CITATION REPORT List of articles citing

From fullerene acceptors to non-fullerene acceptors: prospects and challenges in the stability of organic solar cells

DOI: 10.1039/c9ta05235f Journal of Materials Chemistry A, 2019, 7, 23361-23377.

Source: https://exaly.com/paper-pdf/72998353/citation-report.pdf

Version: 2024-04-28

This report has been generated based on the citations recorded by exaly.com for the above article. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

#	Paper	IF	Citations
135	Energy Transfer to a Stable Donor Suppresses Degradation in Organic Solar Cells. 2020 , 30, 1907432		21
134	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. 2020 , 207, 11	0325	14
133	Effects of polymer crystallinity on non-fullerene acceptor based organic solar cell photostability. Journal of Materials Chemistry C, 2020 , 8, 16092-16099	7.1	5
132	Progress in Materials, Solution Processes, and Long-Term Stability for Large-Area Organic Photovoltaics. 2020 , 32, e2002217		52
131	Solubilizing Side Chain Engineering: Efficient Strategy to Improve the Photovoltaic Performance of Novel Benzodithiophene-Based (X-DADAD) Conjugated Polymers. <i>Macromolecular Rapid Communications</i> , 2020 , 41, e2000430	4.8	2
130	Over 14% efficiency all-polymer solar cells enabled by a low bandgap polymer acceptor with low energy loss and efficient charge separation. 2020 , 13, 5017-5027		117
129	A small-molecule/fullerene acceptor alloy: a powerful tool to enhance the device efficiency and thermal stability of ternary polymer solar cells. <i>Journal of Materials Chemistry C</i> , 2020 , 8, 11223-11238	7.1	18
128	Elimination of Charge Transfer Energy Loss by Introducing a Small-Molecule Secondary Donor into Fullerene-Based Polymer Solar Cells. 2020 , 3, 8375-8382		6
127	A Non-Conjugated Polymer Acceptor for Efficient and Thermally Stable All-Polymer Solar Cells. 2020 , 132, 20007-20012		9
126	A Non-Conjugated Polymer Acceptor for Efficient and Thermally Stable All-Polymer Solar Cells. 2020 , 59, 19835-19840		55
125	Alkylated Indacenodithiophene-Based Non-fullerene Acceptors with Extended £Conjugation for High-Performance Large-Area Organic Solar Cells. <i>ACS Applied Materials & Discrete Amp; Interfaces</i> , 2020 , 12, 506	538 ⁵ 506	547
124	The Interplay of Stability between Donor and Acceptor Materials in a Fullerene-Free Bulk Heterojunction Solar Cell Blend. 2020 , 10, 2002095		7
123	Indoor application of emerging photovoltaicsprogress, challenges and perspectives. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 21503-21525	13	28
122	A Critical Review on Efficient Thick-Film Organic Solar Cells. 2020 , 4, 2000364		57
121	Photoswitchable Solubility of Fullerene-Doped Polymer Thin Films. 2020 , 14, 11352-11362		6
120	High-Efficiency Thermal-Annealing-Free Organic Solar Cells Based on an Asymmetric Acceptor with Improved Thermal and Air Stability. <i>ACS Applied Materials & Description of the Improved Thermal and Air Stability</i> . <i>ACS Applied Materials & Description of the Improved Thermal and Air Stability</i> .	9.5	26
119	Development of Perylene-Based Non-Fullerene Acceptors through Bay-Functionalization Strategy. 2020 , 13,		17

(2021-2020)

