

Guankui Long

List of Publications by Year in descending order

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101
papers

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citations

53794

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times ranked

13414
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#	ARTICLE	IF	CITATIONS
1	A Series of Simple Oligomer-like Small Molecules Based on Oligothiophenes for Solution-Processed Solar Cells with High Efficiency. <i>Journal of the American Chemical Society</i> , 2015, 137, 3886-3893.	13.7	788
2	Small-molecule solar cells with efficiency over 9%. <i>Nature Photonics</i> , 2015, 9, 35-41.	31.4	769
3	Solution-Processed and High-Performance Organic Solar Cells Using Small Molecules with a Benzodithiophene Unit. <i>Journal of the American Chemical Society</i> , 2013, 135, 8484-8487.	13.7	675
4	Solution-Processed Organic Solar Cells Based on Dialkylthiol-Substituted Benzodithiophene Unit with Efficiency near 10%. <i>Journal of the American Chemical Society</i> , 2014, 136, 15529-15532.	13.7	670
5	High Performance Photovoltaic Applications Using Solution-Processed Small Molecules. <i>Accounts of Chemical Research</i> , 2013, 46, 2645-2655.	15.6	624
6	Porous 3D graphene-based bulk materials with exceptional high surface area and excellent conductivity for supercapacitors. <i>Scientific Reports</i> , 2013, 3, 1408.	3.3	582
7	Small Molecules Based on Benzo[1,2-b:4,5-b']dithiophene Unit for High-Performance Solution-Processed Organic Solar Cells. <i>Journal of the American Chemical Society</i> , 2012, 134, 16345-16351.	13.7	563
8	Suppression of atomic vacancies via incorporation of isovalent small ions to increase the stability of halide perovskite solar cells in ambient air. <i>Nature Energy</i> , 2018, 3, 648-654.	39.5	552
9	Color-stable highly luminescent sky-blue perovskite light-emitting diodes. <i>Nature Communications</i> , 2018, 9, 3541.	12.8	536
10	Three-dimensionally bonded spongy graphene material with super compressive elasticity and near-zero Poisson's ratio. <i>Nature Communications</i> , 2015, 6, 6141.	12.8	458
11	Chiral-perovskite optoelectronics. <i>Nature Reviews Materials</i> , 2020, 5, 423-439.	48.7	445
12	Spin control in reduced-dimensional chiral perovskites. <i>Nature Photonics</i> , 2018, 12, 528-533.	31.4	371
13	Solution Processable Rhodamine-Based Small Molecule Organic Photovoltaic Cells with a Power Conversion Efficiency of 6.1%. <i>Advanced Energy Materials</i> , 2012, 2, 74-77.	19.5	303
14	Controlling the Effective Surface Area and Pore Size Distribution of sp^2 Carbon Materials and Their Impact on the Capacitance Performance of These Materials. <i>Journal of the American Chemical Society</i> , 2013, 135, 5921-5929.	13.7	291
15	High-Performance Solar Cells using a Solution-Processed Small Molecule Containing Benzodithiophene Unit. <i>Advanced Materials</i> , 2011, 23, 5387-5391.	21.0	271
16	Graphene – A Promising Material for Organic Photovoltaic Cells. <i>Advanced Materials</i> , 2011, 23, 5342-5358.	21.0	242
17	Optimization of porous FeNi ₃ /N-CN composites with superior microwave absorption performance. <i>Chemical Engineering Journal</i> , 2018, 345, 441-451.	12.7	237
18	Pushing Up Lithium Storage through Nanostructured Polyaacene Analogues as Anode. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 7354-7358.	13.8	234

