

Lei Meng

List of Publications by Year in Descending Order

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

62

papers

7,013

citations

30

h-index

68

g-index

68

ext. papers

8,646

ext. citations

15.9

avg, IF

6.2

L-index

#	Paper	IF	Citations
62	Constructing Monolithic Perovskite/Organic Tandem Solar Cell with Efficiency of 22.0% via Reduced Open-circuit Voltage Loss and Broadened Absorption Spectra.. <i>Advanced Materials</i> , 2022 , e2108829	34.8	11
61	Influence of altering chlorine substitution positions on the photovoltaic properties of small molecule donors in all-small-molecule organic solar cells. <i>Journal of Materials Chemistry C</i> , 2022 , 10, 2017-2025	7.1	2
60	16.52% Efficiency All-Polymer Solar Cells with High Tolerance of the Photoactive Layer Thickness.. <i>Advanced Materials</i> , 2022 , e2108749	24	12
59	15.71% Efficiency All-Small-Molecule Organic Solar Cells Based on Low-Cost Synthesized Donor Molecules. <i>Advanced Functional Materials</i> , 2022 , 32, 2110159	15.6	8
58	Chlorinated polymerized small molecule acceptor enabling ternary all-polymer solar cells with over 16.6% efficiency. <i>Science China Chemistry</i> , 2022 , 65, 954	7.9	2
57	Effects of Alkyl Side Chains of Small Molecule Donors on Morphology and the Photovoltaic Property of All-Small-Molecule Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 54237-54243	9.5	6
56	A Cost-Effective Alpha-Fluorinated Bithienyl Benzodithiophene Unit for High-Performance Polymer Donor Material. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 55403-55411	9.5	1
55	Quinoxaline-Based D-A Copolymers for the Applications as Polymer Donor and Hole Transport Material in Polymer/Perovskite Solar Cells. <i>Advanced Materials</i> , 2021 , e2104161	24	6
54	Stable perovskite solar cells with efficiency of 22.6% via quinoxaline-based polymeric hole transport material. <i>Science China Chemistry</i> , 2021 , 64, 2035	7.9	3
53	A Quinoxaline-Based D-A Copolymer Donor Achieving 17.62% Efficiency of Organic Solar Cells. <i>Advanced Materials</i> , 2021 , 33, e2100474	24	70
52	Non-equivalent D-A copolymerization strategy towards highly efficient polymer donor for polymer solar cells. <i>Science China Chemistry</i> , 2021 , 64, 1031-1038	7.9	7
51	Non-Halogenated-Solvent Processed and Additive-Free Tandem Organic Solar Cell with Efficiency Reaching 16.67%. <i>Advanced Functional Materials</i> , 2021 , 31, 2102361	15.6	16
50	Backbone regulation of a bithiazole-based wide bandgap polymer donor by introducing thiophene bridges towards efficient polymer solar cells. <i>Organic Electronics</i> , 2021 , 92, 106130	3.5	1
49	Molecular Properties and Aggregation Behavior of Small-Molecule Acceptors Calculated by Molecular Simulation. <i>ACS Omega</i> , 2021 , 6, 14467-14475	3.9	1
48	Two new A-D-A type small molecule acceptors based on C _{2v} -symmetric dithienocyclopentaspiro[fluorene-9,9'-xanthene] core for polymer solar cells. <i>Organic Electronics</i> , 2021 , 92, 106120	3.5	0
47	Fine-Tuning Miscibility and π-Stacking by Alkylthio Side Chains of Donor Molecules Enables High-Performance All-Small-Molecule Organic Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 36033-36043	9.5	10
46	High performance tandem organic solar cells via a strongly infrared-absorbing narrow bandgap acceptor. <i>Nature Communications</i> , 2021 , 12, 178	17.4	52

