Chang Duk Yang

List of Publications by Year
in descending order

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169 papers	14,435 citations	34105 52 h-index	20358 116 g-index
171 all docs	171 docs citations	171 times ranked	9318 citing authors

#	Article	IF	Citations
1	Stable perovskite solar cells with efficiency exceeding 24.8% and 0.3-V voltage loss. Science, 2020, 369, 1615-1620.	12.6	1,122
2	11.4% Efficiency non-fullerene polymer solar cells with trialkylsilyl substituted 2D-conjugated polymer as donor. Nature Communications, 2016, 7, 13651.	12.8	917
3	Side-Chain Isomerization on an n-type Organic Semiconductor ITIC Acceptor Makes 11.77% High Efficiency Polymer Solar Cells. Journal of the American Chemical Society, 2016, 138, 15011-15018.	13.7	826
4	Non-Fullerene Polymer Solar Cells Based on Alkylthio and Fluorine Substituted 2D-Conjugated Polymers Reach 9.5% Efficiency. Journal of the American Chemical Society, 2016, 138, 4657-4664.	13.7	743
5	A Thienoisoindigo-Naphthalene Polymer with Ultrahigh Mobility of 14.4 cm²/VÂ·s That Substantially Exceeds Benchmark Values for Amorphous Silicon Semiconductors. Journal of the American Chemical Society, 2014, 136, 9477-9483.	13.7	553
6	Ligand-engineered bandgap stability in mixed-halide perovskite LEDs. Nature, 2021, 591, 72-77.	27.8	471
7	Constructing a Strongly Absorbing Lowâ€Bandgap Polymer Acceptor for Highâ€Performance Allâ€Polymer Solar Cells. Angewandte Chemie - International Edition, 2017, 56, 13503-13507.	13.8	468
8	Cathode engineering with perylene-diimide interlayer enabling over 17% efficiency single-junction organic solar cells. Nature Communications, 2020, 11, 2726.	12.8	467
9	Boosting the Ambipolar Performance of Solution-Processable Polymer Semiconductors via Hybrid Side-Chain Engineering. Journal of the American Chemical Society, 2013, 135, 9540-9547.	13.7	460
10	High Efficiency Polymer Solar Cells with Efficient Hole Transfer at Zero Highest Occupied Molecular Orbital Offset between Methylated Polymer Donor and Brominated Acceptor. Journal of the American Chemical Society, 2020, 142, 1465-1474.	13.7	344
11	Solution-Processable Ambipolar Diketopyrrolopyrroleâ€“Selenophene Polymer with Unprecedentedly High Hole and Electron Mobilities. Journal of the American Chemical Society, 2012, 134, 20713-20721.	13.7	341
12	Tuning the electron-deficient core of a non-fullerene acceptor to achieve over 17% efficiency in a single-junction organic solar cell. Energy and Environmental Science, 2020, 13, 2459-2466.	30.8	324
13	Ternary solar cells with a mixed face-on and edge-on orientation enable an unprecedented efficiency of 12.1%. Energy and Environmental Science, 2017, 10, 258-265.	30.8	318
14	Subtle Molecular Tailoring Induces Significant Morphology Optimization Enabling over 16% Efficiency Organic Solar Cells with Efficient Charge Generation. Advanced Materials, 2020, 32, e1906324.	21.0	312
15	9.73% Efficiency Nonfullerene All Organic Small Molecule Solar Cells with Absorption-Complementary Donor and Acceptor. Journal of the American Chemical Society, 2017, 139, 5085-5094.	13.7	303
16	Mechanically Robust All-Polymer Solar Cells from Narrow Band Gap Acceptors with Hetero-Bridging Atoms. Joule, 2020, 4, 658-672.	24.0	279
17	All-Small-Molecule Organic Solar Cells with an Ordered Liquid Crystalline Donor. Joule, 2019, 3, 3034-3047.	24.0	257
18	A guest-assisted molecular-organization approach for >17% efficiency organic solar cells using environmentally friendly solvents. Nature Energy, 2021, 6, 1045-1053.	39.5	230

