

# Chunhui Duan

## List of Publications by Year in Descending Order

**Source:** <https://exaly.com/author-pdf/5516391/chunhui-duan-publications-by-year.pdf>

**Version:** 2024-04-25

This document has been generated based on the publications and citations recorded by exaly.com. 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.

103  
papers

5,862  
citations

38  
h-index

75  
g-index

107  
ext. papers

6,764  
ext. citations

11  
avg, IF

6.08  
L-index

#	Paper	IF	Citations
103	Layer-by-layer processed binary all-polymer solar cells with efficiency over 16% enabled by finely optimized morphology. <i>Nano Energy</i> , <b>2022</b> , 93, 106858	17.1	13
102	Polythiophenes for organic solar cells with efficiency surpassing 17%. <i>Joule</i> , <b>2022</b> , 6, 647-661	27.8	17
101	Sequentially Deposited Active Layer with Bulk-Heterojunction-like Morphology for Efficient Conventional and Inverted All-Polymer Solar Cells. <i>ACS Applied Energy Materials</i> , <b>2021</b> , 4, 13307-13315	6.1	5
100	Highly Efficient Simple-Structure Sky-Blue Organic Light-Emitting Diode Using a Bicarbazole/Cyanopyridine Bipolar Host. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 13459-13469	9.5	12
99	A Facile Synthesized Polymer Featuring B-N Covalent Bond and Small Singlet-Triplet Gap for High-Performance Organic Solar Cells. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 8813-8817	16.4	32
98	A Facile Synthesized Polymer Featuring B-N Covalent Bond and Small Singlet-Triplet Gap for High-Performance Organic Solar Cells. <i>Angewandte Chemie</i> , <b>2021</b> , 133, 8895-8899	3.6	7
97	16% efficiency all-polymer organic solar cells enabled by a finely tuned morphology via the design of ternary blend. <i>Joule</i> , <b>2021</b> , 5, 914-930	27.8	110
96	Low-bandgap conjugated polymers based on benzodipyrrolidone with reliable unipolar electron mobility exceeding 1 cm <sup>2</sup> V <sup>-1</sup> s <sup>-1</sup> . <i>Science China Chemistry</i> , <b>2021</b> , 64, 1219-1227	7.9	7
95	Surpassing 13% Efficiency for Polythiophene Organic Solar Cells Processed from Nonhalogenated Solvent. <i>Advanced Materials</i> , <b>2021</b> , 33, e2008158	24	39
94	High-Performance All-Polymer Solar Cells and Photodetectors Enabled by a High-Mobility n-Type Polymer and Optimized Bulk-Heterojunction Morphology. <i>Chemistry of Materials</i> , <b>2021</b> , 33, 3746-3756	9.6	4
93	Truxene Functionalized Star-Shaped Non-fullerene Acceptor With Selenium-Annulated Perylene Diimides for Efficient Organic Solar Cells. <i>Frontiers in Chemistry</i> , <b>2021</b> , 9, 681994	5	1
92	Morphology evolution with polymer chain propagation and its impacts on device performance and stability of non-fullerene solar cells. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 556-565	13	11
91	15.4% Efficiency all-polymer solar cells. <i>Science China Chemistry</i> , <b>2021</b> , 64, 408-412	7.9	48
90	Ternary copolymers containing 3,4-dicyanothiophene for efficient organic solar cells with reduced energy loss. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 13522-13530	13	11
89	Direct arylation polycondensation towards water/alcohol-soluble conjugated polymers as the electron transporting layers for organic solar cells. <i>Chemical Communications</i> , <b>2021</b> , 57, 5798-5801	5.8	0
88	All-polymer solar cells. <i>Journal of Semiconductors</i> , <b>2021</b> , 42, 080301	2.3	13
87	N-Type Quinoidal Polymers Based on Dipyrrolopyrazinedione for Application in All-Polymer Solar Cells. <i>Chemistry - A European Journal</i> , <b>2021</b> , 27, 13527-13533	4.8	3

