Zhidong Lou

List of Publications by Year
in descending order

51 papers	976 citations	394421 19 h-index	477307 29 g-index
51 all docs	51 docs citations	51 times ranked	1773 citing authors

#	Article	IF	Citations
1	Ligand-free rutile and anatase TiO₂nanocrystals as electron extraction layers for high performance inverted polymer solar cells. RSC Advances, 2017, 7, 20084-20092.	3.6	135
2	High-Performance Photodiode-Type Photodetectors Based on Polycrystalline Formamidinium Lead Iodide Perovskite Thin Films. Scientific Reports, 2018, 8, 11157.	3.3	90
3	High sensitivity and fast response solution processed polymer photodetectors with polyethylenimine ethoxylated (PEIE) modified ITO electrode. Optics Express, 2017, 25, 7719.	3.4	52
4	The Trapped Charges at Grain Boundaries in Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2107125.	14.9	47
5	Two-dimensional organicâ€“inorganic hybrid perovskite field-effect transistors with polymers as bottom-gate dielectrics. Journal of Materials Chemistry C, 2019, 7, 4004-4012.	5.5	45
6	Enhanced performance of tin halide perovskite solar cell by addition of lead thiocyanate. RSC Advances, 2018, 8, 14025-14030.	3.6	37
7	Synthesis of ultrathin two-dimensional organicâ€“inorganic hybrid perovskite nanosheets for polymer field-effect transistors. Journal of Materials Chemistry C, 2018, 6, 3945-3950.	5.5	36
8	Self-Assembled TiO₂ Nanorods as Electron Extraction Layer for High-Performance Inverted Polymer Solar Cells. Chemistry of Materials, 2015, 27, 44-52.	6.7	33
9	High sensitivity, fast response and low operating voltage organic photodetectors by incorporating a water/alcohol soluble conjugated polymer anode buffer layer. RSC Advances, 2017, 7, 1743-1748.	3.6	31
10	Enhanced efficiency and light stability of planar perovskite solar cells by diethylammonium bromide induced large-grain 2D/3D hybrid film. Organic Electronics, 2019, 67, 101-108.	2.6	28
11	Two-dimensional additive diethylammonium iodide promoting crystal growth for efficient and stable perovskite solar cells. RSC Advances, 2019, 9, 7984-7991.	3.6	25
12	Efficient Quasi-Two-Dimensional Perovskite Light-Emitting Diodes with Improved Multiple Quantum Well Structure. ACS Applied Materials & Interfaces, 2020, 12, 1721-1727.	8.0	25
13	Enhanced amplified spontaneous emission from morphology-controlled organicâ€“inorganic halide perovskite films. RSC Advances, 2015, 5, 103674-103679.	3.6	23
14	Temperature dependent amplified spontaneous emission of vacuum annealed perovskite films. RSC Advances, 2017, 7, 15911-15916.	3.6	22
15	High-performance light-emitting diode with poly(ethylene oxide) passivated quasi two dimensional perovskite emitting layer. Organic Electronics, 2018, 63, 216-221.	2.6	22
16	Solution-processed organic field-effect transistors with cross-linked poly(4-vinylphenol)/polyvinyl alcohol bilayer dielectrics. Applied Surface Science, 2019, 478, 699-707.	6.1	22
17	Charge Transport in 2D Layered Mixed Snâ€“Pb Perovskite Thin Films for Fieldâ€Effect Transistors. Advanced Electronic Materials, 2021, 7, 2100384.	5.1	22
18	Property Modulation of Two-Dimensional Lead-Free Perovskite Thin Films by Aromatic Polymer Additives for Performance Enhancement of Field-Effect Transistors. ACS Applied Materials & Interfaces, 2021, 13, 24272-24284.	8.0	21