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19	Robust nanogenerators based on graft copolymers via control of dielectrics for remarkable output power enhancement. Science Advances, 2017, 3, e1602902.	10.3	204
20	Highly Flexible and Efficient Allâ€Polymer Solar Cells with Highâ€Viscosity Processing Polymer Additive toward Potential of Stretchable Devices. Angewandte Chemie - International Edition, 2018, 57, 13277-13282.	13.8	166
21	Flexible Organic Solar Cells Over 15% Efficiency with Polyimide-Integrated Graphene Electrodes. Joule, 2020, 4, 1021-1034.	24.0	148
22	Balancing hydrogen adsorption/desorption by orbital modulation for efficient hydrogen evolution catalysis. Nature Communications, 2019, 10, 4060.	12.8	131
23	Recent Progress in Flexible and Stretchable Organic Solar Cells. Advanced Functional Materials, 2020, 30, 2002529.	14.9	123
24	Large-area perovskite solar cells employing spiro-Naph hole transport material. Nature Photonics, 2022, 16, 119-125.	31.4	123
25	Sideâ€Chain Impact on Molecular Orientation of Organic Semiconductor Acceptors: High Performance Nonfullerene Polymer Solar Cells with Thick Active Layer over 400 nm. Advanced Energy Materials, 2018, 8, 1800856.	19.5	118
26	A Selenophene Analogue of PCDTBT: Selective Fine-Tuning of LUMO to Lower of the Bandgap for Efficient Polymer Solar Cells. Macromolecules, 2012, 45, 8658-8664.	4.8	110
27	Îµâ€Branched Flexible Side Chain Substituted Diketopyrrolopyrroleâ€Containing Polymers Designed for High Hole and Electron Mobilities. Advanced Functional Materials, 2015, 25, 247-254.	14.9	108
28	Highly Flexible and Efficient Allâ€Polymer Solar Cells with Highâ€Viscosity Processing Polymer Additive toward Potential of Stretchable Devices. Angewandte Chemie, 2018, 130, 13461-13466.	2.0	108
29	Organic Photovoltaics with Multiple Donorâ€“Acceptor Pairs. Advanced Materials, 2019, 31, e1804762.	21.0	106
30	A Nonâ€Conjugated Polymer Acceptor for Efficient and Thermally Stable Allâ€Polymer Solar Cells. Angewandte Chemie - International Edition, 2020, 59, 19835-19840.	13.8	105
31	High-performance and stable photoelectrochemical water splitting cell with organic-photoactive-layer-based photoanode. Nature Communications, 2020, 11, 5509.	12.8	103
32	The use of an n-type macromolecular additive as a simple yet effective tool for improving and stabilizing the performance of organic solar cells. Energy and Environmental Science, 2016, 9, 3464-3471.	30.8	99
33	Modulating the Molecular Packing and Nanophase Blending via a Random Terpolymerization Strategy toward 11% Efficiency Nonfullerene Polymer Solar Cells. Advanced Energy Materials, 2017, 7, 1701125.	19.5	98
34	A Synergetic Effect of Molecular Weight and Fluorine in Allâ€Polymer Solar Cells with Enhanced Performance. Advanced Functional Materials, 2017, 27, 1603564.	14.9	92
35	Naphthalene Diimide Incorporated Thiophene-Free Copolymers with Acene and Heteroacene Units: Comparison of Geometric Features and Electron-Donating Strength of Co-units. Chemistry of Materials, 2013, 25, 3251-3259.	6.7	91
36	Synthesis of PCDTBT-Based Fluorinated Polymers for High Open-Circuit Voltage in Organic Photovoltaics: Towards an Understanding of Relationships between Polymer Energy Levels Engineering and Ideal Morphology Control. ACS Applied Materials & Interfaces, 2014, 6, 7523-7534.	8.0	88

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37	A Balanced Face-On to Edge-On Texture Ratio in Naphthalene Diimide-Based Polymers with Hybrid Siloxane Chains Directs Highly Efficient Electron Transport. Macromolecules, 2015, 48, 5179-5187.	4.8	82