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19	Spin-Coated Small Molecules for High Performance Solar Cells. <i>Advanced Energy Materials</i> , 2011, 1, 771-775.	19.5	233
20	Fine-Tuning the Energy Levels of a Nonfullerene Small-Molecule Acceptor to Achieve a High Short-Circuit Current and a Power Conversion Efficiency over 12% in Organic Solar Cells. <i>Advanced Materials</i> , 2018, 30, 1704904.	21.0	214
21	A Planar Small Molecule with Dithienosilole Core for High Efficiency Solution-Processed Organic Photovoltaic Cells. <i>Chemistry of Materials</i> , 2011, 23, 4666-4668.	6.7	210
22	A perylene diimide (PDI)-based small molecule with tetrahedral configuration as a non-fullerene acceptor for organic solar cells. <i>Journal of Materials Chemistry C</i> , 2015, 3, 4698-4705.	5.5	180
23	Pushing up the efficiency of planar perovskite solar cells to 18.2% with organic small molecules as the electron transport layer. <i>Journal of Materials Chemistry A</i> , 2017, 5, 7339-7344.	10.3	170
24	Synthesis, Structure, and Air-Stable n-type Field-Effect Transistor Behaviors of Functionalized Octaazanonacene-8,19-dione. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 6292-6296.	13.8	143
25	Graphene quantum dots as the hole transport layer material for high-performance organic solar cells. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 18973.	2.8	113
26	Efficient solution processed bulk-heterojunction solar cells based a donor-acceptor oligothiophene. <i>Journal of Materials Chemistry</i> , 2010, 20, 2464.	6.7	103
27	Polymer photovoltaic devices with transparent graphene electrodes produced by spin-casting. <i>Carbon</i> , 2010, 48, 3308-3311.	10.3	100
28	A LiFSI-LiTFSI binary-salt electrolyte to achieve high capacity and cycle stability for a Li-S battery. <i>Chemical Communications</i> , 2014, 50, 14647-14650.	4.1	100
29	Efficient small molecule bulk heterojunction solar cells with high fill factors via introduction of π -stacking moieties as end group. <i>Journal of Materials Chemistry A</i> , 2013, 1, 1801-1809.	10.3	96
30	4-Diphenylamino-phenyl substituted pyrazine: nonlinear optical switching by protonation. <i>Journal of Materials Chemistry C</i> , 2015, 3, 9191-9196.	5.5	93
31	Switching charge-transfer characteristics from p-type to n-type through molecular co-doping (co-crystallization). <i>Chemical Science</i> , 2016, 7, 3851-3856.	7.4	89
32	Boosting the performance of organic cathodes through structure tuning. <i>Journal of Materials Chemistry A</i> , 2018, 6, 12985-12991.	10.3	87
33	Lowong the energy loss of organic solar cells by molecular packing engineering via multiple molecular conjugation extension. <i>Science China Chemistry</i> , 2022, 65, 1362-1373.	8.2	79
34	Pyrene-Containing Twistarene: Twelve Benzene Rings Fused in a Row. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 13555-13559.	13.8	76
35	Solvent Accommodation: Functionalities Can Be Tailored Through Co-Crystallization Based on 1:1 Coronene-F ₄ TCNQ Charge-Transfer Complex. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 1183-1188.	8.0	72
36	Impact of dye end groups on acceptor-donor-acceptor type molecules for solution-processed photovoltaic cells. <i>Journal of Materials Chemistry</i> , 2012, 22, 9173.	6.7	69