86	Optimized active layer morphology via side-chain atomic substituents to achieve efficient and stable all-polymer solar cells. <i>Journal of Materials Chemistry C</i> , <b>2021</b> , 9, 9515-9523	7.1	3
85	The new era for organic solar cells: polymer acceptors. <i>Science Bulletin</i> , <b>2020</b> , 65, 1508-1510	10.6	39
84	Nonfused Nonfullerene Acceptors with an A-D-ASD-A Framework and a Benzothiadiazole Core for High-Performance Organic Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 16531-16540	9.5	44
83	Progress of the key materials for organic solar cells. <i>Science China Chemistry</i> , <b>2020</b> , 63, 758-765	7.9	101
82	3,4-Dicyanothiophene—Versatile Building Block for Efficient Nonfullerene Polymer Solar Cells. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 1904247	21.8	35
81	Ternary All-Polymer Solar Cells With 8.5% Power Conversion Efficiency and Excellent Thermal Stability. <i>Frontiers in Chemistry</i> , <b>2020</b> , 8, 302	5	11
80	The new era for organic solar cells: polymer donors. <i>Science Bulletin</i> , <b>2020</b> , 65, 1422-1424	10.6	40
79	The new era for organic solar cells: non-fullerene small molecular acceptors. <i>Science Bulletin</i> , <b>2020</b> , 65, 1231-1233	10.6	43
78	The new era for organic solar cells: small molecular donors. <i>Science Bulletin</i> , <b>2020</b> , 65, 1597-1599	10.6	14
77	Reduced Energy Loss in Non-Fullerene Organic Solar Cells with Isomeric Donor Polymers Containing Thiazole BSpacers. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 753-762	9.5	17
76	Indoor organic photovoltaics. <i>Science Bulletin</i> , <b>2020</b> , 65, 2040-2042	10.6	22
75	Efficient Organic Ternary Solar Cells Employing Narrow Band Gap Diketopyrrolopyrrole Polymers and Nonfullerene Acceptors. <i>Chemistry of Materials</i> , <b>2020</b> , 32, 7309-7317	9.6	14
74	Backbone Fluorination of Polythiophenes Improves Device Performance of Non-Fullerene Polymer Solar Cells. <i>ACS Applied Energy Materials</i> , <b>2019</b> , 2, 7572-7583	6.1	21
73	4-Methylthio substitution on benzodithiophene-based conjugated polymers for high open-circuit voltage polymer solar cells. <i>Synthetic Metals</i> , <b>2019</b> , 254, 122-127	3.6	8
72	An efficient binary cathode interlayer for large-bandgap non-fullerene organic solar cells. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 12426-12433	13	15
71	A Wide-Bandgap Conjugated Polymer Based on Quinoxalino[6,5-f ]quinoxaline for Fullerene and Non-Fullerene Polymer Solar Cells. <i>Macromolecular Rapid Communications</i> , <b>2019</b> , 40, e1900120	4.8	6
70	High open-circuit voltage organic solar cells enabled by a difluorobenzoxadiazole-based conjugated polymer donor. <i>Science China Chemistry</i> , <b>2019</b> , 62, 829-836	7.9	10
69	Efficient Thick-Film Polymer Solar Cells with Enhanced Fill Factors via Increased Fullerene Loading. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 10794-10800	9.5	17