38	Visibleâ€Near Infrared Absorbing Polymers Containing Thienoisoindigo and Electronâ€Rich Units for Organic Transistors with Tunable Polarity. Advanced Functional Materials, 2013, 23, 5317-5325.	14.9	77
39	Acceptorâ€“acceptor type isoindigo-based copolymers for high-performance n-channel field-effect transistors. Chemical Communications, 2014, 50, 2180.	4.1	73
40	Highâ€Output Triboelectric Nanogenerator Based on Dual Inductive and Resonance Effectsâ€Controlled Highly Transparent Polyimide for Selfâ€Powered Sensor Network Systems. Advanced Energy Materials, 2019, 9, 1901987.	19.5	73
41	Ultrafast Channel II process induced by a 3-D texture with enhanced acceptor order ranges for high-performance non-fullerene polymer solar cells. Energy and Environmental Science, 2018, 11, 2569-2580.	30.8	72
42	Guest-oriented non-fullerene acceptors for ternary organic solar cells with over 16.0% and 22.7% efficiencies under one-sun and indoor light. Nano Energy, 2020, 75, 104896.	16.0	72
43	Volatile Solid Additiveâ€Assisted Sequential Deposition Enables 18.42% Efficiency in Organic Solar Cells. Advanced Science, 2022, 9, e2105347.	11.2	72
44	An Indacenodithiopheneâ€“Quinoxaline Polymer Prepared by Direct Arylation Polymerization for Organic Photovoltaics. Macromolecules, 2016, 49, 527-536.	4.8	67
45	A donor polymer based on 3-cyanothiophene with superior batch-to-batch reproducibility for high-efficiency organic solar cells. Energy and Environmental Science, 2021, 14, 5530-5540.	30.8	66
46	Feasible D1â€“Aâ€“D2â€“A Random Copolymers for Simultaneous Highâ€Performance Fullerene and Nonfullerene Solar Cells. Advanced Energy Materials, 2018, 8, 1702166.	19.5	61
47	A â€œÏƒ-Holeâ€•Containing Volatile Solid Additive Enabling 16.5% Efficiency Organic Solar Cells. IScience, 2020, 23, 100965.	4.1	61
48	Stepwise heating in Stille polycondensation toward no batch-to-batch variations in polymer solar cell performance. Nature Communications, 2018, 9, 1867.	12.8	60
49	Regular H-Bonding-Containing Polymers with Stretchability up to 100% External Strain for Self-Healable Plastic Transistors. Chemistry of Materials, 2020, 32, 1914-1924.	6.7	60
50	Chemically Robust Ambipolar Organic Transistor Array Directly Patterned by Photolithography. Advanced Materials, 2017, 29, 1605282.	21.0	59
51	Siloxane Side Chains: A Universal Tool for Practical Applications of Organic Field-Effect Transistors. Macromolecules, 2016, 49, 3739-3748.	4.8	58
52	A Timely Synthetic Tailoring of Biaxially Extended Thienylenevinyleneâ€Like Polymers for Systematic Investigation on Fieldâ€Effect Transistors. Advanced Functional Materials, 2015, 25, 586-596.	14.9	54
53	Performanceâ€Enhancing Approaches for PEDOT:PSSâ€Si Hybrid Solar Cells. Angewandte Chemie - International Edition, 2021, 60, 5036-5055.	13.8	54
54	Ambipolar Semiconducting Polymers with Ï€-Spacer Linked Bis-Benzothiadiazole Blocks as Strong Accepting Units. Chemistry of Materials, 2014, 26, 4933-4942.	6.7	53

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55	Sustainable highly charged C₆₀-functionalized polyimide in a non-contact mode triboelectric nanogenerator. Energy and Environmental Science, 2021, 14, 1004-1015.	30.8	52
56	Constructing a Strongly Absorbing Lowâ€Bandgap Polymer Acceptor for Highâ€Performance Allâ€Polymer Solar Cells. Angewandte Chemie, 2017, 129, 13688-13692.	2.0	51
57	A Simple Approach to Prepare Chlorinated Polymer Donors with Low-Lying HOMO Level for High Performance Polymer Solar Cells. Chemistry of Materials, 2019, 31, 6558-6567.	6.7	50