45	Polymerized small molecular acceptor based all-polymer solar cells with an efficiency of 16.16% via tuning polymer blend morphology by molecular design. <i>Nature Communications</i> , 2021 , 12, 5264	17.4	50
44	Effects of the Center Units of Small-Molecule Donors on the Morphology, Photovoltaic Performance, and Device Stability of All-Small-Molecule Organic Solar Cells. <i>Solar Rrl</i> , 2021 , 5, 2100515	7.1	4
43	High-Performance All-Polymer Solar Cells: Synthesis of Polymer Acceptor by a Random Ternary Copolymerization Strategy. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 15181-15185	16.4	92
42	Cathode engineering with perylene-diimide interlayer enabling over 17% efficiency single-junction organic solar cells. <i>Nature Communications</i> , 2020 , 11, 2726	17.4	236
41	Tuning the electron-deficient core of a non-fullerene acceptor to achieve over 17% efficiency in a single-junction organic solar cell. <i>Energy and Environmental Science</i> , 2020 , 13, 2459-2466	35.4	199
40	Asymmetric Siloxane Functional Side Chains Enable High-Performance Donor Copolymers for Photovoltaic Applications. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 17760-17768	9.5	13
39	D _A Copolymer Donor Based on Bithienyl Benzodithiophene D-Unit and Monoalkoxy Bifluoroquinoxaline A-Unit for High-Performance Polymer Solar Cells. <i>Chemistry of Materials</i> , 2020 , 32, 3254-3261	9.6	26
38	Understanding the Effect of the Third Component PC71BM on Nanoscale Morphology and Photovoltaic Properties of Ternary Organic Solar Cells. <i>Solar Rrl</i> , 2020 , 4, 1900540	7.1	27
37	Highly Efficient All-Small-Molecule Organic Solar Cells with Appropriate Active Layer Morphology by Side Chain Engineering of Donor Molecules and Thermal Annealing. <i>Advanced Materials</i> , 2020 , 32, e1908373	24	100
36	Green solvent-processed organic solar cells based on a low cost polymer donor and a small molecule acceptor. <i>Journal of Materials Chemistry C</i> , 2020 , 8, 7718-7724	7.1	20
35	Understanding energetic disorder in electron-deficient-core-based non-fullerene solar cells. <i>Science China Chemistry</i> , 2020 , 63, 1159-1168	7.9	52
34	High Efficiency Polymer Solar Cells with Efficient Hole Transfer at Zero Highest Occupied Molecular Orbital Offset between Methylated Polymer Donor and Brominated Acceptor. <i>Journal of the American Chemical Society</i> , 2020 , 142, 1465-1474	16.4	228
33	Effect of the chlorine substitution position of the end-group on intermolecular interactions and photovoltaic performance of small molecule acceptors. <i>Energy and Environmental Science</i> , 2020 , 13, 5028-5038	35.4	29
32	Promoting charge separation resulting in ternary organic solar cells efficiency over 17.5%. <i>Nano Energy</i> , 2020 , 78, 105272	17.1	80
31	Effects of Short-Axis Alkoxy Substituents on Molecular Self-Assembly and Photovoltaic Performance of Indacenodithiophene-Based Acceptors. <i>Advanced Functional Materials</i> , 2020 , 30, 1906855	15.6	32
30	Caffeine Improves the Performance and Thermal Stability of Perovskite Solar Cells. <i>Joule</i> , 2019 , 3, 1464-1477	14.87	266
29	Interface and Defect Engineering for Metal Halide Perovskite Optoelectronic Devices. <i>Advanced Materials</i> , 2019 , 31, e1803515	24	201
28	Achieving Fast Charge Separation and Low Nonradiative Recombination Loss by Rational Fluorination for High-Efficiency Polymer Solar Cells. <i>Advanced Materials</i> , 2019 , 31, e1905480	24	113