68	Alkyl Chain Length Effects of Polymer Donors on the Morphology and Device Performance of Polymer Solar Cells with Different Acceptors. <i>Advanced Energy Materials</i> , <b>2019</b> , 9, 1901740	21.8	60
67	Energy level modulation of donor-acceptor alternating random conjugated copolymers for achieving high-performance polymer solar cells. <i>Journal of Materials Chemistry C</i> , <b>2019</b> , 7, 15335-15343	7.1	5
66	Bulk Heterojunction Quasi-Two-Dimensional Perovskite Solar Cell with 1.18 V High Photovoltage. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 2935-2943	9.5	12
65	Polythiophene derivatives compatible with both fullerene and non-fullerene acceptors for polymer solar cells. <i>Journal of Materials Chemistry C</i> , <b>2019</b> , 7, 314-323	7.1	29
64	Adjusting Aggregation Modes and Photophysical and Photovoltaic Properties of Diketopyrrolopyrrole-Based Small Molecules by Introducing B<-N Bonds. <i>Chemistry - A European Journal</i> , <b>2019</b> , 25, 564-572	4.8	10
63	Subnaphthalocyanines as Electron Acceptors in Polymer Solar Cells: Improving Device Performance by Modifying Peripheral and Axial Substituents. <i>Chemistry - A European Journal</i> , <b>2018</b> , 24, 6339-6343	4.8	17
62	Phosphonium conjugated polyelectrolytes as interface materials for efficient polymer solar cells. <i>Organic Electronics</i> , <b>2018</b> , 57, 151-157	3.5	12
61	Star-shaped electron acceptors containing a truxene core for non-fullerene solar cells. <i>Organic Electronics</i> , <b>2018</b> , 52, 42-50	3.5	45
60	Efficient Organic Solar Cells with Extremely High Open-Circuit Voltages and Low Voltage Losses by Suppressing Nonradiative Recombination Losses. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1801699	21.8	97
59	A high dielectric constant non-fullerene acceptor for efficient bulk-heterojunction organic solar cells. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 395-403	13	173
58	Conjugated Polymers Based on Thiazole Flanked Naphthalene Diimide for Unipolar n-Type Organic Field-Effect Transistors. <i>Chemistry of Materials</i> , <b>2018</b> , 30, 8343-8351	9.6	24
57	Improving Performance of All-Polymer Solar Cells Through Backbone Engineering of Both Donors and Acceptors. <i>Solar Rrl</i> , <b>2018</b> , 2, 1800247	7.1	13
56	Electron Acceptors With a Truxene Core and Perylene Diimide Branches for Organic Solar Cells: The Effect of Ring-Fusion. <i>Frontiers in Chemistry</i> , <b>2018</b> , 6, 328	5	12
55	Morphology Optimization via Side Chain Engineering Enables All-Polymer Solar Cells with Excellent Fill Factor and Stability. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 8934-8943	16.4	171
54	Non-planar perylenediimide acceptors with different geometrical linker units for efficient non-fullerene organic solar cells. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 1713-1723	13	47
53	The effect of end-capping groups in A-D-A type non-fullerene acceptors on device performance of organic solar cells. <i>Science China Chemistry</i> , <b>2017</b> , 60, 1458-1467	7.9	29
52	Conjugated Polymers Based on Difluorobenzoxadiazole toward Practical Application of Polymer Solar Cells. <i>Advanced Energy Materials</i> , <b>2017</b> , 7, 1702033	21.8	30
51	Thiophene Rings Improve the Device Performance of Conjugated Polymers in Polymer Solar Cells with Thick Active Layers. <i>Advanced Energy Materials</i> , <b>2017</b> , 7, 1700519	21.8	42

50	Novel donor-acceptor type conjugated polymers based on quinoxalino[6,5-f]quinoxaline for photovoltaic applications. <i>Materials Chemistry Frontiers</i> , <b>2017</b> , 1, 499-506	7.8	24
49	The Role of the Axial Substituent in Subphthalocyanine Acceptors for Bulk-Heterojunction Solar Cells. <i>Angewandte Chemie</i> , <b>2017</b> , 129, 154-158	3.6	22
48	The Role of the Axial Substituent in Subphthalocyanine Acceptors for Bulk-Heterojunction Solar Cells. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 148-152	16.4	85
47	High open circuit voltage polymer solar cells enabled by employing thiazoles in semiconducting polymers. <i>Polymer Chemistry</i> , <b>2016</b> , 7, 5730-5738	4.9	25
46	Toward Practical Useful Polymers for Highly Efficient Solar Cells via a Random Copolymer Approach. <i>Journal of the American Chemical Society</i> , <b>2016</b> , 138, 10782-5	16.4	90
45	Design, synthesis and photovoltaic properties of a series of new acceptor-pended conjugated polymers. <i>Science China Chemistry</i> , <b>2016</b> , 59, 1583-1592	7.9	10
44	Effect of side chain length on the charge transport, morphology, and photovoltaic performance of conjugated polymers in bulk heterojunction solar cells. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 1855-1866	13	65
43	Non-conjugated water/alcohol soluble polymers with different oxidation states of sulfide as cathode interlayers for high-performance polymer solar cells. <i>Journal of Materials Chemistry C</i> , <b>2016</b> , 4, 4288-4295	7.1	14
42	Solution processed thick film organic solar cells. <i>Polymer Chemistry</i> , <b>2015</b> , 6, 8081-8098	4.9	76
41	The influence of amino group on PCDTBT-based and P3HT-based polymer solar cells: Hole trapping processes. <i>Applied Physics Letters</i> , <b>2015</b> , 106, 233302	3.4	13
40	Design and synthesis of star-burst triphenylamine-based $\pi$ -conjugated molecules. <i>Dyes and Pigments</i> , <b>2015</b> , 113, 1-7	4.6	33
39	Wide-Bandgap Benzodithiophene-Benzothiadiazole Copolymers for Highly Efficient Multijunction Polymer Solar Cells. <i>Advanced Materials</i> , <b>2015</b> , 27, 4461-4468	24	95
38	Development of Active Materials and Interface Materials for High Performance Bulk-Heterojunction Polymer Solar Cells. <i>Topics in Applied Physics</i> , <b>2015</b> , 191-219	0.5	
37	Synthesis of two-dimensional $\pi$ -conjugated polymers pendent with benzothiadiazole and naphtho[1,2-c:5,6-c']bis[1,2,5]thiadiazole moieties for polymer solar cells. <i>Science China Chemistry</i> , <b>2015</b> , 58, 257-266	7.9	28
36	Highly efficient fullerene/perovskite planar heterojunction solar cells via cathode modification with an amino-functionalized polymer interlayer. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 19598-19603	13	174
35	Toward green solvent processable photovoltaic materials for polymer solar cells: the role of highly polar pendant groups in charge carrier transport and photovoltaic behavior. <i>Energy and Environmental Science</i> , <b>2013</b> , 6, 3022	35.4	142
34	Recent advances in water/alcohol-soluble $\pi$ -conjugated materials: new materials and growing applications in solar cells. <i>Chemical Society Reviews</i> , <b>2013</b> , 42, 9071-104	58.5	400
33	Synthesis and optoelectronic properties of amino-functionalized carbazole-based conjugated polymers. <i>Science China Chemistry</i> , <b>2013</b> , 56, 1119-1128	7.9	14