58	A Role of Side-Chain Regiochemistry of Thienyleneâ€“Vinyleneâ€“Thienylene (TVT) in the Transistor Performance of Isomeric Polymers. Macromolecules, 2017, 50, 884-890.	4.8	49
59	Overcoming Fill Factor Reduction in Ternary Polymer Solar Cells by Matching the Highest Occupied Molecular Orbital Energy Levels of Donor Polymers. Advanced Energy Materials, 2018, 8, 1702251.	19.5	48
60	High-Performance Furan-Containing Conjugated Polymer for Environmentally Benign Solution Processing. ACS Applied Materials & Interfaces, 2017, 9, 15652-15661.	8.0	46
61	Harmonious Compatibility Dominates Influence of Sideâ€Chain Engineering on Morphology and Performance of Ternary Solar Cells. Advanced Energy Materials, 2018, 8, 1800616.	19.5	45
62	Over 10% efficiency in single-junction polymer solar cells developed from easily accessible random terpolymers. Nano Energy, 2017, 39, 229-237.	16.0	44
63	An Ultrahigh Mobility in Isomorphic Fluorobenzo[c][1,2,5]thiadiazoleâ€Based Polymers. Angewandte Chemie - International Edition, 2018, 57, 13629-13634.	13.8	43
64	Dâ€“A Copolymer Donor Based on Bithienyl Benzodithiophene D-Unit and Monoalkoxy Bifluoroquinoxaline A-Unit for High-Performance Polymer Solar Cells. Chemistry of Materials, 2020, 32, 3254-3261.	6.7	43
65	Triisopropylsilylâ€Substituted Benzo[1,2â€b:4,5â€câ€²]dithopheneâ€4,8â€dioneâ€Containing Copolymers with More Than 17% Efficiency in Organic Solar Cells. Advanced Functional Materials, 2021, 31, 2102371.	14.9	43
66	Oligomerâ€Assisted Photoactive Layers Enable >18â€‰% Efficiency of Organic Solar Cells. Angewandte Chemie - International Edition, 2022, 61, .	13.8	43
67	Volatilizable and cost-effective quinone-based solid additives for improving photovoltaic performance and morphological stability in non-fullerene polymer solar cells. Journal of Materials Chemistry A, 2020, 8, 13049-13058.	10.3	41
68	Dithienogermoleâ€Containing Smallâ€Molecule Solar Cells with 7.3% Efficiency: Inâ€Depth Study on the Effects of Heteroatom Substitution of Si with Ge. Advanced Energy Materials, 2015, 5, 1402044.	19.5	40
69	Insights into constitutional isomeric effects on donorâ€“acceptor intermolecular arrangements in non-fullerene organic solar cells. Journal of Materials Chemistry A, 2019, 7, 18468-18479.	10.3	38
70	Backbone Fluorination of Polythiophenes Improves Device Performance of Non-Fullerene Polymer Solar Cells. ACS Applied Energy Materials, 2019, 2, 7572-7583.	5.1	38
71	A built-in electric field induced by ferroelectrics increases halogen-free organic solar cell efficiency in various device types. Nano Energy, 2020, 68, 104327.	16.0	38
72	Understanding the Effect of the Third Component PC₇₁BM on Nanoscale Morphology and Photovoltaic Properties of Ternary Organic Solar Cells. Solar Rrl, 2020, 4, 1900540.	5.8	37

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73	Cathode interfacial layer-free all small-molecule solar cells with efficiency over 12%. Journal of Materials Chemistry A, 2019, 7, 15944-15950.	10.3	36
74	Molecular ordering and phase segregation induced by a volatile solid additive for highly efficient all-small-molecule organic solar cells. Journal of Materials Chemistry A, 2021, 9, 2857-2863.	10.3	36
75	Locking-In Optimal Nanoscale Structure Induced by Naphthalenediimide-Based Polymeric Additive Enables Efficient and Stable Inverted Polymer Solar Cells. ACS Nano, 2017, 11, 7409-7415.	14.6	34
76	Thienoisoindigo (TIIG)-based small molecules for the understanding of structureâ€“propertyâ€“device performance correlations. Journal of Materials Chemistry A, 2015, 3, 9899-9908.	10.3	33
