An Excellent Donor Block for Building High-Performance Copolymers in Nonfullerene Polymer Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 3308-3316.	4.0	23
303	Advances in Solutionâ€Processed Multijunction Organic Solar Cells. Advanced Materials, 2019, 31, e1806499.	11.1	146
304	Nanopore analysis of blended organic semiconducting films to clarify photovoltaic performance. Organic Electronics, 2019, 66, 76-80.	1.4	3
305	Recent Advances in Fullereneâ€free Polymer Solar Cells: Materials and Devices. Chinese Journal of Chemistry, 2019, 37, 207-215.	2.6	46
306	Excitation Wavelength-Dependent Internal Quantum Efficiencies in a P3HT/Nonfullerene Acceptor Solar Cell. Journal of Physical Chemistry C, 2019, 123, 5826-5832.	1.5	6
307	Controlling Molecular Packing and Orientation via Constructing a Ladder-Type Electron Acceptor with Asymmetric Substituents for Thick-Film Nonfullerene Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 3098-3106.	4.0	40

#	Article	IF	Citations
308	Small Molecule Acceptors with a Nonfused Architecture for High-Performance Organic Photovoltaics. Chemistry of Materials, 2019, 31, 904-911.	3.2	66
309	Fullerene-Free Molecular Acceptors for Organic Photovoltaics. Energy, Environment, and Sustainability, 2019, , 221-279.	0.6	2
310	Aminoâ€Functionalized Graphene Quantum Dots as Cathode Interlayer for Efficient Organic Solar Cells: Quantum Dot Size on Interfacial Modification Ability and Photovoltaic Performance. Advanced Materials Interfaces, 2019, 6, 1801480.	1.9	42
311	Nanomorphology in Aâ€“Dâ€“A type small molecular acceptors-based bulk heterojunction polymer solar cells. Journal of Energy Chemistry, 2019, 35, 104-123.	7.1	20
312	Impact of alkyl chain branching positions on molecular packing and electron transport of dimeric perylenediimide derivatives. Journal of Energy Chemistry, 2019, 35, 138-143.	7.1	18
313	Effect of Aryl Substituents and Fluorine Addition on the Optoelectronic Properties and Organic Solar Cell Performance of a High Efficiency Indacenodithienothiopheneâ€altâ€Quinoxaline Ï€â€Conjugated Polymer. Macromolecular Chemistry and Physics, 2019, 220, 1800418.	1.1	4
314	A Benzobis(thiazole)-Based Copolymer for Highly Efficient Non-Fullerene Polymer Solar Cells. Chemistry of Materials, 2019, 31, 919-926.	3.2	28
315	Polythiophene derivatives compatible with both fullerene and non-fullerene acceptors for polymer solar cells. Journal of Materials Chemistry C, 2019, 7, 314-323.	2.7	48
316	Insertion of chlorine atoms onto Ï€-bridges of conjugated polymer enables improved photovoltaic performance. Nano Energy, 2019, 58, 220-226.	8.2	67
317	Fluorinated polyethylene glycol as cathode interlayer with enhanced dipole strength for efficient organic solar cells. Solar Energy, 2019, 180, 57-62.	2.9	12
318	Bay-Linked Perylenediimides are Two Molecules in One: Insights from Ultrafast Spectroscopy, Temperature Dependence, and Time-Dependent Density Functional Theory Calculations. Journal of Physical Chemistry C, 2019, 123, 2127-2138.	1.5	8
319	Asymmetric selenophene-based non-fullerene acceptors for high-performance organic solar cells. Journal of Materials Chemistry A, 2019, 7, 1435-1441.	5.2	52
320	Triindoloâ€Truxene Derivatives: Design, Synthesis, and Fineâ€Tuning of Electronic Properties and Molecular Assembly through Molecular Engineering. Chemistry - A European Journal, 2019, 25, 1293-1299.	1.7	2
321	A new narrow bandgap polymer as donor material for high performance non-fullerene polymer solar cells. Organic Electronics, 2019, 64, 241-246.	1.4	5
322	Highâ€Performance Nonfullerene Polymer Solar Cells Based on a Wideâ€Bandgap Polymer without Extra Treatment. Macromolecular Rapid Communications, 2019, 40, e1800660.	2.0	5
323	Recent progress on non-fullerene acceptors for organic photovoltaics. Materials Today, 2019, 24, 94-118.	8.3	113
324	Highâ€Performance Eightâ€Membered Indacenodithiopheneâ€Based Asymmetric Aâ€Dâ€A Type Nonâ€Fullerene Acceptors. Solar Rrl, 2019, 3, 1800246.	3.1	40
325	Polymersolarzellen: Fortschritt, Herausforderungen und Perspektiven. Angewandte Chemie, 2019, 131, 4173-4186.	1.6	32

#	Article	IF	Citations
326	Allâ€Polymer Solar Cells: Recent Progress, Challenges, and Prospects. Angewandte Chemie - International Edition, 2019, 58, 4129-4142.	7.2	448
327	Near-infrared non-fullerene acceptors based on dithienyl[1,2-b:4,5-bâ€™]benzodithiophene core for high performance PTB7-Th-based polymer solar cells. Organic Electronics, 2019, 65, 63-69.	1.4	11
328	Ladderâ€Type Nonacyclic Arene Bis(thieno[3,2â€b]thieno)cyclopentafluorene as a Promising Building Block for Nonâ€Fullerene Acceptors. Chemistry - an Asian Journal, 2019, 14, 1814-1822.	1.7	29
329	Phthalimideâ€Based High Mobility Polymer Semiconductors for Efficient Nonfullerene Solar Cells with Power Conversion Efficiencies over 13%. Advanced Science, 2019, 6, 1801743.	5.6	45
330	Liquidâ€Crystalline Small Molecules for Nonfullerene Solar Cells with High Fill Factors and Power Conversion Efficiencies. Advanced Energy Materials, 2019, 9, 1803175.	10.2	55
331	Efficient Ternary Organic Solar Cells Enabled by the Integration of Nonfullerene and Fullerene Acceptors with a Broad Composition Tolerance. Advanced Functional Materials, 2019, 29, 1807006.	7.8	81
332	Influence of Bridging Groups on the Photovoltaic Properties of Wide-Bandgap Poly(BDTT-alt-BDD)s. ACS Applied Materials & Interfaces, 2019, 11, 1394-1401.	4.0	13
333	Steric Engineering of Alkylthiolation Side Chains to Finely Tune Miscibility in Nonfullerene Polymer Solar Cells. Advanced Energy Materials, 2019, 9, 1802686.	10.2	51
334	Highly twisted ladder-type backbone bearing perylene diimides for non-fullerene acceptors in organic solar cells. Dyes and Pigments, 2019, 161, 221-226.	2.0	16
335	The Dawn of Single Material Organic Solar Cells. Advanced Science, 2019, 6, 1801026.	5.6	119
336	Adjusting Aggregation Modes and Photophysical and Photovoltaic Properties of Diketopyrrolopyrroleâ€Based Small Molecules by Introducing Bâ†N Bonds. Chemistry - A European Journal, 2019, 25, 564-572.	1.7	19
337	Integrated Perovskite/Bulkâ€Heterojunction Organic Solar Cells. Advanced Materials, 2020, 32, e1805843.	11.1	61
338	Ternary organic solar cells based on polymer donor, polymer acceptor and PCBM components. Chinese Chemical Letters, 2020, 31, 865-868.	4.8	38
339	Heteroatom substitution-induced asymmetric Aâ€“Dâ€“A type non-fullerene acceptor for efficient organic solar cells. Journal of Energy Chemistry, 2020, 40, 144-150.	7.1	45
340	Manipulating the doping level via host-dopant synergism towards high performance n-type thermoelectric composites. Chemical Engineering Journal, 2020, 382, 122817.	6.6	20
341	Post-side chain engineering of difluorinated benzothiadiazole-based conjugated microporous polymer for enhanced photocatalytic H2 evolution. Applied Surface Science, 2020, 499, 143865.	3.1	33
342	Smart geometrical approach to intercalate a highly absorbing and quite resistive electron donor layer in ternary organic photovoltaic cells. Organic Electronics, 2020, 76, 105463.	1.4	7
343	High-Performance and Stable Nonfullerene Acceptor-Based Organic Solar Cells for Indoor to Outdoor Light. ACS Energy Letters, 2020, 5, 170-179.	8.8	75

#	Article	IF	Citations
344	Tradeâ€Off between Exciton Dissociation and Carrier Recombination and Dielectric Properties in Y6â€Sensitized Nonfullerene Ternary Organic Solar Cells. Energy Technology, 2020, 8, 1900924.	1.8	32
345	Regioisomerâ€Free Chlorinated Thiopheneâ€Based Ending Group for Thieno[3,2â€•b]thiophene Central Unitâ€Based Acceptor Enabling Highly Efficient Nonfullerene Polymer Solar Cells with High V oc Simultaneously. Solar Rrl, 2020, 4, 1900446.	3.1	4
346	Robust random forest based non-fullerene organic solar cells efficiency prediction. Organic Electronics, 2020, 76, 105465.	1.4	48
347	Fulvaleneâ€Embedded Perylene Diimide and Its Stable Radical Anion. Angewandte Chemie - International Edition, 2020, 59, 752-757.	7.2	48
348	ITCâ€2Cl: A Versatile Middleâ€Bandgap Nonfullerene Acceptor for Highâ€Efficiency Panchromatic Ternary Organic Solar Cells. Solar Rrl, 2020, 4, 1900377.	3.1	29
349	Optoelectronic properties and aggregation effects on the performance of planar versus contorted pyrene-cored perylenediimide dimers for organic solar cells. Dyes and Pigments, 2020, 173, 107976.	2.0	8
350	Asymmetrical side-chain engineering of small-molecule acceptors enable high-performance nonfullerene organic solar cells. Nano Energy, 2020, 67, 104209.	8.2	35
351	Recent progress of thin-film photovoltaics for indoor application. Chinese Chemical Letters, 2020, 31, 643-653.	4.8	106
352	Understanding the Photovoltaic Behavior of Aâ€“Dâ€“A Molecular Semiconductors through a Permutation of End Groups. Journal of Organic Chemistry, 2020, 85, 52-61.	1.7	15
353	Organic Photodetectors for Nextâ€Generation Wearable Electronics. Advanced Materials, 2020, 32, e1902045.	11.1	401
354	Direct (hetero)arylation polymerization: toward defect-free conjugated polymers. Polymer Journal, 2020, 52, 13-20.	1.3	34
355	Molecular Acceptors Based on a Triarylborane Core Unit for Organic Solar Cells. Chemistry - A European Journal, 2020, 26, 873-880.	1.7	21
356	Synthesis and characterization of new nonfullerene electron acceptors with a chrysene core. Dyes and Pigments, 2020, 174, 108012.	2.0	5
357	Cyclopentadithiophene cored A-Ï€-D-Ï€-A non-fullerene electron acceptor in ternary polymer solar cells to extend the light absorption up to 900â€¯nm. Organic Electronics, 2020, 77, 105530.	1.4	5
358	Fulvaleneâ€Embedded Perylene Diimide and Its Stable Radical Anion. Angewandte Chemie, 2020, 132, 762-767.	1.6	30
359	Impact of Noncovalent Sulfurâ€“Fluorine Interaction Position on Properties, Structures, and Photovoltaic Performance in Naphthobisthiadiazoleâ€Based Semiconducting Polymers. Advanced Energy Materials, 2020, 10, 1903278.	10.2	39
360	Challenges to the Stability of Active Layer Materials in Organic Solar Cells. Macromolecular Rapid Communications, 2020, 41, e1900437.	2.0	55
361	Introduction of Siloxane-Terminated Side Chains into Semiconducting Polymers To Tune Phase Separation with Nonfullerene Acceptor for Polymer Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 4659-4672.	4.0	52

#	Article	IF	Citations
362	A Layer-by-Layer Architecture for Printable Organic Solar Cells Overcoming the Scaling Lag of Module Efficiency. Joule, 2020, 4, 407-419.	11.7	272
363	Film-depth-dependent crystallinity for light transmission and charge transport in semitransparent organic solar cells. Journal of Materials Chemistry A, 2020, 8, 401-411.	5.2	45
364	Diverse applications of MoO₃for high performance organic photovoltaics: fundamentals, processes and optimization strategies. Journal of Materials Chemistry A, 2020, 8, 978-1009.	5.2	70
365	Improving the performance of near infrared binary polymer solar cells by adding a second non-fullerene intermediate band-gap acceptor. Journal of Materials Chemistry C, 2020, 8, 909-915.	2.7	47
366	Ternary Organic Solar Cell with a Nearâ€Infrared Absorbing Selenopheneâ€“Diketopyrrolopyrroleâ€Based Nonfullerene Acceptor and an Efficiency above 10%. Solar Rrl, 2020, 4, 1900471.	3.1	21
367	Applications of porphyrins in emerging energy conversion technologies. Coordination Chemistry Reviews, 2020, 407, 213157.	9.5	127
368	A new fluorinated pyran-bridged A-D-A type small molecular acceptor for organic solar cells. Dyes and Pigments, 2020, 175, 108165.	2.0	18
369	Efficiency enhancement of a fluorinated wide-bandgap polymer for ternary nonfullerene organic solar cells. Polymer, 2020, 188, 122131.	1.8	10
370	Atom-Varied Side Chains in Conjugated Polymers Affect Efficiencies of Photovoltaic Devices Incorporating Small Molecules. ACS Applied Polymer Materials, 2020, 2, 636-646.	2.0	23
371	Polaron and Exciton Delocalization in Oligomers of High-Performance Polymer PTB7. Journal of the American Chemical Society, 2020, 142, 1359-1366.	6.6	5
372	Recent advances of polymer acceptors for high-performance organic solar cells. Journal of Materials Chemistry C, 2020, 8, 28-43.	2.7	56
373	TCNQ as a volatilizable morphology modulator enables enhanced performance in non-fullerene organic solar cells. Journal of Materials Chemistry C, 2020, 8, 44-49.	2.7	16
374	Synthesis and Photovoltaic Investigation of 8,10-Bis(2-octyldodecyl)-8,10-dihydro-9H-bisthieno[2â€²,3â€²:7,8;3â€³,2â€³:5,6] naphtho[2,3-d]imidazol-9-one Based Conjugated Polymers Using a Nonfullerene Acceptor. ACS Applied Energy Materials, 2020, 3, 495-505.	2.5	10
375	Branched versus linear: side-chain effect on fluorinated wide bandgap donors and their applications in organic solar cells. New Journal of Chemistry, 2020, 44, 753-760.	1.4	3
376	Rhodium-catalyzed homodimerizationâ€“cyclization reaction of two vinyl isocyanides: a general route to 2-(isoquinolin-1-yl)oxazoles. Organic Chemistry Frontiers, 2020, 7, 126-130.	2.3	22
377	Efficient ternary organic photovoltaics with two polymer donors by minimizing energy loss. Journal of Materials Chemistry A, 2020, 8, 1265-1272.	5.2	84
378	Boosted photovoltaic performance of indenothiophene-based molecular acceptorviafusing a thiophene. Journal of Materials Chemistry C, 2020, 8, 630-636.	2.7	5
379	A perylene diimide electron acceptor with a triphenylamine core: promoting photovoltaic performanceviahot spin-coating. Journal of Materials Chemistry C, 2020, 8, 2135-2141.	2.7	24

#	Article	IF	Citations
380	Side-chain optimization of perylene diimide-thiophene random terpolymer acceptors for enhancing the photovoltaic efficiency of all-polymer solar cells. Organic Electronics, 2020, 78, 105616.	1.4	9
381	Influence of Substituent Groups on Chemical Reactivity Kinetics of Nonfullerene Acceptors. Journal of Physical Chemistry C, 2020, 124, 2307-2312.	1.5	29
382	Subtle Polymer Donor and Molecular Acceptor Design Enable Efficient Polymer Solar Cells with a Very Small Energy Loss. Advanced Functional Materials, 2020, 30, 1907570.	7.8	89
383	Incorporation of Hydrogen Molybdenum Bronze in Solutionâ€Processed Interconnecting Layer for Efficient Nonfullerene Tandem Organic Solar Cells. Solar Rrl, 2020, 4, 1900480.	3.1	15
384	Accurate Determination of the Minimum HOMO Offset for Efficient Charge Generation using Organic Semiconducting Alloys. Advanced Energy Materials, 2020, 10, 1903298.	10.2	92
385	Scalable fabrication of organic solar cells based on non-fullerene acceptors. Flexible and Printed Electronics, 2020, 5, 014004.	1.5	68
386	Effect of molecular structure of benzo[1,2-b:4,5-bâ€²]dithiophene-based push-pull type donor polymers on performance panchromatic organic photodiodes. Organic Electronics, 2020, 78, 105580.	1.4	8
387	The evolution of the most important research topics in organic and perovskite solar cell research from 2008 to 2017: A bibliometric literature review using bibliographic coupling analysis. Solar Energy Materials and Solar Cells, 2020, 207, 110325.	3.0	24
388	Difluorinated Oligothiophenes for Highâ€Efficiency Allâ€Smallâ€Molecule Organic Solar Cells: Positional Isomeric Effect of Fluorine Substitution on Performance Variations. Solar Rrl, 2020, 4, 1900472.	3.1	11
389	New Conjugated Polymers Based on Dithieno[2,3â€e:3â€²,2â€²â€g]Isoindoleâ€7,9(8H)â€Dione Derivatives for Applications in Nonfullerene Polymer Solar Cells. Solar Rrl, 2020, 4, 1900475.	3.1	7
390	Rational Design of 2D pâ€“Ï€ Conjugated Polysquaraines for Both Fullerene and Nonfullerene Polymer Solar Cells. Macromolecular Chemistry and Physics, 2020, 221, 1900439.	1.1	6
391	Designing High Performance Nonfullerene Electron Acceptors with Rylene Imides for Efficient Organic Photovoltaics. Chemistry of Materials, 2020, 32, 195-204.	3.2	32
392	Chalcogenâ€Fused Perylene Diimidesâ€Based Nonfullerene Acceptors for Highâ€Performance Organic Solar Cells: Insight into the Effect of O, S, and Se. Solar Rrl, 2020, 4, 1900453.	3.1	21
393	A Nearâ€Infrared Absorption Small Molecule Acceptor for Highâ€Performance Semitransparent and Colorful Binary and Ternary Organic Photovoltaics. ChemSusChem, 2020, 13, 903-913.	3.6	37
394	Bithieno[3,4-c]pyrrole-4,6-dione-Mediated Crystallinity in Large-Bandgap Polymer Donors Directs Charge Transportation and Recombination in Efficient Nonfullerene Polymer Solar Cells. ACS Energy Letters, 2020, 5, 367-375.	8.8	33
395	Two compatible polymer donors contribute synergistically for ternary organic solar cells with 17.53% efficiency. Energy and Environmental Science, 2020, 13, 5039-5047.	15.6	189
396	Charge separation boosts exciton diffusion in fused ring electron acceptors. Journal of Materials Chemistry A, 2020, 8, 23304-23312.	5.2	18
397	Investigation of processâ€“structureâ€“property relationship in ternary organic photovoltaics. Journal of Applied Physics, 2020, 128, 145501.	1.1	6

#	Article	IF	Citations
398	Recent advances of computational chemistry in organic solar cell research. Journal of Materials Chemistry C, 2020, 8, 15920-15939.	2.7	59
399	Review on smart strategies for achieving highly efficient ternary polymer solar cells. APL Materials, 2020, 8, .	2.2	18
400	The design of dithieno[3,2-b:2â€²,3â€²-d]pyrrole organic photovoltaic materials for high-efficiency organic/perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 22572-22592.	5.2	31
401	Investigating the active layer thickness dependence of non-fullerene organic solar cells based on PM7 derivatives. Journal of Materials Chemistry C, 2020, 8, 15459-15469.	2.7	16
402	Boron(<scp>iii</scp>) Î²-diketonate-based small molecules for functional non-fullerene polymer solar cells and organic resistive memory devices. Chemical Science, 2020, 11, 11601-11612.	3.7	16
403	Altering the Positions of Chlorine and Bromine Substitution on the End Group Enables Highâ€Performance Acceptor and Efficient Organic Solar Cells. Advanced Energy Materials, 2020, 10, 2002649.	10.2	103
404	An investigation of annealing methods for benzodithiophene terthiophene rhodanine based all small molecule organic solar cells. Organic Electronics, 2020, 87, 105904.	1.4	11
405	Competing Molecular Packing of Blocks in a Lamella-Forming Carbohydrate-block-poly(3-hexylthiophene) Copolymer. Macromolecules, 2020, 53, 9054-9064.	2.2	8
406	Deciphering the Role of Chalcogen-Containing Heterocycles in Nonfullerene Acceptors for Organic Solar Cells. ACS Energy Letters, 2020, 5, 3415-3425.	8.8	73
407	Material perceptions and advances in molecular heteroacenes for organic solar cells. Energy and Environmental Science, 2020, 13, 4738-4793.	15.6	50
408	Progress in Materials, Solution Processes, and Longâ€Term Stability for Largeâ€Area Organic Photovoltaics. Advanced Materials, 2020, 32, e2002217.	11.1	124
409	Tailoring non-fullerene acceptors using selenium-incorporated heterocycles for organic solar cells with over 16% efficiency. Journal of Materials Chemistry A, 2020, 8, 23756-23765.	5.2	85
410	Stability of Non-Flexible vs. Flexible Inverted Bulk-Heterojunction Organic Solar Cells with ZnO as Electron Transport Layer Prepared by a Sol-Gel Spin Coating Method. Surfaces, 2020, 3, 319-327.	1.0	7
411	A Universal Method to Enhance Flexibility and Stability of Organic Solar Cells by Constructing Insulating Matrices in Active Layers. Advanced Functional Materials, 2020, 30, 2003654.	7.8	106
412	Ï€-Extension, Selenium Incorporation, and Trimerization: â€œThree in Oneâ€•for Efficient Perylene Diimide Oligomer-Based Organic Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 9528-9536.	4.0	23
413	Role of interface properties in organic solar cells: from substrate engineering to bulk-heterojunction interfacial morphology. Materials Chemistry Frontiers, 2020, 4, 2863-2880.	3.2	61
414	Dielsâ€“Alder Cycloaddition to the Bay Region of Perylene and Its Derivatives as an Attractive Strategy for PAH Core Expansion: Theoretical and Practical Aspects. Molecules, 2020, 25, 5373.	1.7	10
415	Optimization of the Bulk Heterojunction of All-Small-Molecule Organic Photovoltaics Using Design of Experiment and Machine Learning Approaches. ACS Applied Materials & Interfaces, 2020, 12, 54596-54607.	4.0	22

