Chang-Qi

List of Publications by Year
in descending order

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54 papers	4,680 citations	236925 25 h-index	155660 55 g-index
55 all docs	55 docs citations	55 times ranked	6260 citing authors

#	Article	IF	Citations
1	Phenylformamidinium-enabled quasi-2D Ruddlesden-Popper perovskite solar cells with improved stability. Journal of Energy Chemistry, 2022, 66, 680-688.	12.9	14
2	Non-fused molecular photovoltaic acceptor with a planar core structure enabled by bulky and embracing-type side chains. Journal of Materials Chemistry C, 2022, 10, 2945-2949.	5.5	8
3	Simultaneously Achieving Highly Efficient and Stable Polymer:Nonâ€Fullerene Solar Cells Enabled By Molecular Structure Optimization and Surface Passivation. Advanced Science, 2022, 9, e2104588.	11.2	28
4	Simplified Synthetic Approach to Tetrabrominated Spiro-Cyclopentadithiophene and the Following Derivation to A-D-A Type Acceptor Molecules for Use in Polymer Solar Cells. Journal of Organic Chemistry, 2022, , .	3.2	4
5	Manipulating the D:A interfacial energetics and intermolecular packing for 19.2% efficiency organic photovoltaics. Energy and Environmental Science, 2022, 15, 2537-2544.	30.8	311
6	Monodispersed ZnO nanoink and ultra-smooth large-area ZnO films for high performance and stable organic solar cells. Flexible and Printed Electronics, 2022, 7, 025013.	2.7	9
7	Thermoplastic elastomer enhanced interface adhesion and bending durability for flexible organic solar cells. Npj Flexible Electronics, 2022, 6, .	10.7	10
8	High Power Conversion Efficiency of 13.61% for 1 cm² Flexible Polymer Solar Cells Based on Patternable and Massâ€Producible Gravureâ€Printed Silver Nanowire Electrodes. Advanced Functional Materials, 2021, 31, 2007276.	14.9	55
9	Visible Lightâ€“Induced Degradation of Inverted Polymer:Nonfullerene Acceptor Solar Cells: Initiated by the Light Absorption of ZnO Layer. Solar Rrl, 2021, 5, .	5.8	45
10	Degradation of Polymer Solar Cells: Knowledge Learned from the Polymer:Fullerene Solar Cells. Energy Technology, 2021, 9, 2000920.	3.8	10
11	Synthesis, molecular structure and photovoltaic performance for polythiophenes with Î²-carboxylate side chains. Journal of Polymer Research, 2021, 28, 1.	2.4	1
12	An Efficiency of 16.46% and a T₈₀ Lifetime of Over 4000 h for the PM6:Y6 Inverted Organic Solar Cells Enabled by Surface Acid Treatment of the Zinc Oxide Electron Transporting Layer. ACS Applied Materials & Interfaces, 2021, 13, 17869-17881.	8.0	80
13	Revealing the Mechanism behind the Catastrophic Failure of nâ€iâ€p Type Perovskite Solar Cells under Operating Conditions and How to Suppress It. Advanced Functional Materials, 2021, 31, 2103820.	14.9	22
14	An efficiency of 14.29% and 13.08% for 1 cm² and 4 cm² flexible organic solar cells enabled by solâ€“gel ZnO and ZnO nanoparticle bilayer electron transporting layers. Journal of Materials Chemistry A, 2021, 9, 16889-16897.	10.3	26
15	Synergetic effects of electrochemical oxidation of Spiro-OMeTAD and Li⁺ ion migration for improving the performance of nâ€“iâ€“p type perovskite solar cells. Journal of Materials Chemistry A, 2021, 9, 7575-7585.	10.3	50
16	Cyclopentadithiophene cored A-Ï€-D-Ï€-A non-fullerene electron acceptor in ternary polymer solar cells to extend the light absorption up to 900â€¯nm. Organic Electronics, 2020, 77, 105530.	2.6	5
17	Water-assisted formation of highly conductive silver nanowire electrode for all solution-processed semi-transparent perovskite and organic solar cells. Journal of Materials Science, 2020, 55, 14893-14906.	3.7	18
18	Revealing the Interfacial Photoreduction of MoO₃ with P3HT from the Molecular Weight-Dependent â€œBurn-Inâ€•Degradation of P3HT:PC₆₁BM Solar Cells. ACS Applied Energy Materials, 2020, 3, 9714-9723.	5.1	13

