Lei Meng

List of Publications by Citations

62	7,013	30	68
papers	citations	h-index	g-index
68	8,646	15.9	6.2
ext. papers	ext. citations	avg, IF	L-index

#	Paper	IF	Citations
62	Improved air stability of perovskite solar cells via solution-processed metal oxide transport layers. *Nature Nanotechnology*, **2016**, 11, 75-81	28.7	1614
61	Recent Advances in the Inverted Planar Structure of Perovskite Solar Cells. *Accounts of Chemical Research*, **2016**, 49, 155-65	24.3	472
60	High-efficiency robust perovskite solar cells on ultrathin flexible substrates. *Nature Communications*, **2016**, 7, 10214	17.4	444
59	Multifunctional Fullerene Derivative for Interface Engineering in Perovskite Solar Cells. *Journal of the American Chemical Society*, **2015**, 137, 15540-7	16.4	433
58	Guanidinium: A Route to Enhanced Carrier Lifetime and Open-Circuit Voltage in Hybrid Perovskite Solar Cells. *Nano Letters*, **2016**, 16, 1009-16	11.5	400
57	Addressing the stability issue of perovskite solar cells for commercial applications. *Nature Communications*, **2018**, 9, 5265	17.4	322
56	Caffeine Improves the Performance and Thermal Stability of Perovskite Solar Cells. *Joule*, **2019**, 3, 1464-1477	39.8	266
55	Cathode engineering with perylene-diimide interlayer enabling over 17% efficiency single-junction organic solar cells. *Nature Communications*, **2020**, 11, 2726	17.4	236
54	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	16.4	228
53	High-performance perovskite/Cu(In,Ga)Se monolithic tandem solar cells. *Science*, **2018**, 361, 904-908	33.3	228
52	Interface and Defect Engineering for Metal Halide Perovskite Optoelectronic Devices. *Advanced Materials*, **2019**, 31, e1803515	24	201
51	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	35.4	199
50	High-Brightness Blue and White LEDs based on Inorganic Perovskite Nanocrystals and their Composites. *Advanced Materials*, **2017**, 29, 1606859	24	178
49	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	16.4	162
48	Pure Formamidinium-Based Perovskite Light-Emitting Diodes with High Efficiency and Low Driving Voltage. *Advanced Materials*, **2017**, 29, 1603826	24	145
47	Achieving Fast Charge Separation and Low Nonradiative Recombination Loss by Rational Fluorination for High-Efficiency Polymer Solar Cells. *Advanced Materials*, **2019**, 31, e1905480	24	113
46	Unique Energy Alignments of a Ternary Material System toward High-Performance Organic Photovoltaics. *Advanced Materials*, **2018**, 30, e1801501	24	110

45	Highly Efficient All-Small-Molecule Organic Solar Cells with Appropriate Active Layer Morphology by Side Chain Engineering of Donor Molecules and Thermal Annealing. *Advanced Materials*, **2020**, 32, e1908373	24	100
44	High-Performance All-Polymer Solar Cells: Synthesis of Polymer Acceptor by a Random Ternary Copolymerization Strategy. *Angewandte Chemie - International Edition*, **2020**, 59, 15181-15185	16.4	92
43	Ternary System with Controlled Structure: A New Strategy toward Efficient Organic Photovoltaics. *Advanced Materials*, **2018**, 30, 1705243	24	91
42	Efficiency Enhancement of Cu2ZnSn(S,Se)4 Solar Cells via Alkali Metals Doping. *Advanced Energy Materials*, **2016**, 6, 1502386	21.8	91
41	Promoting charge separation resulting in ternary organic solar cells efficiency over 17.5%. *Nano Energy*, **2020**, 78, 105272	17.1	80
40	A Quinoxaline-Based D-A Copolymer Donor Achieving 17.62% Efficiency of Organic Solar Cells. *Advanced Materials*, **2021**, 33, e2100474	24	70
39	Unraveling the High Open Circuit Voltage and High Performance of Integrated Perovskite/Organic Bulk-Heterojunction Solar Cells. *Nano Letters*, **2017**, 17, 5140-5147	11.5	61
38	Efficient Tandem Organic Photovoltaics with Tunable Rear Sub-cells. *Joule*, **2019**, 3, 432-442	27.8	54
37	A Selenophene Containing Benzodithiophene-alt-thienothiophene Polymer for Additive-Free High Performance Solar Cell. *Macromolecules*, **2015**, 48, 562-568	5.5	52
36	Understanding energetic disorder in electron-deficient-core-based non-fullerene solar cells. *Science China Chemistry*, **2020**, 63, 1159-1168	7.9	52
35	High performance tandem organic solar cells via a strongly infrared-absorbing narrow bandgap acceptor. *Nature Communications*, **2021**, 12, 178	17.4	52
34	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	17.4	50
33	Effects of Short-Axis Alkoxy Substituents on Molecular Self-Assembly and Photovoltaic Performance of Indacenodithiophene-Based Acceptors. *Advanced Functional Materials*, **2020**, 30, 1906855	15.6	32
32	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	35.4	29
31	Multifunctional Polymer Framework Modified SnO2 Enabling a Photostable □FAPbI3 Perovskite Solar Cell with Efficiency Exceeding 23%. *ACS Energy Letters*,3824-3830	20.1	28
30	Understanding the Effect of the Third Component PC71BM on Nanoscale Morphology and Photovoltaic Properties of Ternary Organic Solar Cells. *Solar Rrl*, **2020**, 4, 1900540	7.1	27
29	D□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	9.6	26
28	High Mobility Indium Oxide Electron Transport Layer for an Efficient Charge Extraction and Optimized Nanomorphology in Organic Photovoltaics. *Nano Letters*, **2018**, 18, 5805-5811	11.5	22