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37	Investigation of Quinquethiophene Derivatives with Different End Groups for High Open Circuit Voltage Solar Cells. <i>Advanced Energy Materials</i> , 2013, 3, 639-646.	19.5	65
38	Theoretical Prediction of Chiral 3D Hybrid Organic-Inorganic Perovskites. <i>Advanced Materials</i> , 2019, 31, e1807628.	21.0	64
39	Low Density of Conduction and Valence Band States Contribute to the High Open-Circuit Voltage in Perovskite Solar Cells. <i>Journal of Physical Chemistry C</i> , 2017, 121, 1455-1462.	3.1	57
40	Ultrashort laser pulse doubling by metal-halide perovskite multiple quantum wells. <i>Nature Communications</i> , 2020, 11, 3361.	12.8	57
41	Solution-processable graphene mesh transparent electrodes for organic solar cells. <i>Nano Research</i> , 2013, 6, 478-484.	10.4	53
42	Perovskite metasurfaces with large superstructural chirality. <i>Nature Communications</i> , 2022, 13, 1551.	12.8	51
43	Interface engineering boosts electrochemical performance by fabricating CeO ₂ @CoP Schottky junction for hybrid supercapacitors. <i>Electrochimica Acta</i> , 2020, 337, 135817.	5.2	50
44	From non-detectable to decent: replacement of oxygen with sulfur in naphthalene diimide boosts electron transport in organic thin-film transistors (OTFT). <i>Journal of Materials Chemistry C</i> , 2015, 3, 8219-8224.	5.5	49
45	Solution-processable thiadiazoloquinoxaline-based donor-acceptor small molecules for thin-film transistors. <i>Journal of Materials Chemistry C</i> , 2016, 4, 3809-3814.	5.5	47
46	Ultrathin and Highly Crumpled/Porous CoP Nanosheet Arrays Anchored on Graphene Boosts the Capacitance and Their Synergistic Effect toward High-Performance Battery-Type Hybrid Supercapacitors. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 26373-26383.	8.0	46
47	Enhancing bifunctionality of CoN nanowires by Mn doping for long-lasting Zn-air batteries. <i>Science China Chemistry</i> , 2020, 63, 890-896.	8.2	41
48	Impact of the Electron Transport Layer on the Performance of Solution-Processed Small-Molecule Organic Solar Cells. <i>ChemSusChem</i> , 2014, 7, 2358-2364.	6.8	40
49	New Insights into the Correlation between Morphology, Excited State Dynamics, and Device Performance of Small Molecule Organic Solar Cells. <i>Advanced Energy Materials</i> , 2016, 6, 1600961.	19.5	34
50	Synthesis, structure, physical properties and OLED application of pyrazine-triphenylamine fused conjugated compounds. <i>RSC Advances</i> , 2015, 5, 63080-63086.	3.6	33
51	Open-circuit voltage up to 1.07V for solution processed small molecule based organic solar cells. <i>Organic Electronics</i> , 2014, 15, 2285-2294.	2.6	32
52	Full Characterization and Photoelectrochemical Behavior of Pyrene-fused Octaazadecacene and Tetrazaooctacene. <i>Chemistry - an Asian Journal</i> , 2016, 11, 482-485.	3.3	28
53	Pyrene-Containing Twistarene: Twelve Benzene Rings Fused in a Row. <i>Angewandte Chemie</i> , 2018, 130, 13743-13747.	2.0	27
54	Improved efficiency of solution processed small molecules organic solar cells using thermal annealing. <i>Organic Electronics</i> , 2013, 14, 1562-1569.	2.6	26

