Chunyu Liu

List of Publications by Year
in descending order

76 papers	1,366 citations	304368 22 h-index	414034 32 g-index
77 all docs	77 docs citations	77 times ranked	1927 citing authors

#	Article	IF	Citations
1	Strategies of modifying spiro-OMeTAD materials for perovskite solar cells: a review. Journal of Materials Chemistry A, 2021, 9, 4589-4625.	5.2	149
2	Recent Progress of Inverted Perovskite Solar Cells with a Modified PEDOT:PSS Hole Transport Layer. ACS Applied Materials & Interfaces, 2020, 12, 49297-49322.	4.0	88
3	Surface Passivation of Perovskite Solar Cells Toward Improved Efficiency and Stability. Nano-Micro Letters, 2019, 11, 50.	14.4	49
4	Improving charge transport property and energy transfer with carbon quantum dots in inverted polymer solar cells. Applied Physics Letters, 2014, 105, .	1.5	42
5	Domain Controlling by Compound Additive toward Highly Efficient Quasiâ€2D Perovskite Lightâ€Emitting Diodes. Advanced Functional Materials, 2021, 31, 2103890.	7.8	40
6	Surface Chlorination of ZnO for Perovskite Solar Cells with Enhanced Efficiency and Stability. Solar Rrl, 2019, 3, 1900154.	3.1	37
7	An easily prepared carbon quantum dots and employment for inverted organic photovoltaic devices. Chemical Engineering Journal, 2017, 315, 621-629.	6.6	33
8	Efficient perovskite solar cells enabled by ion-modulated grain boundary passivation with a fill factor exceeding 84%. Journal of Materials Chemistry A, 2019, 7, 22359-22365.	5.2	33
9	Unique Gold Nanorods Embedded Active Layer Enabling Strong Plasmonic Effect To Improve the Performance of Polymer Photovoltaic Devices. Journal of Physical Chemistry C, 2016, 120, 6198-6205.	1.5	32
10	Annealing-Free ZnO:PEI Composite Cathode Interfacial Layer for Efficient Organic Solar Cells. ACS Photonics, 2017, 4, 2952-2958.	3.2	32
11	Magnetic coupling metasurface for achieving broad-band and broad-angular absorption in the MoS_2 monolayer. Optical Materials Express, 2017, 7, 100.	1.6	31
12	Efficiency enhancement of inverted polymer solar cells by doping NaYF4:Yb3+, Er3+ nanocomposites in PCDTBT:PCBM active layer. Solar Energy Materials and Solar Cells, 2014, 124, 126-132.	3.0	29
13	Enhanced Electron Extraction Capability of Polymer Solar Cells via Employing Electrostatically Self-Assembled Molecule on Cathode Interfacial Layer. ACS Applied Materials & Interfaces, 2016, 8, 8224-8231.	4.0	29
14	Efficient 4,4â€²,4â€³â€tris(3â€methylphenylphenylamino)triphenylamine (mâ€MTDATA) Hole Transport Layer in Perovskite Solar Cells Enabled by Using the Nonstoichiometric Precursors. Advanced Functional Materials, 2018, 28, 1803126.	7.8	29
15	Decreased Charge Transport Barrier and Recombination of Organic Solar Cells by Constructing Interfacial Nanojunction with Annealing-Free ZnO and Al Layers. ACS Applied Materials & Interfaces, 2017, 9, 22068-22075.	4.0	28
16	Trappedâ€Electronâ€Induced Hole Injection in Perovskite Photodetector with Controllable Gain. Advanced Optical Materials, 2018, 6, 1701189.	3.6	27
17	Effective stability enhancement in ZnO-based perovskite solar cells by MACl modification. Journal of Materials Chemistry A, 2021, 9, 12161-12168.	5.2	26
18	The Performance Enhancement of Polymer Solar Cells by Introducing Cadmium-Free Quantum Dots. Journal of Physical Chemistry C, 2015, 119, 26747-26752.	1.5	25

