

Huawei Hu

List of Publications by Year in descending order

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35
papers

7,312
citations

186265
28
h-index

361022
35
g-index

35
all docs

35
docs citations

35
times ranked

5574
citing authors

#	ARTICLE	IF	CITATIONS
1	Aggregation and morphology control enables multiple cases of high-efficiency polymer solar cells. <i>Nature Communications</i> , 2014, 5, 5293.	12.8	2,854
2	Quantitative relations between interaction parameter, miscibility and function in organic solar cells. <i>Nature Materials</i> , 2018, 17, 253-260.	27.5	556
3	Terthiophene-Based A Polymer with an Asymmetric Arrangement of Alkyl Chains That Enables Efficient Polymer Solar Cells. <i>Journal of the American Chemical Society</i> , 2015, 137, 14149-14157.	13.7	386
4	High-efficiency non-fullerene organic solar cells enabled by a difluorobenzothiadiazole-based donor polymer combined with a properly matched small molecule acceptor. <i>Energy and Environmental Science</i> , 2015, 8, 520-525.	30.8	379
5	A Tetraphenylethylene Core-Based 3D Structure Small Molecular Acceptor Enabling Efficient Non-Fullerene Organic Solar Cells. <i>Advanced Materials</i> , 2015, 27, 1015-1020.	21.0	362
6	Ring-Fusion of Perylene Diimide Acceptor Enabling Efficient Nonfullerene Organic Solar Cells with a Small Voltage Loss. <i>Journal of the American Chemical Society</i> , 2017, 139, 16092-16095.	13.7	304
7	High-Performance Non-Fullerene Polymer Solar Cells Based on a Pair of Donor-Acceptor Materials with Complementary Absorption Properties. <i>Advanced Materials</i> , 2015, 27, 7299-7304.	21.0	230
8	Design of Donor Polymers with Strong Temperature-Dependent Aggregation Property for Efficient Organic Photovoltaics. <i>Accounts of Chemical Research</i> , 2017, 50, 2519-2528.	15.6	222
9	A molecular interaction-diffusion framework for predicting organic solar cell stability. <i>Nature Materials</i> , 2021, 20, 525-532.	27.5	212
10	Efficient All-Polymer Solar Cells based on a New Polymer Acceptor Achieving 10.3% Power Conversion Efficiency. <i>ACS Energy Letters</i> , 2019, 4, 417-422.	17.4	196
11	Reduced Intramolecular Twisting Improves the Performance of 3D Molecular Acceptors in Non-Fullerene Organic Solar Cells. <i>Advanced Materials</i> , 2016, 28, 8546-8551.	21.0	161
12	Delineation of Thermodynamic and Kinetic Factors that Control Stability in Non-fullerene Organic Solar Cells. <i>Joule</i> , 2019, 3, 1328-1348.	24.0	143
13	Multiple Cases of Efficient Nonfullerene Ternary Organic Solar Cells Enabled by an Effective Morphology Control Method. <i>Advanced Energy Materials</i> , 2018, 8, 1701370.	19.5	140
14	Alkyl-Chain Branching of Non-Fullerene Acceptors Flanking Conjugated Side Groups toward Highly Efficient Organic Solar Cells. <i>Advanced Energy Materials</i> , 2021, 11, 2102596.	19.5	125
15	Efficient non-fullerene polymer solar cells enabled by tetrahedron-shaped core based 3D-structure small-molecular electron acceptors. <i>Journal of Materials Chemistry A</i> , 2015, 3, 13632-13636.	10.3	100
16	Modulation of End Groups for Low-Bandgap Nonfullerene Acceptors Enabling High-Performance Organic Solar Cells. <i>Advanced Energy Materials</i> , 2018, 8, 1801203.	19.5	99
17	Dramatic performance enhancement for large bandgap thick-film polymer solar cells introduced by a difluorinated donor unit. <i>Nano Energy</i> , 2015, 15, 607-615.	16.0	93
18	Highly Efficient, Stable, and Ductile Ternary Nonfullerene Organic Solar Cells from a Two-Donor Polymer Blend. <i>Advanced Materials</i> , 2019, 31, e1808279.	21.0	79

#	ARTICLE	IF	CITATIONS
19	Efficient Low-Bandgap Polymer Solar Cells with High Open-Circuit Voltage and Good Stability. <i>Advanced Energy Materials</i> , 2015, 5, 1501282.	19.5	76
20	Effect of Ring-Fusion on Miscibility and Domain Purity: Key Factors Determining the Performance of PDI-Based Nonfullerene Organic Solar Cells. <i>Advanced Energy Materials</i> , 2018, 8, 1800234.	19.5	75
21	The Role of Demixing and Crystallization Kinetics on the Stability of Non-Fullerene Organic Solar Cells. <i>Advanced Materials</i> , 2020, 32, e2005348.	21.0	74
22	Quantifying and Understanding Voltage Losses Due to Nonradiative Recombination in Bulk Heterojunction Organic Solar Cells with Low Energetic Offsets. <i>Advanced Energy Materials</i> , 2019, 9, 1901077.	19.5	69
23	A Facile Method to Fine-Tune Polymer Aggregation Properties and Blend Morphology of Polymer Solar Cells Using Donor Polymers with Randomly Distributed Alkyl Chains. <i>Advanced Energy Materials</i> , 2018, 8, 1701895.	19.5	62
24	Influence of Donor Polymer on the Molecular Ordering of Small Molecular Acceptors in Nonfullerene Polymer Solar Cells. <i>Advanced Energy Materials</i> , 2018, 8, 1701674.	19.5	60
25	Temperature-Dependent Aggregation Donor Polymers Enable Highly Efficient Sequentially Processed Organic Photovoltaics Without the Need of Orthogonal Solvents. <i>Advanced Functional Materials</i> , 2019, 29, 1902478.	14.9	50
26	Chlorinated Thiophene End Groups for Highly Crystalline Alkylated Non-Fullerene Acceptors toward Efficient Organic Solar Cells. <i>Chemistry of Materials</i> , 2019, 31, 6672-6676.	6.7	48
27	Influence of fluorination on the properties and performance of isoindigo- <i>q</i> quaterthiophene-based polymers. <i>Journal of Materials Chemistry A</i> , 2016, 4, 5039-5043.	10.3	35
28	Intramolecular π -stacked perylene-diimide acceptors for non-fullerene organic solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 8136-8143.	10.3	34
29	A decacyclic indacenodithiophene-based non-fullerene electron acceptor with meta-alkyl-phenyl substitutions for polymer solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 4063-4071.	10.3	17
30	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. <i>Journal of Materials Chemistry A</i> , 2018, 6, 23270-23277.	10.3	16
31	Carboxylate substitution position influencing polymer properties and enabling non-fullerene organic solar cells with high open circuit voltage and low voltage loss. <i>Journal of Materials Chemistry A</i> , 2018, 6, 16874-16881.	10.3	15
32	A Donor Polymer Based on a Difluorinated Pentathiophene Unit Enabling Enhanced Performance for Nonfullerene Organic Solar Cells. <i>Small Methods</i> , 2018, 2, 1700415.	8.6	13
33	A random donor polymer based on an asymmetric building block to tune the morphology of non-fullerene organic solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 22480-22488.	10.3	12
34	Side-chain engineering with chalcogen-containing heterocycles on non-fullerene acceptors for efficient organic solar cells. <i>Chemical Engineering Journal</i> , 2022, 441, 135998.	12.7	12
35	Low Voltage-Loss Organic Solar Cells Light the Way for Efficient Semitransparent Photovoltaics. <i>Solar Rrl</i> , 2022, 6, .	5.8	3