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19	Simultaneous Performance and Stability Improvement of Ternary Polymer Solar Cells Enabled by Modulating the Molecular Packing of Acceptors. Solar Rrl, 2020, 4, 2000374.	5.8	15
20	Zinc Oxide Coated Carbon Dot Nanoparticles as Electron Transport Layer for Inverted Polymer Solar Cells. ACS Applied Energy Materials, 2020, 3, 11388-11397.	5.1	16
21	Organic Amines as Targeting Stabilizer at the Polymer/Fullerene Interface for Polymer:PC 61 BM Solar Cells. Energy Technology, 2020, 8, 2000266.	3.8	8
22	Nonâ€Uniform Chemical Corrosion of Metal Electrode of pâ€“iâ€“n Type of Perovskite Solar Cells Caused by the Diffusion of CH₃NH₃I. Energy Technology, 2020, 8, 2000250.	3.8	13
23	Enhanced Efficiency and Stability of Inverted Planar Perovskite Solar Cells With Piperazine as an Efficient Dopant Into PCBM. IEEE Journal of Photovoltaics, 2020, 10, 811-817.	2.5	7
24	The Role of the Hydrogen Bond between Piperazine and Fullerene Molecules in Stabilizing Polymer:Fullerene Solar Cell Performance. ACS Applied Materials & Interfaces, 2020, 12, 15472-15481.	8.0	15
25	The interfacial degradation mechanism of polymer:fullerene bis-adduct solar cells and their stability improvement. Materials Advances, 2020, 1, 1307-1317.	5.4	9
26	Consensus statement for stability assessment and reporting for perovskite photovoltaics based on ISOS procedures. Nature Energy, 2020, 5, 35-49.	39.5	797
27	Coherent Energy and Charge Transport Processes in Oligothiophene Dendrimers Probed in Solution and in the Solid State with Time-Resolved Spectroscopy and Microscopy Methods. Journal of Physical Chemistry C, 2019, 123, 23419-23426.	3.1	5
28	Roll-to-roll printed stable and thickness-independent ZnO:PEI composite electron transport layer for inverted organic solar cells. Solar Energy, 2019, 193, 102-110.	6.1	49
29	12.88% efficiency in doctor-blade coated organic solar cells through optimizing the surface morphology of a ZnO cathode buffer layer. Journal of Materials Chemistry A, 2019, 7, 212-220.	10.3	70
30	Simultaneous performance and stability improvement of polymer:fullerene solar cells by doping with piperazine. Journal of Materials Chemistry A, 2019, 7, 7099-7108.	10.3	20
31	Synthesis of N,S-Doped Carbon Quantum Dots for Use in Organic Solar Cells as the ZnO Modifier To Eliminate the Light-Soaking Effect. ACS Applied Materials & Interfaces, 2019, 11, 2243-2253.	8.0	94
32	Fully Solutionâ€Processed Semiâ€Transparent Perovskite Solar Cells With Inkâ€Jet Printed Silver Nanowires Top Electrode (Solar RRL 2â•2018). Solar Rrl, 2018, 2, 1770152.	5.8	6
33	Fully Solutionâ€Processed Semiâ€Transparent Perovskite Solar Cells With Inkâ€Jet Printed Silver Nanowires Top Electrode. Solar Rrl, 2018, 2, 1700184.	5.8	66
34	Fully Coated Semitransparent Organic Solar Cells with a Doctor-Blade-Coated Composite Anode Buffer Layer of Phosphomolybdic Acid and PEDOT:PSS and a Spray-Coated Silver Nanowire Top Electrode. ACS Applied Materials & Interfaces, 2018, 10, 943-954.	8.0	83
35	Simultaneous performance and stability improvement of perovskite solar cells by a sequential twice anti-solvent deposition process. Organic Electronics, 2018, 59, 358-365.	2.6	2
36	Silane-Capped ZnO Nanoparticles for Use as the Electron Transport Layer in Inverted Organic Solar Cells. ACS Nano, 2018, 12, 5518-5529.	14.6	101