#	Article	IF	Citations
416	Unraveling the influence of non-fullerene acceptor molecular packing on photovoltaic performance of organic solar cells. Nature Communications, 2020, 11, 6005.	5.8	112
417	Effects of Electron-Donating and Electron-Accepting Substitution on Photovoltaic Performance in Benzothiadiazole-Based Aâ€“Dâ€“Aâ€²â€“Dâ€“A-Type Small-Molecule Acceptor Solar Cells. ACS Applied Energy Materials, 2020, 3, 12327-12337.	2.5	22
418	Large Non-planar Conjugated Molecule with Strong Intermolecular Interactions Achieved with Homoleptic Zn(II) Complex of Di(5-quinolylethynyl)-tetraphenylazadipyrromethene. ACS Omega, 2020, 5, 31467-31472.	1.6	0
419	Recent advances in high-efficiency organic solar cells fabricated by eco-compatible solvents at relatively large-area scale. APL Materials, 2020, 8, .	2.2	45
420	Incorporating Indium Selenide Nanosheets into a Polymer/Small Molecule Binary Blend Active Layer Enhances the Long-Term Stability and Performance of Its Organic Photovoltaics. ACS Applied Materials & Interfaces, 2020, 12, 55023-55032.	4.0	12
421	Self-assembly of a highly stable and active Co3O4/H-TiO2 bulk heterojunction with high-energy interfacial structures for low temperature CO catalytic oxidation. Catalysis Science and Technology, 2020, 10, 8374-8382.	2.1	4
422	Random Polymerization Strategy Leads to a Family of Donor Polymers Enabling Wellâ€Controlled Morphology and Multiple Cases of Highâ€Performance Organic Solar Cells. Advanced Materials, 2020, 32, e2003500.	11.1	59
423	Panchromatic Triple Organic Semiconductor Heterojunctions for Efficient Solar Cells. ACS Applied Energy Materials, 2020, 3, 12506-12516.	2.5	4
424	Silicon and oxygen synergistic effects for the discovery of new high-performance nonfullerene acceptors. Nature Communications, 2020, 11, 5814.	5.8	29
425	Effects of Fluorination Position on Fusedâ€Ring Electron Acceptors. Small Structures, 2020, 1, 2000006.	6.9	8
426	Perovskite Tandem Solar Cells: From Fundamentals to Commercial Deployment. Chemical Reviews, 2020, 120, 9835-9950.	23.0	248
427	Delocalization of exciton and electron wavefunction in non-fullerene acceptor molecules enables efficient organic solar cells. Nature Communications, 2020, 11, 3943.	5.8	458
428	On the relations between backbone thiophene functionalization and charge carrier mobility of Aâ€“Dâ€“A type small molecules. New Journal of Chemistry, 2020, 44, 15177-15185.	1.4	6
429	Influence of Alkyl Substitution Position on Wideâ€Bandgap Polymers in Highâ€Efficiency Nonfullerene Polymer Solar Cells. Macromolecular Rapid Communications, 2020, 41, e2000170.	2.0	5
430	Noncovalent Ï€-stacked robust topological organic framework. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 20397-20403.	3.3	28
431	Arenium cation or radical cation? An insight into the cyclodehydrogenation reaction of 2-substituted binaphthyls mediated by Lewis acids. RSC Advances, 2020, 10, 21974-21985.	1.7	7
432	PDI-Based Hexapod-Shaped Nonfullerene Acceptors for the High-Performance As-Cast Organic Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 37409-37417.	4.0	16
433	Desymmetrization of Perylenediimide Bay Regions Using Selective Suzukiâ€“Miyaura Reactions from Dinitro Substituted Derivatives. Chemistry - A European Journal, 2020, 26, 15881-15891.	1.7	8

#	Article	IF	Citations
434	Switching of Electron and Ion Conductions by Reversible H₂O Sorption in n-Type Organic Semiconductors. ACS Applied Materials & Interfaces, 2020, 12, 37391-37399.	4.0	10
435	Chlorinated Carbonâ€Bridged and Siliconâ€Bridged Carbazoleâ€Based Nonfullerene Acceptors Manifest Synergistic Enhancement in Ternary Organic Solar Cell with Efficiency over 15%. Solar Rrl, 2020, 4, 2000357.	3.1	19
436	Reducing energy loss via tuning energy levels of polymer acceptors for efficient all-polymer solar cells. Science China Chemistry, 2020, 63, 1785-1792.	4.2	32
437	Exploring Charge Dissociation in a Statistical Sample of Active-Layer Models of an Organic Solar Cell. Journal of Physical Chemistry C, 2020, 124, 18840-18846.	1.5	6
438	Adding a Third Component with Reduced Miscibility and Higher LUMO Level Enables Efficient Ternary Organic Solar Cells. ACS Energy Letters, 2020, 5, 2711-2720.	8.8	188
439	A compatible polymer acceptor enables efficient and stable organic solar cells as a solid additive. Journal of Materials Chemistry A, 2020, 8, 17706-17712.	5.2	51
440	Ï€-Conjugated polymers and molecules enabling small photon energy loss simultaneously with high efficiency in organic photovoltaics. Journal of Materials Chemistry A, 2020, 8, 20213-20237.	5.2	34
441	On the physical and photo-electrical properties of organic photovoltaic cells based on 1,10-Phenanthroline and 5,10,15,20-Tetra(4-pyridyl)-21H,23H-porphine non-fullerene thin films. Applied Surface Science, 2020, 531, 147332.	3.1	10
442	Employing Asymmetrical Thieno[3,4-d]pyridazin-1(2H)-one Block Enables Efficient Ternary Polymer Solar Cells with Improved Light-Harvesting and Morphological Properties. Macromolecules, 2020, 53, 6619-6629.	2.2	31
443	Wide Band Gap Photovoltaic Polymer Based on Pyrrolo[3,4-f]benzotriazole-5,7-dione (TzBI) with Ultrahigh V_{OC} Beyond 1.25 V. Journal of Physical Chemistry C, 2020, 124, 19492-19498.	1.5	16
444	Machine learning for accelerating the discovery of high-performance donor/acceptor pairs in non-fullerene organic solar cells. Npj Computational Materials, 2020, 6, .	3.5	77
445	Extended Ï€-conjugated perylene diimide dimers toward efficient organic solar cells. Dyes and Pigments, 2020, 183, 108736.	2.0	9
446	High-performance and stable photoelectrochemical water splitting cell with organic-photoactive-layer-based photoanode. Nature Communications, 2020, 11, 5509.	5.8	103
447	Highly Efficient Nonfullerene Acceptor with Sulfonyl-Based Ending Groups. ACS Applied Materials & Interfaces, 2020, 12, 49659-49665.	4.0	10
448	Vertical Composition Distribution and Crystallinity Regulations Enable High-Performance Polymer Solar Cells with >17% Efficiency. ACS Energy Letters, 2020, 5, 3637-3646.	8.8	87
449	A-DAâ€²D-A-Type Non-fullerene Acceptors Containing a Fused Heptacyclic Ring for Poly(3-hexylthiophene)-Based Polymer Solar Cells. Journal of Physical Chemistry C, 2020, 124, 24616-24623.	1.5	28
450	Bis(thieno[3,2-b]thieno)cyclopentafluorene-Based Acceptor with Efficient and Comparable Photovoltaic Performance under Various Processing Conditions. ACS Applied Materials & Interfaces, 2020, 12, 49876-49885.	4.0	11
451	Ternary Allâ€Smallâ€Molecule Solar Cells with Two Smallâ€Molecule Donors and Y6 Nonfullerene Acceptor with a Power Conversion Efficiency over Above 14% Processed from a Nonhalogenated Solvent. Solar Rrl, 2020, 4, 2000460.	3.1	13

#	Article	IF	Citations
452	A Fully Nonâ€fused Ring Acceptor with Planar Backbone and Nearâ€IR Absorption for High Performance Polymer Solar Cells. Angewandte Chemie - International Edition, 2020, 59, 22714-22720.	7.2	184
453	Molecular- and Structural-Level Organic Heterostructures for Multicolor Photon Transportation. Journal of Physical Chemistry Letters, 2020, 11, 7517-7524.	2.1	18
454	Direct arylation polycondensed conjugated polyelectrolytes as universal electron transport layers for highly efficient polymer solar cells. Journal of Materials Chemistry C, 2020, 8, 15158-15167.	2.7	7
455	Chlorination of dithienobenzodithiophene (DTBDT) based polymers to simultaneously improve the V_{OC}, J_{SC} and FF of non-fullerene organic solar cells. Sustainable Energy and Fuels, 2020, 4, 5665-5673.	2.5	10
456	Evaluation-oriented exploration of photo energy conversion systems: from fundamental optoelectronics and material screening to the combination with data science. Polymer Journal, 2020, 52, 1307-1321.	1.3	43
457	End-capped group manipulation of non-fullerene acceptors for efficient organic photovoltaic solar cells: a DFT study. Physical Chemistry Chemical Physics, 2020, 22, 23586-23596.	1.3	39
458	Alkyl chain engineering of non-fullerene small molecule acceptors for solution-processable organic solar cells. Organic Electronics, 2020, 87, 105963.	1.4	14
459	Insight into the structures and dynamics of organic semiconductors through solid-state NMR spectroscopy. Nature Reviews Materials, 2020, 5, 910-930.	23.3	69
460	Effect of Increasing the Descriptor Set on Machine Learning Prediction of Small Molecule-Based Organic Solar Cells. Chemistry of Materials, 2020, 32, 7777-7787.	3.2	58
461	New Highâ€Bandgap 8,10â€Dihydroâ€9 H â€Bistieno[2â€²,3â€²:7.8;3â€³,2â€³:5.6]Naphtho[2,3â€d] Imidazoleâ€9â€Oneâ€Based Donorâ€“Acceptor Copolymers for Nonfullerene Polymer Solar Cells. Energy Technology, 2020, 8, 2000611.	1.8	2
462	Modulating Energy Level on an Aâ€Dâ€Aâ€²â€Dâ€Aâ€Type Unfused Acceptor by a Benzothiadiazole Core Enables Organic Solar Cells with Simple Procedure and High Performance. Solar Rrl, 2020, 4, 2000421.	3.1	48
463	Toward Efficient Tandem Organic Solar Cells: From Materials to Device Engineering. ACS Applied Materials & Interfaces, 2020, 12, 39937-39947.	4.0	20
464	Synthesis of Pyridine-fused 5,6,11,12-Tetraazanaphthacene as a Bis-bidentate Ligand and Electrochemistry of a Ruthenium(II) Dinuclear Complex. Chemistry Letters, 2020, 49, 1367-1371.	0.7	1
465	Recent Advances Toward Highly Efficient Tandem Organic Solar Cells. Small Structures, 2020, 1, 2000016.	6.9	23
466	Functionalization of spiro[fluorene-9,9â€²-xanthene] with diketopyrrolopyrrole to generate a promising, three-dimensional non-fullerene acceptor. Materials Chemistry Frontiers, 2020, 4, 3209-3215.	3.2	5
467	A Fully Nonâ€fused Ring Acceptor with Planar Backbone and Nearâ€IR Absorption for High Performance Polymer Solar Cells. Angewandte Chemie, 2020, 132, 22903-22909.	1.6	23
468	Isomerization Strategy of Nonfullerene Smallâ€Molecule Acceptors for Organic Solar Cells. Advanced Functional Materials, 2020, 30, 2004477.	7.8	58
469	Ultrafast and Long-Range Exciton Migration through Anisotropic Coulombic Coupling in the Textured Films of Fused-Ring Electron Acceptors. Journal of Physical Chemistry Letters, 2020, 11, 7908-7913.	2.1	10

#	Article	IF	Citations
470	Comprehensive and Comparative Analysis of Photoinduced Charge Generation, Recombination Kinetics, and Energy Losses in Fullerene and Nonfullerene Acceptor-Based Organic Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 45083-45091.	4.0	18
471	Synthesis and characterization of a wideâ€bandgap polymer based on perfluorinated and alkylthiolated <scp>benzodithiophene</scp> with a deep highest occupied molecular orbital level for organic photovoltaics. Journal of Polymer Science, 2020, 58, 2755-2763.	2.0	5
472	Low Temperature Aggregation Transitions in N3 and Y6 Acceptors Enable Doubleâ€Annealing Method That Yields Hierarchical Morphology and Superior Efficiency in Nonfullerene Organic Solar Cells. Advanced Functional Materials, 2020, 30, 2005011.	7.8	66
473	Fine-tuning the energy levels and morphology via fluorination and thermal annealing enable high efficiency non-fullerene organic solar cells. Materials Chemistry Frontiers, 2020, 4, 3310-3318.	3.2	17
474	Efficient Exciton Diffusion in Micrometer-Sized Domains of Nanographene-Based Nonfullerene Acceptors with Long Exciton Lifetimes in Blend Films with Conjugated Polymer. ACS Applied Materials & Interfaces, 2020, 12, 39236-39244.	4.0	10
475	Correlation between the Dipole Moment of Nonfullerene Acceptors and the Active Layer Morphology of Green-Solvent-Processed P3HT-Based Organic Solar Cells. ACS Sustainable Chemistry and Engineering, 2020, 8, 19013-19022.	3.2	10
476	Improved Synthesis of Bayâ€Monobrominated Perylene Diimides. ChemistrySelect, 2020, 5, 15028-15031.	0.7	5
477	Aâ€“DAâ€²Dâ€“A Nonfullerene Acceptor Obtained by Fine-Tuning Side Chains on Pyrroles Enables PBDB-T-Based Organic Solar Cells with over 14% Efficiency. ACS Applied Energy Materials, 2020, 3, 11981-11991.	2.5	8
478	The alkyl chain positioning of thieno[3,4-c]pyrrole-4,6-dione (TPD)-Based polymer donors mediates the energy loss, charge transport and recombination in polymer solar cells. Journal of Power Sources, 2020, 480, 229098.	4.0	4
479	The impact of thermal treatment on the performance of benzo[1,2-b:4,5-bâ€²]difuran-based organic solar cells. RSC Advances, 2020, 10, 39916-39921.	1.7	3
480	Ternary Allâ€Smallâ€Molecule Solar Cells with Two Smallâ€Molecule Donors and Y6 Nonfullerene Acceptor with a Power Conversion Efficiency over Above 14% Processed from a Nonhalogenated Solvent. Solar Rrl, 2020, 4, 2070115.	3.1	0
481	Long-lived and disorder-free charge transfer states enable endothermic charge separation in efficient non-fullerene organic solar cells. Nature Communications, 2020, 11, 5617.	5.8	73
482	Emerging Approaches in Enhancing the Efficiency and Stability in Nonâ€Fullerene Organic Solar Cells. Advanced Energy Materials, 2020, 10, 2002746.	10.2	124
483	Benzodithiophene-Based Small-Molecule Donors for Next-Generation All-Small-Molecule Organic Photovoltaics. Matter, 2020, 3, 1403-1432.	5.0	72
484	Fluorinating Ï€â€Extended Molecular Acceptors Yields Highly Connected Crystal Structures and Low Reorganization Energies for Efficient Solar Cells. Advanced Energy Materials, 2020, 10, 2000635.	10.2	78
485	Suppressing the Photocatalytic Activity of Zinc Oxide Electron-Transport Layer in Nonfullerene Organic Solar Cells with a Pyrene-Bodipy Interlayer. ACS Applied Materials & Interfaces, 2020, 12, 21961-21973.	4.0	57
486	Device modelling of non-fullerene organic solar cell with inorganic CuI hole transport layer using SCAPS 1-D. Optik, 2020, 217, 164790.	1.4	29
487	Tailoring the molecular geometry of polyfluoride perylene diimide acceptors towards efficient organic solar cells. Journal of Materials Chemistry C, 2020, 8, 8224-8233.	2.7	24

#	Article	IF	Citations
488	Effects of alkoxylation position on fused-ring electron acceptors. Journal of Materials Chemistry C, 2020, 8, 15128-15134.	2.7	8
489	Concurrent improvement in J_{SC} and V_{OC} 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.	15.6	164
490	Efficient charge generation at low energy losses in organic solar cells: a key issues review. Reports on Progress in Physics, 2020, 83, 082601.	8.1	43
491	Triplet Acceptors with a Dâ€A Structure and Twisted Conformation for Efficient Organic Solar Cells. Angewandte Chemie - International Edition, 2020, 59, 15043-15049.	7.2	77
492	Electronâ€Deficient and Quinoid Central Unit Engineering for Unfused Ringâ€Based A₁â€“Dâ€“A₂â€“Dâ€“A₁â€Type Acceptor Enables High Performance Nonfullerene Polymer Solar Cells with High V_{oc} and PCE Simultaneously. Small, 2020, 16, e1907681.	5.2	31
493	Development of Perylene-Based Non-Fullerene Acceptors through Bay-Functionalization Strategy. Materials, 2020, 13, 2148.	1.3	24
494	Asymmetric Electron Acceptors for Highâ€Efficiency and Lowâ€Energyâ€Loss Organic Photovoltaics. Advanced Materials, 2020, 32, e2001160.	11.1	246
495	Highâ€Performance Nonfullerene Organic Solar Cells with Unusual Inverted Structure. Solar Rrl, 2020, 4, 2000115.	3.1	21
496	Modulation of Donor Alkyl Terminal Chains with the Shifting Branching Point Leads to the Optimized Morphology and Efficient All-Small-Molecule Organic Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 25100-25107.	4.0	40
497	Balance between Energy Transfer and Exciton Separation in Ternary Organic Solar Cells with Two Conjugated Polymer Donors. ACS Applied Energy Materials, 2020, 3, 5792-5803.	2.5	27
498	A nonfullerene acceptor incorporating a dithienopyran fused backbone for organic solar cells with efficiency over 14%. Nano Energy, 2020, 75, 104988.	8.2	27
499	Fine regulation of crystallisation tendency to optimize the BHJ nanostructure and performance of polymer solar cells. Nanoscale, 2020, 12, 12928-12941.	2.8	9
500	Effect of Extended Ï€-Conjugation of Central Cores on Photovoltaic Properties of Asymmetric Wide-Bandgap Nonfullerene Acceptors. Organic Materials, 2020, 02, 173-181.	1.0	2
501	Stringing the Perylene Diimide Bow. Angewandte Chemie - International Edition, 2020, 59, 14303-14307.	7.2	23
502	Triplet Acceptors with a Dâ€A Structure and Twisted Conformation for Efficient Organic Solar Cells. Angewandte Chemie, 2020, 132, 15153-15159.	1.6	11
503	Fine-Tuning Energy Levels via Asymmetric End Groups Enables Polymer Solar Cells with Efficiencies over 17%. Joule, 2020, 4, 1236-1247.	11.7	344
504	Propeller-Like All-Fused Perylene Diimide Based Electron Acceptors With Chalcogen Linkage for Efficient Polymer Solar Cells. Frontiers in Chemistry, 2020, 8, 350.	1.8	6
505	Oxygen-ether-bridged perylene diimide dimers: Efficient synthesis, properties, and photovoltaic performance. Dyes and Pigments, 2020, 180, 108508.	2.0	6

#	Article	IF	Citations
506	n-Type Molecular Photovoltaic Materials: Design Strategies and Device Applications. Journal of the American Chemical Society, 2020, 142, 11613-11628.	6.6	215
507	An asymmetric small molecule acceptor for organic solar cells with a short circuit current density over 24 mA cm^{â^'2}. Journal of Materials Chemistry A, 2020, 8, 15984-15991.	5.2	37
508	Charge transfer characteristics of fullerene-free polymer solar cells via multi-state electronic coupling treatment. Sustainable Energy and Fuels, 2020, 4, 4137-4157.	2.5	2
509	Lightweight and Bulk Organic Thermoelectric Generators Employing Novel P-Type Few-Layered Graphene Nanoflakes. ACS Applied Materials & Interfaces, 2020, 12, 30643-30651.	4.0	16
510	Enhanced performance of ternary polymer solar cells via property modulation of co-absorbing wide band-gap polymers. Journal of Power Sources, 2020, 471, 228457.	4.0	6
511	High-efficiency organic solar cells enabled by halogenation of polymers based on 2D conjugated benzobis(thiazole). Journal of Materials Chemistry A, 2020, 8, 13671-13678.	5.2	39
512	New Dâ€Aâ€Aâ€™â€Configured Small Molecule Donors Employing Conjugation to Redâ€shift the Absorption for Photovoltaics. Chemistry - an Asian Journal, 2020, 15, 2520-2531.	1.7	4
513	Understanding the Effect of End Group Halogenation in Tuning Miscibility and Morphology of Highâ€Performance Small Molecular Acceptors. Solar Rrl, 2020, 4, 2000250.	3.1	63
514	Stringing the Perylene Diimide Bow. Angewandte Chemie, 2020, 132, 14409-14413.	1.6	5
515	Delicate Morphology Control Triggers 14.7% Efficiency Allâ€Smallâ€Molecule Organic Solar Cells. Advanced Energy Materials, 2020, 10, 2001076.	10.2	100
516	Recent advances in high-performance organic solar cells enabled by acceptorâ€“donorâ€“acceptorâ€“donorâ€“acceptor (Aâ€“DAâ€²Dâ€“A) type acceptors. Materials Chemistry Frontiers, 2020, 4, 3487-3504.	3.2	60
517	The first connection of carbonyl-bridged triarylamine and diketopyrrolopyrrole functionalities to generate a three-dimensional, non-fullerene electron acceptor. Materials Chemistry Frontiers, 2020, 4, 2176-2183.	3.2	10
518	Synergy of Liquidâ€Crystalline Smallâ€Molecule and Polymeric Donors Delivers Uncommon Morphology Evolution and 16.6% Efficiency Organic Photovoltaics. Advanced Science, 2020, 7, 2000149.	5.6	67
519	Naphthaleneâ€Diimideâ€Based Ionenes as Universal Interlayers for Efficient Organic Solar Cells. Angewandte Chemie, 2020, 132, 18288-18292.	1.6	14
520	Naphthaleneâ€Diimideâ€Based Ionenes as Universal Interlayers for Efficient Organic Solar Cells. Angewandte Chemie - International Edition, 2020, 59, 18131-18135.	7.2	61
521	The role of Y6 as the third component in fullerene-free ternary organic photovoltaics. Dyes and Pigments, 2020, 181, 108613.	2.0	25
522	Enhanced hindrance from phenyl outer side chains on nonfullerene acceptor enables unprecedented simultaneous enhancement in organic solar cell performances with 16.7% efficiency. Nano Energy, 2020, 76, 105087.	8.2	85
523	Near-Infrared Electron Acceptors with Unfused Architecture for Efficient Organic Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 16700-16706.	4.0	93

#	Article	IF	Citations
524	Recent Progress on Indoor Organic Photovoltaics: From Molecular Design to Production Scale. ACS Energy Letters, 2020, 5, 1186-1197.	8.8	131
525	Supramolecular Energy Materials. Advanced Materials, 2020, 32, e1907247.	11.1	101
526	Organic solar cells based on chlorine functionalized benzo[1,2-b:4,5-bâ€²]difuran-benzo[1,2-c:4,5-câ€²]dithiophene-4,8-dione copolymer with efficiency exceeding 13%. Science China Chemistry, 2020, 63, 483-489.	4.2	8
527	Non-covalent interaction controlled 2D organic semiconductor films: Molecular self-assembly, electronic and optical properties, and electronic devices. Surface Science Reports, 2020, 75, 100481.	3.8	24
528	Improved Average Figureâ€ofâ€Merit of Highâ€Efficiency Nonfullerene Solar Cells via Minor Combinatory Side Chain Approach. Solar Rrl, 2020, 4, 2000062.	3.1	38
529	A naphthodithiophene-based nonfullerene acceptor for high-performance polymer solar cells with a small energy loss. Journal of Materials Chemistry C, 2020, 8, 6513-6520.	2.7	15
530	Single-crystal field-effect transistors based on a fused-ring electron acceptor with high ambipolar mobilities. Journal of Materials Chemistry C, 2020, 8, 5370-5374.	2.7	57
531	Synthesis and Evaluation of Scalable D-A-D Ï€-Extended Oligomers as p-Type Organic Materials for Bulk-Heterojunction Solar Cells. Polymers, 2020, 12, 720.	2.0	13
532	Non-fullerene small molecule acceptors with three-dimensional thiophene/selenophene-annulated perylene diimides for efficient organic solar cells. Journal of Materials Chemistry C, 2020, 8, 6749-6755.	2.7	12
533	Acceptorâ€“donorâ€“acceptor type molecules for high performance organic photovoltaics â€“ chemistry and mechanism. Chemical Society Reviews, 2020, 49, 2828-2842.	18.7	326
534	An acceptorâ€“donorâ€“acceptor type non-fullerene acceptor with an asymmetric backbone for high performance organic solar cells. Journal of Materials Chemistry C, 2020, 8, 6293-6298.	2.7	12
535	TD-DFT benchmark for UV-visible spectra of fused-ring electron acceptors using global and range-separated hybrids. Physical Chemistry Chemical Physics, 2020, 22, 7864-7874.	1.3	47
536	Achieving an Efficient and Stable Morphology in Organic Solar Cells Via Fine-Tuning the Side Chains of Small-Molecule Acceptors. Chemistry of Materials, 2020, 32, 2593-2604.	3.2	91
537	Simultaneous enhanced efficiency and thermal stability in organic solar cells from a polymer acceptor additive. Nature Communications, 2020, 11, 1218.	5.8	197
538	Efficient light-harvesting, energy migration, and charge transfer by nanographene-based nonfullerene small-molecule acceptors exhibiting unusually long excited-state lifetime in the film state. Chemical Science, 2020, 11, 3250-3257.	3.7	35
540	Achieving 17.4% Efficiency of Ternary Organic Photovoltaics with Two Wellâ€Compatible Nonfullerene Acceptors for Minimizing Energy Loss. Advanced Energy Materials, 2020, 10, 2001404.	10.2	164
541	Conformationâ€Tuning Effect of Asymmetric Small Molecule Acceptors on Molecular Packing, Interaction, and Photovoltaic Performance. Small, 2020, 16, e2001942.	5.2	49
542	Regioisomerically Pure 1,7-Dicyanoperylene Diimide Dimer for Charge Extraction from Donors with High Electron Affinities. ACS Omega, 2020, 5, 16547-16555.	1.6	6

