Tonggang Jiu

List of Publications by Year
in descending order

57 papers	2,605 citations	257101 24 h-index	189595 50 g-index
61 all docs	61 docs citations	61 times ranked	3549 citing authors

#	Article	IF	Citations
1	Highly Efficient Electron Transport Obtained by Doping PCBM with Graphdiyne in Planar-Heterojunction Perovskite Solar Cells. Nano Letters, 2015, 15, 2756-2762.	4.5	338
2	Graphdiyne Derivative as Multifunctional Solid Additive in Binary Organic Solar Cells with 17.3% Efficiency and High Reproductivity. Advanced Materials, 2020, 32, e1907604.	11.1	309
3	Synthesis of Chlorineâ€Substituted Graphdiyne and Applications for Lithiumâ€Ion Storage. Angewandte Chemie - International Edition, 2017, 56, 10740-10745.	7.2	206
4	Highly Conjugated Three-Dimensional Covalent Organic Frameworks Based on Spirobifluorene for Perovskite Solar Cell Enhancement. Journal of the American Chemical Society, 2018, 140, 10016-10024.	6.6	195
5	Graphdiyneâ€Based Materials: Preparation and Application for Electrochemical Energy Storage. Advanced Materials, 2019, 31, e1803202.	11.1	136
6	Improved electron transport in MAPbI3 perovskite solar cells based on dual doping graphdiyne. Nano Energy, 2018, 46, 331-337.	8.2	135
7	Graphdiyne as a Host Active Material for Perovskite Solar Cell Application. Nano Letters, 2018, 18, 6941-6947.	4.5	110
8	Polyelectrolyte based hole-transporting materials for high performance solution processed planar perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 15024-15029.	5.2	107
9	Graphdiyne Containing Atomically Precise N Atoms for Efficient Anchoring of Lithium Ion. ACS Applied Materials & Interfaces, 2019, 11, 2608-2617.	4.0	100
10	Triazine-graphdiyne: A new nitrogen-carbonous material and its application as an advanced rechargeable battery anode. Carbon, 2018, 137, 442-450.	5.4	64
11	Graphdiyne-Doped P3CT-K as an Efficient Hole-Transport Layer for MAPbI₃ Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 2626-2631.	4.0	61
12	Interface Modification of ZnO-Based Inverted PTB7:PC₇₁BM Organic Solar Cells by Cesium Stearate and Simultaneous Enhancement of Device Parameters. ACS Sustainable Chemistry and Engineering, 2014, 2, 1331-1337.	3.2	57
13	Preparation and characterization of MoO3 hole-injection layer for organic solar cell fabrication and optimization. Solar Energy Materials and Solar Cells, 2014, 120, 603-609.	3.0	46
14	Performance Enhancement of Inverted Perovskite Solar Cells Based on Smooth and Compact PC₆₁BM:SnO₂ Electron Transport Layers. ACS Applied Materials & Interfaces, 2018, 10, 20128-20135.	4.0	43
15	Chlorobenzene vapor assistant annealing method for fabricating high quality perovskite films. Organic Electronics, 2016, 34, 97-103.	1.4	39
16	Facile preparation and characterization of ZnCdS nanocrystals for interfacial applications in photovoltaic devices. Journal of Colloid and Interface Science, 2018, 512, 353-360.	5.0	36
17	Solvents Induced ZnO Nanoparticles Aggregation Associated with Their Interfacial Effect on Organic Solar Cells. ACS Applied Materials & Interfaces, 2014, 6, 18172-18179.	4.0	35
18	Tetrathiafulvalene derivative as a new hole-transporting material for highly efficient perovskite solar cell. Dyes and Pigments, 2017, 147, 113-119.	2.0	35

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19	Chemical modification: Toward solubility and processability of graphdiyne. Nano Energy, 2019, 64, 103932.	8.2	34
20	Improving Efficiency by Hybrid TiO₂ Nanorods with 1,10-Phenanthroline as A Cathode Buffer Layer for Inverted Organic Solar Cells. ACS Applied Materials & Interfaces, 2014, 6, 739-744.	4.0	33
21	Performance enhancement of inverted polymer solar cells with fullerene ester derivant-modified ZnO film as cathode buffer layer. Solar Energy Materials and Solar Cells, 2014, 126, 36-41.	3.0	30
22	Inverted MAPbI 3 Perovskite Solar Cells with Graphdiyne Derivativeâ€Incorporated Electron Transport Layers Exceeding 20% Efficiency. Solar Rrl, 2019, 3, 1900241.	3.1	28
23	Inverted CH3NH3PbI3 perovskite solar cells based on solution-processed V2O5 film combined with P3CT salt as hole transport layer. Materials Today Energy, 2018, 9, 487-495.	2.5	27
24	Grain boundary passivation with triazine-graphdiyne to improve perovskite solar cell performance. Science China Materials, 2020, 63, 2465-2476.	3.5	26
25	Growth of 2D passivation layer in FAPbI3 perovskite solar cells for high open-circuit voltage. Nano Today, 2022, 42, 101357.	6.2	24
26	Simultaneous hole transport and defect passivation enabled by a dopant-free single polymer for efficient and stable perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 21036-21043.	5.2	23
27	Growth of 1D Nanorod Perovskite for Surface Passivation in FAPbI₃ Perovskite Solar Cells. Small, 2022, 18, e2104100.	5.2	23
28	Studies of Graphdiyneâ€ZnO Nanocomposite Material and Application in Polymer Solar Cells. Solar Rrl, 2018, 2, 1800211.	3.1	20
29	High-Performance Inverted Solar Cells Based on Blend Films of ZnO Naoparticles and TiO₂ Nanorods as a Cathode Buffer Layer. ACS Applied Materials & Interfaces, 2014, 6, 4074-4080.	4.0	19
30	Highly-improved performance of inverted planar perovskite solar cells by glucose modification. Journal of Materials Chemistry C, 2020, 8, 5894-5903.	2.7	19
31	Inverted polymer solar cells with enhanced fill factor by inserting the potassium stearate interfacial modification layer. Applied Physics Letters, 2016, 108, 181602.	1.5	17
32	Ternary CuZnS Nanocrystals: Synthesis, Characterization, and Interfacial Application in Perovskite Solar Cells. Inorganic Chemistry, 2018, 57, 8375-8381.	1.9	16
33	Molecular modeling of poly(p-phenylenevinylene): Synthesis and photophysical properties of oligomers. Journal of Polymer Science Part A, 2007, 45, 911-924.	2.5	15
34	Highly efficient inverted polymer solar cells using fullerene derivative modified TiO2 nanorods as the buffer layer. RSC Advances, 2014, 4, 19529.	1.7	15
35	Interfacial Modification by Lowâ€Temperature Anchoring Surface Uncoordinated Pb for Efficient FAPbI₃ Perovskite Solar Cells. Advanced Sustainable Systems, 2022, 6, .	2.7	13
36	Improved interfacial property by small molecule ethanediamine for high performance inverted planar perovskite solar cells. Journal of Energy Chemistry, 2021, 54, 467-474.	7.1	12