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55	A Colorimetric and Fluorimetric Chemodosimeter for Copper Ion Based on the Conversion of Dihydropyrazine to Pyrazine. <i>Chemistry - an Asian Journal</i> , 2016, 11, 136-140.	3.3	26
56	Agent-assisted VSSe ternary alloy single crystals as an efficient stable electrocatalyst for the hydrogen evolution reaction. <i>Journal of Materials Chemistry A</i> , 2019, 7, 15714-15721.	10.3	26
57	Fusing N-heteroacene analogues into one "kinked" molecule with slipped two-dimensional ladder-like packing. <i>Chemical Science</i> , 2016, 7, 1309-1313.	7.4	24
58	N-Heteroheptacenequinone and N-heterononacenequinone: synthesis, physical properties, crystal structures and photoelectrochemical behaviors. <i>Journal of Materials Chemistry C</i> , 2015, 3, 9877-9884.	5.5	23
59	Different donor-acceptor structures of dithiafulvalene-fused semiconducting polymers with different band gaps. <i>Chemical Communications</i> , 2011, 47, 10401.	4.1	22
60	Theoretical investigation on two-dimensional non-traditional carbon materials employing three-membered ring and four-membered ring as building blocks. <i>Carbon</i> , 2015, 95, 1033-1038.	10.3	22
61	Effectiveness of External Electric Field Treatment of Conjugated Polymers in Bulk-Heterojunction Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 32282-32291.	8.0	22
62	Nucleation Control-Triggering Cocrystal Polymorphism of Charge-Transfer Complexes Differing in Physical and Electronic Properties. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 19718-19726.	8.0	21
63	Impact of fluorinated end groups on the properties of acceptor-donor-acceptor type oligothiophenes for solution-processed photovoltaic cells. <i>Journal of Materials Chemistry C</i> , 2014, 2, 1337-1345.	5.5	19
64	The substituent group effect on the morphology and memory performance of phenazine derivatives. <i>Journal of Materials Chemistry C</i> , 2015, 3, 3167-3172.	5.5	19
65	Effect of graphene thickness on the morphology evolution of hierarchical NiCoO ₂ architectures and their superior supercapacitance performance. <i>Ceramics International</i> , 2018, 44, 4875-4882.	4.8	19
66	Supramolecular Design of Donor-Acceptor Complexes via Heteroatom Replacement toward Structure and Electrical Transporting Property Tailoring. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 1109-1116.	8.0	19
67	Can Isotope Effects Enable Organic Solar Cells to Achieve Smaller Non-Radiative Energy Losses and Why?. <i>Chemistry of Materials</i> , 2022, 34, 6009-6025.	6.7	19
68	The Evidence for Fullerene Aggregation in High-Performance Small-Molecule Solar Cells by Molecular Dynamics Simulation. <i>Advanced Electronic Materials</i> , 2015, 1, 1500217.	5.1	18
69	Molecular Origin of Donor- and Acceptor-Rich Domain Formation in Bulk-Heterojunction Solar Cells with an Enhanced Charge Transport Efficiency. <i>Journal of Physical Chemistry C</i> , 2017, 121, 5864-5870.	3.1	18
70	Synthesis, Photophysical Properties and Two-Photon Absorption Study of Tetraazachrysenes-based N-heteroacenes. <i>Chemistry - an Asian Journal</i> , 2019, 14, 1807-1813.	3.3	18
71	A novel heteroacene 2-(perfluorophenyl)-1H-imidazo[4,5-b]phenazine for selective sensing of picric acid. <i>RSC Advances</i> , 2016, 6, 37929-37932.	3.6	17
72	What are the practical limits for the specific surface area and capacitance of bulk sp ² carbon materials?. <i>Science China Chemistry</i> , 2016, 59, 225-230.	8.2	17