77	Chlorinated 2,1,3-Benzothiadiazole-Based Polymers for Organic Field-Effect Transistors. Macromolecules, 2017, 50, 4649-4657.	4.8	33
78	Furan-flanked diketopyrrolopyrrole-based chalcogenophene copolymers with siloxane hybrid side chains for organic field-effect transistors. Polymer Chemistry, 2019, 10, 2854-2862.	3.9	33
79	3D Cu ball-based hybrid triboelectric nanogenerator with non-fullerene organic photovoltaic cells for self-powering indoor electronics. Nano Energy, 2020, 77, 105271.	16.0	33
80	Molecular Lock Induced by Chloroplatinic Acid Doping of PEDOT:PSS for High-Performance Organic Photovoltaics. ACS Applied Materials & Interfaces, 2020, 12, 30954-30961.	8.0	33
81	Effect of Third Component on Efficiency and Stability in Ternary Organic Solar Cells: More than a Simple Superposition. Solar Rrl, 2022, 6, 2100819.	5.8	32
82	Benzodipyrrolidone (BDP)-Based Polymer Semiconductors Containing a Series of Chalcogen Atoms: Comprehensive Investigation of the Effect of Heteroaromatic Blocks on Intrinsic Semiconducting Properties. ACS Applied Materials & Interfaces, 2014, 6, 4872-4882.	8.0	30
83	Effect of Donor Molecular Structure and Gate Dielectric on Chargeâ€Transporting Characteristics for Isoindigoâ€Based Donorâ€“Acceptor Conjugated Polymers. Advanced Functional Materials, 2016, 26, 4695-4703.	14.9	30
84	Effects of incorporating different chalcogenophene comonomers into random acceptor terpolymers on the morphology and performance of all-polymer solar cells. Polymer Chemistry, 2018, 9, 593-602.	3.9	30
85	Ring-perfluorinated non-volatile additives with a high dielectric constant lead to highly efficient and stable organic solar cells. Journal of Materials Chemistry C, 2019, 7, 4716-4724.	5.5	29
86	Silicon and oxygen synergistic effects for the discovery of new high-performance nonfullerene acceptors. Nature Communications, 2020, 11, 5814.	12.8	29
87	Naphthalene as a Thermalâ€Annealingâ€Free Volatile Solid Additive in Nonâ€Fullerene Polymer Solar Cells with Improved Performance and Reproducibility. Advanced Functional Materials, 2022, 32, .	14.9	29
88	Control of Charge Dynamics via Use of Nonionic Phosphonate Chains and Their Effectiveness for Inverted Structure Solar Cells. Advanced Energy Materials, 2015, 5, 1500844.	19.5	28
89	Ultra-narrow-bandgap thienoisoindigo polymers: structureâ€“property correlations in field-effect transistors. Journal of Materials Chemistry C, 2016, 4, 9554-9560.	5.5	28
90	Cubicâ€Like Bimolecular Crystal Evolution and over 12% Efficiency in Halogenâ€Free Ternary Solar Cells. Advanced Functional Materials, 2018, 28, 1707278.	14.9	27

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91	Dopant-free polymeric hole transport materials for efficient CsPbI₂Br perovskite cells with a fill factor exceeding 84%. Journal of Materials Chemistry C, 2020, 8, 8507-8514.	5.5	27
92	Stretchable N-Type High-Performance Polymers Based on Asymmetric Thienylvinyl-1,1-Dicyanomethylene-3-Indanone for Plastic Electronics. Chemistry of Materials, 2022, 34, 1554-1566.	6.7	27
93	Understanding of Fluorination Dependence on Electron Mobility and Stability of Naphthalenediimide-Based Polymer Transistors in Environment with 100% Relative Humidity. ACS Applied Materials & Interfaces, 2019, 11, 40347-40357.	8.0	26
94	Improved efficiency of DTGe(FBTTh2)2-based solar cells by using macromolecular additives: How macromolecular additives versus small additives influence nanoscale morphology and photovoltaic performance. Nano Energy, 2016, 24, 56-62.	16.0	25