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37	Controllable Spatial Configuration on Cathode Interface for Enhanced Photovoltaic Performance and Device Stability. ACS Applied Materials & Interfaces, 2018, 10, 17401-17408.	4.0	11
38	Performance Enhancement of Conventional Polymer Solar Cells with TTF-py-Modified PEDOT:PSS Film as the Hole Transport Layer. ACS Applied Energy Materials, 2019, 2, 6577-6583.	2.5	11
39	Tris(pentafluorophenyl)boraneâ€Modified P3CTâ€K as an Efficient Holeâ€Transport Layer for Inverted Planar MAPbI 3 Perovskite Solar Cells. Advanced Sustainable Systems, 2021, 5, 2100107.	2.7	11
40	TTA as a potential hole transport layer for application in conventional polymer solar cells. Journal of Energy Chemistry, 2020, 42, 210-216.	7.1	10
41	The Possible Side Reaction in the Annealing Process of Perovskite Layers. ACS Applied Materials & Interfaces, 2020, 12, 35043-35048.	4.0	10
42	Enhanced photocurrent in heterostructures formed between CH₃NH₃PbI₃perovskite films and graphdiyne. Physical Chemistry Chemical Physics, 2020, 22, 6239-6246.	1.3	10
43	New method for the synthesis of a highly-conjugated acene material and its application in Perovskite solar cells. Materials Chemistry Frontiers, 2017, 1, 2261-2264.	3.2	8
44	Highly efficient regular polymer solar cells based on Li-TFSI doping ZnO as electron-transporting interlayers. Solar Energy, 2018, 169, 49-54.	2.9	8
45	Graphdiyne oxide doping for aggregation control of hole-transport nanolayer in inverted perovskite solar cells. Nano Research, 2022, 15, 9734-9740.	5.8	8
46	Graphdiyne oxide doped SnO₂electron transport layer for high performance perovskite solar cells. Materials Chemistry Frontiers, 2021, 5, 6913-6922.	3.2	7
47	Control of the Surface Disorder by Ionâ€Exchange to Achieve High Openâ€Circuit Voltage in HC(NH₂)₂PbI₃ Perovskite Solar Cell. Small Methods, 2021, 5, e2101079.	4.6	7
48	Solution prepared O-doped ZnS nanocrystals: Structure characterization, energy level engineering and interfacial application in polymer solar cells. Solar Energy, 2018, 160, 353-359.	2.9	6
49	Dithiol treatments enhancing the efficiency of hybrid solar cells based on PTB7 and CdSe nanorods. Nano Research, 2015, 8, 3045-3053.	5.8	5
50	Interfacial Carrier-Transfer Channel Optimization Based on Hydrogen Bonds for High-Performance Organic Solar Cells. ACS Applied Energy Materials, 2021, 4, 3881-3890.	2.5	5
51	Non-planar tetrathiafulvalene derivative modified hole transporting layer for efficient organic solar cells with improved fill factor. Solar Energy, 2021, 224, 883-888.	2.9	5
52	The influence of ionic radius of interfacial molecule on device performances of polymer solar cells. Solar Energy, 2018, 170, 906-912.	2.9	4
53	Graphdiyne oxide modified nano CuO as inorganic hole transport layer for efficient and stable organic solar cells. 2D Materials, 2021, 8, 044015.	2.0	4
54	Graphdiyne oxide-accelerated charge carrier transfer and separation at the interface for efficient binary organic solar cells. Science China Materials, 2022, 65, 2647-2656.	3.5	4

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55	Solution-processed PbCdS nanocrystals as a novel hole transport material for inverted CH3NH3PbI3 perovskite solar cells. Solar Energy, 2021, 216, 321-328.	2.9	3
56	Graphdiyne Oxide Modified NiOx for Enhanced Charge Extraction in Inverted Planar MAPbI3 Perovskite Solar Cells. Chemical Research in Chinese Universities, 2021, 37, 1309-1316.	1.3	3
57	Conjugated Polyelectrolyte Combined with Ionic Liquid as the Hole Transport Layer for Efficient Inverted Perovskite Solar Cells. Journal of the Electrochemical Society, 2021, 168, 036503.	1.3	2