Lei Meng

List of Publications by Year
in descending order

68	10,330	76326	102487
papers	citations	40 h-index	66 g-index

68	68	68	10339
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Quinoxalineâ€Based Dâ€“A Copolymers for the Applications as Polymer Donor and Hole Transport Material in Polymer/Perovskite Solar Cells. Advanced Materials, 2022, 34, e2104161.	21.0	35
2	Introducing Lowâ€Cost Pyrazine Unit into Terpolymer Enables Highâ€Performance Polymer Solar Cells with Efficiency of 18.23%. Advanced Functional Materials, 2022, 32, 2109271.	14.9	49
3	Constructing Monolithic Perovskite/Organic Tandem Solar Cell with Efficiency of 22.0% via Reduced Openâ€Circuit Voltage Loss and Broadened Absorption Spectra. Advanced Materials, 2022, 34, e2108829.	21.0	56
4	Influence of altering chlorine substitution positions on the photovoltaic properties of small molecule donors in all-small-molecule organic solar cells. Journal of Materials Chemistry C, 2022, 10, 2017-2025.	5.5	12
5	The effect of alkyl substitution position of thienyl outer side chains on photovoltaic performance of Aâ€“DAâ€²Dâ€“A type acceptors. Energy and Environmental Science, 2022, 15, 2011-2020.	30.8	73
6	16.52% Efficiency Allâ€Polymer Solar Cells with High Tolerance of the Photoactive Layer Thickness. Advanced Materials, 2022, 34, e2108749.	21.0	63
7	15.71% Efficiency Allâ€Smallâ€Molecule Organic Solar Cells Based on Lowâ€Cost Synthesized Donor Molecules. Advanced Functional Materials, 2022, 32, .	14.9	34
8	Chlorinated polymerized small molecule acceptor enabling ternary all-polymer solar cells with over 16.6% efficiency. Science China Chemistry, 2022, 65, 954-963.	8.2	39
9	Effect of Isomerization of Linking Units on the Photovoltaic Performance of PSMA-Type Polymer Acceptors in All-Polymer Solar Cells. Macromolecules, 2022, 55, 4420-4428.	4.8	11
10	A-Ï€-A structured non-fullerene acceptors for stable organic solar cells with efficiency over 17%. Science China Chemistry, 2022, 65, 1374-1382.	8.2	53
11	Recent progress in organic solar cells (Part II device engineering). Science China Chemistry, 2022, 65, 1457-1497.	8.2	157
12	Photovoltaics: Special Issue Dedicated to Professor Yongfang Li. Aggregate, 2022, 3, .	9.9	0
13	Low-cost synthesis of small molecule acceptors makes polymer solar cells commercially viable. Nature Communications, 2022, 13, .	12.8	38
14	Inorganicâ€“Organic Hybrid Phototransistor Array with Enhanced Photogating Effect for Dynamic Near-Infrared Light Sensing and Image Preprocessing. Nano Letters, 2022, 22, 5434-5442.	9.1	19
15	High performance tandem organic solar cells via a strongly infrared-absorbing narrow bandgap acceptor. Nature Communications, 2021, 12, 178.	12.8	122
16	A Quinoxalineâ€Based Dâ€“A Copolymer Donor Achieving 17.62% Efficiency of Organic Solar Cells. Advanced Materials, 2021, 33, e2100474.	21.0	155
17	Non-equivalent D-A copolymerization strategy towards highly efficient polymer donor for polymer solar cells. Science China Chemistry, 2021, 64, 1031-1038.	8.2	25
18	Nonâ€Halogenatedâ€Solvent Processed and Additiveâ€Free Tandem Organic Solar Cell with Efficiency Reaching 16.67%. Advanced Functional Materials, 2021, 31, 2102361.	14.9	40