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73	Towards predicting the power conversion efficiencies of organic solar cells from donor and acceptor molecule structures. <i>Journal of Materials Chemistry C</i> , 2018, 6, 3276-3287.	5.5	17
74	A novel Dâ€œ Å€ â€œA small molecule with N -heteroacene as acceptor moiety for photovoltaic application. <i>Dyes and Pigments</i> , 2015, 122, 231-237.	3.7	16
75	Synthesis, crystal structures and photophysical properties of novel boron-containing derivatives of phenalene with bright solid-state luminescence. <i>Dyes and Pigments</i> , 2014, 106, 197-204.	3.7	15
76	â€œDopingâ€•pentacene with sp ² -phosphorus atoms: towards high performance ambipolar semiconductors. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 3173-3178.	2.8	15
77	Enhancement of Performance and Mechanism Studies of All-Solution Processed Small-Molecule based Solar Cells with an Inverted Structure. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 21245-21253.	8.0	12
78	Realization of Inâ€œPlane Polarized Light Detection Based on Bulk Photovoltaic Effect in A Polar Van Der Waals Crystal. <i>Small</i> , 2022, 18, e2200011.	10.0	12
79	Synthesis and Photovoltaic Properties of a Poly(2,7â€œcarbazole) Derivative Based on Dithienosilole and Benzothiadiazole. <i>Macromolecular Chemistry and Physics</i> , 2011, 212, 1109-1114.	2.2	11
80	A Concise Method for Synthesizing 1,4,8,11â€œTetraazaâ€•,13â€œdioxapentacene Derivatives. <i>Asian Journal of Organic Chemistry</i> , 2013, 2, 852-856.	2.7	10
81	U-Shaped Helical Azaarenes: Synthesis, Structures, and Properties. <i>Journal of Organic Chemistry</i> , 2020, 85, 291-295.	3.2	10
82	Cocrystal engineering of molecular rearrangement: a â€œturn-onâ€• approach for high-performance N-type organic semiconductors. <i>Journal of Materials Chemistry C</i> , 0, , .	5.5	10
83	High-efficiency solution-processed small-molecule solar cells featuring gold nanoparticles. <i>Journal of Materials Chemistry A</i> , 2014, 2, 19988-19993.	10.3	9
84	Singlet fission dynamics and optical spectra of pentacene and its derivatives. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 12654-12667.	2.8	8
85	Synthesis of New Conjugated CNPPV Derivatives Containing Different Lengths of Oligothiophene Units for Organic Solar Cells. <i>Macromolecular Chemistry and Physics</i> , 2010, 211, 2503-2509.	2.2	7
86	Isothianaphtheneâ€œBased Conjugated Polymers for Organic Photovoltaic Cells. <i>Macromolecular Chemistry and Physics</i> , 2012, 213, 1596-1603.	2.2	7
87	Optical and transport properties of single crystal rubrene: A theoretical study. <i>Chemical Physics</i> , 2016, 481, 198-205.	1.9	7
88	A Direct Method to Access Substituted Pyreno[4,5â€œ:9,10â€œcâ€œ] difuran and its Analogues. <i>Asian Journal of Organic Chemistry</i> , 2018, 7, 2213-2217.	2.7	6
89	Preparation and electrochemistry properties of trifunctional 1,9-dithiophenalenylium salt and its neutral radical with benzene spacer. <i>Tetrahedron</i> , 2013, 69, 6890-6896.	1.9	5
90	Bromination of Isothianaphthene Derivatives towards the Application in Organic Electronics. <i>Chinese Journal of Chemistry</i> , 2013, 31, 1391-1396.	4.9	5

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91	Synthesis and aggregation-induced fluorescence emission properties of boron-containing derivatives that respond to viscous alcohols. <i>New Journal of Chemistry</i> , 2014, 38, 6088-6094.	2.8	5
92	Unveiling the Molecular Symmetry Dependence of Exciton Dissociation Processes in Small-Molecular Heterojunctions. <i>Journal of Physical Chemistry C</i> , 2018, 122, 26851-26856.	3.1	5
93	Helical mesoscopic crystals based on an achiral charge-transfer complex with controllable untwisting/breaking. <i>Chemical Communications</i> , 2021, 57, 10031-10034.	4.1	5
94	Optically Driven Giant Superbunching from a Single Perovskite Quantum Dot. <i>Advanced Optical Materials</i> , 0, , 2100879.	7.3	4
95	Imide-Fused Diazatetracenes: Synthesis, Characterization, and Application in Perovskite Solar Cells. <i>Chemistry - A European Journal</i> , 2020, 26, 4220-4225.	3.3	4
96	Synthesis, characterization and photophysical studies of a novel polycyclic diborane. <i>New Journal of Chemistry</i> , 2019, 43, 564-568.	2.8	3
97	Conjugated Extension of Non-Fullerene Acceptors Enables Efficient Organic Solar Cells with Optoelectronic Response over 1000 nm. <i>ACS Applied Energy Materials</i> , 2022, 5, 4664-4672.	5.1	3
98	Polaron dynamics of Bloch-Zener oscillations in an extended Holstein model. <i>New Journal of Physics</i> , 2021, 23, 123020.	2.9	3
99	Device characterization and optimization of small molecule organic solar cells assisted by modelling simulation of the current-voltage characteristics. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 19261-19267.	2.8	2
100	Influence of Hexagonal Boron Nitride on Electronic Structure of Graphene. <i>Molecules</i> , 2022, 27, 3740.	3.8	2
101	Graphene for Transparent Electrodes and Organic Electronic Devices. <i>Green Energy and Technology</i> , 2013, , 81-102.	0.6	0