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19	Electric field-modulated amplified spontaneous emission in waveguides based on poly [2-methoxy-5-(2â€²-ethylhexyloxy)-1, 4-phenylene vinylene]. Applied Physics Letters, 2010, 96, 103303.	3.3	20
20	Light emitting field-effect transistors with vertical heterojunctions based on pentacene and tris-(8-hydroxyquinolinato) aluminum. Organic Electronics, 2015, 22, 51-55.	2.6	16
21	Role of nanoparticle surface defects in the conduction mechanism of polymerâ€"nanoparticle electrical bistable devices. RSC Advances, 2017, 7, 54128-54135.	3.6	15
22	Improvement of amplified spontaneous emission performance of conjugated polymer waveguides with a low loss cladding. Applied Physics Letters, 2012, 101, 153305.	3.3	14
23	Interface studies of well-controlled polymer bilayers and field-effect transistors prepared by a mixed-solvent method. RSC Advances, 2018, 8, 11272-11279.	3.6	14
24	Discrete SnO 2 Nanoparticleâ€Modified Poly(3,4â€Ethylenedioxythiophene):Poly(Styrenesulfonate) for Efficient Perovskite Solar Cells. Solar Rrl, 2019, 3, 1900162.	5.8	13
25	Mixed-dimensional self-assembly organicâ€"inorganic perovskite microcrystals for stable and efficient photodetectors. Journal of Materials Chemistry C, 2020, 8, 5399-5408.	5.5	13
26	Enhanced performance in inverted polymer solar cells employing microwave-annealed sol-gel ZnO as electron transport layers. Organic Electronics, 2017, 42, 107-114.	2.6	11
27	Sensitive, fast, stable, and broadband polymer photodetector with introducing TiO2 nanocrystal trap states. Organic Electronics, 2018, 59, 63-68.	2.6	11
28	Ambipolar transport in two-dimensional Sn-based perovskite field-effect transistors using an aliphatic polymer-assisted method. Journal of Materials Chemistry A, 2021, 9, 22842-22853.	10.3	11
29	Effects of gate dielectric thickness and semiconductor thickness on device performance of organic field-effect transistors based on pentacene. Science China Technological Sciences, 2014, 57, 1142-1146.	4.0	10
30	Highâ€Performance Polymer Photodetector Using the Nonâ€Thermalâ€andâ€Nonâ€Ultravioletâ€"Ozoneâ€Treated SnO 2 Interfacial Layer. Physica Status Solidi - Rapid Research Letters, 2020, 14, 1900531.	2.4	10
31	Grain Growth of MAPbI₃ via Diethylammonium Bromide Induced Grain Mergence. ACS Applied Materials & Interfaces, 2020, 12, 16707-16714.	8.0	10
32	Investigation on Thermal Degradation Process of Polymer Solar Cells Based on Blend of PBDTTT-C and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" id="M1"><mml:mrow><mml:msub><mml:mrow><mml:mtext>PC</mml:mtext></mml:mrow><mml:mrow><mml:mn mathvariant="bold">70</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>BM. International Journal of Photoenergy, 2014, 2014, 1-9.	2.5	9
33	Effects of photo-induced defects on the performance of PBDTTT-C/PC₇₀ BM solar cells. Physica Status Solidi - Rapid Research Letters, 2015, 9, 120-124.	2.4	9
34	Surface plasmonic effect and scattering effect of Au nanorods on the performance of polymer bulk heterojunction solar cells. Science China Technological Sciences, 2013, 56, 1865-1869.	4.0	8
35	Dynamics of interfacial carriers and negative photoconductance in CH3NH3PbBr3-ZnO heterostructure. Applied Physics Letters, 2021, 118, .	3.3	8
36	Effects of solvent additives on trapâ€assisted recombination in P3HT:ICBA based polymer solar cells. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 2169-2173.	1.8	7

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37	Strong Triplet-Excitonâ€“LO-Phonon Coupling in Two-Dimensional Layered Organicâ€“Inorganic Hybrid Perovskite Single Crystal Microflakes. Journal of Physical Chemistry Letters, 2021, 12, 2133-2141.	4.6	7
38	Improving ternary blend morphology by adding a conjugated molecule into non-fullerene polymer solar cells. RSC Advances, 2020, 10, 43508-43513.	3.6	6
39	Influence of heterojunction interface on exciplex emission from organic light-emitting diodes under electric fields. Applied Physics A: Materials Science and Processing, 2008, 90, 475-478.	2.3	5
40	Investigation on the Overshoot of Transient Open-Circuit Voltage in Methylammonium Lead Iodide Perovskite Solar Cells. Materials, 2018, 11, 2407.	2.9	5
41	Verification of p-n junctions in polymer light-emitting electrochemical cells via electrical characterization. Applied Physics Letters, 2009, 95, .	3.3	4
42	Discrete SnO₂ Nanoparticleâ€Modified Poly(3,4â€Ethylenedioxythiophene):Poly(Styrenesulfonate) for Efficient Perovskite Solar Cells. Solar Rrl, 2019, 3, 1970103.	5.8	4
43	Impacts of carrier trapping and ion migration on charge transport of perovskite solar cells with TiO_x electron transport layer. RSC Advances, 2020, 10, 28083-28089.	3.6	4
44	Energy distribution in white organic light-emitting diodes with three primary color emitting layers. Science China: Physics, Mechanics and Astronomy, 2011, 54, 84-88.	5.1	3
45	Aspect-ratio controllable growth of rectangular cesium lead bromide crystallites on PTAA modified substrates. Journal of Materials Chemistry C, 2022, 10, 6473-6480.	5.5	3
46	Overall Enhanced Performance of Polymer Photodetectors by Coâ€Modifying ITO with PEIE and ZnO. Physica Status Solidi - Rapid Research Letters, 2022, 16, .	2.4	3
47	Role of Hydroxyl on Conductivity Switching of Poly(ethylene oxide)/TiO 2 Electrical Bistable Devices. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1900443.	1.8	2
48	Nanowire Junction Induced High Threshold Voltage in Poly(3â€hexylthiophene) Mesoscale Crystalline Thinâ€Film Transistors with Significantly Enhanced Mobility. Physica Status Solidi - Rapid Research Letters, 2020, 14, 1900723.	2.4	2
49	Highâ€Performance Polymer Photodetectors using ZnO Nanocrystal Trap States. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2100003.	2.4	2
50	Metal oxide nanoparticle-modified ITO electrode for high-performance solution-processed perovskite photodetectors. RSC Advances, 2022, 12, 5638-5647.	3.6	1
51	Aggregation-induced emission tetraphenylethylene derivative as optical sensor for ammonia detection. Materials Technology, 0, , 1-6.	3.0	0