118	Over 20% Efficient and Stable Non-Fullerene-Based Ternary Bulk-Heterojunction Organic Solar Cell with WS2 Hole-Transport Layer and Graded Refractive Index Antireflection Coating. 2020 , 3, 2000047		7
117	High Photoelectric Quantum Yield in DonorAcceptor Bulk Heterojunction Organic Solar Cells. 2020 , 54, 175-182		2
116	Efficiency Limits of Underwater Solar Cells. 2020 , 4, 840-849		21
115	Simultaneous enhanced efficiency and thermal stability in organic solar cells from a polymer acceptor additive. 2020 , 11, 1218		111
114	Tuning the optoelectronic properties of Subphthalocyanine (SubPc) derivatives for photovoltaic applications. 2020 , 107, 110154		44
113	Elevated Photovoltaic Performance in Medium Bandgap Copolymers Composed of Indacenodi-thieno[3,2-]thiophene and Benzothiadiazole Subunits by Modulating the Bridge. 2020 , 12,		7
112	Unraveling the Microstructure-Related Device Stability for Polymer Solar Cells Based on Nonfullerene Small-Molecular Acceptors. 2020 , 32, e1908305		81
111	Effects of 1,8-diiodooctane on ultrafast charge carrier dynamics and photovoltaic performance in organic solar cells: A comparison of PC71BM and nonfullerene acceptor IT-M. 2020 , 81, 105690		2
110	Measurement and Theoretical Interpretation of Exciton Diffusion as a Function of Intermolecular Separation for Squaraines Targeted for Bulk Heterojunction Solar Cells. 2020 , 124, 4032-4043		4
109	Ternary All-Polymer Solar Cells With 8.5% Power Conversion Efficiency and Excellent Thermal Stability. 2020 , 8, 302		11
108	Enhancing Long-Term Thermal Stability of Non-Fullerene Organic Solar Cells Using Self-Assembly Amphiphilic Dendritic Block Copolymer Interlayers. 2021 , 31, 2005753		16
107	An exciting twenty-year journey exploring porphyrinoid-based photo- and electro-active systems. 2021 , 428, 213605		9
106	A ring-locking strategy to enhance the chemical and photochemical stability of ADA-type non-fullerene acceptors. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 1080-1088	13	22
105	Device Performance of Emerging Photovoltaic Materials (Version 1). 2021 , 11, 2002774		56
104	Ink Engineering of Transport Layers for 9.5% Efficient All-Printed Semitransparent Nonfullerene Solar Cells. 2021 , 31, 2005763		15
103	Visible LightInduced Degradation of Inverted Polymer:Nonfullerene Acceptor Solar Cells: Initiated by the Light Absorption of ZnO Layer. 2021 , 5, 2000638		17
102	A ternary organic solar cell with 15.6% efficiency containing a new DPP-based acceptor. <i>Journal of Materials Chemistry C</i> ,	7.1	5
101	Achieving ultra-narrow bandgap non-halogenated non-fullerene acceptors via vinylene Ebridges for efficient organic solar cells. 2021 , 2, 2132-2140		9

100	Tuning the surface energies in a family of poly-3-alkylthiophenes bearing hydrophilic side-chains synthesized via direct arylation polymerization (DArP). 2021 , 12, 2840-2847		1
99	Reducing non-radiative recombination energy loss via a fluorescence intensifier for efficient and stable ternary organic solar cells. 2021 , 8, 2335-2342		4
98	Nanodiamond surface chemistry controls assembly of polypyrrole and generation of photovoltage. 2021 , 11, 590		3
97	Palladium-Catalyzed Synthesis of Dihydrofuran-Fused [60]Fullerene Derivatives via Heteroannulation of Olefins. 2021 , 2082		1
96	End-capped engineering of truxene core based acceptor materials for high performance organic solar cells: theoretical understanding and prediction. <i>Optical and Quantum Electronics</i> , 2021 , 53, 1	2.4	25
95	Degradation of Polymer Solar Cells: Knowledge Learned from the Polymer:Fullerene Solar Cells. 2021 , 9, 2000920		5
94	Enhancing the Photovoltaic Performance of Ladder-Type Heteroheptacene-based Nonfullerene Acceptors by Incorporating Halogen Atoms on Their Ending Groups. 2021 , 31, 2010436		9
93	A solution-processed, ultraviolet-irradiation-derived WO3 film as anode interface layer for high-performance non-fullerene organic solar cells. 2021 , 216, 211-216		7
92	Challenges to the Success of Commercial Organic Photovoltaic Products. 2021 , 11, 2100056		26
91	Benzo[1,2-:4,5-']difuran Polymer-Based Non-Fullerene Organic Solar Cells: The Roles of Non-Fullerene Acceptors and Molybdenum Oxide on Their Ambient Stabilities and Processabilities. <i>ACS Applied Materials & Discrete Supplied & Discrete Supplied Materials & Discrete Supplied & Discrete</i>	9.5	10
90	Indoor photovoltaics, The Next Big Trend in solution-processed solar cells. 2021 , 3, 445-459		19
89	Cross-Linkable and Alcohol-Soluble Pyridine-Incorporated Polyfluorene Derivative as a Cathode Interface Layer for High-Efficiency and Stable Organic Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 12296-12304	9.5	8
88	Degradation through Directional Self-Doping and Homogeneous Density of Recombination Centers Hindered by 1,8-Diiodooctane Additive in Non-Fullerene Organic Solar Cells. 2021 , 5, 2100024		2
87	Progress in Upscaling Organic Photovoltaic Devices. 2021 , 11, 2100342		22
86	Systematic Merging of Nonfullerene Acceptor Extension and Tetrafluorination Strategies Affords Polymer Solar Cells with >16% Efficiency. 2021 , 143, 6123-6139		34
85	Polymer Photodetectors for Printable, Flexible, and Fully Tissue Equivalent X-Ray Detection with Zero-Bias Operation and Ultrafast Temporal Responses. 2021 , 6, 2001298		4
84	Role of carbon nanotubes as an acceptor to enhance the photovoltaic performances of organic solar cells based on Econjugated thiophene as a donor materials. 2021 , 45, 16242-16253		О
83	Molecular insights of exceptionally photostable electron acceptors for organic photovoltaics. 2021 , 12, 3049		23