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19	Backbone regulation of a bithiazole-based wide bandgap polymer donor by introducing thiophene bridges towards efficient polymer solar cells. Organic Electronics, 2021, 92, 106130.	2.6	2
20	Molecular Properties and Aggregation Behavior of Small-Molecule Acceptors Calculated by Molecular Simulation. ACS Omega, 2021, 6, 14467-14475.	3.5	5
21	Two new A-D-A type small molecule acceptors based on C2v-symmetric dithienocyclopentaspiro[fluorene-9,9â€²-xanthene] core for polymer solar cells. Organic Electronics, 2021, 92, 106120.	2.6	1
22	Fine-Tuning Miscibility and Ï€â€“Ï€ Stacking by Alkylthio Side Chains of Donor Molecules Enables High-Performance All-Small-Molecule Organic Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 36033-36043.	8.0	27
23	Flexible and Airâ€Stable Nearâ€Infrared Sensors Based on Solutionâ€Processed Inorganicâ€“Organic Hybrid Phototransistors. Advanced Functional Materials, 2021, 31, 2105887.	14.9	47
24	Ternary All-Polymer Solar Cells with Two Synergetic Donors Enable Efficiency over 14.5%. Energy & Fuels, 2021, 35, 19045-19054.	5.1	15
25	Polymerized small molecular acceptor based all-polymer solar cells with an efficiency of 16.16% via tuning polymer blend morphology by molecular design. Nature Communications, 2021, 12, 5264.	12.8	170
26	Effects of the Center Units of Smallâ€Molecule Donors on the Morphology, Photovoltaic Performance, and Device Stability of Allâ€Smallâ€Molecule Organic Solar Cells. Solar Rrl, 2021, 5, 2100515.	5.8	10
27	Introducing Electron-Withdrawing Linking Units and Thiophene Ï€-Bridges into Polymerized Small Molecule Acceptors for High-Efficiency All-Polymer Solar Cells. Chemistry of Materials, 2021, 33, 8212-8222.	6.7	17
28	Multifunctional Polymer Framework Modified SnO₂ Enabling a Photostable Î±-FAPbI₃ Perovskite Solar Cell with Efficiency Exceeding 23%. ACS Energy Letters, 2021, 6, 3824-3830.	17.4	93
29	Stable perovskite solar cells with efficiency of 22.6% via quinoxaline-based polymeric hole transport material. Science China Chemistry, 2021, 64, 2035-2044.	8.2	28
30	Effects of Alkyl Side Chains of Small Molecule Donors on Morphology and the Photovoltaic Property of All-Small-Molecule Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 54237-54245.	8.0	13
31	A Cost-Effective Alpha-Fluorinated Bithienyl Benzodithiophene Unit for High-Performance Polymer Donor Material. ACS Applied Materials & Interfaces, 2021, 13, 55403-55411.	8.0	5
32	Effects of Shortâ€Axis Alkoxy Substituents on Molecular Selfâ€Assembly and Photovoltaic Performance of Indacenodithieneâ€Based Acceptors. Advanced Functional Materials, 2020, 30, 1906855.	14.9	50
33	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
34	Effect of the chlorine substitution position of the end-group on intermolecular interactions and photovoltaic performance of small molecule acceptors. Energy and Environmental Science, 2020, 13, 5028-5038.	30.8	56
35	Promoting charge separation resulting in ternary organic solar cells efficiency over 17.5%. Nano Energy, 2020, 78, 105272.	16.0	132
36	Highâ€Performance Allâ€Polymer Solar Cells: Synthesis of Polymer Acceptor by a Random Ternary Copolymerization Strategy. Angewandte Chemie - International Edition, 2020, 59, 15181-15185.	13.8	136