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19	Boosted Electron Transport and Enlarged Built-In Potential by Eliminating the Interface Barrier in Organic Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 8830-8837.	4.0	25
20	Impedance investigation of the highly efficient polymer solar cells with composite CuBr₂/MoO₃hole transport layer. Physical Chemistry Chemical Physics, 2017, 19, 20839-20846.	1.3	25
21	Performance improvement of inverted polymer solar cells by doping Au nanoparticles into TiO2 cathode buffer layer. Applied Physics Letters, 2013, 103, .	1.5	23
22	Incorporating self-assembled silane-crosslinked carbon dots into perovskite solar cells to improve efficiency and stability. Journal of Materials Chemistry A, 2020, 8, 5629-5637.	5.2	23
23	Organics filled one-dimensional TiO₂nanowires array ultraviolet detector with enhanced photo-conductivity and dark-resistivity. Nanoscale, 2017, 9, 9095-9103.	2.8	22
24	Improving the charge carrier transport of organic solar cells by incorporating a deep energy level molecule. Physical Chemistry Chemical Physics, 2017, 19, 245-250.	1.3	22
25	Performance improvement of planar perovskite solar cells with cobalt-doped interface layer. Applied Surface Science, 2020, 507, 145081.	3.1	22
26	Developing 1D Sbâ€Embedded Carbon Nanorods to Improve Efficiency and Stability of Inverted Planar Perovskite Solar Cells. Small, 2019, 15, e1804692.	5.2	21
27	Improving the efficiency of inverted polymer solar cells by introducing inorganic dopants. Physical Chemistry Chemical Physics, 2015, 17, 7960-7965.	1.3	20
28	Improved Power Conversion Efficiency of Inverted Organic Solar Cells by Incorporating Au Nanorods into Active Layer. ACS Applied Materials & Interfaces, 2015, 7, 15848-15854.	4.0	20
29	The effect of self-depleting in UV photodetector based on simultaneously fabricated TiO₂/NiO pn heterojunction and Ni/Au composite electrode. Nanotechnology, 2017, 28, 365505.	1.3	20
30	Versatile dual organic interface layer for performance enhancement of polymer solar cells. Journal of Power Sources, 2016, 333, 99-106.	4.0	17
31	Efficiency Improvement of Organic Solar Cells via Introducing Combined Anode Buffer Layer To Facilitate Hole Extraction. Journal of Physical Chemistry C, 2016, 120, 13954-13962.	1.5	16
32	Employing Easily Prepared Carbon Nanoparticles To Improve Performance of Inverted Organic Solar Cells. ACS Sustainable Chemistry and Engineering, 2016, 4, 2359-2365.	3.2	16
33	Cations Functionalized Carbon Nanoâ€Dots Enabling Interfacial Passivation and Crystallization Control for Inverted Perovskite Solar Cells. Solar Rrl, 2020, 4, 1900369.	3.1	16
34	Incorporating a Polar Molecule to Passivate Defects for Perovskite Solar Cells. Solar Rrl, 2020, 4, 1900489.	3.1	16
35	Efficiency enhancement of inverted organic solar cells by introducing PFDTBT quantum dots into PCDTBT:PC71BM active layer. Organic Electronics, 2014, 15, 2632-2638.	1.4	15
36	Preparation and employment of carbon nanodots to improve electron extraction capacity of polyethylenimine interfacial layer for polymer solar cells. Organic Electronics, 2016, 33, 62-70.	1.4	13

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37	The role of Au nanorods in highly efficient inverted low bandgap polymer solar cells. Applied Physics Letters, 2014, 105, 223305.	1.5	12
38	Facilitated extrinsic majority carrier depletion and photogenerated exciton dissociation in an annealing-free ZnO:C photodetector. Nanoscale, 2018, 10, 6459-6466.	2.8	12
39	Toward Efficient Carbon-Dots-Based Electron-Extraction Layer Through Surface Charge Engineering. ACS Applied Materials & Interfaces, 2018, 10, 40255-40264.	4.0	12
40	Reducing charge recombination of polymer solar cells by introducing composite anode buffer layer. Solar Energy, 2018, 171, 8-15.	2.9	12
41	Alkali metal salts doped ZnO interfacial layers facilitate charge transport for organic solar cells. Organic Electronics, 2019, 74, 258-264.	1.4	11
42	Low-cost and easily prepared interface layer towards efficient and negligible hysteresis perovskite solar cells. Journal of Colloid and Interface Science, 2022, 617, 745-751.	5.0	11
43	Application of Solution-Processed V₂O₅ in Inverted Polymer Solar Cells Based on Fluorine-Doped Tin Oxide Substrate. Journal of Nanoscience and Nanotechnology, 2014, 14, 4214-4217.	0.9	10
44	Performance enhancement of organic photovoltaic devices enabled by Au nanoarrows inducing surface plasmonic resonance effect. Physical Chemistry Chemical Physics, 2016, 18, 24285-24289.	1.3	10
45	An easily prepared Ag 8 GeS 6 nanocrystal and its role on the performance enhancement of polymer solar cells. Organic Electronics, 2017, 45, 247-255.	1.4	10
46	The role of phosphor nanoparticles in high efficiency organic solar cells. Synthetic Metals, 2015, 204, 65-69.	2.1	9
47	Enhanced electron extraction capability of polymer solar cells via modifying the cathode buffer layer with inorganic quantum dots. Physical Chemistry Chemical Physics, 2016, 18, 11435-11442.	1.3	9
48	Enhancing the light-harvesting and charge transport properties of polymer solar cells by embedding NaLuF₄:Yb,Tm nanorods. RSC Advances, 2015, 5, 32891-32896.	1.7	8
49	Improved Optical Field Distribution and Charge Extraction through an Interlayer of Carbon Nanospheres in Polymer Solar Cells. Chemistry of Materials, 2017, 29, 2961-2968.	3.2	8
50	Interface passivation and electron transport improvement of polymer solar cells through embedding a polyfluorene layer. Physical Chemistry Chemical Physics, 2017, 19, 15207-15214.	1.3	8
51	Boosting Electron Extraction in Polymer Solar Cells by Introducing a N-Type Organic Semiconductor Interface Layer. Journal of Physical Chemistry C, 2018, 122, 207-215.	1.5	8
52	Incorporating deep electron traps into perovskite devices: towards high efficiency solar cells and fast photodetectors. Journal of Materials Chemistry A, 2018, 6, 21039-21046.	5.2	8
53	The light trapping enhancement of inverted polymer solar cells by introducing NaYF4 nanoparticles. Synthetic Metals, 2014, 195, 117-121.	2.1	7
54	Unraveling the effect of polymer dots doping in inverted low bandgap organic solar cells. Physical Chemistry Chemical Physics, 2015, 17, 16086-16091.	1.3	6