82	Simultaneous Improvement of Efficiency and Stability of Organic Photovoltaic Cells by using a Cross-Linkable Fullerene Derivative. 2021 , 17, e2101133	10
81	Balancing the efficiency, stability, and cost potential for organic solar cells via a new figure of merit. 2021 , 5, 1209-1230	42
80	Correlating the Molecular Structure of A-DA?D-A Type Non-Fullerene Acceptors to Its Heat Transfer and Charge Transport Properties in Organic Solar Cells. 2021 , 31, 2101627	10
79	Novel thieno[3,2-b]thiophene-embedded small-molecule donors for highly efficient and photostable vacuum-processed organic photovoltaics. 2021 , 20, 100633	3
78	Charge Recycling Mechanism Through a Triplet Charge-Transfer State in Ternary-Blend Organic Solar Cells Containing a Nonfullerene Acceptor. 2021 , 6, 2610-2618	5
77	Dominant Effect of UV-Light-Induced B urn-inDegradation in Non-Fullerene Acceptor Based Organic Solar Cells. 2021 , 125, 12531-12540	2
76	Inverted Polymer Solar Cells with Annealing-Free Solution-Processable NiO. 2021 , 17, e2101729	5
75	Stability Of Non-Fullerene Electron Acceptors and Their Photovoltaic Devices. 2021 , 31, 2104552	12
74	Benzo(Thiazole)-Based Conjugated Polymer with Varying Alkylthio Side-Chain Positions for Efficient Fullerene-Free Organic Solar Cells. <i>ACS Applied Materials & Description (Control of Solar Cells)</i> 8 (2014) 13, 36071-36079	4
73	High Tg Polymer Insulator Yields Organic Photovoltaic Blends with Superior Thermal Stability at 150 oC. 2021 , 39, 2570-2578	8
72	Controlling Solid-State Structure and Film Morphology in Non-Fullerene Organic Photovoltaic Devices.	1
71	Non-fullerene acceptor photostability and its impact on organic solar cell lifetime. 2021 , 2, 100498	9
70	A conjugated donor-acceptor block copolymer enables over 11% efficiency for single-component polymer solar cells. 2021 , 5, 1800-1815	27
69	Tailoring polymer acceptors by electron linkers for achieving efficient and stable all-polymer solar cells 2022 , 9, nwab151	9
68	Ternary All-Polymer Solar Cells with Two Synergetic Donors Enable Efficiency over 14.5%.	4
67	Mechanism of the Photodegradation of A-D-A Acceptors for Organic Photovoltaics*. 2021 , 60, 24833-24837	6
66	Efficient organic solar cells with superior stability based on PM6:BTP-eC9 blend and AZO/Al cathode. 2021 , 24, 103027	5
65	Emerging Chemistry in Enhancing the Chemical and Photochemical Stabilities of Fused-Ring Electron Acceptors in Organic Solar Cells. 2106735	9