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37	Cathode engineering with perylene-diimide interlayer enabling over 17% efficiency single-junction organic solar cells. Nature Communications, 2020, 11, 2726.	12.8	467
38	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
39	Asymmetric Siloxane Functional Side Chains Enable High-Performance Donor Copolymers for Photovoltaic Applications. ACS Applied Materials & Interfaces, 2020, 12, 17760-17768.	8.0	27
40	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
41	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
42	Highly Efficient Allâ€Smallâ€Molecule Organic Solar Cells with Appropriate Active Layer Morphology by Side Chain Engineering of Donor Molecules and Thermal Annealing. Advanced Materials, 2020, 32, e1908373.	21.0	162
43	Green solvent-processed organic solar cells based on a low cost polymer donor and a small molecule acceptor. Journal of Materials Chemistry C, 2020, 8, 7718-7724.	5.5	40
44	Understanding energetic disorder in electron-deficient-core-based non-fullerene solar cells. Science China Chemistry, 2020, 63, 1159-1168.	8.2	92
45	Achieving Fast Charge Separation and Low Nonradiative Recombination Loss by Rational Fluorination for Highâ€Efficiency Polymer Solar Cells. Advanced Materials, 2019, 31, e1905480.	21.0	162
46	Caffeine Improves the Performance and Thermal Stability of Perovskite Solar Cells. Joule, 2019, 3, 1464-1477.	24.0	448
47	Interface and Defect Engineering for Metal Halide Perovskite Optoelectronic Devices. Advanced Materials, 2019, 31, e1803515.	21.0	315
48	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
49	Efficient Tandem Organic Photovoltaics with Tunable Rear Sub-cells. Joule, 2019, 3, 432-442.	24.0	65
50	Ternary System with Controlled Structure: A New Strategy toward Efficient Organic Photovoltaics. Advanced Materials, 2018, 30, 1705243.	21.0	105
51	Tailored Phase Conversion under Conjugated Polymer Enables Thermally Stable Perovskite Solar Cells with Efficiency Exceeding 21%. Journal of the American Chemical Society, 2018, 140, 17255-17262.	13.7	235
52	Addressing the stability issue of perovskite solar cells for commercial applications. Nature Communications, 2018, 9, 5265.	12.8	527
53	High-performance perovskite/Cu(In,Ga)Se ₂ monolithic tandem solar cells. Science, 2018, 361, 904-908.	12.6	314
54	Unique Energy Alignments of a Ternary Material System toward Highâ€Performance Organic Photovoltaics. Advanced Materials, 2018, 30, e1801501.	21.0	116

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55	High Mobility Indium Oxide Electron Transport Layer for an Efficient Charge Extraction and Optimized Nanomorphology in Organic Photovoltaics. Nano Letters, 2018, 18, 5805-5811.	9.1	31
56	Rationally Induced Interfacial Dipole in Planar Heterojunction Perovskite Solar Cells for Reduced Jâ€“V Hysteresis. Advanced Energy Materials, 2018, 8, 1800568.	19.5	32
57	Highâ€Brightness Blue and White LEDs based on Inorganic Perovskite Nanocrystals and their Composites. Advanced Materials, 2017, 29, 1606859.	21.0	237
58	Highâ€Efficiency Organic Tandem Solar Cells With Effective Transition Metal Chelates Interconnecting Layer. Solar Rrl, 2017, 1, 1700139.	5.8	19
59	Unraveling the High Open Circuit Voltage and High Performance of Integrated Perovskite/Organic Bulk-Heterojunction Solar Cells. Nano Letters, 2017, 17, 5140-5147.	9.1	78
60	Pure Formamidiniumâ€Based Perovskite Lightâ€Emitting Diodes with High Efficiency and Low Driving Voltage. Advanced Materials, 2017, 29, 1603826.	21.0	179
61	Efficiency Enhancement of Cu₂ZnSn(S,Se)₄ Solar Cells via Alkali Metals Doping. Advanced Energy Materials, 2016, 6, 1502386.	19.5	109
62	Guanidinium: A Route to Enhanced Carrier Lifetime and Open-Circuit Voltage in Hybrid Perovskite Solar Cells. Nano Letters, 2016, 16, 1009-1016.	9.1	479
63	High-efficiency robust perovskite solar cells on ultrathin flexible substrates. Nature Communications, 2016, 7, 10214.	12.8	534
64	Recent Advances in the Inverted Planar Structure of Perovskite Solar Cells. Accounts of Chemical Research, 2016, 49, 155-165.	15.6	559
65	Improved air stability of perovskite solar cells via solution-processed metal oxide transport layers. Nature Nanotechnology, 2016, 11, 75-81.	31.5	1,890
66	A Selenophene Containing Benzodithiophene-alt-thienothiophene Polymer for Additive-Free High Performance Solar Cell. Macromolecules, 2015, 48, 562-568.	4.8	59
67	Multifunctional Fullerene Derivative for Interface Engineering in Perovskite Solar Cells. Journal of the American Chemical Society, 2015, 137, 15540-15547.	13.7	490
68	All-in-one strategy: overcome the challenges in the device enlargement of perovskite solar cells. Science China Chemistry, 0, , 1.	8.2	0