Wei-Fei Fu

List of Publications by Year
in descending order

75 papers	5,539 citations	87843 38 h-index	79644 73 g-index
76 all docs	76 docs citations	76 times ranked	7619 citing authors

#	Article	IF	Citations
1	Enhanced Photovoltaic Performance of CH₃NH₃PbI₃ Perovskite Solar Cells through Interfacial Engineering Using Self-Assembling Monolayer. Journal of the American Chemical Society, 2015, 137, 2674-2679.	6.6	590
2	Dopant-Free Hole-Transporting Material with a C_{3h} Symmetrical Truxene Core for Highly Efficient Perovskite Solar Cells. Journal of the American Chemical Society, 2016, 138, 2528-2531.	6.6	446
3	Recent advances in perovskite solar cells: efficiency, stability and lead-free perovskite. Journal of Materials Chemistry A, 2017, 5, 11462-11482.	5.2	378
4	Orientation Regulation of Phenylethylammonium Cation Based 2D Perovskite Solar Cell with Efficiency Higher Than 11%. Advanced Energy Materials, 2018, 8, 1702498.	10.2	313
5	Two-Dimensional Perovskite Solar Cells with 14.1% Power Conversion Efficiency and 0.68% External Radiative Efficiency. ACS Energy Letters, 2018, 3, 2086-2093.	8.8	224
6	Vertically Oriented 2D Layered Perovskite Solar Cells with Enhanced Efficiency and Good Stability. Small, 2017, 13, 1700611.	5.2	212
7	Molecular Engineered Holeâ€Extraction Materials to Enable Dopantâ€Free, Efficient pâ€iâ€n Perovskite Solar Cells. Advanced Energy Materials, 2017, 7, 1700012.	10.2	195
8	Tailoring the Functionality of Organic Spacer Cations for Efficient and Stable Quasiâ€2D Perovskite Solar Cells. Advanced Functional Materials, 2019, 29, 1900221.	7.8	144
9	Engineering crystalline structures of two-dimensional MoS₂sheets for high-performance organic solar cells. Journal of Materials Chemistry A, 2014, 2, 7727-7733.	5.2	142
10	Spiro Linkage as an Alternative Strategy for Promising Nonfullerene Acceptors in Organic Solar Cells. Advanced Functional Materials, 2015, 25, 5954-5966.	7.8	140
11	Reducing Surface Recombination Velocities at the Electrical Contacts Will Improve Perovskite Photovoltaics. ACS Energy Letters, 2019, 4, 222-227.	8.8	138
12	An open-access database and analysis tool for perovskite solar cells based on the FAIR data principles. Nature Energy, 2022, 7, 107-115.	19.8	136
13	Highâ€Performance Thickness Insensitive Perovskite Solar Cells with Enhanced Moisture Stability. Advanced Energy Materials, 2018, 8, 1800438.	10.2	118
14	Solutionâ€Grown Organic Singleâ€Crystalline pâ€n Junctions with Ambipolar Charge Transport. Advanced Materials, 2013, 25, 5762-5766.	11.1	112
15	Solution-Processed, Silver-Doped NiO_x as Hole Transporting Layer for High-Efficiency Inverted Perovskite Solar Cells. ACS Applied Energy Materials, 2018, 1, 561-570.	2.5	95
16	Highly oriented two-dimensional formamidinium lead iodide perovskites with a small bandgap of 1.51 eV. Materials Chemistry Frontiers, 2018, 2, 121-128.	3.2	95
17	Highly Efficient Semitransparent Solar Cells with Selective Absorption and Tandem Architecture. Advanced Materials, 2019, 31, e1901683.	11.1	89
18	Effects of heteroatom substitution in spiro-bifluorene hole transport materials. Chemical Science, 2016, 7, 5007-5012.	3.7	86