32	Conjugated zwitterionic polyelectrolyte-based interface modification materials for high performance polymer optoelectronic devices. <i>Chemical Science</i> , <b>2013</b> , 4, 1298	9.4	108
31	Al <sup>3+</sup> -induced far-red fluorescence enhancement of conjugated polymer nanoparticles and its application in live cell imaging. <i>Nanoscale</i> , <b>2013</b> , 5, 9340-7	7.7	20
30	Synthesis of donor-acceptor copolymers based on anthracene derivatives for polymer solar cells. <i>Polymer Chemistry</i> , <b>2013</b> , 4, 3949	4.9	19
29	Design and Synthesis of Copolymers of Indacenodithiophene and Naphtho[1,2-c:5,6-c]bis(1,2,5-thiadiazole) for Polymer Solar Cells. <i>Macromolecules</i> , <b>2013</b> , 46, 3950-3958	5.5	65
28	A series of new medium-bandgap conjugated polymers based on naphtho[1,2-c:5,6-c]bis(2-octyl-[1,2,3]triazole) for high-performance polymer solar cells. <i>Advanced Materials</i> , <b>2013</b> , 25, 3683-8	24	118
27	The effect of methanol treatment on the performance of polymer solar cells. <i>Nanotechnology</i> , <b>2013</b> , 24, 484003	3.4	32
26	Conjugated Polymer Nanoparticles with Ag <sup>+</sup> -Sensitive Fluorescence Emission: A New Insight into the Cooperative Recognition Mechanism. <i>Particle and Particle Systems Characterization</i> , <b>2013</b> , 30, 972-980	3.1	16
25	Fully visible-light-harvesting conjugated polymers with pendant donor-acceptor chromophores for photovoltaic applications. <i>Solar Energy Materials and Solar Cells</i> , <b>2012</b> , 97, 50-58	6.4	16
24	A study of optical properties enhancement in low-bandgap polymer solar cells with embedded PEDOT:PSS gratings. <i>Solar Energy Materials and Solar Cells</i> , <b>2012</b> , 99, 327-332	6.4	18
23	Control of efficiency, brightness, and recombination zone in light-emitting field effect transistors. <i>Advanced Materials</i> , <b>2012</b> , 24, 1171-5	24	74
22	Optical and electrical effects of gold nanoparticles in the active layer of polymer solar cells. <i>Journal of Materials Chemistry</i> , <b>2012</b> , 22, 1206-1211		203
21	Inverted polymer solar cells with 8.4% efficiency by conjugated polyelectrolyte. <i>Energy and Environmental Science</i> , <b>2012</b> , 5, 8208	35.4	576
20	New acceptor-pended conjugated polymers based on 3,6- and 2,7-carbazole for polymer solar cells. <i>Polymer</i> , <b>2012</b> , 53, 5675-5683	3.9	28
19	Recent development of push-pull conjugated polymers for bulk-heterojunction photovoltaics: rational design and fine tailoring of molecular structures. <i>Journal of Materials Chemistry</i> , <b>2012</b> , 22, 10416		428
18	Highly Efficient Inverted Polymer Solar Cells Based on an Alcohol Soluble Fullerene Derivative Interfacial Modification Material. <i>Chemistry of Materials</i> , <b>2012</b> , 24, 1682-1689	9.6	100
17	Alkali metal salts doped pluronic block polymers as electron injection/transport layers for high performance polymer light-emitting diodes. <i>Science China Chemistry</i> , <b>2012</b> , 55, 766-771	7.9	8
16	Materials and Devices toward Fully Solution Processable Organic Light-Emitting Diodes. <i>Chemistry of Materials</i> , <b>2011</b> , 23, 326-340	9.6	368
15	Synthesis of Quinoxaline-Based Donor-Acceptor Narrow-Band-Gap Polymers and Their Cyclized Derivatives for Bulk-Heterojunction Polymer Solar Cell Applications. <i>Macromolecules</i> , <b>2011</b> , 44, 894-901	5.5	123