#	Article	IF	Citations
543	Charge Separation from an Intra-Moiety Intermediate State in the High-Performance PM6:Y6 Organic Photovoltaic Blend. Journal of the American Chemical Society, 2020, 142, 12751-12759.	6.6	228
544	Recent advances in morphology optimizations towards highly efficient ternary organic solar cells. Nano Select, 2020, 1, 30-58.	1.9	56
545	An asymmetrical fused-ring electron acceptor designed by a cross-conceptual strategy achieving 15.6% efficiency. Journal of Materials Chemistry A, 2020, 8, 14583-14591.	5.2	32
546	Design of narrow bandgap non-fullerene acceptors for photovoltaic applications and investigation of non-geminate recombination dynamics. Journal of Materials Chemistry C, 2020, 8, 15175-15182.	2.7	50
547	Toward Efficient All-Polymer Solar Cells via Halogenation on Polymer Acceptors. ACS Applied Materials & Interfaces, 2020, 12, 33028-33038.	4.0	42
548	Enhanced photovoltaic effect from naphtho[2,3-c]thiophene-4,9-dione-based polymers through alkyl side chain induced backbone distortion. Journal of Materials Chemistry A, 2020, 8, 14706-14712.	5.2	10
549	PDI-based heteroacenes as acceptors for fullerene-free solar cells: importance of their twisted geometry. New Journal of Chemistry, 2020, 44, 13093-13099.	1.4	6
550	Efficient Charge Generation via Hole Transfer in Dilute Organic Donorâ€“Fullerene Blends. Journal of Physical Chemistry Letters, 2020, 11, 2203-2210.	2.1	19
551	3,4â€Dicyanothiopheneâ€”a Versatile Building Block for Efficient Nonfullerene Polymer Solar Cells. Advanced Energy Materials, 2020, 10, 1904247.	10.2	48
552	Indeno[1,2-b]thiophene End-capped Perylene Diimide: Should the 1,6-Regioisomers be systematically considered as a byproduct?. Scientific Reports, 2020, 10, 3262.	1.6	9
553	Partially Controlling Molecular Packing to Achieve Offâ€“On Mechanochromism through Ingenious Molecular Design. Advanced Optical Materials, 2020, 8, 1902036.	3.6	43
554	Bromination: An Alternative Strategy for Nonâ€Fullerene Small Molecule Acceptors. Advanced Science, 2020, 7, 1903784.	5.6	69
555	Novel Nitrogen-Containing Heterocyclic Non-Fullerene Acceptors for Organic PhotovoltaicCells: Different End-Capping Groups Leading to a Big Difference of Power Conversion Efficiencies. ACS Applied Materials & Interfaces, 2020, 12, 13068-13076.	4.0	21
556	Transannularly conjugated tetrameric perylene diimide acceptors containing [2.2]paracyclophane for non-fullerene organic solar cells. Journal of Materials Chemistry A, 2020, 8, 6501-6509.	5.2	42
557	Near-infrared electron acceptors with fused nonacyclic molecular backbones for nonfullerene organic solar cells. Materials Chemistry Frontiers, 2020, 4, 1729-1738.	3.2	23
558	Improving open-circuit voltage by a chlorinated polymer donor endows binary organic solar cells efficiencies over 17%. Science China Chemistry, 2020, 63, 325-330.	4.2	292
559	Boosting Performance of Nonâ€Fullerene Organic Solar Cells by 2D gâ€C₃N₄ Doped PEDOT:PSS. Advanced Functional Materials, 2020, 30, 1910205.	7.8	77
560	Terrylene diimide-based middle-low bandgap electron acceptors for organic photovoltaics. Journal of Materials Chemistry C, 2020, 8, 4441-4446.	2.7	11

#	Article	IF	Citations
561	Highly efficient ternary polymer solar cell with two non-fullerene acceptors. Solar Energy, 2020, 199, 530-537.	2.9	8
562	High-Performance Ternary Organic Solar Cells with Controllable Morphology via Sequential Layer-by-Layer Deposition. ACS Applied Materials & Interfaces, 2020, 12, 13077-13086.	4.0	69
563	Effects of linear and branched side chains on the redox and optoelectronic properties of 3,4-dialkoxythiophene polymers. Polymer Chemistry, 2020, 11, 2173-2181.	1.9	24
564	Molecular engineering of acceptors to control aggregation for optimized nonfullerene solar cells. Journal of Materials Chemistry A, 2020, 8, 5458-5466.	5.2	45
565	Numerical modelling of non-fullerene organic solar cell with high dielectric constant ITIC-OE acceptor. Journal of Physics Communications, 2020, 4, 025012.	0.5	19
566	Recent progress in indoor organic photovoltaics. Nanoscale, 2020, 12, 5792-5804.	2.8	126
567	The influence of the terminal acceptor and oligomer length on the photovoltaic properties of Aâ€“Dâ€“A small molecule donors. Journal of Materials Chemistry C, 2020, 8, 4763-4770.	2.7	15
568	Perhalogenated Tetraazaperopyrenes and Their Corresponding Mono- and Dianions. Organic Letters, 2020, 22, 2298-2302.	2.4	9
569	Sub-picosecond charge-transfer at near-zero driving force in polymer:non-fullerene acceptor blends and bilayers. Nature Communications, 2020, 11, 833.	5.8	130
570	Achieving organic solar cells with efficiency over 14% based on a non-fullerene acceptor incorporating a cyclopentathiophene unit fused backbone. Journal of Materials Chemistry A, 2020, 8, 5194-5199.	5.2	21
571	Efficient Organic Solar Cells Based on Non-Fullerene Acceptors with Two Planar Thiophene-Fused Perylene Diimide Units. ACS Applied Materials & Interfaces, 2020, 12, 10746-10754.	4.0	23
572	Impact of electronâ€“phonon coupling on the quantum yield of photovoltaic devices. Journal of Chemical Physics, 2020, 152, 044109.	1.2	9
573	Investigating blend morphology of P3HT:PCBM bulk heterojunction solar cells by classical atomistic simulations â€“ Progress and prospects. Soft Materials, 2020, 18, 163-176.	0.8	9
574	A bromine and chlorine concurrently functionalized end group for benzo[1,2-b:4,5-bâ€²]diselenophene-based non-fluorinated acceptors: a new hybrid strategy to balance the crystallinity and miscibility of blend films for enabling highly efficient polymer solar cells. Journal of Materials Chemistry A, 2020, 8, 4856-4867.	5.2	51
575	Broadband polymer photodetectors with a good trade-off between broad response and high detectivity by using combined electron-deficient moieties. Journal of Materials Chemistry C, 2020, 8, 3431-3437.	2.7	4
576	Highly efficient quaternary organic photovoltaics by optimizing photogenerated exciton distribution and active layer morphology. Nano Energy, 2020, 70, 104496.	8.2	82
577	Synthesis and Photovoltaic Properties of New Conjugated Dâ€A Polymers Based on the Same Fluoroâ€Benzothiadiazole Acceptor Unit and Different Donor Units. ChemistrySelect, 2020, 5, 853-863.	0.7	6
578	Balancing charge generation and voltage loss toward efficient nonfullerene organic solar cells. Materials Today Advances, 2020, 5, 100048.	2.5	23

#	Article	IF	Citations
579	An organometallic chemistry-assisted strategy for modification of zinc oxide nanoparticles by tin oxide nanoparticles: Formation of n-n heterojunction and boosting NO2 sensing properties. Journal of Colloid and Interface Science, 2020, 567, 328-338.	5.0	23
580	A Benzo[1,2â€b:4,5â€câ€²]Dithiopheneâ€4,8â€Dioneâ€Based Polymer Donor Achieving an Efficiency Over 16%. Advanced Materials, 2020, 32, e1907059.	11.1	70
581	An all small molecule organic solar cell based on a porphyrin donor and a non-fullerene acceptor with complementary and broad absorption. Dyes and Pigments, 2020, 176, 108250.	2.0	20
582	Crucial Role of Fluorine in Fully Alkylated Ladder-Type Carbazole-Based Nonfullerene Organic Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 9555-9562.	4.0	31
583	Thickâ€Film Organic Solar Cells Achieving over 11% Efficiency and Nearly 70% Fill Factor at Thickness over 400 nm. Advanced Functional Materials, 2020, 30, 1908336.	7.8	94
584	Regioselective Bayâ€Functionalization of Perylenes Toward Tailorâ€Made Synthesis of Acceptor Materials for Organic Photovoltaics. ChemPlusChem, 2020, 85, 285-293.	1.3	13
585	A novel ZnS/SiO2 double passivation layers for the CdS/CdSe quantum dots co-sensitized solar cells based on zinc titanium mixed metal oxides. Solar Energy Materials and Solar Cells, 2020, 208, 110380.	3.0	22
586	Synergistic Effects of Polymer Donor Backbone Fluorination and Nitrogenation Translate into Efficient Non-Fullerene Bulk-Heterojunction Polymer Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 9545-9554.	4.0	19
587	Design Principles and Synergistic Effects of Chlorination on a Conjugated Backbone for Efficient Organic Photovoltaics: A Critical Review. Advanced Materials, 2020, 32, e1906175.	11.1	168
588	Covalent interactions between carbon nanotubes and P3HT by thiolâ€“ene click chemistry towards improved thermoelectric performance. Materials Chemistry Frontiers, 2020, 4, 1174-1181.	3.2	10
589	Comparison of Fused-Ring Electron Acceptors with One- and Multidimensional Conformations. ACS Applied Materials & Interfaces, 2020, 12, 23976-23983.	4.0	10
590	Perylene Diimideâ€Based Conjugated Polymers for Allâ€Polymer Solar Cells. Chemistry - A European Journal, 2020, 26, 12510-12522.	1.7	29
591	Bulk-heterojunction polymer photovoltaic cells manufactured using non-halogenated and non-aromatic solvent. Journal of Materials Science: Materials in Electronics, 2020, 31, 6927-6936.	1.1	1
592	Sâ‹¯Cl intramolecular interaction: An efficient strategy to improve power conversion efficiency of organic solar cells. Dyes and Pigments, 2020, 179, 108416.	2.0	11
593	One-Pot Regiodirected Annulations for the Rapid Synthesis of Ï€-Extended Oligomers. Organic Letters, 2020, 22, 3263-3267.	2.4	25
594	New Phase for Organic Solar Cell Research: Emergence of Y-Series Electron Acceptors and Their Perspectives. ACS Energy Letters, 2020, 5, 1554-1567.	8.8	491
595	Establishing Stability in Organic Semiconductor Photocathodes for Solar Hydrogen Production. Journal of the American Chemical Society, 2020, 142, 7795-7802.	6.6	45
596	Fluorinated oligothiophene donors for high-performance nonfullerene small-molecule organic solar cells. Sustainable Energy and Fuels, 2020, 4, 2680-2685.	2.5	12

#	Article	IF	Citations
597	Photovoltaic properties of planar organic solar cells using perylenetetracarboxylic diimide with phenylethyl derivatives. Japanese Journal of Applied Physics, 2020, 59, SDDD01.	0.8	2
598	Reducing the Singletâ^'Triplet Energy Gap by Endâ€Group Ï€â^'Ï€ Stacking Toward Highâ€Efficiency Organic Photovoltaics. Advanced Materials, 2020, 32, e2000975.	11.1	77
599	The rational and effective design of nonfullerene acceptors guided by a semi-empirical model for an organic solar cell with an efficiency over 15%. Journal of Materials Chemistry A, 2020, 8, 9726-9732.	5.2	54
600	Asymmetrically noncovalently fused-ring acceptor for high-efficiency organic solar cells with reduced voltage loss and excellent thermal stability. Nano Energy, 2020, 74, 104861.	8.2	75
601	Efficient NDT small molecule solar cells with high fill factor using pendant group engineering. Journal of Materials Chemistry C, 2020, 8, 7561-7566.	2.7	3
602	Case Study on the Correlation between Crystal Packing and Miscibility of Chlorinated Thiopheneâ€"Based Donor Polymers for Nonfullerene Organic Solar Cells with Long Shelf Life. Solar Rrl, 2020, 4, 2000074.	3.1	13
603	Coreâ€Twisted Tetrachloroperylenediimides: Lowâ€Cost and Efficient Nonâ€Fullerene Organic Electronâ€Transporting Materials for Inverted Planar Perovskite Solar Cells. ChemSusChem, 2020, 13, 3686-3695.	3.6	7
604	Progress in Stability of Organic Solar Cells. Advanced Science, 2020, 7, 1903259.	5.6	308
605	Synthesis and Characterization of Wideâ€Bandgap Conjugated Polymers Consisting of Same Electron Donor and Different Electronâ€Deficient Units and Their Application for Nonfullerene Polymer Solar Cells. Macromolecular Chemistry and Physics, 2020, 221, 2000030.	1.1	8
606	Higher open circuit voltage caused by chlorinated polymers endows improved efficiency of binary organic solar cell. Organic Electronics, 2020, 83, 105776.	1.4	1
607	A 3D nonfullerene electron acceptor with a 9,9â€²-bicarbazole backbone for high-efficiency organic solar cells. Organic Electronics, 2020, 84, 105784.	1.4	5
608	Enhanced photovoltaic performance of benzodithiophene-alt-bis(thiophen-2-yl)quinoxaline polymers via Ï€â€"bridge engineering for non-fullerene organic solar cells. Polymer, 2020, 194, 122408.	1.8	6
609	Benzo[b]selenophene/thieno[3,2-b]indole-Based N,S,Se-Heteroacenes for Hole-Transporting Layers. ACS Omega, 2020, 5, 9377-9383.	1.6	14
610	Delocalization boosts charge separation in organic solar cells. Polymer Journal, 2020, 52, 691-700.	1.3	18
611	Diflurobenzothiadiazole core-based noncovalently fused small molecule acceptor exhibiting over 12% efficiency and high fill factor. Journal of Energy Chemistry, 2020, 51, 7-13.	7.1	21
612	Small bandgap non-fullerene acceptor enables efficient PTB7-Th solar cell with near 0 eV HOMO offset. Journal of Energy Chemistry, 2021, 52, 60-66.	7.1	24
613	Heating induced aggregation in non-fullerene organic solar cells towards high performance. Journal of Energy Chemistry, 2021, 54, 131-137.	7.1	21
614	Perylene diimide radical anion constructed by hydrogen bonds and its colorimetric chemodosimeter for the rapid detection of Fe3+. Journal of Molecular Structure, 2021, 1224, 129038.	1.8	3

#	Article	IF	Citations
615	Quantifying Planarity in the Design of Organic Electronic Materials. Angewandte Chemie - International Edition, 2021, 60, 1364-1373.	7.2	41
616	A Pyrroleâ€Fused Asymmetrical Electron Acceptor for Polymer Solar Cells with Approaching 16% Efficiency. Small Structures, 2021, 2, 2000052.	6.9	14
617	Conjugated Polymers for Photon-to-Electron and Photon-to-Fuel Conversions. ACS Applied Polymer Materials, 2021, 3, 60-92.	2.0	43
618	Ternary organic solar cells: Improved optical and morphological properties allow an enhanced efficiency. Chinese Chemical Letters, 2021, 32, 1359-1362.	4.8	6
619	First theoretical framework of Z-shaped acceptor materials with fused-chrysene core for high performance organic solar cells. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2021, 245, 118938.	2.0	84
620	Intrinsically Chemo- and Thermostable Electron Acceptors for Efficient Organic Solar Cells. Bulletin of the Chemical Society of Japan, 2021, 94, 183-190.	2.0	22
621	Exploring the mechanisms of exciton diffusion improvement in ternary polymer solar cells: From ultrafast to ultraslow temporal scale. Nano Energy, 2021, 79, 105513.	8.2	31
622	Recent progress in reducing voltage loss in organic photovoltaic cells. Materials Chemistry Frontiers, 2021, 5, 709-722.	3.2	41
623	Structure-properties relationships in triarylamine-based push-pull systems-C60 dyads as active material for single-material organic solar cells. Dyes and Pigments, 2021, 184, 108845.	2.0	2
624	An exciting twenty-year journey exploring porphyrinoid-based photo- and electro-active systems. Coordination Chemistry Reviews, 2021, 428, 213605.	9.5	43
625	Organic Solar Cellsâ€"The Path to Commercial Success. Advanced Energy Materials, 2021, 11, 2002653.	10.2	287
626	A ring-locking strategy to enhance the chemical and photochemical stability of Aâ€"Dâ€"A-type non-fullerene acceptors. Journal of Materials Chemistry A, 2021, 9, 1080-1088.	5.2	52
627	Simple (thienylmethylene)oxindoleâ€based polymer materials as donors for efficient nonâ€fullerene polymer solar cells. Nano Select, 2021, 2, 417-424.	1.9	0
628	Optimizing polymer aggregation and blend morphology for boosting the photovoltaic performance of polymer solar cells via a random terpolymerization strategy. Journal of Energy Chemistry, 2021, 59, 30-37.	7.1	20
629	Asymmetric Alkoxy and Alkyl Substitution on Nonfullerene Acceptors Enabling Highâ€Performance Organic Solar Cells. Advanced Energy Materials, 2021, 11, 2003141.	10.2	144
630	Recent progress on <scp>allâ€small</scp> molecule organic solar cells using <scp>smallâ€molecule</scp> nonfullerene acceptors. InformaÄnÃ-MateriÃ¡ly, 2021, 3, 175-200.	8.5	113
631	Tuning the electrochemical and optical properties of donor-acceptor D-A2-A1-A2-D derivatives with central benzothiadiazole core by changing the A2 strength. Electrochimica Acta, 2021, 368, 137540.	2.6	9
632	Wide bandgap donor polymers containing carbonyl groups for efficient non-fullerene polymer solar cells. Dyes and Pigments, 2021, 186, 108987.	2.0	2

#	Article	IF	Citations
633	Effect of aromatic Ï€-bridges on molecular structures and optoelectronic properties of A-Ï€-D-Ï€-A small molecular acceptors based on indacenodithiophene. Organic Electronics, 2021, 89, 106015.	1.4	8
634	Bifunctional Bisâ€benzophenone as A Solid Additive for Nonâ€Fullerene Solar Cells. Advanced Functional Materials, 2021, 31, 2008699.	7.8	13
635	Development of conjugated polymers for organic flexible electronics. , 2021, , 27-70.		4
636	Wide bandgap polymer donors for high efficiency non-fullerene acceptor based organic solar cells. Materials Advances, 2021, 2, 115-145.	2.6	47
637	Visible Lightâ€“Induced Degradation of Inverted Polymer:Nonfullerene Acceptor Solar Cells: Initiated by the Light Absorption of ZnO Layer. Solar Rrl, 2021, 5, .	3.1	45
638	Squaraine Dyes for Photovoltaic and Biomedical Applications. Advanced Functional Materials, 2021, 31, 2008201.	7.8	59
639	Morphology evolution with polymer chain propagation and its impacts on device performance and stability of non-fullerene solar cells. Journal of Materials Chemistry A, 2021, 9, 556-565.	5.2	19
640	Fluorinated End Group Enables Highâ€Performance Allâ€Polymer Solar Cells with Nearâ€Infrared Absorption and Enhanced Device Efficiency over 14%. Advanced Energy Materials, 2021, 11, 2003171.	10.2	89
641	Fused or unfused? Two-dimensional non-fullerene acceptors for efficient organic solar cells. Journal of Materials Chemistry A, 2021, 9, 2319-2324.	5.2	24
642	Asymmetric Acceptors Enabling Organic Solar Cells to Achieve an over 17% Efficiency: Conformation Effects on Regulating Molecular Properties and Suppressing Nonradiative Energy Loss. Advanced Energy Materials, 2021, 11, 2003177.	10.2	114
643	Excitation Wavelengthâ€Dependent Charge Generation Dynamics in a Nonfullerene Organic Solar Cell Interface. Solar Rrl, 2021, 5, 2000719.	3.1	6
644	Fabrication of SubPc-Br/Ag3PO4 composites with high-efficiency and stable photocatalytic performance. Journal of Photochemistry and Photobiology A: Chemistry, 2021, 405, 112929.	2.0	10
645	High-Efficiency Organic Photovoltaic Cells With an Antimony Quantum Sheet Modified Hole Extraction Layer. IEEE Journal of Photovoltaics, 2021, 11, 111-117.	1.5	9
646	Improving Photovoltaic Performance of Nonâ€Fullerene Polymer Solar Cells Enables by Fineâ€Tuning Blend Microstructure via Binary Solvent Mixtures. Advanced Functional Materials, 2021, 31, 2008767.	7.8	31
647	Poly(2,2â€™-(2,5-difluoro-1,4-phenylene)dithiophene-alt-naphthalene diimide) synthesized by direct (hetero)arylation reaction for all-polymer solar cells. Organic Electronics, 2021, 89, 106051.	1.4	4
648	Understanding of the Nearly Linear Tunable Open-Circuit Voltages in Ternary Organic Solar Cells Based on Two Non-fullerene Acceptors. Journal of Physical Chemistry Letters, 2021, 12, 151-156.	2.1	14
649	Tetraphenylethylene vs triphenylethylene core-based perylene diimide acceptor for non-fullerene organic solar cells. Dyes and Pigments, 2021, 184, 108813.	2.0	11
650	Aldol Condensationâ€Polymerized nâ€Doped Conjugated Polyelectrolytes for Highâ€Performance Nonfullerene Polymer Solar Cells. Solar Rrl, 2021, 5, .	3.1	12