95	High-efficiency organic solar cells based on a small-molecule donor and a low-bandgap polymer acceptor with strong absorption. Journal of Materials Chemistry A, 2018, 6, 9613-9622.	10.3	25
96	Horizontalâ€, Verticalâ€, and Crossâ€Conjugated Small Molecules: Conjugated Pathwayâ€Performance Correlations along Operation Mechanisms in Ternary Nonâ€Fullerene Organic Solar Cells. Small, 2020, 16, e1905309.	10.0	25
97	Regioregular, yet ductile and amorphous indacenodithiophene-based polymers with high-mobility for stretchable plastic transistors. Journal of Materials Chemistry C, 2021, 9, 9670-9682.	5.5	25
98	Enhanced performance of ternary organic solar cells with a wide bandgap acceptor as the third component. Journal of Materials Chemistry A, 2019, 7, 27423-27431.	10.3	23
99	Controlling the ambipolarity of thieno-benzo-isoindigo polymer-based transistors: the balance of face-on and edge-on populations. Journal of Materials Chemistry C, 2020, 8, 296-302.	5.5	23
100	Densely Packed Random Quarterpolymers Containing Two Donor and Two Acceptor Units: Controlling Absorption Ability and Molecular Interaction to Enable Enhanced Polymer Photovoltaic Devices. Advanced Energy Materials, 2017, 7, 1700349.	19.5	22
101	Dithienogermole-Based Nonfullerene Acceptors: Roles of the Side-Chainsâ€™ Direction and Development of Green-Tinted Efficient Semitransparent Organic Solar Cells. ACS Applied Energy Materials, 2020, 3, 7689-7698.	5.1	21
102	Folic Acid Functionalized Carbon Dot/Polypyrrole Nanoparticles for Specific Bioimaging and Photothermal Therapy. ACS Applied Bio Materials, 2021, 4, 3453-3461.	4.6	21
103	Improved interface control for high-performance graphene-based organic solar cells. 2D Materials, 2017, 4, 045004.	4.4	20
104	Bioderived and Eco-Friendly Solvent-Processed High-Mobility Ambipolar Plastic Transistors through Controlled Irregularity of the Polymer Backbone. Chemistry of Materials, 2019, 31, 3831-3839.	6.7	20
105	Boosting the energy conversion efficiency of a combined triboelectric nanogenerator-capacitor. Nano Energy, 2019, 56, 571-580.	16.0	20
106	Highly Efficient Organic Photovoltaics Enhanced Using Organic Passivation Layer Vacuum Deposition. Advanced Functional Materials, 2020, 30, 2005037.	14.9	20
107	Isomerization of Asymmetric Ladderâ€Type Heteroheptaceneâ€Based Smallâ€Molecule Acceptors Improving Molecular Packing: Efficient Nonfullerene Organic Solar Cells with Excellent Fill Factors. Advanced Functional Materials, 2022, 32, .	14.9	20
108	Effects of Alkoxy and Fluorine Atom Substitution of Donor Molecules on the Morphology and Photovoltaic Performance of All Small Molecule Organic Solar Cells. Frontiers in Chemistry, 2018, 6, 413.	3.6	19

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109	Toxic Solventâ€•and Additiveâ€Free Efficient Allâ€Polymer Solar Cells via a Simple Random Sequence Strategy in Both Donor and Acceptor Copolymer Backbones. Small Methods, 2020, 4, 1900696.	8.6	19
110	Diazapentalene-Containing Ultralow-Band-Gap Copolymers for High-Performance Near-Infrared Organic Phototransistors. Chemistry of Materials, 2021, 33, 7499-7508.	6.7	19
111	Viable Mixing Protocol Based on Formulated Equations for Achieving Desired Molecular Weight and Maximal Charge Separation of Photovoltaic Polymer. Advanced Energy Materials, 2021, 11, 2102594.	19.5	19
112	Selective, Stable, Biasâ€Free, and Efficient Solar Hydrogen Peroxide Production on Inorganic Layered Materials. Advanced Functional Materials, 2022, 32, .	14.9	19
113	Improvement in the Efficiency of Alkylsilyl Functionalized Copolymer for Polymer Solar Cells: Faceâ€On Orientation Enhanced by Random Copolymerization. Solar Rrl, 2019, 3, 1900122.	5.8	17