14	Two-dimensional like conjugated copolymers for high efficiency bulk-heterojunction solar cell application: Band gap and energy level engineering. <i>Science China Chemistry</i> , <b>2011</b> , 54, 685-694	7.9	30
13	A novel crosslinkable electron injection/transporting material for solution processed polymer light-emitting diodes. <i>Science China Chemistry</i> , <b>2011</b> , 54, 1745-1749	7.9	38
12	Bandgap engineering of indenofluorene-based conjugated copolymers with pendant donor-acceptor chromophores for photovoltaic applications. <i>Journal of Polymer Science Part A</i> , <b>2011</b> , 49, 4406-4415	2.5	20
11	Conjugated zwitterionic polyelectrolytes and their neutral precursor as electron injection layer for high-performance polymer light-emitting diodes. <i>Advanced Materials</i> , <b>2011</b> , 23, 1665-9	24	102
10	Synthesis, Characterization, and Photovoltaic Properties of Carbazole-Based Two-Dimensional Conjugated Polymers with Donor-Bridge-Acceptor Side Chains. <i>Chemistry of Materials</i> , <b>2010</b> , 22, 6444-6452	8.6	90
9	Novel Silafluorene-Based Conjugated Polymers with Pendant Acceptor Groups for High Performance Solar Cells. <i>Macromolecules</i> , <b>2010</b> , 43, 5262-5268	5.5	125
8	Donor Polymers Containing Benzothiadiazole and Four Thiophene Rings in Their Repeating Units with Improved Photovoltaic Performance. <i>Macromolecules</i> , <b>2009</b> , 42, 4410-4415	5.5	146
7	Multistrategy Toward Highly Efficient and Stable CsPbI <sub>2</sub> Br Perovskite Solar Cells Based on Dopant-Free Poly(3-Hexylthiophene). <i>Solar Rrl</i> , 2100880	7.1	2
6	Hydrophobic Fluorinated Conjugated Polymer as a Multifunctional Interlayer for High-Performance Perovskite Solar Cells. <i>ACS Photonics</i> ,	6.3	6
5	A donor polymer based on 3-cyanothiophene with superior batch-to-batch reproducibility for high-efficiency organic solar cells. <i>Energy and Environmental Science</i> ,	35.4	21
4	The Renaissance of Oligothiophene-Based Donor-Acceptor Polymers in Organic Solar Cells. <i>Advanced Energy Materials</i> , 2104050	21.8	7
3	Achieving 16% Efficiency for Polythiophene Organic Solar Cells with a Cyano-Substituted Polythiophene. <i>Advanced Functional Materials</i> , 2201142	15.6	11
2	Non-Fused Polymerized Small Molecular Acceptors for Efficient All-Polymer Solar Cells. <i>Solar Rrl</i> , 2101034	7.1	3
1	High-efficiency P3HT-based all-polymer solar cells with a thermodynamically miscible polymer acceptor. <i>Solar Rrl</i> ,	7.1	1