#	Article	IF	Citations
651	Benzo[c][1,2,5]thiadiazole-fused pentacyclic small molecule acceptors for organic solar cells. Dyes and Pigments, 2021, 185, 108970.	2.0	3
652	Quantifying Planarity in the Design of Organic Electronic Materials. Angewandte Chemie, 2021, 133, 1384-1393.	1.6	1
653	High electron mobility fluorinated indacenodithiophene small molecule acceptors for organic solar cells. Chinese Chemical Letters, 2021, 32, 1257-1262.	4.8	15
654	Recent Advances in Wide Bandgap Polymer Donors and Their Applications in Organic Solar Cells. Chinese Journal of Chemistry, 2021, 39, 243-254.	2.6	43
655	Bâ†Nâ€Incorporated Dibenzoâ€azaacene with Selective Nearâ€Infrared Absorption and Visible Transparency. Chemistry - A European Journal, 2021, 27, 2065-2071.	1.7	12
656	Organic Semiconductors at the University of Washington: Advancements in Materials Design and Synthesis and toward Industrial Scale Production. Advanced Materials, 2021, 33, e1904239.	11.1	25
657	Designing high performance conjugated materials for photovoltaic cells with the aid of intramolecular noncovalent interactions. Chemical Communications, 2021, 57, 302-314.	2.2	65
658	Synergistic effect of incorporating intra- and inter-molecular charge transfer in nonfullerene acceptor molecules for highly-efficient organic solar cells. Journal of Materials Chemistry A, 2021, 9, 16834-16840.	5.2	15
659	Manipulating the solubility properties of polymer donors for high-performance layer-by-layer processed organic solar cells. Energy and Environmental Science, 2021, 14, 5919-5928.	15.6	55
660	Research Progress in Organic Solar Cells Based on Small Molecule Donors and Polymer Acceptors. Acta Chimica Sinica, 2021, 79, 545.	0.5	7
661	Ground- and excited-state characteristics in photovoltaic polymer N2200. RSC Advances, 2021, 11, 20191-20199.	1.7	15
662	Latest Progress on Photoabsorbent Materials for Multifunctional Semitransparent Organic Solar Cells. Advanced Functional Materials, 2021, 31, 2007931.	7.8	108
663	Manipulation of Zinc Oxide with Zirconium Doping for Efficient Inverted Organic Solar Cells. Small, 2021, 17, e2006387.	5.2	30
664	Pyrene-1,5,6,10-tetracarboxyl diimide: a new building block for high-performance electron-transporting polymers. Journal of Materials Chemistry C, 2021, 9, 7599-7606.	2.7	14
665	Triazoles in Material Sciences. , 2021, , 223-244.		0
666	Achieving ultra-narrow bandgap non-halogenated non-fullerene acceptors via vinylene Ï€-bridges for efficient organic solar cells. Materials Advances, 2021, 2, 2132-2140.	2.6	16
667	A pyridinium-pended conjugated polyelectrolyte for efficient photocatalytic hydrogen evolution and organic solar cells. Polymer Chemistry, 2021, 12, 1498-1506.	1.9	12
668	Fine-tuning of side-chain orientations on nonfullerene acceptors enables organic solar cells with 17.7% efficiency. Energy and Environmental Science, 2021, 14, 3469-3479.	15.6	158

#	Article	IF	Citations
669	Selenium-containing two-dimensional conjugated fused-ring electron acceptors for enhanced crystal packing, charge transport, and photovoltaic performance. Journal of Materials Chemistry A, 2021, 9, 15665-15677.	5.2	18
670	Improving the performance of organic solar cells by side chain engineering of fused ring electron acceptors. Journal of Materials Chemistry C, 2021, 9, 6937-6943.	2.7	13
671	Achieving 16.68% efficiency ternary as-cast organic solar cells. Science China Chemistry, 2021, 64, 581-589.	4.2	99
672	Positional isomeric effect of monobrominated ending groups within small molecule acceptors on photovoltaic performance. RSC Advances, 2021, 11, 31992-31999.	1.7	0
673	A facile strategy for third-component selection in non-fullerene acceptor-based ternary organic solar cells. Energy and Environmental Science, 2021, 14, 5009-5016.	15.6	119
674	Characterization of optical manipulation using microlens arrays depending on the materials and sizes in organic photovoltaics. RSC Advances, 2021, 11, 9766-9774.	1.7	0
675	Two cyanopyridinone-capped 9,9â€²-bifluorenylidene derivatives as non-fullerene acceptors for organic photovoltaic cells. New Journal of Chemistry, 2021, 45, 7637-7646.	1.4	0
676	Electron-deficient diketone unit engineering for non-fused ring acceptors enabling over 13% efficiency in organic solar cells. Journal of Materials Chemistry A, 2021, 9, 14948-14957.	5.2	50
677	Ultrafast channel I and channel II charge generation processes at a nonfullerene donorâ€“acceptor PTB7:PDI interface is crucial for its excellent photovoltaic performance. Physical Chemistry Chemical Physics, 2021, 23, 2097-2104.	1.3	4
678	Thiopheneâ€Fused Naphthodiphospholes: Modulation of the Structural and Electronic Properties of Polycyclic Aromatics by Precise Fusion of Heteroles. ChemPlusChem, 2021, 86, 130-136.	1.3	2
679	Intenzifikacija fotokatalitiÄkih procesa za obradu voda i otpadnih voda. Kemija U Industriji, 2021, 70, 275-292.	0.2	1
680	Recent advances in transition-metal-catalyzed annulations for the construction of a 1-indanone core. New Journal of Chemistry, 2021, 45, 4545-4568.	1.4	14
681	Molecular Insights into the Mechanical Properties of Polymerâ€“Fullerene Bulk Heterojunctions for Organic Photovoltaic Applications. Macromolecules, 2021, 54, 958-969.	2.2	11
682	Introducing methoxy or fluorine substitutions on the conjugated side chain to reduce the voltage loss of organic solar cells. Journal of Materials Chemistry C, 2021, 9, 11163-11171.	2.7	10
683	A universal method for constructing high efficiency organic solar cells with stacked structures. Energy and Environmental Science, 2021, 14, 2314-2321.	15.6	75
684	Organic cathode interfacial materials for non-fullerene organic solar cells. Journal of Materials Chemistry A, 2021, 9, 13506-13514.	5.2	21
685	Synergistic effect of the selenophene-containing central core and the regioisomeric monochlorinated terminals on the molecular packing, crystallinity, film morphology, and photovoltaic performance of selenophene-based nonfullerene acceptors. Journal of Materials Chemistry C, 2021, 9, 1923-1935.	2.7	21
686	Progress in morphology control from fullerene to nonfullerene acceptors for scalable high-performance organic photovoltaics. Journal of Materials Chemistry A, 2021, 9, 24729-24758.	5.2	28

#	Article	IF	Citations
687	Perylene diimide based non-fullerene acceptors: top performers and an emerging class featuring N-annulation. Journal of Materials Chemistry A, 2021, 9, 6775-6789.	5.2	63
688	Importance of molecular rigidity on reducing the energy losses in organic solar cells: implication from geometric relaxations of Aâ€“Dâ€“A electron acceptors. Materials Chemistry Frontiers, 2021, 5, 3903-3910.	3.2	16
689	Prolongation of the singlet exciton lifetime of nonfullerene acceptor films by the replacement of the central benzene core with naphthalene. Sustainable Energy and Fuels, 2021, 5, 2028-2035.	2.5	5
690	An attempt to synthesize a terthienyl-based analog of indacenedithiophene (IDT): unexpected synthesis of a naphtho[2,3-b]thiophene derivative. RSC Advances, 2021, 11, 9894-9900.	1.7	1
691	Evaluating the nature of the vertical excited states of fused-ring electron acceptors using TD-DFT and density-based charge transfer. Physical Chemistry Chemical Physics, 2021, 23, 15282-15291.	1.3	5
692	A ligand-free direct heteroarylation approach for benzodithiophenedione-based simple small molecular acceptors toward high efficiency polymer solar cells. Journal of Materials Chemistry A, 2021, 9, 3314-3321.	5.2	41
693	Synthesis and Optoelectronic Properties of A-D-A Type Small Molecule Acceptors Containing Isatin-Fused Acenaphthenequinone Imide Terminal Groups. Chinese Journal of Organic Chemistry, 2021, , 2019.	0.6	1
694	Adenine-based polymer modified zinc oxide for efficient inverted organic solar cells. Journal of Materials Chemistry C, 2021, 9, 11851-11858.	2.7	9
695	Nonfullerene electron acceptors with electron-deficient units containing cyano groups for organic solar cells. Materials Chemistry Frontiers, 2021, 5, 5549-5572.	3.2	21
696	Pseudo-bilayer architecture enables high-performance organic solar cells with enhanced exciton diffusion length. Nature Communications, 2021, 12, 468.	5.8	137
697	Improved performance of solution processed OLEDs using N-annulated perylene diimide emitters with bulky side-chains. Materials Advances, 2021, 2, 933-936.	2.6	20
698	Structural regulation of thiophene-fused benzotriazole as a â€œÏ€-bridgeâ€•for A-Ï€-D-Ï€-A type acceptor:P3HT-based OSCs to achieve high efficiency. Journal of Materials Chemistry A, 2021, 9, 6520-6528.	5.2	21
699	Ternary organic solar cells with 16.88% efficiency enabled by a twisted perylene diimide derivative to enhance the open-circuit voltage. Journal of Materials Chemistry C, 2021, 9, 3826-3834.	2.7	24
700	A molecular interactionâ€“diffusion framework for predicting organic solar cell stability. Nature Materials, 2021, 20, 525-532.	13.3	212
701	Effects of lateral-chain thiophene fluorination on morphology and charge transport of BDT-T based small molecule donors: a study with multiscale simulations. Journal of Materials Chemistry C, 2021, 9, 14637-14647.	2.7	5
702	Influence of synthetic pathway, molecular weight and side chains on properties of indacenodithiophene-benzothiadiazole copolymers made by direct arylation polycondensation. Journal of Materials Chemistry C, 2021, 9, 4597-4606.	2.7	5
703	Optimizing the Charge Carrier and Light Management of Nonfullerene Acceptors for Efficient Organic Solar Cells with Small Nonradiative Energy Losses. Solar Rrl, 2021, 5, 2100008.	3.1	20
704	Experimentâ€Oriented Machine Learning of Polymer:Nonâ€Fullerene Organic Solar Cells. Advanced Functional Materials, 2021, 31, 2011168.	7.8	42

#	Article	IF	Citations
705	High-Performance Organic Photovoltaics Incorporating an Active Layer with a Few Nanometer-Thick Third-Component Layer on a Binary Blend Layer. Nano Letters, 2021, 21, 2207-2215.	4.5	30
706	Fullerene/Non-fullerene Alloy for High-Performance All-Small-Molecule Organic Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 6461-6469.	4.0	17
707	Enhancing photovoltaic performance via aggregation dynamics control in fusedâ€ring electron acceptor. Aggregate, 2021, 2, e29.	5.2	10
708	Probing the properties of polymer/non-fullerene/fullerene bulk heterojunction ternary blend solar cells, study of varied blend ratios of PBDB-T:ITIC-Th:PC71BM. European Physical Journal Plus, 2021, 136, 1.	1.2	3
709	Layerâ€byâ€Layer Processed Ternary Organic Photovoltaics with Efficiency over 18%. Advanced Materials, 2021, 33, e2007231.	11.1	438
710	Achieving Efficient Ternary Organic Solar Cells Using Structurally Similar Nonâ€Fullerene Acceptors with Varying Flanking Side Chains. Advanced Energy Materials, 2021, 11, 2100079.	10.2	80
711	Curved Perylene Diimides Fused with Sevenâ€Membered Rings. Chemistry - an Asian Journal, 2021, 16, 690-695.	1.7	7
712	Organic photovoltaics for simultaneous energy harvesting and high-speed MIMO optical wireless communications. Light: Science and Applications, 2021, 10, 41.	7.7	37
713	19.34â€‰â€‰cm² large-area quaternary organic photovoltaic module with 12.36% certified efficiency. Photonics Research, 2021, 9, 324.	3.4	20
714	Enhancing the Photovoltaic Performance of Ladderâ€Type Heteroheptaceneâ€based Nonfullerene Acceptors by Incorporating Halogen Atoms on Their Ending Groups. Advanced Functional Materials, 2021, 31, 2010436.	7.8	26
715	Analysis of the Performance of Narrow-Bandgap Organic Solar Cells Based on a Diketopyrrolopyrrole Polymer and a Nonfullerene Acceptor. Journal of Physical Chemistry C, 2021, 125, 5505-5517.	1.5	11
716	Directed Ortho and Remote Metalation of Naphthalene 1,8-Diamide: Complementing S_EAr Reactivity for the Synthesis of Substituted Naphthalenes. Organic Letters, 2021, 23, 1966-1973.	2.4	2
717	Addition of 2D Ti₃C₂T_x to Enhance Photocurrent in Diodes for Highâ€Efficiency Organic Solar Cells. Solar Rrl, 2021, 5, 2100127.	3.1	12
718	Naphthalenothiophene Imide-Based Polymer Donor for High-Performance Polymer Solar Cells. Chemistry of Materials, 2021, 33, 1976-1982.	3.2	19
719	Flexible organic solar cells for biomedical devices. Nano Research, 2021, 14, 2891-2903.	5.8	19
720	PEGylated perylene bisimides: Chromonic building blocks for the aqueous synthesis of nanostructured silica materials. Journal of Molecular Liquids, 2021, 325, 114657.	2.3	3
721	An Electron Acceptor Analogue for Lowering Trap Density in Organic Solar Cells. Advanced Materials, 2021, 33, e2008134.	11.1	91
722	Minimizing the Thickness of Ethoxylated Polyethylenimine to Produce Stable Lowâ€Work Function Interface for Nonfullerene Organic Solar Cells. Advanced Energy and Sustainability Research, 2021, 2, 2000094.	2.8	11

#	Article	IF	Citations
723	Efficient Ternary Polymer solar cells based ternary active layer consisting of conjugated polymers and non-fullerene acceptors with power conversion efficiency approaching near to 15.5%. Solar Energy, 2021, 216, 217-224.	2.9	15
724	Unveiling the Photoinduced Electronâ€Donating Character of MoS 2 in Covalently Linked Hybrids Featuring Perylenediimide. Angewandte Chemie, 2021, 133, 9202-9208.	1.6	1
725	Unveiling the Photoinduced Electronâ€Donating Character of MoS₂ in Covalently Linked Hybrids Featuring Perylenediimide. Angewandte Chemie - International Edition, 2021, 60, 9120-9126.	7.2	16
726	Understanding the Critical Role of Sequential Fluorination of Phenylene Units on the Properties of Dicarboxylate Bithiopheneâ€Based Wideâ€Bandgap Polymer Donors for Nonâ€Fullerene Organic Solar Cells. Macromolecular Rapid Communications, 2021, 42, e2000743.	2.0	5
727	Ternary Polymer Solar Cells with High Open Circuit Voltage containing Fullerene and New Thieno[3',2',6,7][1]Benzothieno[3,2â€b]Thieno[3,2â€g][1]Benzothiopheneâ€based Nonâ€fullerene Small Molecule Acceptor. Energy Technology, 2021, 9, 2001100.	1.8	6
728	Significant Enhancement of Illumination Stability of Nonfullerene Organic Solar Cells via an Aqueous Polyethylenimine Modification. Journal of Physical Chemistry Letters, 2021, 12, 2607-2614.	2.1	41
729	Indoor photovoltaics, The Next Big Trend in solutionâ€processed solar cells. InformaÄnÃ-MateriÃ¡ly, 2021, 3, 445-459.	8.5	75
730	Effect of the mode of fixation of the thienyl rings on the electronic properties of electron acceptors based on indacenodithiophene (IDT). Dyes and Pigments, 2021, 187, 109116.	2.0	5
731	Mechanistic Study of Charge Separation in a Nonfullerene Organic Donorâ€“Acceptor Blend Using Multispectral Multidimensional Spectroscopy. Journal of Physical Chemistry Letters, 2021, 12, 3410-3416.	2.1	11
732	Regioâ€Regular Polymer Acceptors Enabled by Determined Fluorination on End Groups for Allâ€Polymer Solar Cells with 15.2â€‰% Efficiency. Angewandte Chemie, 2021, 133, 10225-10234.	1.6	13
733	Designing and Screening Highâ€Performance Nonâ€Fullerene Acceptors: A Theoretical Exploration of Modified Y6. Solar Rrl, 2021, 5, 2100023.	3.1	29
734	Junction and energy band on novel semiconductor-based fuel cells. IScience, 2021, 24, 102191.	1.9	45
735	Co²⁺-Tuned Tin Oxide Interfaces for Enhanced Stability of Organic Solar Cells. Langmuir, 2021, 37, 3173-3179.	1.6	7
736	Regioâ€Regular Polymer Acceptors Enabled by Determined Fluorination on End Groups for Allâ€Polymer Solar Cells with 15.2â€‰% Efficiency. Angewandte Chemie - International Edition, 2021, 60, 10137-10146.	7.2	145
737	Highâ€Performance Noncovalently Fusedâ€Ring Electron Acceptors for Organic Solar Cells Enabled by Noncovalent Intramolecular Interactions and Endâ€Group Engineering. Angewandte Chemie, 2021, 133, 12583-12589.	1.6	31
738	The Role of Silver Nanoparticles in the Hole Transport Layer in Organic Solar Cells Based on PBDB-T:ITIC. Journal of Electronic Materials, 2021, 50, 4118-4127.	1.0	8
739	Photocurrent-Detected 2D Electronic Spectroscopy Reveals Ultrafast Hole Transfer in Operating PM6/Y6 Organic Solar Cells. Journal of Physical Chemistry Letters, 2021, 12, 3983-3988.	2.1	26
740	Recent progress of PM6:Y6-based high efficiency organic solar cells. Surfaces and Interfaces, 2021, 23, 100921.	1.5	50

#	Article	IF	Citations
741	Utilizing Benzotriazole-Fused DAD-Type Heptacyclic Ring to Construct n-Type Polymer for All-Polymer Solar Cell Application. ACS Applied Energy Materials, 2021, 4, 4217-4223.	2.5	20
742	An Effective Strategy to Design a Large Bandgap Conjugated Polymer by Tuning the Molecular Backbone Curvature. Macromolecular Rapid Communications, 2021, 42, 2000757.	2.0	7
743	Recent progress of organic photovoltaics for indoor energy harvesting. Nano Energy, 2021, 82, 105770.	8.2	128
744	Comparative opto-electronic properties of perylene diimides derivatives with cyclization and high polarizability cores. Journal of Physics: Conference Series, 2021, 1865, 022073.	0.3	0
745	Sideâ€Chain Engineering on Yâ€Series Acceptors with Chlorinated End Groups Enables Highâ€Performance Organic Solar Cells. Advanced Energy Materials, 2021, 11, 2003777.	10.2	82
746	Quantum Dynamics of Exciton Transport and Dissociation in Multichromophoric Systems. Annual Review of Physical Chemistry, 2021, 72, 591-616.	4.8	31
747	Voltage loss analysis of novel non-fullerene acceptors with chlorinated non-conjugated thienyl chains. Dyes and Pigments, 2021, 188, 109162.	2.0	10
748	Single-Component Organic Solar Cells with Competitive Performance. Organic Materials, 2021, 03, 228-244.	1.0	36
749	Molecular Packing in the Active Layers of Organic Solar Cells Based on Non-Fullerene Acceptors: Impact of Isomerization on Charge Transport, Exciton Dissociation, and Nonradiative Recombination. ACS Applied Energy Materials, 2021, 4, 4002-4011.	2.5	12
750	Enhanced photovoltaic performance of quinoxaline-based donor-acceptor type polymers with monocyano substituent. Journal of Power Sources, 2021, 491, 229588.	4.0	15
751	Systematic Merging of Nonfullerene Acceptor Ï€-Extension and Tetrafluorination Strategies Affords Polymer Solar Cells with >16% Efficiency. Journal of the American Chemical Society, 2021, 143, 6123-6139.	6.6	125
752	Highâ€Performance Noncovalently Fusedâ€Ring Electron Acceptors for Organic Solar Cells Enabled by Noncovalent Intramolecular Interactions and Endâ€Group Engineering. Angewandte Chemie - International Edition, 2021, 60, 12475-12481.	7.2	155
753	Model Carboxyl-Containing Asphaltenes as Potential Acceptor Materials for Bulk Heterojunction Solar Cells. Energy & Fuels, 2021, 35, 8423-8429.	2.5	7
754	Naphthalenothiophene imide-based polymer exhibiting over 17% efficiency. Joule, 2021, 5, 931-944.	11.7	63
755	Achieving a Higher Energy Charge-Transfer State and Reduced Voltage Loss for Organic Solar Cells using Nonfullerene Acceptors with Norbornenyl-Functionalized Terminal Groups. ACS Applied Materials & Interfaces, 2021, 13, 24765-24773.	4.0	6
756	Flexible Organic Solar Cells: Progress and Challenges. Small Science, 2021, 1, 2100001.	5.8	94
757	Non-fullerene acceptors with branched side chains and improved molecular packing to exceed 18% efficiency in organic solar cells. Nature Energy, 2021, 6, 605-613.	19.8	1,307
758	Simple Nonâ€Fused Electron Acceptors Leading to Efficient Organic Photovoltaics. Angewandte Chemie, 2021, 133, 13074-13080.	1.6	18

#	Article	IF	Citations
759	Factors That Prevent Spin-Triplet Recombination in Non-fullerene Organic Photovoltaics. Journal of Physical Chemistry Letters, 2021, 12, 5045-5051.	2.1	7
760	Transitionâ€Metalâ€Free Synthesis of 1â€Indanone Skeleton: A Brief Update. ChemistrySelect, 2021, 6, 4761-4781.	0.7	8
761	Highly Efficient Non-Fused-Ring Electron Acceptors Enabled by the Conformational Lock and Structural Isomerization Effects. ACS Applied Materials & Interfaces, 2021, 13, 25214-25223.	4.0	30
762	Analyzing Dynamical Disorder for Charge Transport in Organic Semiconductors via Machine Learning. Journal of Chemical Theory and Computation, 2021, 17, 3750-3759.	2.3	26
763	Synergistic Engineering of Substituents and Backbones on Donor Polymers: Toward Terpolymer Design of High-Performance Polymer Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 23993-24004.	4.0	22
764	Thermocleavage of Partial Side Chains in Polythiophenes Offers Appreciable Photovoltaic Efficiency and Significant Morphological Stability. Chemistry of Materials, 2021, 33, 4745-4756.	3.2	11
765	Structural optimization of acceptor molecules guided by a semi-empirical model for organic solar cells with efficiency over 15%. Science China Materials, 2021, 64, 2388-2396.	3.5	6
766	Molecular insights of exceptionally photostable electron acceptors for organic photovoltaics. Nature Communications, 2021, 12, 3049.	5.8	97
767	A Difluoroâ€Monobromo End Group Enables Highâ€Performance Polymer Acceptor and Efficient Allâ€Polymer Solar Cells Processable with Green Solvent under Ambient Condition. Advanced Functional Materials, 2021, 31, 2100791.	7.8	89
768	Fused perylenediimide dimer as nonfullerene acceptor for high-performance organic solar cells. Dyes and Pigments, 2021, 189, 109269.	2.0	8
769	Simultaneous Optimization of Donor/Acceptor Pairs and Device Specifications for Nonfullerene Organic Solar Cells Using a QSPR Model with Morphological Descriptors. Journal of Physical Chemistry Letters, 2021, 12, 4980-4986.	2.1	16
770	Highly Efficient Allâ€Polymer Solar Cells Processed from Nonhalogenated Solvents. ChemSusChem, 2021, 14, 3553-3560.	3.6	4
771	Organic Solar Cells with 18% Efficiency Enabled by an Alloy Acceptor: A Twoâ€inâ€One Strategy. Advanced Materials, 2021, 33, e2100830.	11.1	323
772	Precise Synthesis of Fused Decacyclic Electron Acceptor Isomers for Organic Solar Cells. Solar Rrl, 2021, 5, 2100163.	3.1	8
773	Fine-Tuning the Dipole Moment of Asymmetric Non-Fullerene Acceptors Enabling Efficient and Stable Organic Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 23983-23992.	4.0	41
774	Computational Identification of Novel Families of Nonfullerene Acceptors by Modification of Known Compounds. Journal of Physical Chemistry Letters, 2021, 12, 5009-5015.	2.1	19
775	Highly Efficient (15.08%) All-Small-Molecule Ternary Solar Cells Constructed with a Porphyrin as a Donor and Two Acceptors. ACS Applied Energy Materials, 2021, 4, 4498-4506.	2.5	18
776	Replacing alkyl side chain of non-fullerene acceptor with siloxane-terminated side chain enables lower surface energy towards optimizing bulk-heterojunction morphology and high photovoltaic performance. Science China Chemistry, 2021, 64, 1208-1218.	4.2	13