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37	Peripherally diketopyrrolopyrrole-functionalized dendritic oligothiophenes â€“ synthesis, molecular structure, properties and applications. Polymer Chemistry, 2017, 8, 1460-1476.	3.9	9
38	Influence of the surface treatment of PEDOT:PSS layer with high boiling point solvent on the performance of inverted planar perovskite solar cells. Organic Electronics, 2017, 47, 220-227.	2.6	26
39	External load-dependent degradation of P3HT:PC₆₁BM solar cells: behavior, mechanism, and method of suppression. Journal of Materials Chemistry A, 2017, 5, 10010-10020.	10.3	26
40	Roll-to-roll micro-gravure printed large-area zinc oxide thin film as the electron transport layer for solution-processed polymer solar cells. Organic Electronics, 2017, 45, 190-197.	2.6	87
41	Selective Dispersion of Largeâ€Diameter Semiconducting Carbon Nanotubes by Functionalized Conjugated Dendritic Oligothiophenes for Use in Printed Thin Film Transistors. Advanced Functional Materials, 2017, 27, 1703938.	14.9	22
42	Correlation of the Ï€-conjugation chain length and the property and photovoltaic performance of benzo[1,2-b:4,5-bâ€²]dithiophene-cored A-Ï€-D-Ï€-A type molecules. Solar Energy Materials and Solar Cells, 2016, 157, 831-843.	6.2	7
43	4,8-Bis(thienyl)-benzo[1,2-b:4,5-bâ€²]dithiophene based A-Ï€-D-Ï€-A typed conjugated small molecules with mono-thiophene as the Ï€-bridge: Synthesis, properties and photovoltaic performance. Dyes and Pigments, 2015, 120, 299-306.	3.7	10
44	Zinc oxide: Conjugated polymer nanocomposite as cathode buffer layer for solution processed inverted organic solar cells. Solar Energy Materials and Solar Cells, 2015, 141, 248-259.	6.2	63
45	Solution-Processed MoO₃:PEDOT:PSS Hybrid Hole Transporting Layer for Inverted Polymer Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 7170-7179.	8.0	83
46	Flexible silver grid/PEDOT:PSS hybrid electrodes for large area inverted polymer solar cells. Nano Energy, 2014, 10, 259-267.	16.0	111
47	Controllable Synthesis of Wurtzite Cu₂ZnSnS₄ Nanocrystals by Hotâ€Injection Approach and Growth Mechanism Studies. Chemistry - an Asian Journal, 2014, 9, 2309-2316.	3.3	14
48	2,2â€²:3â€²,2â€²â€²â€²-Terthiopheneâ€Based allâ€Thiophene Dendrons and Dendrimers: Synthesis, Structural Characterization, and Properties. Chemistry - A European Journal, 2012, 18, 12880-12901.	3.3	32
49	Self-Assembling Thiophene Dendrimers with a Hexa-peri-hexabenzocoronene Coreâ^'Synthesis, Characterization and Performance in Bulk Heterojunction Solar Cells. Chemistry of Materials, 2010, 22, 457-466.	6.7	113
50	Functional Oligothiophenes: Molecular Design for Multidimensional Nanoarchitectures and Their Applications. Chemical Reviews, 2009, 109, 1141-1276.	47.7	1,314
51	Thiophene Dendrimers as Entangled Photon Sensor Materials. Journal of the American Chemical Society, 2009, 131, 973-979.	13.7	135
52	Solutionâ€Processed Bulkâ€Heterojunction Solar Cells Based on Monodisperse Dendritic Oligothiophenes. Advanced Functional Materials, 2008, 18, 3323-3331.	14.9	234
53	Functionalized 3D Oligothiophene Dendrons and Dendrimersâ€" Novel Macromolecules for Organic Electronics. Angewandte Chemie - International Edition, 2007, 46, 1679-1683.	13.8	230
54	Doping-Induced Charge Trapping in Organic Light-Emitting Devices. Advanced Functional Materials, 2005, 15, 323-330.	14.9	78