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19	Low temperature solution processed planar heterojunction perovskite solar cells with a CdSe nanocrystal as an electron transport/extraction layer. Journal of Materials Chemistry C, 2014, 2, 9087-9090.	2.7	85
20	A solution-processable bipolar diketopyrrolopyrrole molecule used as both electron donor and acceptor for efficient organic solar cells. Journal of Materials Chemistry A, 2015, 3, 1902-1905.	5.2	79
21	Solution-processed CuO as an efficient hole-extraction layer for inverted planar heterojunction perovskite solar cells. Chinese Chemical Letters, 2017, 28, 13-18.	4.8	74
22	Pyrene and Diketopyrrolopyrrole-Based Oligomers Synthesized via Direct Arylation for OSC Applications. ACS Applied Materials & Interfaces, 2014, 6, 6765-6775.	4.0	68
23	Insight into the efficiency enhancement of polymer solar cells by incorporating gold nanoparticles. Solar Energy Materials and Solar Cells, 2013, 111, 1-8.	3.0	65
24	Solutionâ€€Grown Organic Singleâ€€Crystalline Donorâ€“Acceptor Heterojunctions for Photovoltaics. Angewandte Chemie - International Edition, 2015, 54, 956-960.	7.2	65
25	Donorâ€“Acceptor Conjugated Macrocycles: Synthesis and Hostâ€“Guest Coassembly with Fullerene toward Photovoltaic Application. ACS Nano, 2017, 11, 11701-11713.	7.3	64
26	An ester-functionalized diketopyrrolopyrrole molecule with appropriate energy levels for application in solution-processed organic solar cells. Journal of Materials Chemistry A, 2013, 1, 105-111.	5.2	63
27	Star-Shaped Dâ€“A Small Molecules Based on Diketopyrrolopyrrole and Triphenylamine for Efficient Solution-Processed Organic Solar Cells. ACS Applied Materials & Interfaces, 2013, 5, 972-980.	4.0	62
28	Ambient roll-to-roll fabrication of flexible solar cells based on small molecules. Journal of Materials Chemistry C, 2013, 1, 8007.	2.7	59
29	Preparation of microencapsulated medium temperature phase change material of Tris(hydroxymethyl)methyl aminomethane@SiO2 with excellent cycling performance. Applied Energy, 2015, 154, 361-368.	5.1	58
30	MoO3â€“Au composite interfacial layer for high efficiency and air-stable organic solar cells. Organic Electronics, 2013, 14, 797-803.	1.4	52
31	Nanoparticles Incorporated inside Single-Crystals: Enhanced Fluorescent Properties. Chemistry of Materials, 2016, 28, 7537-7543.	3.2	52
32	Single-crystalline lead halide perovskite arrays for solar cells. Journal of Materials Chemistry A, 2016, 4, 1214-1217.	5.2	49
33	Low-bandgap mixed tinâ€“lead iodide perovskite with large grains for high performance solar cells. Journal of Materials Chemistry A, 2018, 6, 13090-13095.	5.2	47
34	Evaluation of Heterocycle-Modified Pentathiophene-Based Molecular Donor Materials for Solar Cells. ACS Applied Materials & Interfaces, 2014, 6, 5798-5809.	4.0	44
35	Roll-coating fabrication of flexible large area small molecule solar cells with power conversion efficiency exceeding 1%. Journal of Materials Chemistry A, 2014, 2, 19809-19814.	5.2	44
36	Controlled crystallization of CH3NH3PbI3 films for perovskite solar cells by various PbI2(X) complexes. Solar Energy Materials and Solar Cells, 2016, 155, 331-340.	3.0	43

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37	High efficiency hybrid solar cells using post-deposition ligand exchange by monothiols. Physical Chemistry Chemical Physics, 2012, 14, 12094.	1.3	42
38	A diketopyrrolopyrrole molecule end-capped with a furan-2-carboxylate moiety: the planarity of molecular geometry and photovoltaic properties. Journal of Materials Chemistry A, 2014, 2, 6589.	5.2	42
39	Incorporation of ester groups into low band-gap diketopyrrolopyrrole containing polymers for solar cell applications. Journal of Materials Chemistry, 2012, 22, 15710.	6.7	40
40	Graphene Nucleation Preferentially at Oxygenâ€Rich Cu Sites Rather Than on Pure Cu Surface. Advanced Materials, 2015, 27, 6404-6410.	11.1	39
41	An aqueous solution-processed CuO_X film as an anode buffer layer for efficient and stable organic solar cells. Journal of Materials Chemistry A, 2016, 4, 5130-5136.	5.2	39
42	Solution-Processed 8-Hydroquinolatolithium as Effective Cathode Interlayer for High-Performance Polymer Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 9254-9261.	4.0	37
43	Stability of perovskite materials and devices. Materials Today, 2022, 58, 275-296.	8.3	35
44	Improved performance and stability of perovskite solar cells with bilayer electron-transporting layers. RSC Advances, 2018, 8, 5897-5901.	1.7	34
45	Synergistic Effects of Chlorination and Branched Alkyl Side Chain on the Photovoltaic Properties of Simple Nonâ€Fullerene Acceptors with Quinoxaline as the Core. ChemSusChem, 2021, 14, 3599-3606.	3.6	33
46	Oriented Perovskite Growth Regulation Enables Sensitive Broadband Detection and Imaging of Polarized Photons Covering 300â€“1050Ânm. Advanced Materials, 2021, 33, e2003852.	11.1	32
47	Enhanced performance of polymer solar cells with a monolayer of assembled gold nanoparticle films fabricated by Langmuirâ€“Blodgett technique. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2013, 178, 53-59.	1.7	31
48	A direct arylation-derived DPP-based small molecule for solution-processed organic solar cells. Nanotechnology, 2014, 25, 014006.	1.3	30
49	Improving Polymer/Nanocrystal Hybrid Solar Cell Performance via Tuning Ligand Orientation at CdSe Quantum Dot Surface. ACS Applied Materials & Interfaces, 2014, 6, 19154-19160.	4.0	30
50	Elucidation of Zeroâ€Dimensional to Twoâ€Dimensional Growth Transition in MoS₂ Chemical Vapor Deposition Synthesis. Advanced Materials Interfaces, 2017, 4, 1600687.	1.9	27
51	Two-dimensional perovskites for photovoltaics. Materials Today Nano, 2021, 14, 100117.	2.3	27
52	Conductive Polymers for Flexible and Stretchable Organic Optoelectronic Applications. ACS Applied Polymer Materials, 2022, 4, 4609-4623.	2.0	26
53	A green, low-cost, and highly effective strategy to enhance the performance of hybrid solar cells: Post-deposition ligand exchange by acetic acid. Solar Energy Materials and Solar Cells, 2013, 117, 329-335.	3.0	21
54	Highly efficient hybrid solar cells with tunable dipole at the donorâ€“acceptor interface. Nanoscale, 2014, 6, 10545-10550.	2.8	20