#	Article	IF	Citations
777	New Dithiazole Side Chain Benzodithiophene Containing Dâ€“A Copolymers for Highly Efficient Nonfullerene Solar Cells. Macromolecular Chemistry and Physics, 2021, 222, 2100053.	1.1	6
778	Simple Nonâ€Fused Electron Acceptors Leading to Efficient Organic Photovoltaics. Angewandte Chemie - International Edition, 2021, 60, 12964-12970.	7.2	172
779	Tetraperylenediimide derivative as a fullerene-free acceptor for a high-performance polymer solar cell with the high-power conversion efficiency of 10.32% with open-circuit voltage over 1.0 V. Optical Materials, 2021, 115, 111048.	1.7	7
780	Recent advances in non-fullerene organic photovoltaics enabled by green solvent processing. Nanotechnology, 2022, 33, 072002.	1.3	20
781	Tuning Aggregation Behavior of Polymer Donor via<scp>Molecularâ€Weight</scp> Control for Achieving 17.1% Efficiency Inverted Polymer Solar Cells. Chinese Journal of Chemistry, 2021, 39, 1941-1947.	2.6	33
782	Recent advances of interface engineering for non-fullerene organic solar cells. Organic Electronics, 2021, 93, 106141.	1.4	27
783	Correlating the Molecular Structure of Aâ€DAâ€²Dâ€A Type Nonâ€Fullerene Acceptors to Its Heat Transfer and Charge Transport Properties in Organic Solar Cells. Advanced Functional Materials, 2021, 31, 2101627.	7.8	25
784	Heavyâ€Atomâ€Free Bayâ€Substituted Perylene Diimide Donorâ€Acceptor Photosensitizers. ChemPhysChem, 2021, 22, 1488-1496.	1.0	11
785	D-(Ï€-A)3 type low bandgap star-shaped fused-ring electron acceptor with alkoxy-substituted thiophene as Ï€-bridge. Dyes and Pigments, 2021, 190, 109329.	2.0	5
786	A Chlorinated Donor Polymer Achieving Highâ€Performance Organic Solar Cells with a Wide Range of Polymer Molecular Weight. Advanced Functional Materials, 2021, 31, 2102413.	7.8	69
787	Branched Oligo(ether) Side Chains: A Path to Enhanced Processability and Elevated Conductivity for Polymeric Semiconductors. Advanced Functional Materials, 2021, 31, 2102688.	7.8	29
788	Highâ€Efficiency Organic Solar Cells Based on Asymmetric Acceptors Bearing One 3D Shapeâ€Persistent Terminal Group. Advanced Functional Materials, 2021, 31, 2103445.	7.8	42
789	Highâ€Efficiency (16.93%) Pseudoâ€Planar Heterojunction Organic Solar Cells Enabled by Binary Additives Strategy. Advanced Functional Materials, 2021, 31, 2102291.	7.8	68
790	Synthesis, Characterization and Photovoltaic Properties of Electronâ€Accepting (11â€Oxoanthra[2,1â€b]thiophenâ€6â€ylidene)dipropanedinitrileâ€Based Molecules. ChemistrySelect, 2021, 6, 6043-6049.	1.7	0
791	Interface and doping in carbon dots influence charge transfer and transport. Carbon, 2021, 178, 594-605.	5.4	18
792	Charge Recycling Mechanism Through a Triplet Charge-Transfer State in Ternary-Blend Organic Solar Cells Containing a Nonfullerene Acceptor. ACS Energy Letters, 2021, 6, 2610-2618.	8.8	9
793	High-Performance Organic Solar Cells Featuring Double Bulk Heterojunction Structures with Vertical-Gradient Selenium Heterocyclic Nonfullerene Acceptor Concentrations. ACS Applied Materials & Interfaces, 2021, 13, 27227-27236.	4.0	30
794	Origin of poor photovoltaic performance of bis(tetracyanoantrathiophene) non-fullerene acceptor. Chemical Physics, 2021, 546, 111162.	0.9	6

#	Article	IF	Citations
795	Small-molecule acceptors with long alkyl chains for high-performance as-cast nonfullerene organic solar cells. Organic Electronics, 2021, 93, 106167.	1.4	6
796	Quantum chemical designing of banana-shaped acceptor materials with outstanding photovoltaic properties for high-performance non-fullerene organic solar cells. Synthetic Metals, 2021, 277, 116800.	2.1	50
797	Electron Transport in Naphthalene Diimide Derivatives. Materials, 2021, 14, 4026.	1.3	3
798	Highâ€Performance Fullerene Free Polymer Solar Cells Based on New Thiazole â€Functionalized Benzo[1,2â€b:4,5â€bâ€²]dithiophene Dâ€A Copolymer Donors. ChemistrySelect, 2021, 6, 7025-7036.	0.7	1
799	A Noncovalently <scp>Fusedâ€Ring</scp> Asymmetric Electron Acceptor Enables Efficient Organic Solar Cells. Chinese Journal of Chemistry, 2021, 39, 2685-2691.	2.6	21
800	Synergistically minimized nonradiative energy loss and optimized morphology achieved via the incorporation of small molecule donor in 17.7% efficiency ternary polymer solar cells. Nano Energy, 2021, 85, 105963.	8.2	47
801	Miscibility Control by Tuning Electrostatic Interactions in Bulk Heterojunction for Efficient Organic Solar Cells. , 2021, 3, 1276-1283.		26
802	Mode of action of the third component in ternary organic photovoltaic blend PBDB-T/ITIC:PC70BM revealed by EPR spectroscopy. Synthetic Metals, 2021, 277, 116783.	2.1	6
803	A Synergistic Strategy of Manipulating the Number of Selenophene Units and Dissymmetric Central Core of Small Molecular Acceptors Enables Polymer Solar Cells with 17.5â€‰% Efficiency. Angewandte Chemie - International Edition, 2021, 60, 19241-19252.	7.2	129
804	Active Layer Morphology Engineering of All-polymer Solar Cells by Systematically Tuning Molecular Weights of Polymer Donors/Acceptors. Chinese Journal of Polymer Science (English Edition), 2021, 39, 1449-1458.	2.0	6
805	A Synergistic Strategy of Manipulating the Number of Selenophene Units and Dissymmetric Central Core of Small Molecular Acceptors Enables Polymer Solar Cells with 17.5â€‰% Efficiency. Angewandte Chemie, 2021, 133, 19390-19401.	1.6	22
806	Optimizing the Alkyl Side-Chain Design of a Wide Band-Gap Polymer Donor for Attaining Nonfullerene Organic Solar Cells with High Efficiency Using a Nonhalogenated Solvent. Chemistry of Materials, 2021, 33, 5981-5990.	3.2	15
807	Tuning the LUMO Levels of Z-Shaped Perylene Diimide via Stepwise Cyanation. Journal of Organic Chemistry, 2021, 86, 9820-9827.	1.7	3
808	Hotspots, frontiers, and emerging trends of tandem solar cell research: A comprehensive review. International Journal of Energy Research, 2022, 46, 104-123.	2.2	12
809	Optical investigations and photoactive solar energy applications of new synthesized Schiff base liquid crystal derivatives. Scientific Reports, 2021, 11, 15046.	1.6	22
810	Enhanced Charge Separation in Ternary Bulk-Heterojunction Organic Solar Cells by Fullerenes. Journal of Physical Chemistry Letters, 2021, 12, 6418-6424.	2.1	10
811	Theoretical Study on Understanding the Effects of Core Structure and Energy Level Tuning on Efficiency of Nonfullerene Acceptors in Organic Solar Cells. Advanced Theory and Simulations, 2021, 4, 2100019.	1.3	5
812	Transient Spectroscopic Dynamics of Excitons and Polarons in the P3HT:FLR Blend. Journal of Physical Chemistry C, 2021, 125, 16033-16040.	1.5	1

#	Article	IF	Citations
813	Effect of extending fluorinated thiophene Ï€-bridges of BDT- and TT-based polymers for nonfullerene organic solar cells. Polymer, 2021, 228, 123898.	1.8	5
814	Designing Nonfullerene Acceptors with Oligo(Ethylene Glycol) Side Chains: Unraveling the Origin of Increased Openâ€Circuit Voltage and Balanced Charge Carrier Mobilities. Chemistry - an Asian Journal, 2021, 16, 2481-2488.	1.7	4
815	Efficient wide-band-gap copolymer donors for organic solar cells with perpendicularly placed benzodithiophene units. Journal of Power Sources, 2021, 499, 229961.	4.0	6
816	Optimization of Sintering Strength Based on Response Surface Methodology. Transactions of the Indian Institute of Metals, 2021, 74, 3085-3092.	0.7	3
817	High-Performance Simple Nonfused Ring Electron Acceptors with Diphenylamino Flanking Groups. ACS Applied Materials & Interfaces, 2021, 13, 39652-39659.	4.0	47
818	Recent Advances of Furan and Its Derivatives Based Semiconductor Materials for Organic Photovoltaics. Small Methods, 2021, 5, e2100493.	4.6	49
819	Asymmetric Glycolated Substitution for Enhanced Permittivity and Ecocompatibility of High-Performance Photovoltaic Electron Acceptor. Jacs Au, 2021, 1, 1733-1742.	3.6	47
820	Characterization of polymeric surfaces and interfaces using <scp>timeâ€ofâ€flight</scp> secondary ion mass spectrometry. Journal of Polymer Science, 2022, 60, 1174-1198.	2.0	11
821	Completely non-fused electron acceptor with 3D-interpenetrated crystalline structure enables efficient and stable organic solar cell. Nature Communications, 2021, 12, 5093.	5.8	210
822	Excited-state properties of Y-series small molecule semiconductors. Dyes and Pigments, 2021, 192, 109431.	2.0	17
823	Compatible Acceptors Mediate Morphology and Charge Generation, Transpration, Extraction, and Energy Loss in Efficient Ternary Polymer Solar Cells. ACS Applied Energy Materials, 2021, 4, 10187-10196.	2.5	4
824	Band Gap Engineering in Acceptor-Donor-Acceptor Boron Difluoride Formazanates. Journal of Organic Chemistry, 2021, 86, 12064-12074.	1.7	12
825	Molecular orientation, anisotropic electron transport and photovoltaic properties of ladder-type heteroheptacene-based semiconductors. Chemical Engineering Journal, 2021, 418, 129497.	6.6	14
826	Designing efficient A-D-A1-D-A-type non-fullerene acceptors with enhanced fill factor via noncovalently conformational locking. Synthetic Metals, 2021, 278, 116838.	2.1	6
827	Quantification of Temperatureâ€Dependent Charge Separation and Recombination Dynamics in Nonâ€Fullerene Organic Photovoltaics. Advanced Functional Materials, 2021, 31, 2107157.	7.8	13
828	Simple methoxy-substituted quinoxaline-based D-A type polymers for nonfullerene polymer solar cells. Dyes and Pigments, 2021, 192, 109346.	2.0	6
829	Review: materials and modelling for organic photovoltaic devices. Polymer International, 0, , .	1.6	6
830	Short Excitedâ€State Lifetimes Mediate Chargeâ€Recombination Losses in Organic Solar Cell Blends with Low Chargeâ€Transfer Driving Force. Advanced Materials, 2022, 34, e2101784.	11.1	11

#	Article	IF	Citations
831	High-efficiency fullerene free ternary organic solar cells based with two small molecules as donor. Optical Materials, 2021, 118, 111217.	1.7	2
832	Effect of Ester Side Chains on Photovoltaic Performance in Thiophene-Thiazolothiazole Copolymers. Bulletin of the Chemical Society of Japan, 2021, 94, 2019-2027.	2.0	6
833	Tuning the optoelectronic properties of triphenylamine (TPA) based small molecules by modifying central core for photovoltaic applications. Journal of Molecular Modeling, 2021, 27, 237.	0.8	60
834	Photoluminescence of <scp>P3HT</scp>:<scp>PCBM</scp> bulk heterojunction thin films and effect of external electric field. Journal of the Chinese Chemical Society, 2022, 69, 140-151.	0.8	3
835	Dicyanopentafulvene-fused perylene diimide and its stable radical anion. Dyes and Pigments, 2021, 193, 109489.	2.0	4
836	Aminonaphthalimideâ€Based Molecular Cathode Interlayers for Asâ€Cast Organic Solar Cells. ChemSusChem, 2021, 14, 4783-4792.	3.6	14
837	Fullerene-Free All-Small-Molecule Ternary Organic Solar Cells with Two Compatible Fullerene-Free Acceptors and a Coumarin Donor Enabling a Power Conversion Efficiency of 14.5%. ACS Applied Energy Materials, 2021, 4, 11537-11544.	2.5	7
838	Binary and Ternary Polymer Solar Cells Based on a Wide Bandgap Dâ€A Copolymer Donor and Two Nonfullerene Acceptors with Complementary Absorption Spectral. ChemSusChem, 2021, 14, 4731-4740.	3.6	3
839	Mechanism of the Photodegradation of Aâ€Dâ€A Acceptors for Organic Photovoltaics**. Angewandte Chemie - International Edition, 2021, 60, 24833-24837.	7.2	47
840	Effects of functionalization of Y6 end-groups with electron-withdrawing groups on the photovoltaic properties at the donor-acceptor interfaces of PM6/Y6 OSCs: A theoretical insight. Organic Electronics, 2021, 96, 106235.	1.4	12
841	Balanced shelf and operational stability of the PM6:Y6 solar cells by using ZnO:PEI composite electron transporting layer. Organic Electronics, 2021, 96, 106257.	1.4	13
842	Exciton Modulation in Perylene-Based Molecular Crystals Upon Formation of a Metal-Organic Interface From Many-Body Perturbation Theory. Frontiers in Chemistry, 2021, 9, 743391.	1.8	2
843	Conjugated Conductive Polymer Materials and its Applications: A Mini-Review. Frontiers in Chemistry, 2021, 9, 732132.	1.8	36
844	Ternary organic solar cells with improved efficiency and stability enabled by compatible dual-acceptor strategy. Organic Electronics, 2021, 96, 106227.	1.4	16
845	Benzothiadiazole-based non-fullerene acceptors. Nano Energy, 2021, 87, 106174.	8.2	137
846	PDI hexamer based on combination of direct and indirect linkage manners for nonâ€fullerene organic solar cells. Chemistry - an Asian Journal, 2021, 16, 3767-3773.	1.7	3
847	Effects of the Center Units of Smallâ€Molecule Donors on the Morphology, Photovoltaic Performance, and Device Stability of Allâ€Smallâ€Molecule Organic Solar Cells. Solar Rrl, 2021, 5, 2100515.	3.1	10
848	Emerging Chemistry in Enhancing the Chemical and Photochemical Stabilities of Fusedâ€Ring Electron Acceptors in Organic Solar Cells. Advanced Functional Materials, 2021, 31, 2106735.	7.8	36

#	Article	IF	Citations
849	Deciphering the role of invited guest bridges in non-fullerene acceptor materials for high performance organic solar cells. Synthetic Metals, 2021, 279, 116865.	2.1	55
850	Thiophene with Oligoethylene Oxide Side Chain Enables Random Terpolymer Acceptor to Achieve Efficient Allâ€Polymer Solar Cells. ChemElectroChem, 2021, 8, 3936-3942.	1.7	7
851	Synthesis and Mesomorphic and Electrical Investigations of New Furan Liquid Crystal Derivatives. Frontiers in Chemistry, 2021, 9, 711862.	1.8	6
852	Singlet and Triplet Excited-State Dynamics of a Nonfullerene Electron Acceptor Y6. Journal of Physical Chemistry C, 2021, 125, 20806-20813.	1.5	29
853	Adjusting the Active Layer Morphology via an Amorphous Acceptor Solid Additive for Efficient and Stable Nonfullerene Organic Solar Cells. Solar Rrl, 2021, 5, 2100532.	3.1	5
854	High-performance and low-energy loss organic solar cells with non-fused ring acceptor by alkyl chain engineering. Chemical Engineering Journal, 2021, 420, 129768.	6.6	36
855	Simultaneous Improvement of Efficiency and Stability of Nonâ€Fullereneâ€Based Organic Solar Cells Via Sequential Deposition of Single Donor and Binary Acceptor. Solar Rrl, 2021, 5, 2100592.	3.1	6
856	Low-Defect, High Molecular Weight Indacenodithiophene (IDT) Polymers Via a Câ€“H Activation: Evaluation of a Simpler and Greener Approach to Organic Electronic Materials. , 2021, 3, 1503-1512.		19
857	Mechanism of the Photodegradation of Aâ€Dâ€A Acceptors for Organic Photovoltaics. Angewandte Chemie, 0, , .	1.6	1
858	Melamine-Doped Cathode Interlayer Enables High-Efficiency Organic Solar Cells. ACS Energy Letters, 2021, 6, 3582-3589.	8.8	45
859	Effect of polymer molecular weight and processing solvent on the morphology and photovoltaic performance of inverted non-fullerene solar cells. Dyes and Pigments, 2021, 194, 109560.	2.0	3
860	A dithienobenzothiadiazole-quaterthiophene wide bandgap polymer enables non-fullerene based polymer solar cells with over 15% efficiency. Polymer, 2021, 233, 124193.	1.8	12
861	Influence of the terminal group on optoelectronic properties of fused-ring nonfullerene acceptors with ethylhexyl side chain. Dyes and Pigments, 2021, 194, 109635.	2.0	1
862	Development of interlayers based on polymethacrylate incorporating tertiary amine for organic solar cells with improved efficiency and stability. Dyes and Pigments, 2021, 194, 109523.	2.0	4
863	Comparison between poly(azomethine)s and poly(p-phenylvinylene)s containing a di-R-diphenylsilane (RÂ=Âmethyl or phenyl) moiety. Optical, electronic and thermal properties. European Polymer Journal, 2021, 159, 110714.	2.6	8
864	Perspective on the perovskite quantum dots for flexible photovoltaics. Journal of Energy Chemistry, 2021, 62, 505-507.	7.1	20
865	Quantum mechanical/molecular mechanical approach for the simulation of UVâ€“Vis absorption spectra of Ï€-conjugated oligomers. Journal of Molecular Liquids, 2021, 341, 117406.	2.3	1
866	Flexible organic solar cells: Materials, large-area fabrication techniques and potential applications. Nano Energy, 2021, 89, 106399.	8.2	99

#	Article	IF	Citations
867	Fullerene as an additive for increasing the efficiency of organic solar cells to more than 17%. Journal of Colloid and Interface Science, 2021, 601, 70-77.	5.0	15
868	Tuning the optoelectronic properties of scaffolds by using variable central core unit and their photovoltaic applications. Chemical Physics Letters, 2021, 782, 139018.	1.2	39
869	Optimization of ETM and HTM layer on NFA based BHJ-organic solar cell for high efficiency performance. Optik, 2021, 245, 167717.	1.4	14
870	Naphthalene-fused octacyclic electron-donating central core constructs non-fullerene acceptors for organic solar cells. Chemical Engineering Journal, 2021, 425, 130618.	6.6	6
871	Highly stable inverted non-fullerene OSCs by surface modification of SnO2 with an easy-accessible material. Chemical Engineering Journal, 2021, 426, 131583.	6.6	8
872	Improvement of inverted planar heterojunction solar cells efficiency by using KI/Alq3 hybrid exciton blocking layer. Solid-State Electronics, 2021, 186, 108165.	0.8	1
873	Enhanced short circuit current density and efficiency of ternary organic solar cells by addition of a simple copolymer third component. Chemical Engineering Journal, 2021, 425, 130575.	6.6	17
874	Intermolecular interaction induced spontaneous aggregation enables over 14% efficiency as-cast nonfullerene solar cells. Chemical Engineering Journal, 2022, 427, 131942.	6.6	7
875	Chlorinated unfused acceptor enabling 13.57% efficiency and 73.39% fill factor organic solar cells via fine-tuning alkoxyl chains on benzene core. Chemical Engineering Journal, 2022, 427, 131828.	6.6	29
876	Wide bandgap D-A copolymers with same medium dithieno [2,3-e;3â€²2â€²-g]isoindole-7,9 (8H) acceptor and different donors for high-performance fullerene free polymer solar cells with efficiency up to 14.76%. Chemical Engineering Journal, 2022, 427, 131404.	6.6	7
877	Tuning the optoelectronic properties of benzodithiophene based donor materials and their photovoltaic applications. Materials Science in Semiconductor Processing, 2022, 137, 106150.	1.9	34
878	Boosting the photovoltaic performance of ladder-type heteroheptacene-based nonfullerene acceptors by incorporating auxochromic groups in the electron-rich core. Chemical Engineering Journal, 2022, 427, 131022.	6.6	7
879	Versatile control of concentration gradients in non-fullerene acceptor-based bulk heterojunction films using solvent rinse treatments. Green Energy and Environment, 2021, , .	4.7	2
880	Thiophene-based twisted bistricyclic aromatic ene with tricoordinate boron: a new n-type semiconductor. Chemical Communications, 2021, 57, 1316-1319.	2.2	16
881	A small molecule acceptor with a heptacyclic benzodi(thienocyclopentafuran) central unit achieving 13.4% efficiency in polymer solar cells with low energy loss. Journal of Materials Chemistry C, 2021, 9, 2744-2751.	2.7	10
882	Wide-bandgap donor polymers based on a dicyanodivinyl indacenodithiophene unit for non-fullerene polymer solar cells. RSC Advances, 2021, 11, 21397-21404.	1.7	4
883	Multiscale modelling of charge transport in P3HT:DIPBI bulk heterojunction organic solar cells. Physical Chemistry Chemical Physics, 2021, 23, 12233-12250.	1.3	4
884	Near-infrared dyes for two-photon absorption in the short-wavelength infrared: strategies towards optical power limiting. Chemical Society Reviews, 2021, 50, 6613-6658.	18.7	94

#	Article	IF	Citations
885	Chemical Bonding as a New Avenue for Controlling Excitedâ€State Properties and Excitation Energyâ€Transfer Processes in Zinc Phthalocyanineâ€“Fullerene Dyads. Chemistry - A European Journal, 2021, 27, 4159-4167.	1.7	10
886	Efficient ternary polymer solar cell using wide bandgap conjugated polymer donor with two nonâ€fullerene small molecule acceptors enabled power conversion efficiency of 16% with low energy loss of 0.47 eV. Nano Select, 2021, 2, 1326-1335.	1.9	2
887	Unique Degradation Signatures of Organic Solar Cells with Nonfullerene Electron Acceptors. ACS Applied Materials & Interfaces, 2021, 13, 5338-5348.	4.0	1
888	Diselenolene proligands: reactivity and comparison with their dithiolene congeners. New Journal of Chemistry, 2021, 45, 8971-8977.	1.4	1
889	Bromination and increasing the molecular conjugation length of the non-fullerene small-molecule acceptor based on benzotriazole for efficient organic photovoltaics. RSC Advances, 2021, 11, 13571-13578.	1.7	3
890	Enhanced Photovoltaic Efficiency via Control of Self-Assembly in Cyanopyridone-Based Oligothiophene Donors. Journal of Physical Chemistry Letters, 2021, 12, 919-924.	2.1	5
891	Alkoxy substitution on IDT-Series and Y-Series non-fullerene acceptors yielding highly efficient organic solar cells. Journal of Materials Chemistry A, 2021, 9, 7481-7490.	5.2	42
892	1,1-Dicyanomethylene-3-Indanone End-Cap Engineering for Fused-Ring Electron Acceptor-Based High-Performance Organic Photovoltaics. Cell Reports Physical Science, 2021, 2, 100292.	2.8	38
893	Engineering polymer solar cells: advancement in active layer thickness and morphology. Journal of Materials Chemistry C, 0, , .	2.7	15
894	Nonfullerene acceptors for P3HT-based organic solar cells. Journal of Materials Chemistry A, 2021, 9, 18857-18886.	5.2	48
895	Mono- and di-substituted pyrene-based donor-Ï€-acceptor systems with phenyl and thienyl Ï€-conjugating bridges. Dyes and Pigments, 2020, 181, 108527.	2.0	25
896	Insight into the effects of alkoxy side chain position in nonfullerene electron acceptors on the morphological stability of organic solar cells. Dyes and Pigments, 2020, 181, 108562.	2.0	10
897	Molecular design towards two-dimensional electron acceptors for efficient non-fullerene solar cells. Journal of Energy Chemistry, 2020, 51, 190-198.	7.1	3
898	Study on the solar energy absorption of hybrid solar cells with trapezoid-pyramidal structure based PEDOT:PSS/c-Ge. Solar Energy, 2020, 204, 635-643.	2.9	99
899	Isomerically Fused Benzo[i]dithiophenephenazine and Benzo[i]diselenophenephenazine: Synthesis, Crystal Packing, and Density Functional Theory Calculations. Crystal Growth and Design, 2020, 20, 4479-4490.	1.4	2
900	Crystal Lattice Design of H₂O-Tolerant n-Type Semiconducting Dianionic Naphthalenediimide Derivatives. Journal of the American Chemical Society, 2021, 143, 1046-1060.	6.6	14
901	End-group functionalization of a conjugated azomethine with ureas for property tailoring. New Journal of Chemistry, 2020, 44, 18813-18822.	1.4	2
902	Structure dependent photostability of ITIC and ITIC-4F. Materials Advances, 2020, 1, 2846-2861.	2.6	25