64	Structure Property Relationships of Precisely Chlorinated Thiophene-Substituted Acceptors. 2106524		6
63	Photodynamic Investigation on the Synergistic Effects of Aromatic Side Chains with Alkylthio Substituents in Nonfullerene Organic Solar Cells. 2021 , 4, 9913-9922		1
62	Mechanism of the Photodegradation of A-D-A Acceptors for Organic Photovoltaics**.		O
61	Photoactive layer formation in the dark for high performance of air-processable organic photovoltaics. 2021 , 4, 044016		1
60	Theoretical exploration of optoelectronic performance of PM6:Y6 series-based organic solar cells. 2021 , 26, 101385		4
59	The cis- and trans-orientation of benzo[1,2-b:4,5-b?]dithiophene-based isomers in organic solar cells. 2021 , 5, 1486-1494		2
58	Sequential deposition enables high-performance nonfullerene organic solar cells. 2021,		9
57	Green syntheses of stable and efficient organic dyes for organic hybrid light-emitting diodes. <i>Journal of Materials Chemistry C</i> , 2021 , 9, 7274-7283	7.1	3
56	Stability: next focus in organic solar cells based on non-fullerene acceptors. 2021 , 5, 2907-2930		15
55	Aggregation of non-fullerene acceptors in organic solar cells. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 15607-15619	13	51
54	Cyclopenta[hi]aceanthrylene Decorated with Multiple and Long Alkoxy Chains: Physicochemical Properties and Single-Walled Carbon NanotubeslExfoliation Capability. 2020 , 9, 051011		1
53	Advances and prospective in thermally stable nonfullerene polymer solar cells. <i>Science China Chemistry</i> , 2021 , 64, 1875	7.9	12
52	Tuning of a A-A-D-A-A-Type Small Molecule with Benzodithiophene as a Central Core with Efficient Photovoltaic Properties for Organic Solar Cells. 2021 , 6, 28923-28935		12
51	Recent Progress in the Design of Fused-Ring Non-Fullerene Acceptors-Relations between Molecular Structure and Optical, Electronic, and Photovoltaic Properties.		9
50	Alkylated Benzodithienoquinolizinium Salts as Possible Non-Fullerene Organic N-Type Semiconductors: An Experimental and Theoretical Study. 2021 , 14,		
49	Phototriggerable Transient Electronics via Fullerene-Mediated Degradation of Polymer:Fullerene Encapsulation Layer. <i>ACS Applied Materials & Encapsulation Layer</i> . <i>ACS Applied Materials & Encapsulation Layer</i> .	9.5	2
48	Impact of Elinker modifications on the photovoltaic performance of rainbow-shaped acceptor molecules for high performance organic solar cell applications. 2022 , 625, 413465		8
47	Fused-heterocycle engineering on asymmetric non-fullerene acceptors enables organic solar cells approaching 29 mA/cm2 short-circuit current density. 2022 , 430, 132830		1

46	Modifying polymer PM6 by incorporating a component with low synthetic complexity for enhanced short-circuit current density. <i>Journal of Materials Chemistry C</i> ,	7.1	1
45	The evolution of small molecular acceptors for organic solar cells: Advances, challenges and prospects. <i>Dyes and Pigments</i> , 2022 , 198, 109963	4.6	2
44	Donor-Acceptor Alternating Copolymer Compatibilizers for Thermally Stable, Mechanically Robust, and High-Performance Organic Solar Cells. 2021 ,		7
43	In silico modelling of acceptor materials by End-capped and Elinker modifications for High-Performance organic solar Cells: Estimated PCE > 18%. 2022 , 1208, 113555		6
42	Modified fullerenes as acceptors in bulk heterojunction organic solar cells - a theoretical study. 2021 ,		O
41	ReviewLonjugated Polymer Photovoltaic Materials: Performance and Applications of Organic Semiconductors in Photovoltaics.		O
40	On the interface reactions and stability of nonfullerene organic solar cells.		2
39	Down-conversion materials for organic solar cells: Progress, challenges, and perspectives.		2
38	Proton Radiation Hardness of Organic Photovoltaics: An In-Depth Study. 2101037		2
37	Recent Progress in Organic Solar Cells: A Review on Materials from Acceptor to Donor 2022 , 27,		4
36	Depicting the role of end-capped acceptors to amplify the photovoltaic properties of benzothiadiazole core-based molecules for high-performance organic solar cell applications. 2022 , 1211, 113669		6
35	Morphological Stabilization in Organic Solar Cells via a Fluorene-Based Crosslinker for Enhanced Efficiency and Thermal Stability ACS Applied Materials & Interfaces, 2021,	9.5	3
34	Data_Sheet_1.PDF. 2020 ,		
33	Relationship between molecular properties and degradation mechanisms of organic solar cells based on bis-adducts of phenyl-C61 butyric acid methyl ester. <i>Journal of Materials Chemistry C</i> ,	7.1	1
32	Perylene bisimides-based molecular dyads with different alkyl linkers for single-component organic solar cells. <i>Dyes and Pigments</i> , 2022 , 203, 110355	4.6	O
31	Recent progress in organic solar cells (Part II device engineering). Science China Chemistry,	7.9	12
30	17.13% efficiency and superior thermal stability of organic solar cells based on acomb-shape active blend. <i>Energy and Environmental Materials</i> ,	13	O
29	Progress of Monomeric Perylene Diimide Derivatives As Non-Fullerene Acceptors for Organic Solar Cells. <i>Journal of Electronic Materials</i> ,	1.9	2