27	Enhanced performance of ternary organic solar cells with a wide bandgap acceptor as the third component. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 27423-27431	13	16
26	Efficient Tandem Organic Photovoltaics with Tunable Rear Sub-cells. <i>Joule</i> , 2019 , 3, 432-442	27.8	54
25	Ternary System with Controlled Structure: A New Strategy toward Efficient Organic Photovoltaics. <i>Advanced Materials</i> , 2018 , 30, 1705243	24	91
24	High Mobility Indium Oxide Electron Transport Layer for an Efficient Charge Extraction and Optimized Nanomorphology in Organic Photovoltaics. <i>Nano Letters</i> , 2018 , 18, 5805-5811	11.5	22
23	Tailored Phase Conversion under Conjugated Polymer Enables Thermally Stable Perovskite Solar Cells with Efficiency Exceeding 21. <i>Journal of the American Chemical Society</i> , 2018 , 140, 17255-17262	16.4	162
22	Addressing the stability issue of perovskite solar cells for commercial applications. <i>Nature Communications</i> , 2018 , 9, 5265	17.4	322
21	High-performance perovskite/Cu(In,Ga)Se monolithic tandem solar cells. <i>Science</i> , 2018 , 361, 904-908	33.3	228
20	Unique Energy Alignments of a Ternary Material System toward High-Performance Organic Photovoltaics. <i>Advanced Materials</i> , 2018 , 30, e1801501	24	110
19	Rationally Induced Interfacial Dipole in Planar Heterojunction Perovskite Solar Cells for Reduced J _V Hysteresis. <i>Advanced Energy Materials</i> , 2018 , 8, 1800568	21.8	19
18	High-Brightness Blue and White LEDs based on Inorganic Perovskite Nanocrystals and their Composites. <i>Advanced Materials</i> , 2017 , 29, 1606859	24	178
17	High-Efficiency Organic Tandem Solar Cells With Effective Transition Metal Chelates Interconnecting Layer. <i>Solar Rrl</i> , 2017 , 1, 1700139	7.1	15
16	Unraveling the High Open Circuit Voltage and High Performance of Integrated Perovskite/Organic Bulk-Heterojunction Solar Cells. <i>Nano Letters</i> , 2017 , 17, 5140-5147	11.5	61
15	Pure Formamidinium-Based Perovskite Light-Emitting Diodes with High Efficiency and Low Driving Voltage. <i>Advanced Materials</i> , 2017 , 29, 1603826	24	145
14	Improved air stability of perovskite solar cells via solution-processed metal oxide transport layers. <i>Nature Nanotechnology</i> , 2016 , 11, 75-81	28.7	1614
13	Guanidinium: A Route to Enhanced Carrier Lifetime and Open-Circuit Voltage in Hybrid Perovskite Solar Cells. <i>Nano Letters</i> , 2016 , 16, 1009-16	11.5	400
12	High-efficiency robust perovskite solar cells on ultrathin flexible substrates. <i>Nature Communications</i> , 2016 , 7, 10214	17.4	444
11	Recent Advances in the Inverted Planar Structure of Perovskite Solar Cells. <i>Accounts of Chemical Research</i> , 2016 , 49, 155-65	24.3	472
10	Efficiency Enhancement of Cu ₂ ZnSn(S,Se) ₄ Solar Cells via Alkali Metals Doping. <i>Advanced Energy Materials</i> , 2016 , 6, 1502386	21.8	91

9	Multifunctional Fullerene Derivative for Interface Engineering in Perovskite Solar Cells. <i>Journal of the American Chemical Society</i> , 2015 , 137, 15540-7	16.4	433
8	A Selenophene Containing Benzodithiophene-alt-thienothiophene Polymer for Additive-Free High Performance Solar Cell. <i>Macromolecules</i> , 2015 , 48, 562-568	5.5	52
7	Introducing Low-Cost Pyrazine Unit into Terpolymer Enables High-Performance Polymer Solar Cells with Efficiency of 18.23%. <i>Advanced Functional Materials</i> , 2109271	15.6	14
6	Introducing Electron-Withdrawing Linking Units and Thiophene Bridges into Polymerized Small Molecule Acceptors for High-Efficiency All-Polymer Solar Cells. <i>Chemistry of Materials</i> ,	9.6	6
5	Multifunctional Polymer Framework Modified SnO ₂ Enabling a Photostable FAPbI ₃ Perovskite Solar Cell with Efficiency Exceeding 23%. <i>ACS Energy Letters</i> , 3824-3830	20.1	28
4	Flexible and Air-Stable Near-Infrared Sensors Based on Solution-Processed Inorganic/Organic Hybrid Phototransistors. <i>Advanced Functional Materials</i> , 2105887	15.6	16
3	Ternary All-Polymer Solar Cells with Two Synergetic Donors Enable Efficiency over 14.5%. <i>Energy & Fuels</i> ,	4.1	4
2	All-in-one strategy: overcome the challenges in the device enlargement of perovskite solar cells. <i>Science China Chemistry</i> , 1	7.9	
1	Recent progress in organic solar cells (Part II device engineering). <i>Science China Chemistry</i> ,	7.9	12