#	Article	IF	Citations
903	Aggregation of non-fullerene acceptors in organic solar cells. Journal of Materials Chemistry A, 2020, 8, 15607-15619.	5.2	99
904	Nanostructure of organic semiconductor thin films: Molecular dynamics modeling with solvent evaporation. Physical Review Materials, 2020, 4, .	0.9	10
905	Photovoltaic Properties of Electron-Accepting 2,2'-[2,2'-Arenediylbis(11-oxoanthra[1,2-b]thiophene-6-ylidene)]dipropanedinitriles. Russian Journal of Physical Chemistry A, 2020, 94, 1936-1942.	0.1	1
906	Cyclopenta[hi]aceanthrylene Decorated with Multiple and Long Alkoxy Chains: Physicochemical Properties and Single-Walled Carbon Nanotubesâ€™ Exfoliation Capability. ECS Journal of Solid State Science and Technology, 2020, 9, 051011.	0.9	1
907	Designs and understanding of small molecule-based non-fullerene acceptors for realizing commercially viable organic photovoltaics. Chemical Science, 2021, 12, 14004-14023.	3.7	22
908	Finely modulated asymmetric nonfullerene acceptors enabling simultaneously improved voltage and current for efficient organic solar cells. Journal of Materials Chemistry C, 0, , .	2.7	0
909	Low-cost materials for organic solar cells. Journal of Materials Chemistry C, 2021, 9, 15395-15406.	2.7	58
910	Acceptor Modulation Strategies for Improving the Electron Transport in Highâ€Performance Organic Fieldâ€Effect Transistors. Advanced Materials, 2022, 34, e2104325.	11.1	53
911	Positional Effect of the 2-Ethylhexyl Carboxylate Side Chain on the Thiophene Ï€-Bridge of Nonfullerene Acceptors for Efficient Organic Solar Cells. ACS Applied Energy Materials, 2021, 4, 11675-11683.	2.5	5
912	Tuning the optoelectronic properties of ZOPTAN core-based derivatives by varying acceptors to increase efficiency of organic solar cell. Journal of Molecular Modeling, 2021, 27, 316.	0.8	20
913	Allâ€Green Solventâ€Processed Planar Heterojunction Organic Solar Cells with Outstanding Power Conversion Efficiency of 16%. Advanced Functional Materials, 2022, 32, 2107567.	7.8	58
914	Simple Nonfused Ring Electron Acceptors with 3D Network Packing Structure Boosting the Efficiency of Organic Solar Cells to 15.44%. Advanced Energy Materials, 2021, 11, 2102591.	10.2	111
915	Multiâ€Functional Solid Additive Induced Favorable Vertical Phase Separation and Ordered Molecular Packing for Highly Efficient Layerâ€byâ€Layer Organic Solar Cells. Small, 2021, 17, e2103497.	5.2	49
917	Gradual chlorination at different positions of D-Ï€-A copolymers based on benzodithiophene and isoindigo for organic solar cells. Materials Reports Energy, 2021, 1, 100065.	1.7	3
918	Pentacyclic Aromatic Lactam-Containing Copolymer with Well-Controlled Energy Alignment and Morphology with 17% Efficiency of Organic Solar Cells. ACS Applied Energy Materials, 0, , .	2.5	3
919	Mixed Solvent as a Critical Factor in Optimizing Phase Separation of All Small Molecule Organic Solar Cells. ACS Applied Energy Materials, 2021, 4, 11769-11776.	2.5	2
920	Efficiencyâ€Enhanced Scalable Organic Photovoltaics Using Rollâ€toâ€Roll Nanoimprint Lithography. ChemSusChem, 2022, 15, .	3.6	2
921	Investigation of aluminum phthalocyanine chloride as acceptor material in planar organic solar cells: comparative study with fullerene. Journal of Materials Science: Materials in Electronics, 2021, 32, 27710.	1.1	3

#	Article	IF	Citations
922	Environment friendly solvent processed, fullerene-free organic solar cells with high efficiency in air. , 2018, , .		0
924	Fluorinated Perylene Diimide Dimer for Organic Solar Cells as Nonâ€fullerene Acceptor. Asian Journal of Organic Chemistry, 2021, 10, 3374-3379.	1.3	11
925	Nearâ€Infrared Materials: The Turning Point of Organic Photovoltaics. Advanced Materials, 2022, 34, e2107330.	11.1	111
926	Beyond Conformational Control: Effects of Noncovalent Interactions on Molecular Electronic Properties of Conjugated Polymers. Jacs Au, 2021, 1, 2182-2187.	3.6	8
927	Organic dyads and triads based on the triphenylene-rylenediimide couple: Molecular design, self-organization, and photo-physical properties. Dyes and Pigments, 2022, 197, 109911.	2.0	3
928	Dithienopyrrole-based Organic Electroactive Materials and Their Photovoltaic Aspects. Current Organic Chemistry, 2020, 24, 2695-2736.	0.9	0
929	An asymmetry strategy to reduce excessive aggregation of brominated non-fullerene acceptors for enhanced efficiency of organic solar cells. Organic Electronics, 2022, 100, 106357.	1.4	5
930	Solution-processable silicon naphthalocyanine tetraimides as near infrared electron acceptors in organic solar cells. Dyes and Pigments, 2022, 197, 109846.	2.0	3
931	Molecular description of charge transport in the IDIC non-fullerene acceptor for organic solar cells. Computational Materials Science, 2022, 202, 110978.	1.4	5
932	Conjugated copolymers bearing 2,7-dithienylphenanthrene-9,10-dialkoxy units: highly soluble and stable deep-blue emissive materials. New Journal of Chemistry, 2020, 44, 9557-9564.	1.4	2
933	Investigation of tunable halogen-free solvent engineering on aggregation and miscibility towards high-performance organic solar cells. Nano Energy, 2022, 91, 106678.	8.2	42
934	Self-Assembly Hydrosoluble Coronenes: A Rich Source of Supramolecular Turn-On Fluorogenic Sensing Materials in Aqueous Media. Organic Letters, 2021, 23, 8727-8732.	2.4	5
935	Organoboron molecules and polymers for organic solar cell applications. Chemical Society Reviews, 2022, 51, 153-187.	18.7	92
936	Ternary organic photovoltaics with good thickness tolerance by NC70BA as the third component. Organic Electronics, 2022, 100, 106397.	1.4	1
937	Study on the side chain effect of A2-A1-D-A1-A2 type non-fullerene acceptors matched with P3HT. Dyes and Pigments, 2022, 197, 109949.	2.0	10
938	New wide-bandgap Dâ€“A polymer based on pyrrolo[3,4-b] dithieno[2,3-f:3â€²,2â€²-h]quinoxalindione and thiazole functionalized benzo[1,2-b:4,5-bâ€²]dithiophene units for high-performance ternary organic solar cells with over 16% efficiency. Sustainable Energy and Fuels, 2022, 6, 682-692.	2.5	1
939	ITIC derivative acceptors for ternary organic solar cells: fine-tuning of absorption bands, LUMO energy levels, and cascade charge transfer. Sustainable Energy and Fuels, 2021, 6, 110-120.	2.5	4
940	Stabilization of free radicals in layer-by-layer nanoarchitectures containing multiple arylenediimides. Dyes and Pigments, 2022, 198, 109948.	2.0	2

#	Article	IF	Citations
941	The evolution of small molecular acceptors for organic solar cells: Advances, challenges and prospects. Dyes and Pigments, 2022, 198, 109963.	2.0	13
942	Chlorination Enabling a Lowâ€Cost Benzodithiopheneâ€Based Wideâ€Bandgap Donor Polymer with an Efficiency of over 17%. Advanced Materials, 2022, 34, e2105483.	11.1	53
943	Linear Extension of Anthracene via Bâ†N Lewis Pair Formation: Effects on Optoelectronic Properties and Singlet O₂Sensitization. Angewandte Chemie - International Edition, 2022, 61, .	7.2	23
944	Organic Devices: Fabrication, Applications, and Challenges. Journal of Electronic Materials, 2022, 51, 447-485.	1.0	20
945	Effect of Terminal-Group Halogenation of Naphthalene-Based Nonfullerene Acceptors on Their Film Structure and Photophysical and Photovoltaic Properties. ACS Applied Energy Materials, 2021, 4, 14022-14033.	2.5	5
946	Understanding dynamic distribution capabilities to enhance supply chain performance: a dynamic capability view. Benchmarking, 2022, 29, 2822-2841.	2.9	13
947	Nearâ€Infrared Absorbing Nonfullerene Acceptors for Organic Solar Cells. Solar Rrl, 2022, 6, 2100868.	3.1	16
948	Molecular engineering of non-fullerene acceptors based on thiophene-fused end groups for fullerene-free organic solar cells. Dyes and Pigments, 2021, , 109987.	2.0	2
949	Linear Extension of Anthracene via Bâ†N Lewis Pair Formation: Effects on Optoelectronic Properties and Singlet O₂Sensitization. Angewandte Chemie, 2022, 134, .	1.6	5
950	Unfused Nonfullerene Acceptors Based on Simple Dipolar Merocyanines. Chemistry - A European Journal, 2021, 27, 18103-18108.	1.7	4
951	A Cost-Effective Alpha-Fluorinated Bithienyl Benzodithiophene Unit for High-Performance Polymer Donor Material. ACS Applied Materials & Interfaces, 2021, 13, 55403-55411.	4.0	5
952	A New End Group on Nonfullerene Acceptors Endows Efficient Organic Solar Cells with Low Energy Losses. Advanced Functional Materials, 2022, 32, 2108614.	7.8	56
953	Achieving efficient organic solar cells via synergistically doping active layers and interfaces by a conjugated macrocycle. Journal of Materials Chemistry A, 2021, 9, 25629-25640.	5.2	10
954	Ultrafast Electron Transfer in All-Small-Molecule Photovoltaic Blends Promoted by Intermolecular Interactions in Cyanided Donors. Chinese Journal of Chemical Physics, 0, , .	0.6	6
955	Tailor-made aromatic porphyrinoids with NIR absorption. Chemical Communications, 2022, 58, 1834-1859.	2.2	7
956	Non-fullerene acceptors with direct and indirect hexa-fluorination afford >17% efficiency in polymer solar cells. Energy and Environmental Science, 2022, 15, 645-659.	15.6	65
957	Impact of substituents on the performance of small-molecule semiconductors in organic photovoltaic devices via regulating morphology. Journal of Materials Chemistry C, 2022, 10, 1162-1195.	2.7	8
958	Naphthalene imide derived BODIPY analogues as n-channel semiconductors. Dyes and Pigments, 2022, 199, 110053.	2.0	6

#	Article	IF	Citations
959	Quinacridone-based small molecule acceptor as a third component in ternary organic solar cells. Chemical Engineering Journal, 2022, 432, 134405.	6.6	6
960	Sequential stacking of a thin BHJ layer acting as a morphology regulator for efficiency enhancement in non-fullerene ternary solar cells. Chemical Engineering Journal, 2022, 433, 134337.	6.6	7
961	Ternary organic solar cells: A review of the role of the third element. Nano Energy, 2022, 94, 106915.	8.2	87
962	Isomeric Fluorene-based Heteroundecenes with Different Side Chains Anchoring Positions for Small Molecule Acceptors. Journal Wuhan University of Technology, Materials Science Edition, 2022, 37, 136-147.	0.4	1
963	Theoretical exploration of diverse electron-deficient core and terminal groups in Aâ€“DAâ€²Dâ€“A type non-fullerene acceptors for organic solar cells. New Journal of Chemistry, 2022, 46, 3370-3382.	1.4	12
964	Near-infrared nonfullerene acceptors with halogenated terminated fused tris(thienothiophene) for efficient polymer solar cells. Solar Energy, 2022, 231, 433-439.	2.9	0
965	The Synthesis of Asymmetric Perylene Diimide Acceptors and Their Optoelectronic Properties Studies. European Journal of Organic Chemistry, 2022, 2022, .	1.2	3
966	Hybrid Cathode Interlayer Enables 17.4% Efficiency Binary Organic Solar Cells. Advanced Science, 2022, 9, e2105575.	5.6	31
967	Atropisomeric Conjugated Diimides: A Class of Thermally Responsive Organic Semiconductors. , 2022, 4, 363-369.		3
968	Theoretical exploration of 1,3-Indanedione as electron acceptor-cum-anchoring group for designing sensitizers towards DSSC applications. Solar Energy, 2022, 237, 456-469.	2.9	17
969	Simple thiazole-centered oligothiophene donor enables 15.4% efficiency all small molecule organic solar cells. Journal of Materials Chemistry A, 2022, 10, 3009-3017.	5.2	28
970	Preaggregation in Solution Producing Multiple Crystal Forms of Y6 Corresponding to a Variation of Miscibility in PM6-Based Ternary Solar Cells. ACS Applied Energy Materials, 2022, 5, 1193-1204.	2.5	14
971	Phenolâ€Functionalized Perylene Bisimides as Amineâ€Free Electron Transporting Interlayers for Stable Nonfullerene Organic Solar Cells. Advanced Functional Materials, 2022, 32, .	7.8	21
972	Design of Nonfused Nonfullerene Acceptors Based on Pyrido- or Benzothiadiazole Cores for Organic Solar Cells. ACS Applied Energy Materials, 2022, 5, 2202-2210.	2.5	14
973	Biomass Lignin Integrated Polymeric Carbon Nitride for Boosted Photocatalytic Hydrogen and Oxygen Evolution Reactions. Molecular Catalysis, 2022, 518, 112064.	1.0	23
974	Ambipolar organic phototransistors with bulk heterojunction films of p-type and n-type indacenodithienothiophene-containing conjugated polymers. Journal of Materials Chemistry C, 2022, 10, 3951-3958.	2.7	5
975	Intrachain photophysics of a donorâ€“acceptor copolymer. Physical Chemistry Chemical Physics, 2022, 24, 1982-1992.	1.3	7
976	Optimising the photovoltaic parameters in donorâ€“acceptorâ€“acceptor ternary polymer solar cells using Machine Learning framework. Solar Energy, 2022, 231, 447-457.	2.9	11

#	Article	IF	Citations
977	Simulation of the performance of organic solar cells based on D1-BT-EDOT-BT-D2-A/PCBM structures. E3S Web of Conferences, 2022, 336, 00063.	0.2	1
978	Simultaneously Achieving Highly Efficient and Stable Polymer:Nonâ€Fullerene Solar Cells Enabled By Molecular Structure Optimization and Surface Passivation. Advanced Science, 2022, 9, e2104588.	5.6	28
979	Amplifying the photovoltaic properties of azaBODIPY core based small molecules by terminal acceptors modification for high performance organic solar cells: A DFT approach. Solar Energy, 2022, 233, 31-45.	2.9	43
980	The history and development of Y6. Organic Electronics, 2022, 102, 106436.	1.4	40
981	Aggregation caused quenching to aggregation induced emission transformation: a precise tuning based on BN-doped polycyclic aromatic hydrocarbons toward subcellular organelle specific imaging. Chemical Science, 2022, 13, 3129-3139.	3.7	58
982	Nonâ€Radiative Recombination Energy Losses in Nonâ€Fullerene Organic Solar Cells. Advanced Functional Materials, 2022, 32, .	7.8	58
983	Solvent Tuning of the Active Layer Morphology of Nonâ€Fullerene Based Organic Solar Cells. Solar Rrl, 2022, 6, .	3.1	4
984	Novel perylene diimides for improved photophysical and electrochemical properties. Journal of Materials Research and Technology, 2022, 17, 2675-2683.	2.6	3
985	New Bithiophene Extended IDIC-Based Non-Fullerene Acceptors and Organic Photovoltaics Thereof. Molecules, 2022, 27, 1113.	1.7	1
986	Chloride side-chain engineered quinoxaline-based D-A copolymer enabling non-fullerene organic solar cells with over 16% efficiency. Chemical Engineering Journal, 2022, 437, 135182.	6.6	19
987	Tuning of diphenylamine subphthalocyanine based small molecules with efficient photovoltaic parameters for organic solar cells. Journal of Molecular Graphics and Modelling, 2022, 112, 108146.	1.3	12
988	Limitations of machine learning models when predicting compounds with completely new chemistries: possible improvements applied to the discovery of new non-fullerene acceptors. , 2022, 1, 266-276.		8
989	2,2â€²-Bipyridine derived doubly B â†•N fused bisphosphine-chalcogenides, [C₅H₃N(BF₂){NCH₂P(E)Ph₂}]₂ (E = O, S, Se): tuning of structural features and photophysical studies. Dalton Transactions, 2022, 51, 6884-6898.	1.6	2
990	Small-molecule ambipolar transistors. Physical Chemistry Chemical Physics, 2022, 24, 9770-9806.	1.3	17
991	The effect of intermolecular electronic coupling on the exciton dynamics in perylene red nanoparticles. Physical Chemistry Chemical Physics, 2022, 24, 8695-8704.	1.3	2
992	A new simple volatile solid additive triggers morphological optimization and performance stabilization in polymer solar cells. Sustainable Energy and Fuels, 2022, 6, 2191-2197.	2.5	10
993	On the interface reactions and stability of nonfullerene organic solar cells. Chemical Science, 2022, 13, 4714-4739.	3.7	32
994	Cascaded energy landscape as a key driver for slow yet efficient charge separation with small energy offset in organic solar cells. Energy and Environmental Science, 2022, 15, 1545-1555.	15.6	53

#	Article	IF	Citations
995	Structureâ€“properties of small donorâ€“acceptor molecules for homojunction single-material organic solar cells. Journal of Materials Chemistry C, 2022, 10, 5716-5726.	2.7	8
996	Efficient ternary bulk heterojunction organic solar cells using a low-cost nonfullerene acceptor. Journal of Materials Chemistry C, 2022, 10, 4372-4382.	2.7	5
997	Truxenone Triimide: Twoâ€Dimensional Molecular Arrangements of Triangular Molecules for Air Stable nâ€Type Semiconductors. Advanced Electronic Materials, 0, , 2101390.	2.6	2
998	Meniscusâ€Assisted Coating with Optimized Activeâ€Layer Morphology toward Highly Efficient Allâ€Polymer Solar Cells. Advanced Materials, 2022, 34, e2108508.	11.1	26
999	Electroactive Ionenes: Efficient Interlayer Materials in Organic Photovoltaics. Accounts of Chemical Research, 2022, 55, 1097-1108.	7.6	17
1003	Gold(III) Porphyrin Was Used as an Electron Acceptor for Efficient Organic Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 11708-11717.	4.0	11
1006	Cu-Catalyzed Radical Addition and Oxidation Cascade: Unsymmetrical Trimerization of Indole to Access Isotriazatruxene. Organic Letters, 2022, 24, 1502-1506.	2.4	6
1007	Tailoring Microstructure and Morphology via Sequential Fluorination to Enhance the Photovoltaic Performance of Lowâ€Cost Polymer Donors for Organic Solar Cells. Macromolecular Rapid Communications, 2022, 43, e2200070.	2.0	3
1008	Performance Prediction and Experimental Optimization Assisted by Machine Learning for Organic Photovoltaics. Advanced Intelligent Systems, 2022, 4, .	3.3	13
1009	Twisted Aâ€Dâ€A Type Acceptors with Thermallyâ€Activated Delayed Crystallization Behavior for Efficient Nonfullerene Organic Solar Cells. Advanced Energy Materials, 0, , 2103957.	10.2	6
1010	The Importance of Nonequilibrium to Equilibrium Transition Pathways for the Efficiency and Stability of Organic Solar Cells. Small, 2022, 18, e2200608.	5.2	9
1011	Phenyleneâ€Bridged Perylene Monoimides as Acceptors for Organic Solar Cells: A Study on the Structureâ€“Property Relationship. Chemistry - A European Journal, 2022, 28, .	1.7	5
1012	Nucleobase Polymers Promote Low Work Function Surfaces in Organic Electronics. Advanced Electronic Materials, 0, , 2101316.	2.6	0
1013	Heteroâ€Substituted Î±Î²â€Fused BODIPY. Chemistry - A European Journal, 2022, 28, .	1.7	6
1014	Tuning the Phase Separation by Thermal Annealing Enables High-Performance All-Small-Molecule Organic Solar Cells. Chemistry of Materials, 2022, 34, 3168-3177.	3.2	12
1015	Conjugated Extension of Non-Fullerene Acceptors Enables Efficient Organic Solar Cells with Optoelectronic Response over 1000 nm. ACS Applied Energy Materials, 2022, 5, 4664-4672.	2.5	3
1016	Processâ€Aid Solid Engineering Triggers Delicately Modulation of Yâ€Series Nonâ€Fullerene Acceptor for Efficient Organic Solar Cells. Advanced Materials, 2022, 34, e2200907.	11.1	94
1017	Revealing the Sole Impact of Acceptor's Molecular Conformation to Energy Loss and Device Performance of Organic Solar Cells through Positional Isomers. Advanced Science, 2022, 9, e2103428.	5.6	9