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55	Synthesis and fast transfer of monolayer MoS₂ on reusable fused silica. Nanoscale, 2017, 9, 6984-6990.	2.8	18
56	Modulate Molecular Interaction between Hole Extraction Polymers and Lead Ions toward Hysteresisâ€Free and Efficient Perovskite Solar Cells. Advanced Materials Interfaces, 2018, 5, 1800090.	1.9	18
57	Optical and electrical effects of plasmonic nanoparticles in high-efficiency hybrid solar cells. Physical Chemistry Chemical Physics, 2013, 15, 17105-17111.	1.3	17
58	Triphenylamine modified bis-diketopyrrolopyrrole molecular donor materials with extended conjugation for bulk heterojunction solar cells. Organic Electronics, 2014, 15, 2575-2586.	1.4	17
59	Improved photovoltaic performance from high quality perovskite thin film grown with the assistance of PC71BM. Chinese Journal of Polymer Science (English Edition), 2017, 35, 309-316.	2.0	16
60	<scp>Selfâ€assembled</scp> monolayers for interface engineering in polymer solar cells. Journal of Polymer Science, 2022, 60, 2175-2190.	2.0	15
61	Efficient ternary blend polymer solar cells with a bipolar diketopyrrolopyrrole small molecule as cascade material. Organic Electronics, 2015, 25, 219-224.	1.4	14
62	New â€“(Dâ€“A1â€“Dâ€“A2)nâ€“ type conjugated polymers for photovoltaic applications: consensus between low band-gap and low HOMO energy level. Tetrahedron, 2013, 69, 3419-3424.	1.0	13
63	Low temperature processed ITO-free perovskite solar cells without a hole transport layer. RSC Advances, 2015, 5, 94752-94758.	1.7	13
64	In Situ Methylammonium Chloride-Assisted Perovskite Crystallization Strategy for High-Performance Solar Cells. , 2022, 4, 448-456.		13
65	Solutionâ€Grown Organic Singleâ€Crystalline Donorâ€“Acceptor Heterojunctions for Photovoltaics. Angewandte Chemie, 2015, 127, 970-974.	1.6	11
66	Performance enhancement of CdS nanorod arrays/P3HT hybrid solar cells via N719 dye interface modification. Chinese Journal of Polymer Science (English Edition), 2013, 31, 879-884.	2.0	10
67	Solvent-resistant small molecule solar cells by roll-to-roll fabrication via introduction of azide cross-linkable group. Synthetic Metals, 2014, 195, 299-305.	2.1	10
68	Highâ€Efficiency Quasiâ€2D Perovskite Solar Cells Incorporating 2,2â€²â€Biimidazolium Cation. Solar Rrl, 2021, 5, 2000700.	3.1	9
69	Nonâ€Halogenated Solvents Processed Efficient ITOâ€Free Flexible Organic Solar Cells with Upscaled Area. Macromolecular Rapid Communications, 2022, 43, e2200049.	2.0	9
70	Water soluble amino grafted silicon nanoparticles and their use in polymer solar cells. Chinese Journal of Polymer Science (English Edition), 2014, 32, 395-401.	2.0	8
71	Improving the device performance of organic solar cells with immiscible solid additives. Journal of Materials Chemistry C, 2022, 10, 2749-2756.	2.7	8
72	Diketopyrrolopyrrole and perylene diimine-based large Ï€-molecules constructed via Câ€“H direct arylation. Dyes and Pigments, 2022, 204, 110468.	2.0	5

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73	Phosphate ester sideâ€chainâ€modified conjugated polymer for hybrid solar cells. Journal of Applied Polymer Science, 2017, 134, .	1.3	3
74	An Efficient Tinâ€Free Route to Small Molecules Based on Siloleâ€Modified Pentathiophenes for Solutionâ€Processed Organic Solar Cells. Asian Journal of Organic Chemistry, 2014, 3, 984-993.	1.3	1
75	p-Type Polymers for Templated Crystallization of Perovskite Films and Interface Optimization for High Performance Solar Cells. Crystals, 2021, 11, 654.	1.0	0