27	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	7.1	20
26	Rationally Induced Interfacial Dipole in Planar Heterojunction Perovskite Solar Cells for Reduced J□V Hysteresis. *Advanced Energy Materials*, **2018**, 8, 1800568	21.8	19
25	Non-Halogenated-Solvent Processed and Additive-Free Tandem Organic Solar Cell with Efficiency Reaching 16.67%. *Advanced Functional Materials*, **2021**, 31, 2102361	15.6	16
24	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	13	16
23	Flexible and Air-Stable Near-Infrared Sensors Based on Solution-Processed Inorganic□Organic Hybrid Phototransistors. *Advanced Functional Materials*,2105887	15.6	16
22	High-Efficiency Organic Tandem Solar Cells With Effective Transition Metal Chelates Interconnecting Layer. *Solar Rrl*, **2017**, 1, 1700139	7.1	15
21	Introducing Low-Cost Pyrazine Unit into Terpolymer Enables High-Performance Polymer Solar Cells with Efficiency of 18.23%. *Advanced Functional Materials*,2109271	15.6	14
20	Asymmetric Siloxane Functional Side Chains Enable High-Performance Donor Copolymers for Photovoltaic Applications. *ACS Applied Materials & Interfaces*, **2020**, 12, 17760-17768	9.5	13
19	16.52% Efficiency All-Polymer Solar Cells with High Tolerance of the Photoactive Layer Thickness.. *Advanced Materials*, **2022**, e2108749	24	12
18	Recent progress in organic solar cells (Part II device engineering). *Science China Chemistry*,	7.9	12
17	Constructing Monolithic Perovskite/Organic Tandem Solar Cell with Efficiency of 22.0% via Reduced Open-circuit Voltage Loss and Broadened Absorption Spectra.. *Advanced Materials*, **2022**, e2108829	24	11
16	Fine-Tuning Miscibility and □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	9.5	10
15	15.71% Efficiency All-Small-Molecule Organic Solar Cells Based on Low-Cost Synthesized Donor Molecules. *Advanced Functional Materials*, **2022**, 32, 2110159	15.6	8
14	Non-equivalent D-A copolymerization strategy towards highly efficient polymer donor for polymer solar cells. *Science China Chemistry*, **2021**, 64, 1031-1038	7.9	7
13	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	9.5	6
12	Introducing Electron-Withdrawing Linking Units and Thiophene □Bridges into Polymerized Small Molecule Acceptors for High-Efficiency All-Polymer Solar Cells. *Chemistry of Materials*,	9.6	6
11	Quinoxaline-Based D-A Copolymers for the Applications as Polymer Donor and Hole Transport Material in Polymer/Perovskite Solar Cells. *Advanced Materials*, **2021**, e2104161	24	6
10	Ternary All-Polymer Solar Cells with Two Synergetic Donors Enable Efficiency over 14.5%. *Energy & Fuels*,	4.1	4

9	Effects of the Center Units of Small-Molecule Donors on the Morphology, Photovoltaic Performance, and Device Stability of All-Small-Molecule Organic Solar Cells. *Solar Rrl*, **2021**, 5, 2100515	7.1	4
8	Stable perovskite solar cells with efficiency of 22.6% via quinoxaline-based polymeric hole transport material. *Science China Chemistry*, **2021**, 64, 2035	7.9	3
7	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	7.1	2
6	Chlorinated polymerized small molecule acceptor enabling ternary all-polymer solar cells with over 16.6% efficiency. *Science China Chemistry*, **2022**, 65, 954	7.9	2
5	A Cost-Effective Alpha-Fluorinated Bithienyl Benzodithiophene Unit for High-Performance Polymer Donor Material. *ACS Applied Materials & Interfaces*, **2021**, 13, 55403-55411	9.5	1
4	Backbone regulation of a bithiazole-based wide bandgap polymer donor by introducing thiophene bridges towards efficient polymer solar cells. *Organic Electronics*, **2021**, 92, 106130	3.5	1
3	Molecular Properties and Aggregation Behavior of Small-Molecule Acceptors Calculated by Molecular Simulation. *ACS Omega*, **2021**, 6, 14467-14475	3.9	1
2	Two new A-D-A type small molecule acceptors based on C2v-symmetric dithienocyclopentaspiro[fluorene-9,9?-xanthene] core for polymer solar cells. *Organic Electronics*, **2021**, 92, 106120	3.5	0
1	All-in-one strategy: overcome the challenges in the device enlargement of perovskite solar cells. *Science China Chemistry*,1	7.9	