#	Article	IF	Citations
1018	From Perylene Diimide Polymers to <scp>Fusedâ€Ring</scp> Electron Acceptors: A <scp>15â€Year</scp> Exploration Journey of Nonfullerene Acceptors. Chinese Journal of Chemistry, 2022, 40, 1592-1607.	2.6	25
1019	A Vinyleneâ€Linkerâ€Based Polymer Acceptor Featuring a Coplanar and Rigid Molecular Conformation Enables Highâ€Performance Allâ€Polymer Solar Cells with Over 17% Efficiency. Advanced Materials, 2022, 34, e2200361.	11.1	131
1020	The Molecular Ordering and Doubleâ€Channel Carrier Generation of Nonfullerene Photovoltaics within Multiâ€Lengthâ€Scale Morphology. Advanced Materials, 2022, 34, e2108317.	11.1	43
1021	Macro- and atomic-scale observations of a one-dimensional heterojunction in a nickel and palladium nanowire complex. Nature Communications, 2022, 13, 1188.	5.8	15
1022	Molecular Insight into Efficient Charge Generation in Low-Driving-Force Nonfullerene Organic Solar Cells. Accounts of Chemical Research, 2022, 55, 869-877.	7.6	46
1023	3-Alkynylindoles as Building Blocks for the Synthesis of Electronically Tunable Indole-Based Pushâ€“Pull Chromophores. Journal of Organic Chemistry, 2022, 87, 4385-4399.	1.7	16
1024	Recent Progress in Organic Solar Cells: A Review on Materials from Acceptor to Donor. Molecules, 2022, 27, 1800.	1.7	59
1025	Glucose and Its Derivatives as Interfacial Materials for Inverted Organic Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 16487-16496.	4.0	9
1026	Insight the difference of free charge generation in two small molecular accepter organic solar cells. Solar Energy, 2022, 235, 163-169.	2.9	1
1027	Monofluorination of Naphthyls Promotes the Cofacial Ï€â€“Ï€ Stacking and Increases the Electron Mobility of Non-Planar Zinc(II) Complexes of Di(naphthylethynyl)azadipyrromethene. Journal of Physical Chemistry C, 2022, 126, 6543-6555.	1.5	0
1028	How the Interplay among Conformational Disorder, Solvation, Local, and Charge-Transfer Excitations Affects the Absorption Spectrum and Photoinduced Dynamics of Perylene Diimide Dimers: A Molecular Dynamics/Quantum Vibronic Approach. Journal of Chemical Theory and Computation, 2022, 18, 3718-3736.	2.3	12
1029	Quantum chemical study of end-capped acceptor and bridge on triphenyl diamine based molecules to enhance the optoelectronic properties of organic solar cells. Polymer, 2022, 245, 124675.	1.8	26
1030	Investigation of the different possible energy band structure configurations for planar heterojunction organic solar cells. Solid-State Electronics, 2022, 191, 108254.	0.8	2
1031	High efficiency ternary organic solar cells via morphology regulation with asymmetric nonfused ring electron acceptor. Chemical Engineering Journal, 2022, 438, 135384.	6.6	14
1032	Morphology manipulation for highly miscible photovoltaic blend of carboxylate-substituted polythiophene:Y6. Dyes and Pigments, 2022, 202, 110269.	2.0	2
1033	Quinoxaline based unfused non-fullerene acceptor molecules with PTB7-Th donor polymer for high performance organic solar cell applications. Journal of Molecular Graphics and Modelling, 2022, 114, 108181.	1.3	13
1034	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
1035	Side-chain engineering with chalcogen-containing heterocycles on non-fullerene acceptors for efficient organic solar cells. Chemical Engineering Journal, 2022, 441, 135998.	6.6	12

#	Article	IF	Citations
1036	Introducing Distinct Structural and Optical Properties into Organotin Sulfide Clusters by the Attachment of Perylenyl and Corannulenyl Groups. Inorganic Chemistry, 2021, 60, 19381-19392.	1.9	4
1037	Linear and secondâ€order nonlinear optical properties of nonâ€fullerene acceptor derivatives with Aâ€“Dâ€“A structure. International Journal of Quantum Chemistry, 2022, 122, .	1.0	0
1038	p-Tetrafluorophenylene Divinylene-Bridged Nonfullerene Acceptors as Binary Components or Additives for High-Efficiency Organic Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 61473-61486.	4.0	6
1039	Dithienobenzothiadiazole-Bridged Nonfullerene Electron Acceptors for Efficient Organic Solar Cells. ACS Applied Polymer Materials, 2023, 5, 2298-2306.	2.0	6
1040	Perylene-diimide derived organic photovoltaic materials. Science China Chemistry, 2022, 65, 462-485.	4.2	43
1041	Reducing Limitations of Aggregationâ€Induced Photocarrier Trapping for Photovoltaic Stability via Tailoring Intermolecular Electronâ€“Phonon Coupling in Highly Efficient Quaternary Polymer Solar Cells. Advanced Energy Materials, 2022, 12, .	10.2	29
1042	Toward Highâ€Performance Semitransparent Organic Photovoltaics with Narrowâ€Bandgap Donors and Nonâ€Fullerene Acceptors. Advanced Energy Materials, 2022, 12, .	10.2	45
1043	Long-Wavelength Instabilities Impact Alignment during Blade Coating of a Stretchable Organic Transistor Blend. ACS Applied Materials & Interfaces, 2022, 14, 1537-1545.	4.0	2
1044	Diketopyrrolopyrrole-Based Chlorinated Bithiophene Polymers for Organic Solar Cells: Effect of Thiophene or Pyridine Flank. ACS Applied Electronic Materials, 2022, 4, 2086-2094.	2.0	4
1046	Effect of Electron-Withdrawing Chlorine Substituent on Morphological and Photovoltaic Properties of All Chlorinated Dâ€“A-Type Quinoxaline-Based Polymers. ACS Applied Materials & Interfaces, 2022, 14, 19785-19794.	4.0	4
1047	Overcoming the Lowâ€Surfaceâ€Energyâ€Induced Wettability Problem of Flexible and Transparent Electrodes for Largeâ€Area Organic Photovoltaic Modules over 500 cm². Advanced Energy Materials, 2022, 12, .	10.2	11
1048	Low-cost polymer acceptors with noncovalently fused-ring backbones for efficient all-polymer solar cells. Science China Chemistry, 2022, 65, 926-933.	4.2	22
1049	Effects of Acyloxy Groups in Anthrabisthiadiazole-Based Semiconducting Polymers on Electronic Properties, Thin-Film Structure, and Solar Cell Performance. Bulletin of the Chemical Society of Japan, 2022, 95, 942-952.	2.0	5
1050	Efficient designing of half-moon-shaped chalcogen heterocycles as non-fullerene acceptors for organic solar cells. Journal of Molecular Modeling, 2022, 28, 125.	0.8	28
1051	Structureâ€“property relationship on insertion of fluorine- versus nitrogen substituents in wide bandgap polymer donors for non-fullerene solar cells: an interesting case study. Materials Chemistry Frontiers, 2022, 6, 1759-1769.	3.2	2
1052	Synergistic end-capped engineering on non-fused thiophene ring-based acceptors to enhance the photovoltaic properties of organic solar cells. RSC Advances, 2022, 12, 12321-12334.	1.7	19
1053	Indenofluorenes for organic optoelectronics: the dance of fused five- and six-membered rings enabling structural versatility. Journal of Materials Chemistry C, 2022, 10, 8496-8535.	2.7	12
1054	Halogen-free Polymer Donors Based on 3,4-Dicyanothiophene for High-performance Polymer Solar Cells. Chinese Journal of Polymer Science (English Edition), 0, , 1.	2.0	2

#	Article	IF	Citations
1055	Synthesis of Dâ€A copolymers based on thiadiazole and thiazolothiazole acceptor units and their applications in ternary polymer solar cells. Journal of Polymer Science, 2022, 60, 2086-2099.	2.0	6
1056	Functionalization of Water-Soluble Conjugated Polymers for Bioapplications. ACS Applied Materials & Interfaces, 2022, 14, 20506-20519.	4.0	24
1057	Electrospun Donor/Acceptor Nanofibers for Efficient Photocatalytic Hydrogen Evolution. Nanomaterials, 2022, 12, 1535.	1.9	0
1058	New wide band gap Ï€-conjugated copolymers based on anthra[1,2-b: 4,3-b': 6,7-c''] trithiophene-8,12-dione for high performance non-fullerene polymer solar cells with an efficiency of 15.07 %. Polymer, 2022, 251, 124892.	1.8	6
1059	Control of Phase Separation and Crystallization for <scp>Highâ€Efficiency</scp> and <scp>Mechanically Deformable</scp> Organic Solar Cells. Energy and Environmental Materials, 2023, 6, .	7.3	6
1060	AÂNew Diazabenzo[k]fluoranthene–BasedÂDâ€A Conjugated Polymer Donor for Efficient Organic Solar Cells. Macromolecular Rapid Communications, 2022, 43, e2200276.	2.0	4
1061	Asymmetrical and symmetrical naphthalene monoimide fused perylene diimide acceptors for organic solar cells. Tetrahedron, 2022, , 132818.	1.0	1
1062	The Intrinsic Role of the Fusion Mode and Electronâ€Deficient Core in Fusedâ€Ring Electron Acceptors for Organic Photovoltaics. Angewandte Chemie - International Edition, 2022, 61, .	7.2	25
1063	Performance Analysis and Optimization of a PBDB-T:ITIC Based Organic Solar Cell Using Graphene Oxide as the Hole Transport Layer. Nanomaterials, 2022, 12, 1767.	1.9	25
1064	Tetrazolo[1,5-a]pyridine-Containing Ï€-Conjugated Systems: Synthesis, Properties, and Semiconducting Characteristics. Organic Letters, 2022, 24, 3792-3796.	2.4	2
1065	Quantum Coherence in Chemical and Photobiological Systems. ACS Symposium Series, 0, , 411-436.	0.5	1
1066	Effects of energetic disorder in bulk heterojunction organic solar cells. Energy and Environmental Science, 2022, 15, 2806-2818.	15.6	57
1067	Unfused Acceptors Matching Ï€â€Bridge Blocks with Proper Frameworks Enable Over 12% Asâ€Cast Organic Solar Cells. Small, 2022, 18, .	5.2	10
1068	Photo-enhanced rechargeable high-energy-density metal batteries for solar energy conversion and storage. , 2022, 1, e9120007.		89
1069	A-Ï€-A structured non-fullerene acceptors for stable organic solar cells with efficiency over 17%. Science China Chemistry, 2022, 65, 1374-1382.	4.2	53
1070	The Intrinsic Role of the Fusion Mode and Electronâ€Deficient Core in Fusedâ€Ring Electron Acceptors for Organic Photovoltaics. Angewandte Chemie, 2022, 134, .	1.6	4
1071	Photoinduced Polaron Formation in a Polymerized Electron-Acceptor Semiconductor. Journal of Physical Chemistry Letters, 2022, 13, 5143-5150.	2.1	2
1072	Diketopyrrolopyrrole and perylene diimine-based large Ï€-molecules constructed via Câ€“H direct arylation. Dyes and Pigments, 2022, 204, 110468.	2.0	5

#	Article	IF	Citations
1073	Photoinduced intra- and inter-molecular charge transfer dynamics in organic small molecules with an intra-molecular pushâ€“pull electronic structure. Journal of Materials Chemistry C, 2022, 10, 10106-10113.	2.7	6
1074	End group engineering enabling organic solar cells with high open-circuit voltage. Journal Physics D: Applied Physics, 2022, 55, 374002.	1.3	1
1075	Microscopic Structures, Dynamics, and Spin Configuration of the Charge Carriers in Organic Photovoltaic Solar Cells Studied by Advanced Time-Resolved Spectroscopic Methods. Langmuir, 2022, 38, 7365-7382.	1.6	8
1076	Binary Organic Solar Cells Breaking 19% via Manipulating the Vertical Component Distribution. Advanced Materials, 2022, 34, .	11.1	384
1077	BOOSTING efficiency of nonâ€fullerene organic solar cells via introducing multidimensional second acceptors. Solar Rrl, 0, , .	3.1	3
1078	Synthesis and photovoltaic performance of nitrogen-bridged star-shaped fused-ring electron acceptors. Scientia Sinica Chimica, 2022, , .	0.2	0
1079	Intramolecular Chloroâ€“Sulfur Interaction and Asymmetric Sideâ€Chain Isomerization to Balance Crystallinity and Miscibility in Allâ€Smallâ€Molecule Solar Cells. Angewandte Chemie - International Edition, 2022, 61, .	7.2	29
1080	Machine Learning-Assisted Polymer Design for Improving the Performance of Non-Fullerene Organic Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 28936-28944.	4.0	14
1081	Molecular Modeling of Pentacyclic Aromatic Bislactam-Based Small Donor Molecules by Altering Auxiliary End-Capped Acceptors to Elevate the Photovoltaic Attributes of Organic Solar Cells. ACS Omega, 2022, 7, 20528-20541.	1.6	5
1082	Introduction and investigation of PbI2/NdI2/CuI and PbI2/G/NdI2/B/CuI multilayer for optoelectronic applications. Computational Materials Science, 2022, 212, 111606.	1.4	0
1083	Highly efficient layer-by-layer deposition solar cells achieved with halogen-free solvents and molecular engineering of non-fullerene acceptors. Chemical Engineering Journal, 2022, 448, 137621.	6.6	12
1084	Peripheral halogenation engineering controls molecular stacking to enable highly efficient organic solar cells. Energy and Environmental Science, 2022, 15, 3519-3533.	15.6	66
1085	End-group modification of non-fullerene acceptors enables efficient organic solar cells. Journal of Materials Chemistry C, 2022, 10, 10389-10395.	2.7	8
1086	Material Design and Device Fabrication Strategies for Stretchable Organic Solar Cells. Advanced Materials, 2022, 34, .	11.1	67
1087	Effect of an External Electric Field on the Ordered Structures of Blended Donor Polymers in Solar Cells. Journal of Physical Chemistry C, 2022, 126, 11318-11329.	1.5	0
1088	Revealing the Unusual Efficiency Enhancement of Organic Solar Cells with Polymer-Donor-Treated Cathode Contacts. Chinese Journal of Polymer Science (English Edition), 2022, 40, 937-943.	2.0	3
1089	Determination of the charge carrier density in organic solar cells: A tutorial. Journal of Applied Physics, 2022, 131, .	1.1	13
1090	Linker Unit Modulation of Polymer Acceptors Enables Highly Efficient Airâ€Processed Allâ€Polymer Solar Cells. Advanced Science, 2022, 9, .	5.6	12

#	Article	IF	Citations
1091	Revisiting the Dithienophthalimide Building Block: Improved Synthetic Method Yielding New Highâ€Performance Polymer Donors for Organic Solar Cells. Angewandte Chemie, 2022, 134, .	1.6	6
1092	Intramolecular Chloroâ€“Sulfur Interaction and Asymmetric Sideâ€Chain Isomerization to Balance Crystallinity and Miscibility in Allâ€Smallâ€Molecule Solar Cells. Angewandte Chemie, 2022, 134, .	1.6	3
1093	Revisiting the Dithienophthalimide Building Block: Improved Synthetic Method Yielding New Highâ€Performance Polymer Donors for Organic Solar Cells. Angewandte Chemie - International Edition, 2022, 61, .	7.2	16
1094	Oligothiophene-based photovoltaic materials for organic solar cells: rise, plateau, and revival. Trends in Chemistry, 2022, 4, 773-791.	4.4	17
1095	Optimized vertical phase separation via systematic Y6 inner side-chain modulation for non-halogen solvent processed inverted organic solar cells. Nano Energy, 2022, 101, 107574.	8.2	40
1096	Effect of substituent in the acceptor on optical and electronic properties of triphenylamine based dyes: A density functional theory/time-dependent density functional theory investigation. Materials Science in Semiconductor Processing, 2022, 150, 106935.	1.9	7
1097	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
1098	Delocalization suppresses nonradiative charge recombination in polymer solar cells. Polymer Journal, 2022, 54, 1345-1353.	1.3	6
1099	A Benzo[1,2â€b:4,5â€bâ€²]Difuran Based Donor Polymer Achieving Highâ€Performance (>17%) Singleâ€Junction Organic Solar Cells with a Fill Factor of 80.4%. Advanced Energy Materials, 2022, 12, .	10.2	17
1100	Rational design of fused-ring based non-fullerene acceptors for high performance organic solar cells. Solar Energy, 2022, 242, 201-211.	2.9	8
1101	Organic conjugated small molecules with donorâ€“acceptor structures: design and application in the phototherapy of tumors. Materials Chemistry Frontiers, 2022, 6, 2968-2993.	3.2	21
1102	Highly Efficient Organic Solar Cells Enabled by the Incorporation of a Sulfonated Graphene Doped PEDOT:PSS Interlayer. ACS Applied Materials & Interfaces, 2022, 14, 34814-34821.	4.0	20
1103	A review on organic photovoltaic cell. International Journal of Energy Research, 2022, 46, 17813-17828.	2.2	19
1104	Oxidative Cyclodehydrogenation of Trinaphthylamine: Selective Formation of a Nitrogenâ€Centered Polycyclic Ïâ€System Comprising 5â€and 7â€Membered Rings. Angewandte Chemie - International Edition, 2022, 61, .	7.2	10
1105	Renewed Prospects for Organic Photovoltaics. Chemical Reviews, 2022, 122, 14180-14274.	23.0	323
1106	Efficient Charge Dissociation of Triplet Excitons in Bulk Heterojunction Solar Cells. ACS Applied Energy Materials, 2022, 5, 10815-10824.	2.5	8
1107	Aminothiolation of 2-(2-bromophenyl)quinazolinones with elemental sulfur to access 7H-benzo[4,5]isothiazolo[3,2-b]quinazolinones through Câ€“S/Sâ€“N bond formation under metal-free condition. Tetrahedron, 2022, , 132911.	1.0	1
1108	Manipulating Conjugated Polymer Backbone Dynamics through Controlled Thermal Cleavage of Alkyl Side Chains. Macromolecular Rapid Communications, 2022, 43, .	2.0	4

#	Article	IF	Citations
1109	Highâ€Performance Nonfused Ring Electron Acceptors with Vâ€Shaped Side Chains. Small, 2022, 18, .	5.2	8
1110	A series of selenium-containing non-fullerene acceptors with side chain engineering for organic solar cells. Dyes and Pigments, 2022, 207, 110646.	2.0	3
1111	Wide Bandgap Conjugated Polymers Based on Difluorobenzoxadiazole for Efficient Nonâ€Fullerene Organic Solar Cells. Macromolecular Rapid Communications, 0, , 2200591.	2.0	2
1112	Impact of charge character on anionic cyanine-based organic salt photovoltaics. Journal of Applied Physics, 2022, 132, 085501.	1.1	2
1113	Passivating the Interfacial Chemical Reaction via Selfâ€Assembly Layer for Efficient and Stable Inverted Nonfullerene Organic Solar Cells. Solar Rrl, 2022, 6, .	3.1	2
1114	Oxidative Cyclodehydrogenation of Trinaphthylamine: Selective Formation of a Nitrogenâ€Centered Polycyclic Ï€â€System Comprising 5â€•and 7â€Membered Rings. Angewandte Chemie, 0, , .	1.6	0
1115	An improved greener process for the direct C H:C H arylation polymerization of 3,4-Propylenedioxythiophene derivatives. European Polymer Journal, 2022, 178, 111436.	2.6	1
1116	Photoinduced spin-orbital coupling effect at donor: acceptor interface in non-fullerene organic solar cells. Organic Electronics, 2022, 109, 106613.	1.4	0
1117	Role of novel carbon-oxygen-bridged Z-shaped non-fullerene acceptors for high efficiency organic solar cells. Synthetic Metals, 2022, 290, 117159.	2.1	19
1118	A computational investigation about the effect of metal substitutions on the electronic spectra of porphyrin donors in the visible and near infrared regions. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2022, 282, 121676.	2.0	1
1119	Synthesis and solar cell applications of semiconducting polymers based on vinylene-bridged 5-alkoxy-6-fluorobenzo[c][1,2,5]thiadiazole (FOBTzE). Polymer Journal, 0, , .	1.3	1
1120	Tetra-Coordinated Boron-Functionalized Phenanthroimidazole-Based Zinc Salen as a Photocatalyst for the Cycloaddition of CO₂ and Epoxides. Inorganic Chemistry, 2022, 61, 14511-14516.	1.9	7
1121	Recent advances of nonâ€fullerene organic solar cells: From materials and morphology to devices and applications. EcoMat, 2023, 5, .	6.8	25
1122	Efficient ternary organic solar cells with BT-rhodanine-based nonfullerene acceptors in a PM6:Y6-BO blend. Polymer, 2022, 257, 125267.	1.8	1
1123	Ferrocene as an iconic redox marker: From solution chemistry to molecular electronic devices. Coordination Chemistry Reviews, 2022, 473, 214816.	9.5	16
1124	Recent advances of nonfullerene acceptors in organic solar cells. Nano Energy, 2022, 103, 107802.	8.2	28
1125	Robust carbonâ€“carbon singly bonded electron acceptors for efficient organic photovoltaics. Chemical Engineering Journal, 2023, 452, 139312.	6.6	5
1126	AzaBenzannulated perylene diimide multimers as electron acceptors for organic solar cells. Materials Chemistry Frontiers, 0, , .	3.2	3

#	Article	IF	Citations
1127	Unravelling the Effect of Donor-Î-Acceptor Architecture in the Design of New Sensitizers Based on 1,3-Indanedione Electron Acceptor-Cum-Anchoring Group and Dssc Applications. SSRN Electronic Journal, 0, , .	0.4	0
1128	Evaluating the impact of Hartreeâ€“Fock exact exchange on the performance of global hybrid functionals for the vertical excited-state energies of fused-ring electron acceptors using TD-DFT. Physical Chemistry Chemical Physics, 2022, 24, 21270-21282.	1.3	1
1129	Engineering of W-shaped benzodithiophenedione-based small molecular acceptors with improved optoelectronic properties for high efficiency organic solar cells. RSC Advances, 2022, 12, 21801-21820.	1.7	12
1130	Low energy loss (0.42 eV) and efficiency over 15% enabled by non-fullerene acceptors containing N-bis(trifluoromethyl)phenylbenzotriazole as the core in binary solar cells. Journal of Materials Chemistry C, 2022, 10, 13174-13182.	2.7	4
1131	Branched alkyl-chain engineering of chlorinated asymmetrical acceptors for improved organic photovoltaic performance. Journal of Materials Chemistry A, 2022, 10, 21633-21641.	5.2	1
1132	Fused ring Aâ€“DAâ€²Dâ€“A (Y-series) non-fullerene acceptors: recent developments and design strategies for organic photovoltaics. Journal of Materials Chemistry A, 2022, 10, 17968-17987.	5.2	30
1133	Effects of the rigid and sterically bulky structure of non-fused nonfullerene acceptors on transient photon-to-current dynamics. Journal of Materials Chemistry A, 2022, 10, 20035-20047.	5.2	5
1134	Graphitic Carbon Nitride Nanostructures as Molecular Modifier for PEDOT:PSS Hole Transport Layer in Polymer Solar Cells. IEEE Journal of Photovoltaics, 2022, , 1-10.	1.5	1
1135	Binary alloy of functionalized small-molecule acceptors with the Aâ€“DAâ€²Dâ€“A structure for ternary-blend photovoltaics displaying high open-circuit voltages and efficiencies. Journal of Materials Chemistry A, 2022, 10, 23037-23046.	5.2	19
1137	Efficient All-Polymer Solar Cells Enabled by Interface Engineering. Polymers, 2022, 14, 3835.	2.0	6
1138	Sequential Processing Enables 17% All-Polymer Solar Cells via Non-Halogen Organic Solvent. Molecules, 2022, 27, 5739.	1.7	4
1139	Trianionic 1,3,2â€Dioxaborineâ€Containing Polymethines: Bright Nearâ€Infrared Fluorophores. Chemistry - A European Journal, 2022, 28, .	1.7	3
1140	Direct Observation of Increased Free Carrier Generation Owing to Reduced Exciton Binding Energies in Polymerized Small-Molecule Acceptors. Journal of Physical Chemistry Letters, 2022, 13, 8816-8824.	2.1	13
1141	Efficient Non-Fullerene Solar Cells Enabled by a Temperature-Dependent Terpolymer with Controlled Aggregation and Orientation. ACS Applied Energy Materials, 2022, 5, 11866-11873.	2.5	3
1142	Ternary Planar Heterojunction Organic Solar Cells Based on the Ternary Active Layers: Î±-6T/AlPcCl/C60. Solar, 2022, 2, 375-384.	0.9	0
1143	Solid-liquid convertible fluorinated terthiophene as additives in mediating morphology and performance of organic solar cells. Chemical Engineering Journal, 2023, 453, 139489.	6.6	9
1144	ZnO Surface Passivation with Glucose Enables Simultaneously Improving Efficiency and Stability of Inverted Polymer: Non-fullerene Solar Cells. Chinese Journal of Polymer Science (English Edition), 2022, 40, 1594-1603.	2.0	4
1145	Asymmetric Non-Fullerene Small Molecule Acceptor with Unidirectional Non-Fused Ï€-Bridge and Extended Terminal Group for High-Efficiency Organic Solar Cells. International Journal of Molecular Sciences, 2022, 23, 10079.	1.8	0