114	Understanding the Morphology of High-Performance Solar Cells Based on a Low-Cost Polymer Donor. ACS Applied Materials & Interfaces, 2020, 12, 9537-9544.	8.0	17
115	Effect of Heterocyclic Anchoring Sequence on the Properties of Dithienogermole-Based Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 7091-7099.	8.0	16
116	Thienoisoindigo-Based Semiconductor Nanowires Assembled with 2-Bromobenzaldehyde via Both Halogen and Chalcogen Bonding. Scientific Reports, 2018, 8, 14448.	3.3	16
117	Thickâ€Film Highâ€Performance Solar Cells with a C₆₀â€Containing Polystyrene Additive. Solar Rrl, 2019, 3, 1900033.	5.8	16
118	A Roundabout Approach to Control Morphological Orientation and Solarâ€Cell Performance by Modulating Sideâ€Chain Branching Position in Benzodithiopheneâ€Based Polymers. ChemPhysChem, 2015, 16, 1305-1314.	2.1	15
119	Effect of electron-donating unit on crystallinity and charge transport in organic field-effect transistors with thienoisoindigo-based small molecules. Organic Electronics, 2015, 26, 151-157.	2.6	15
120	Wide Band-gap Two-dimension Conjugated Polymer Donors with Different Amounts of Chlorine Substitution on Alkoxyphenyl Conjugated Side Chains for Non-fullerene Polymer Solar Cells. Chinese Journal of Polymer Science (English Edition), 2020, 38, 797-805.	3.8	15
121	High electron mobility fluorinated indacenodithiophene small molecule acceptors for organic solar cells. Chinese Chemical Letters, 2021, 32, 1257-1262.	9.0	15
122	Artificial Intelligence Designer for Highly-Efficient Organic Photovoltaic Materials. Journal of Physical Chemistry Letters, 2021, 12, 8847-8854.	4.6	15
123	Usefulness of Polar and Bulky Phosphonate Chain-End Solubilizing Groups in Polymeric Semiconductors. Macromolecules, 2022, 55, 4367-4377.	4.8	15
124	Improvement in Solubility and Molecular Assembly of Cyclopentadithiophene-Benzothiadiazole Polymer. Macromolecular Chemistry and Physics, 2015, 216, 1244-1250.	2.2	14
125	Dicyanomethylene-quinoid vs. dicyanovinyl-benzenoid organic semiconductors: Understanding structure-property correlations in mesomerism-like forms. Organic Electronics, 2016, 37, 402-410.	2.6	14
126	Influence of Simultaneous Tuning of Molecular Weights and Alkyl Substituents of Poly(thienoisoindigo-alt-naphthalene)s on Morphology and Change Transport Properties. ACS Applied Materials & Interfaces, 2017, 9, 30755-30763.	8.0	14

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127	Semi-transparent low-donor content organic solar cells employing cyclopentadithiophene-based conjugated molecules. Journal of Materials Chemistry C, 2018, 6, 10532-10537.	5.5	14
128	Layer-by-Layer Solution-Processed Organic Solar Cells with Perylene Diimides as Acceptors. ACS Applied Materials & Interfaces, 2021, 13, 29876-29884.	8.0	14
129	Rational Regulation of the Molecular Aggregation Enables A Facile Bladeâ€Coating Process of Largeâ€area Allâ€Polymer Solar Cells with Record Efficiency. Small, 2022, 18, e2200734.	10.0	14
130	Layer-by-layer and non-halogenated solvent processing of benzodithiophene-free simple polymer donors for organic solar cells. Chemical Engineering Journal, 2022, 443, 136515.	12.7	14
131	A thieno[3,4-b]thiophene linker enables a low-bandgap fluorene-cored molecular acceptor for efficient non-fullerene solar cells. Materials Chemistry Frontiers, 2018, 2, 760-767.	5.9	12
132	Twoâ€Dimension Conjugated Acceptors Based on Benzodi(cyclopentadithiophene) Core with Thiopheneâ€Fused Ending Group for Efficient Polymer Solar Cells. Solar Rrl, 2020, 4, 2000071.	5.8	12