28	Exploration of nonlinear optical enhancement and interesting optical behavior with pyrene moiety as the conjugated donor and efficient modification in acceptor moieties. <i>Optical and Quantum Electronics</i> , 2022 , 54,	2.4	1
27	Fine-tuned Morphology Based on Two Well-miscible Polymer Donors Enables Higher Open-circuit Voltage and Enhanced Stability for Highly Efficient Ternary All-Polymer Solar Cells. <i>Macromolecular Rapid Communications</i> , 2200411	4.8	1
26	Reducing Steric Hindrance Around Electronegative Atom in Polymer Simultaneously Enhanced Efficiency and Stability of Organic Solar Cells. <i>Nano Energy</i> , 2022 , 107611	17.1	0
25	A Theoretical Perspective on the Thermodynamic Stability of Polymer Blends for Solar Cells: From Experiments to Predictive Modeling. 2200172		2
24	A series of selenium-containing non-fullerene acceptors with side chain engineering for organic solar cells. 2022 , 110646		0
23	Recent advances of nonfullerene acceptors in organic solar cells. 2022 , 103, 107802		2
22	Solution Processed Next Generation thin films solar cells for indoor light applications.		0
21	Recent advances of crosslinkable organic semiconductors in achieving solution-processed and stable optoelectronic devices. 2022 , 10, 18542-18576		O
20	Development of non-fullerene electron acceptors for efficient organic photovoltaics. 2022, 4,		2
19	Photovoltaic Effect of Structure Compatibility Utilizing a Same Electron-Accepting Unit on a Polymer Donor and Nonfused Nonfullerene Acceptor.		O
18	A Facile Method for Thermally, Light, and Mechanically Stable Organic Solar Cells Using Ultraviolet-Initiated Crosslinkable Additive. 2201788		0
17	Computational Exploration of Structural and Electroinc Peoperties of Ph B 12N12 I 16F5 IhHn (n = 0B) Molecules. 2022 , 16, 839-845		O
16	Triplets with a Twist: Ultrafast Intersystem Crossing in a Series of Electron Acceptor Materials Driven by Conformational Disorder.		0
15	Small-Molecule Acceptors with Asymmetric Thieno[3,2-c]isochromene Bridged Units for Boosting the Efficiency and Stability of Fullerene-Based Organic Solar Cells. 2022 , 5, 15890-15898		O
14	An asymmetric A-D-EA type non-fullerene acceptor enables high-detectivity near-infrared organic photodiodes.		2
13	Effects of the diphenyl ether additive in halogen-free processed non-fullerene acceptor organic solar cell.		O
12	Amorphous Silicon particles/Polyaniline composites for hybrid photovoltaic solar cell: An experimental feasibility study.		0
11	Efficient carrier-filtering performance probing of oxide buffer-layers in organic solar cell at nanoscale. 2023 , 114, 106728		O

CITATION REPORT

10	Photostable organic solar cells based on non-fullerene acceptors with an aminated bathocuproine electron transport layer. 2023 , 11, 4510-4518	О
9	Linear-Shaped Low-Bandgap Asymmetric Conjugated Donor Molecule for Fabrication of Bulk Heterojunction Small-Molecule Organic Solar Cells. 2023 , 28, 1538	O
8	In Silico modeling and exploration of new acceptor molecules with enhanced power conversion efficiency for high-performance organic solar cell applications. 2023 , 323, 124018	O
7	A follow-up investigation: Organic solar cells based on chalcogenophene containing random conjugated polymers. 2023 , 932, 117213	O
6	A Review on Fullerene Derivatives with Reduced Electron Affinity as Acceptor Materials for Organic Solar Cells. 2023 , 16, 1924	2
5	Research Progress of Thermal Failure Mechanism and Ternary Blending to Improve Thermal Stability of Organic Solar Cells. 2023 , 81, 131	O
4	Application of Bis-Adducts of Phenyl-C61 Butyric Acid Methyl Ester in Promoting the Open-Circuit Voltage of Indoor Organic Photovoltaics. 2023 , 16, 2613	O
3	Molecular orientation-dependent energetic shifts in solution-processed non-fullerene acceptors and their impact on organic photovoltaic performance. 2023 , 14,	O
2	High performance non-fullerene organic photovoltaics under implant light illumination region. 2023 , 122, 143906	O
1	Solution-Processable NiOx:PMMA Hole Transport Layer for Efficient and Stable Inverted Organic Solar Cells. 2023 , 15, 1875	O