#	Article	IF	Citations
1146	Computational Design of Crescent Shaped Promising Nonfullerene Acceptors with 1,4-Dihydro-2,3-quinoxalinedione Core and Different Electron-withdrawing Terminal Units for Photovoltaic Applications. Journal of Physical Chemistry A, 2022, 126, 7110-7126.	1.1	2
1147	Effects of replacing carbamate with alkyl side chains on the properties and temperature sensing performance of hemi-isoindigo-based polymers. Flexible and Printed Electronics, 2022, 7, 044003.	1.5	1
1148	Unravelling the effect of donor-Ï€-acceptor architecture in designing 1,3-indanedione based sensitizers for DSSC applications. Journal of Photochemistry and Photobiology A: Chemistry, 2023, 435, 114328.	2.0	6
1149	Photovoltaic Effect of Structure Compatibility Utilizing a Same Electron-Accepting Unit on a Polymer Donor and Nonfused Nonfullerene Acceptor. ACS Applied Energy Materials, 2022, 5, 12716-12726.	2.5	4
1150	Near-Infrared-Absorbing Bâ€“N Lewis Pair-Functionalized Anthracenes: Electronic Structure Tuning, Conformational Isomerism, and Applications in Photothermal Cancer Therapy. Journal of the American Chemical Society, 2022, 144, 18908-18917.	6.6	34
1151	Annealing Controls Ultrafast Dynamics of Carrier Production in Organic Photovoltaics Incorporating a Nonfullerene Acceptor. Journal of Physical Chemistry C, 2022, 126, 17187-17195.	1.5	1
1152	Allâ€Polymer Solar Cells with 17% Efficiency Enabled by the â€œEndâ€Cappedâ€•Ternary Strategy. Advanced Science, 2022, 9, .	5.6	17
1153	Recent advances in tripletâ€“triplet annihilation upconversion and singlet fission, towards solar energy applications. Energy and Environmental Science, 2022, 15, 4982-5016.	15.6	32
1154	One-pot heteroannulation toward phosphaperylene diimides with high luminescence and out-of-plane anisotropy. Chemical Communications, 2022, 58, 12321-12324.	2.2	2
1155	Halogenated thiophenes serve as solvent additives in mediating morphology and achieving efficient organic solar cells. Energy and Environmental Science, 2022, 15, 5137-5148.	15.6	38
1156	Organic Photovoltaic Devices. , 2022, , 131-176.		0
1157	Ultrafast charge transfer in a nonfullerene all-small-molecule organic solar cell: a nonadiabatic dynamics simulation with optimally tuned range-separated functional. Physical Chemistry Chemical Physics, 2022, 24, 27173-27183.	1.3	2
1158	Quantum chemical modification of indaceno dithiophene-based small acceptor molecules with enhanced photovoltaic aspects for highly efficient organic solar cells. RSC Advances, 2022, 12, 28608-28622.	1.7	9
1159	Tetra(periâ€naphthylene)anthracene: A Nearâ€IR Fluorophore with Fourâ€Stage Amphoteric Redox Properties. Chemistry - A European Journal, 2023, 29, .	1.7	5
1160	Advances in Flexible Organic Photodetectors: Materials and Applications. Nanomaterials, 2022, 12, 3775.	1.9	9
1161	Singletâ€Triplet Energy Gap as a Critical Molecular Descriptor for Predicting Organic Photovoltaic Efficiency. Angewandte Chemie - International Edition, 2022, 61, .	7.2	13
1162	Fullerene-Perylenediimide (C60-PDI) Based Systems: An Overview and Synthesis of a Versatile Platform for Their Anchor Engineering. Molecules, 2022, 27, 6522.	1.7	3
1163	Charge generation in organic solar cells: Journey toward 20% power conversion efficiency. Aggregate, 2022, 3, .	5.2	15

#	Article	IF	Citations
1164	Singletâ€Triplet Energy Gap as a Critical Molecular Descriptor for Predicting Organic Photovoltaic Efficiency. Angewandte Chemie, 0, , .	1.6	0
1165	Recent Advances in Organic and Inorganic Hole and Electron Transport Layers for Organic Solar Cells: Basic Concept and Device Performance. ACS Applied Electronic Materials, 2022, 4, 5119-5143.	2.0	12
1166	Efficient and Stable Nonfused Ring Small Molecule Acceptors Powered by an Electron Donating Unit for Organic Solar Cells. ACS Applied Energy Materials, 2022, 5, 13861-13870.	2.5	3
1167	Indoor photovoltaic energy harvesting based on semiconducting Ï€-conjugated polymers and oligomeric materials toward future IoT applications. Polymer Journal, 2023, 55, 297-316.	1.3	15
1168	4,4-Bis(2-ethylhexyl)-6-(9-(2-ethylhexyl)-2,3,4,4a,9,9a-hexahydro-1H-carbazol-6-yl)-4H-cyclopenta[2,1-b:3,4-bâ€²]dithiophene-2-carbaldeh MolBank, 2022, 2022, M1486.	0.2	1
1169	Symmetry-Induced Ordered Assembly of a Naphthobisthiadiazole-Based Nonfused-Ring Electron Acceptor Enables Efficient Organic Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 52233-52243.	4.0	4
1170	Sustainable Carbon Dioxide Reduction of the P3HT Polymer-Sensitized TiO₂/Re(I) Photocatalyst. ACS Applied Materials & Interfaces, 2022, 14, 50718-50730.	4.0	4
1171	What's Next for Organic Solar Cells? The Frontiers and Challenges. Advanced Energy and Sustainability Research, 2023, 4, .	2.8	9
1172	A Polyfluoroalkylâ€Containing Nonâ€fullerene AcceptorÂEnables Selfâ€Stratification in OrganicÂSolar Cells. Angewandte Chemie, 0, , .	1.6	5
1173	A Polyfluoroalkylâ€Containing Nonâ€fullerene Acceptor Enables Selfâ€Stratification in Organic Solar Cells. Angewandte Chemie - International Edition, 2023, 62, .	7.2	31
1174	Asymmetric Non-Fullerene Acceptors with Branched Alkyl-Chains for Efficient Organic Solar Cells with High Open-Circuit Voltage. Chemistry of Materials, 2022, 34, 10144-10152.	3.2	13
1175	Ultrafast laser spectroscopy uncovers mechanisms of light energy conversion in photosynthesis and sustainable energy materials. Chemical Physics Reviews, 2022, 3, .	2.6	10
1176	Recent progress in non-fused ring electron acceptors for high performance organic solar cells. , 2023, 1, 60-78.		30
1177	Oligothiophene electron donor and electron acceptor for all small molecule organic solar cells with efficiency over 9%. Chemical Engineering Journal, 2023, 456, 141006.	6.6	6
1178	Crystal structures in state-of-the-art non-fullerene electron acceptors. Journal of Materials Chemistry A, 2023, 11, 481-494.	5.2	13
1179	Emerging applications of metal-organic frameworks and derivatives in solar cells: Recent advances and challenges. Materials Science and Engineering Reports, 2023, 152, 100714.	14.8	12
1180	Enhance the performance of organic solar cells by nonfused ring electron acceptors bearing a pendent perylenediimide group. Dyes and Pigments, 2023, 210, 111033.	2.0	2
1181	Efficient regulation of active layer morphology and interfacial charge-transfer process by porphyrin-based additive in organic solar cells. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2023, 659, 130818.	2.3	1

#	Article	IF	Citations
1182	Recent Progress in Allâ€Smallâ€Molecule Organic Solar Cells. Small, 2023, 19, .	5.2	30
1183	A Review on â€œDesigns and Fabricationâ€•for the Next Generation of Organic Solar Cells Technology. Lecture Notes in Mechanical Engineering, 2023, , 45-57.	0.3	0
1184	A Simple Nonfused Ring Electron Acceptor with a Power Conversion Efficiency Over 16%^{â€}. Chinese Journal of Chemistry, 2023, 41, 665-671.	2.6	26
1185	Toward Quantifying the Relation between Exciton Binding Energies and Molecular Packing. Journal of Physical Chemistry Letters, 2022, 13, 11065-11070.	2.1	7
1186	Charge Photogeneration and Recombination Dynamics in PTQ10:Y6 Solar Cells. Photonics, 2022, 9, 892.	0.9	4
1187	A Flexible, Highâ€Voltage (>100ÂV) Generating Device Based on Zebraâ€Like Asymmetrical Photovoltaic Cascade. Advanced Materials, 2023, 35, .	11.1	1
1188	Systematic Investigation of Core and Endcap Selection on the Development of Functional Ï€-Conjugated Materials. Chemistry of Materials, 2023, 35, 251-260.	3.2	4
1189	High-Performance Inverted Organic Solar Cells via the Incorporation of Thickness-Insensitive and Low-Temperature-Annealed Nonconjugated Polymers as Electron Transport Materials. ACS Applied Materials & Interfaces, 2023, 15, 1718-1725.	4.0	3
1190	Alkynyl BODIPY-Core Bridged Perylene Diimide Star-Shaped Nonfullerene Acceptors for Efficient Polymer Solar Cells. ACS Applied Energy Materials, 2022, 5, 15624-15637.	2.5	9
1191	Recent Research Progress of Organic Smallâ€Molecule Semiconductors with High Electron Mobilities. Advanced Materials, 2023, 35, .	11.1	27
1192	Overcoming C60-induced interfacial recombination in inverted perovskite solar cells by electron-transporting carborane. Nature Communications, 2022, 13, .	5.8	39
1193	Ternary Organic Solar Cells: Recent Insight on Structureâ€“Processingâ€“Propertyâ€“Performance Relationships. Energy Technology, 2023, 11, .	1.8	8
1194	Molecular Design of Aâ€²Dâ€²A Electron Acceptors Towards Low Energy Loss for Organic Solar Cells. Chemistry - A European Journal, 2023, 29, .	1.7	5
1195	An Asymmetric Nonâ€fullerene Acceptor with Low Energy Loss and High Photovoltaic Efficiency. Chinese Journal of Chemistry, 2023, 41, 1045-1050.	2.6	6
1196	Machine learning framework for the analysis and prediction of energy loss for non-fullerene organic solar cells. Solar Energy, 2023, 250, 119-127.	2.9	6
1197	Photovoltaic Materials as Heterogeneous Photocatalysts: A Golden Opportunity for Sustainable Organic Syntheses. Solar Rrl, 2023, 7, .	3.1	4
1198	Smartly Optimizing Crystallinity, Compatibility, and Morphology for Polymer Solar Cells by Small Molecule Acceptor with Unique 2Dâ€EDOT Side Chain. Advanced Functional Materials, 2023, 33, .	7.8	8
1199	Green-Light Wavelength-Selective Organic Solar Cells Based on Poly(3-hexylthiophene) and Naphthobisthiadiazole-Containing Acceptors toward Agrivoltaics. ACS Sustainable Chemistry and Engineering, 2023, 11, 1548-1556.	3.2	5

#	Article	IF	Citations
1200	Alkyl Branching Sites on Ï€-Spacers for Dipyran-Based High-Efficiency Organic Solar Cells. ACS Applied Energy Materials, 2023, 6, 1066-1075.	2.5	7
1201	Role of Exciton Lifetime, Energetic Offsets, and Disorder in Voltage Loss of Bulk Heterojunction Organic Solar Cells. ACS Applied Materials & Interfaces, 2023, 15, 3214-3223.	4.0	5
1202	Medium Bandgap Nonfullerene Acceptor for Efficient Ternary Polymer Solar Cells with High Open-Circuit Voltage. ACS Omega, 2023, 8, 1989-2000.	1.6	0
1203	1,4-Azaborine based unfused non-fullerene acceptors for organic solar cells. Journal of Materials Chemistry A, 2023, 11, 3653-3662.	5.2	6
1204	Fused phthalimide-based Aâ€“DAâ€²Dâ€“A small molecule: New protocol for n-type organic semiconductors. Synthetic Metals, 2023, 293, 117278.	2.1	2
1205	Polymerizing Ladder-type Heteroheptacene-Cored Small-Molecule Acceptors for Efficient All-Polymer Solar Cells. Chinese Journal of Polymer Science (English Edition), 2023, 41, 1018-1026.	2.0	2
1206	Bay-Functionalized Perylene Diimide Derivative Cathode Interfacial Layer for High-Performance Organic Solar Cells. ACS Applied Materials & Interfaces, 2023, 15, 8367-8376.	4.0	10
1207	Multi-scale mechanical properties of bulk-heterojunction films in polymer solar cells. Npj Flexible Electronics, 2023, 7, .	5.1	9
1208	Effect of Chlorine Substituents on the Photovoltaic Properties of Monocyanated Quinoxaline-Based Dâ€“A-Type Polymers. ACS Applied Materials & Interfaces, 2023, 15, 5547-5555.	4.0	6
1209	Tuning the LUMO levels of non-fullerene acceptorsviaextension of Ï€-conjugated cores for organic solar cells. Journal of Materials Chemistry C, 2023, 11, 5354-5362.	2.7	3
1210	Saddleâ€Shaped Third Component with Outâ€ofâ€Plane Electrostatic Dipole for Realizing Highâ€Performance Photovoltaic Donor Terpolymers. Advanced Materials, 2023, 35, .	11.1	11
1211	Structurally Complementary Starâ€Shaped Unfused Ring Electron Acceptors with Simultaneously Enhanced Device Parameters for Ternary Organic Solar Cells. Solar Rrl, 2023, 7, .	3.1	55
1212	Structural Fusion Yields Guest Acceptors that Enable Ternary Organic Solar Cells with 18.77â€‰% Efficiency. Angewandte Chemie, 2023, 135, .	1.6	0
1213	Structural Fusion Yields Guest Acceptors that Enable Ternary Organic Solar Cells with 18.77â€‰% Efficiency. Angewandte Chemie - International Edition, 2023, 62, .	7.2	19
1214	Functionalized Benzothiadiazole Nonâ€Fused Aâ€Dâ€Aâ€™â€Dâ€A Small Molecules for Effective Electron Mobilities and Metalâ€free Photocatalysis. Chemistry - A European Journal, 2023, 29, .	1.7	2
1215	Dimerized small-molecule acceptors enable efficient and stable organic solar cells. Joule, 2023, 7, 416-430.	11.7	65
1216	Linker Engineering of Dimerized Small Molecule Acceptors for Highly Efficient and Stable Organic Solar Cells. ACS Energy Letters, 2023, 8, 1344-1353.	8.8	45
1217	Harnessing the Structureâ€Performance Relationships in Designing Nonâ€Fused Ring Acceptors for Organic Solar Cells. Angewandte Chemie - International Edition, 2023, 62, .	7.2	29

#	Article	IF	Citations
1218	Harnessing the Structureâ€Performance Relationships in Designing Nonâ€Fused Ring Acceptors for Organic Solar Cells. Angewandte Chemie, 2023, 135, .	1.6	2
1219	Heteroatom conjugated-shoulder side-chains-based non-fullerene acceptors for organic solar cells. Cell Reports Physical Science, 2023, 4, 101303.	2.8	2
1220	Efficient perylene-diimides-based nonfullerene acceptors with triazine cores synthesized via a simple nucleophilic substitution reaction. Science China Materials, 2023, 66, 2159-2168.	3.5	5
1221	Effects of Halogenation of Smallâ€Molecule and Polymeric Acceptors for Efficient Organic Solar Cells. Advanced Functional Materials, 2023, 33, .	7.8	24
1222	A comparison of para, meta, and ortho-carborane centred non-fullerene acceptors for organic solar cells. Journal of Materials Chemistry C, 2023, 11, 3989-3996.	2.7	5
1223	Nitrofluorene-based Aâ€“Dâ€“A electron acceptors for organic photovoltaics. Journal of Materials Chemistry C, 0, , .	2.7	1
1224	Recent progress on the use of graphene-based nanomaterials in perovskite solar cells. Journal of Materials Chemistry A, 2023, 11, 6659-6687.	5.2	7
1225	Combination of SÂ·Â·Â·N and SÂ·Â·Â·Cl Noncovalently Conformational Locks for Constructing <scp>Highâ€Planarity</scp> and <scp>Lowâ€Cost Nonfusedâ€Ring</scp> Electron Acceptors^{â€}. Chinese Journal of Chemistry, 2023, 41, 1797-1802.	2.6	5
1226	Terthiophene based low-cost fully non-fused electron acceptors for high-efficiency as-cast organic solar cells. Journal of Materials Chemistry A, 2023, 11, 7498-7504.	5.2	8
1227	Photochemical Decomposition of Yâ€Series Nonâ€Fullerene Acceptors Is Responsible for Degradation of Highâ€Efficiency Organic Solar Cells. Advanced Energy Materials, 2023, 13, .	10.2	14
1228	Synthesis, Properties, and Photovoltaic Characteristics of Fluoranthenedione-containing Nonfullerene Acceptors for Organic Solar Cells. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2022, 35, 187-191.	0.1	0
1229	Synthesis and Characterization of a Non-Conjugated Backbone Polymer Bearing [1]Benzothieno[3,2-<i>b</i>][1]benzothiophene with a Herringbone Packing Motif. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2022, 35, 205-211.	0.1	0
1230	Organic photovoltaics: The current challenges. Journal of Chemical Physics, 2023, 158, .	1.2	3
1231	Intrinsic Role of Volatile Solid Additive in Highâ€Efficiency PM6:Y6 Series Nonfullerene Solar Cells. Advanced Materials, 2023, 35, .	11.1	17
1232	Designing of Thiophene [3, 2-b] Pyrrole Ring-Based NFAs for High-Performance Electron Transport Materials: A DFT Study. ACS Omega, 2023, 8, 11118-11137.	1.6	2
1233	Alkoxyâ€•and Alkylâ€Sideâ€Chainâ€Functionalized Terpolymer Acceptors for Allâ€Polymer Photovoltaics Delivering High Openâ€Circuit Voltages and Efficiencies. Advanced Functional Materials, 2023, 33, .	7.8	11
1234	Modeling of Anthranilhydrazide (HL1) Salicylhydrazone and Its Copper Complexes Cu(I) and Cu(II) as a Potential Antimicrobial and Antituberculosis Therapeutic Candidate. Polycyclic Aromatic Compounds, 2024, 44, 1109-1127.	1.4	10
1235	Porphyrin Acceptors Improve the Crystallization of Y6 and the Exciton Dissociation in Ternary Organic Solar Cells. ACS Applied Energy Materials, 2023, 6, 3844-3853.	2.5	0

#	Article	IF	Citations
1236	N-Annulated Perylene Diimide Non-Fullerene Acceptors for Organic Photovoltaics. Colorants, 2023, 2, 151-178.	0.9	7
1237	Understanding Improved Performance of Vacuum-Deposited All Small-Molecule Organic Solar Cells Upon Postprocessing Thermal Treatment. IEEE Journal of Photovoltaics, 2023, 13, 411-418.	1.5	1
1238	The Dynamics of Delocalized Excitations in Organic Solar Cells with Nonfullerene Acceptors. Journal of Physical Chemistry Letters, 2023, 14, 3031-3038.	2.1	5
1239	Layerâ€byâ€Layerâ€Processed Organic Solar Cells with 18.02% Efficiency Enabled by Regulating the Aggregation of Bottom Polymers. Solar Rrl, 2023, 7, .	3.1	1
1240	<scp>Aâ€DA</scp> ' <scp>Dâ€A</scp> Type Pentacyclic Small Molecule Acceptors to exceed 16.5% efficiency by introducing heteroatom into the outer side chain. Chinese Journal of Chemistry, 0, , .	2.6	1
1241	(Z)-4-(thiophen-2-ylmethylene)-4H-thieno[2,3-b]pyrrol-5(6H)-one based polymers for organic photovoltaics. Journal of Polymer Research, 2023, 30, .	1.2	0
1242	BAr2â€bridged Azafulvene Dimers with Tunable Energy Levels for Photostable Nearâ€infrared Dyes. Chemistry - A European Journal, 0, , .	1.7	0
1243	Chlorinated Narrow Bandgap Polymer Suppresses Nonâ€Radiative Recombination Energy Loss Enabling Perylene Diimidesâ€Based Organic Solar Cells Exceeding 10% Efficiency. Small, 2023, 19, .	5.2	5
1244	Enhancing Photovoltaic Performance of <scp>Ladderâ€Type Heteroareneâ€Based</scp> Electron Acceptors by Modulating Molecular Packing^{â€}. Chinese Journal of Chemistry, 2023, 41, 2143-2150.	2.6	3
1245	Enhanced Efficiency and Stability of Novel Pseudo-ternary Polymer Solar Cells Enabled by a Conjugated Donor Block Copolymer. ACS Applied Materials & Interfaces, 2023, 15, 20266-20277.	4.0	1
1246	Improving the Efficiency of Organic Solar Cells via the Molecular Engineering of Simple Fused Non-Fullerene Acceptors. Energies, 2023, 16, 3443.	1.6	0
1247	Detrimental Effects of â€œUniversalâ€•Singlet Photocrosslinkers in Organic Photovoltaics. ACS Applied Energy Materials, 0, , .	2.5	0
1248	Effect of Fluorinated End-Groups on the Exciton Dynamics and Charge Transfer of Non-fused Ring Acceptors. Journal of Physical Chemistry C, 2023, 127, 8119-8125.	1.5	3
1249	Fused polycyclic lactam-based Ï€-conjugated polymers for efficient nonfullerene organic solar cells. Journal of Materials Chemistry A, 2023, 11, 9840-9845.	5.2	3
1250	Designing Electron-Deficient Diketone Unit Based Non-Fused Ring Acceptors with Amplified Optoelectronic Features for Highly Efficient Organic Solar Cells: A DFT Study. Molecules, 2023, 28, 3625.	1.7	10
1251	Improved photovoltaic performance and robustness of all-polymer solar cells enabled by a polyfullerene guest acceptor. Nature Communications, 2023, 14, .	5.8	41
1256	Electron Transport in Organic Photovoltaic Acceptor Materials: Improving the Carrier Mobilities by Intramolecular and Intermolecular Modulations. Journal of Physical Chemistry Letters, 2023, 14, 4497-4503.	2.1	8
1257	Side-chain engineering of nonfullerene small-molecule acceptors for organic solar cells. Energy and Environmental Science, 2023, 16, 2732-2758.	15.6	26

#	Article	IF	Citations
1258	Versatile Ï€-bridges in nonfullerene electron acceptors of organic solar cells. Materials Chemistry Frontiers, 2023, 7, 3855-3878.	3.2	2
1260	Batch-Reproducible and Thickness-Insensitive Mesopolymer Zwitterion Interlayers for Organic Solar Cells. ACS Energy Letters, 2023, 8, 2689-2698.	8.8	9
1263	Progress of Photocapacitors. Chemical Reviews, 2023, 123, 9327-9355.	23.0	11
1270	Role of Energetic Disorder in Energy Loss of Bulk Heterojunction Organic Solar Cells. , 2022, , .		1
1276	Synergistic Effects of Magnetite Nanoparticles in the Hole Transport Layer of Organic PV Cells. , 2023, , .		0
1290	Broadband Sensing with High-Performance Non-Fullerene Acceptor-Based Organic Photodetectors. , 2023, , .		0
1291	Indoor Organic Solar Cell for Low-power IoT Devices: Recent Progress, Challenges, and Application. Journal of Materials Chemistry C, 0, , .	2.7	0
1293	Aggregation behaviour of pyrene-based luminescent materials, from molecular design and optical properties to application. Chemical Society Reviews, 2023, 52, 6715-6753.	18.7	26
1317	Advances in layer-by-layer processing for efficient and reliable organic solar cells. Materials Advances, 2023, 4, 6031-6063.	2.6	1
1333	Recent progress in side chain engineering of Y-series non-fullerene molecule and polymer acceptors. Science China Chemistry, 2024, 67, 788-805.	4.2	2
1339	Advantages, challenges and molecular design of different material types used in organic solar cells. Nature Reviews Materials, 2024, 9, 46-62.	23.3	5