133	Antioxidant Additive with a High Dielectric Constant for High Photoâ€Oxidative Stabilization of Organic Solar Cells without Almost Sacrificing Initial High Efficiencies. Solar Rrl, 2021, 5, 2000812.	5.8	12
134	Oligomerâ€Assisted Photoactive Layers Enable >18â€‰% Efficiency of Organic Solar Cells. Angewandte Chemie, 2022, 134, .	2.0	12
135	Influence of the Crystalline Nature of Small Donors Molecules on the Efficiency and Stability of Organic Photovoltaic Devices. Solar Rrl, 2018, 2, 1700235.	5.8	11
136	A Comparative Investigation of Cyclohexylâ€Endâ€Capped Versus Hexylâ€Endâ€Capped Smallâ€Molecule Donors on Small Donor/Polymer Acceptor Junction Solar Cells. Solar Rrl, 2018, 2, 1800009.	5.8	11
137	Conjugationâ€Curtailing of Benzodithionopyranâ€Cored Molecular Acceptor Enables Efficient Airâ€Processed Small Molecule Solar Cells. Small, 2019, 15, e1902656.	10.0	11
138	Novel High-Efficiency Polymer Acceptors via Random Ternary Copolymerization Engineering Enables All-Polymer Solar Cells with Excellent Performance and Stability. ACS Applied Materials & Interfaces, 2021, 13, 17892-17901.	8.0	11
139	Graphene-Assisted Zwitterionic Conjugated Polycyclic Molecular Interfacial Layer Enables Highly Efficient and Stable Inverted Perovskite Solar Cells. Chemistry of Materials, 2021, 33, 5563-5571.	6.7	11
140	Over 13.8% efficiency of organic solar cells fabricated by air-processable spontaneously spreading process through water temperature control. Nano Energy, 2021, 85, 105982.	16.0	11
141	Non-conjugated terpolymer acceptors for highly efficient and stable lager-area all-polymer solar cells. Journal of Energy Chemistry, 2022, 71, 631-638.	12.9	11
142	Multifaceted Role of a Dibutylhydroxytoluene Processing Additive in Enhancing the Efficiency and Stability of Planar Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 38828-38837.	8.0	10
143	A low boiling-point and low-cost fluorinated additive improves the efficiency and stability of organic solar cells. Journal of Materials Chemistry C, 2020, 8, 15296-15302.	5.5	10
144	Phase Transition Modulation and Defect Suppression in Perovskite Solar Cells Enabled by a Selfâ€Sacrificed Template. Solar Rrl, 2021, 5, 2100448.	5.8	10

#	Article	IF	Citations
145	Toward Allâ€Vacuumâ€Processable Perovskite Solar Cells with High Efficiency, Stability, and Scalability Enabled by Fluorinated Spiroâ€OMeTAD through Thermal Evaporation. Solar Rrl, 2021, 5, 2100415.	5.8	10
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148	Vinylene-Inserted Asymmetric Polymer Acceptor with Absorption Approaching 1000 nm for Versatile Applications in All-Polymer Solar Cells and Photomultiplication-Type Polymeric Photodetectors. ACS Applied Materials & Interfaces, 2022, 14, 26970-26977.	8.0	10
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150	Zwitterionic Conjugated Surfactant Functionalization of Graphene with pHâ€Independent Dispersibility: An Efficient Electron Mediator for the Oxygen Evolution Reaction in Acidic Media. Small, 2020, 16, 1906635.	10.0	8
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157	Thermally Stable and Highâ€Mobility Dithienopyranâ€Based Copolymers: How Donorâ€“Acceptorâ€and Donorâ€“Donorâ€Type Structures Differ in Thinâ€Film Transistors. Small Structures, 2021, 2, 2100024.	12.0	6
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159	Strategien zur Steigerung der Leistung von PEDOT:PSS/Siâ€Hybridâ€Solarzellen. Angewandte Chemie, 2021, 133, 5092-5112.	2.0	5
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