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55	The role of polymer dots on efficiency enhancement of organic solar cells: Improving charge transport property. Optics Communications, 2017, 395, 127-132.	1.0	6
56	Orienting the Microstructure Evolution of Copper Phthalocyanine as an Anode Interlayer in Inverted Polymer Solar Cells for High Performance. ACS Applied Materials & Interfaces, 2017, 9, 32044-32053.	4.0	6
57	A solution-processed binary cathode interfacial layer facilitates electron extraction for inverted polymer solar cells. Journal of Colloid and Interface Science, 2018, 514, 328-337.	5.0	6
58	Overcoming Defect-Induced Charge Recombination Loss in Organic Solar Cells by FÃ¶rster Resonance Energy Transfer. ACS Sustainable Chemistry and Engineering, 2018, 6, 9699-9706.	3.2	6
59	Recent process of plasma effect in organic solar cells. Journal of Energy Chemistry, 2021, 52, 181-190.	7.1	6
60	The action mechanism of TiO2:NaYF4:Yb3+,Tm3+ cathode buffer layer in highly efficient inverted organic solar cells. Applied Physics Letters, 2014, 105, 053301.	1.5	5
61	An organosilane self-assembled monolayer incorporated into polymer solar cells enabling interfacial coherence to improve charge transport. Physical Chemistry Chemical Physics, 2016, 18, 16005-16012.	1.3	5
62	An easily prepared self-assembled interface layer upon active layer doping facilitates charge transfer in polymer solar cells. Electrochimica Acta, 2018, 285, 365-372.	2.6	5
63	Modulated charge transport characteristics in solution-processed UV photodetector by incorporating localized built-in electric field. Journal of Alloys and Compounds, 2019, 774, 887-895.	2.8	5
64	The operation mechanism of poly(9,9-dioctylfluorenyl-2,7-diyl) dots in high efficiency polymer solar cells. Applied Physics Letters, 2015, 106, .	1.5	4
65	Employing inorganic/organic hybrid interface layer to improve electron transfer for inverted polymer solar cells. Electrochimica Acta, 2016, 210, 874-879.	2.6	4
66	Dual Roles of the Fullerene Interlayer on Light Harvesting and Electron Transfer for Highly Efficient Polymer Solar Cells. Journal of Physical Chemistry C, 2017, 121, 8722-8730.	1.5	4
67	Passivation effect of composite organic interlayer on polymer solar cells. Organic Electronics, 2018, 63, 129-136.	1.4	4
68	Using 4â€Chlorobenzoic Acid Layer Toward Stable and Lowâ€Cost CsPbI 2 Br Perovskite Solar Cells. Solar Rrl, 2021, 5, 2100347.	3.1	4
69	Using a facile processing method to facilitate charge extraction for polymer solar cells. Journal of Materials Chemistry C, 2018, 6, 11045-11051.	2.7	3
70	Eliminating light soaking effect of inverted polymer solar cells functionalized with a conjugated macroelectrolyte electron-collecting interlayer. Electrochimica Acta, 2018, 281, 218-226.	2.6	3
71	Fullerene derivative layer induced phase separation and charge transport improvement for inverted polymer solar cells. Thin Solid Films, 2019, 690, 137559.	0.8	3
72	Efficiency Improvement of Inverted Organic Solar Cells via Introducing a Series of Polyfluorene Dots in Electron Transport Layer. Journal of Physical Chemistry C, 2015, 119, 16462-16467.	1.5	2

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73	Using a Simple Optical Management Layer to Solve the Contradiction between Efficiency and Transmittance for Semitransparent Organic Solar Cells. ACS Sustainable Chemistry and Engineering, 2022, 10, 2241-2247.	3.2	2
74	Improved performance of inverted polymer solar cells using Cd 2 SSe/ZnS quantum dots. Materials Letters, 2017, 188, 244-247.	1.3	1
75	The role of NaYF4nanoparticles in inverted polymer solar cells. , 2014, , .		0
76	Boosting electron extraction of inverted polymer solar cells using solution-processed nanocrystals as cathode interlayer. Electrochimica Acta, 2017, 258, 477-484.	2.6	0