Qin Hu

List of Publications by Year
in descending order

62 papers	5,644 citations	159358 30 h-index	133063 59 g-index
64 all docs	64 docs citations	64 times ranked	6742 citing authors

#	Article	IF	Citations
1	Enhanced photovoltage for inverted planar heterojunction perovskite solar cells. Science, 2018, 360, 1442-1446.	6.0	1,221
2	Single-layered organic photovoltaics with double cascading charge transport pathways: 18% efficiencies. Nature Communications, 2021, 12, 309.	5.8	509
3	Inverted Perovskite Solar Cells: Progresses and Perspectives. Advanced Energy Materials, 2016, 6, 1600457.	10.2	387
4	A Highly Efficient Nonâ€Fullerene Organic Solar Cell with a Fill Factor over 0.80 Enabled by a Fineâ€Tuned Holeâ€Transporting Layer. Advanced Materials, 2018, 30, e1801801.	11.1	360
5	Efficient Semitransparent Solar Cells with High NIR Responsiveness Enabled by a Smallâ€Bandgap Electron Acceptor. Advanced Materials, 2017, 29, 1606574.	11.1	252
6	Engineering of Electron-Selective Contact for Perovskite Solar Cells with Efficiency Exceeding 15%. ACS Nano, 2014, 8, 10161-10167.	7.3	233
7	Chargeâ€Carrier Balance for Highly Efficient Inverted Planar Heterojunction Perovskite Solar Cells. Advanced Materials, 2016, 28, 10718-10724.	11.1	214
8	Buried Interfaces in Halide Perovskite Photovoltaics. Advanced Materials, 2021, 33, e2006435.	11.1	214
9	In situ dynamic observations of perovskite crystallisation and microstructure evolution intermediated from [PbI6]4âˆ’ cage nanoparticles. Nature Communications, 2017, 8, 15688.	5.8	191
10	Highâ€Performance Inverted Planar Heterojunction Perovskite Solar Cells Based on Lead Acetate Precursor with Efficiency Exceeding 18%. Advanced Functional Materials, 2016, 26, 3508-3514.	7.8	176
11	Dualâ€Source Precursor Approach for Highly Efficient Inverted Planar Heterojunction Perovskite Solar Cells. Advanced Materials, 2017, 29, 1604758.	11.1	142
12	Mesoporous PbI₂ Scaffold for Highâ€Performance Planar Heterojunction Perovskite Solar Cells. Advanced Energy Materials, 2016, 6, 1501890.	10.2	124
13	High Efficiency Ternary Nonfullerene Polymer Solar Cells with Two Polymer Donors and an Organic Semiconductor Acceptor. Advanced Energy Materials, 2017, 7, 1602215.	10.2	92
14	Improving Efficiency and Stability of Perovskite Solar Cells Enabled by A Near-Infrared-Absorbing Moisture Barrier. Joule, 2020, 4, 1575-1593.	11.7	88
15	Dielectric screening in perovskite photovoltaics. Nature Communications, 2021, 12, 2479.	5.8	88
16	Chemical Polishing of Perovskite Surface Enhances Photovoltaic Performances. Journal of the American Chemical Society, 2022, 144, 1700-1708.	6.6	88
17	Butterfly Effects Arising from Starting Materials in Fused-Ring Electron Acceptors. Journal of the American Chemical Society, 2020, 142, 20124-20133.	6.6	87
18	Multiple Roles of a Non-fullerene Acceptor Contribute Synergistically for High-Efficiency Ternary Organic Photovoltaics. Joule, 2018, 2, 2154-2166.	11.7	85

#	Article	IF	Citations
19	Surface modification induced by perovskite quantum dots for triple-cation perovskite solar cells. Nano Energy, 2020, 67, 104189.	8.2	81
20	New insight of molecular interaction, crystallization and phase separation in higher performance small molecular solar cells via solvent vapor annealing. Nano Energy, 2016, 30, 639-648.	8.2	77
21	Highâ€Performance Polymer Solar Cells Based on a Wideâ€Bandgap Polymer Containing Pyrrolo[3,4â€<i>f</i>]benzotriazoleâ€5,7â€dione with a Power Conversion Efficiency of 8.63%. Advanced Science, 2016, 3, 1600032.	5.6	69
22	Naphthaleneâ€Diimideâ€Based Ionenes as Universal Interlayers for Efficient Organic Solar Cells. Angewandte Chemie - International Edition, 2020, 59, 18131-18135.	7.2	61
23	Multiâ€Length Scaled Silver Nanowire Grid for Application in Efficient Organic Solar Cells. Advanced Functional Materials, 2016, 26, 4822-4828.	7.8	57
24	Pinhole-Free Hybrid Perovskite Film with Arbitrarily-Shaped Micro-Patterns for Functional Optoelectronic Devices. Nano Letters, 2017, 17, 3563-3569.	4.5	57
25	An actively ultrafast tunable giant slow-light effect in ultrathin nonlinear metasurfaces. Light: Science and Applications, 2015, 4, e302-e302.	7.7	56
26	Efficient and low-temperature processed perovskite solar cells based on a cross-linkable hybrid interlayer. Journal of Materials Chemistry A, 2015, 3, 18483-18491.	5.2	55
27	Unraveling the Crystallization Kinetics of 2D Perovskites with Sandwichâ€Type Structure for Highâ€Performance Photovoltaics. Advanced Materials, 2020, 32, e2002784.	11.1	52
28	Dichlorinated Dithienyletheneâ€Based Copolymers for Airâ€Stable nâ€Type Conductivity and Thermoelectricity. Advanced Functional Materials, 2021, 31, 2005901.	7.8	50
29	High Short-Circuit Current Density via Integrating the Perovskite and Ternary Organic Bulk Heterojunction. ACS Energy Letters, 2019, 4, 2535-2536.	8.8	47
30	Interfacial stabilization for inverted perovskite solar cells with long-term stability. Science Bulletin, 2021, 66, 991-1002.	4.3	45
31	Phenylene-bridged perylenediimide-porphyrin acceptors for non-fullerene organic solar cells. Sustainable Energy and Fuels, 2018, 2, 2616-2624.	2.5	30
32	Using Preformed Meisenheimer Complexes as Dopants for nâ€Type Organic Thermoelectrics with High Seebeck Coefficients and Power Factors. Advanced Functional Materials, 2021, 31, 2010567.	7.8	28
33	Minimizing voltage deficit in Methylammonium-Free perovskite solar cells via surface reconstruction. Chemical Engineering Journal, 2022, 444, 136622.	6.6	22
34	1,3-Bis(thieno[3,4-<i>b</i>]thiophen-6-yl)-4<i>H</i>-thieno[3,4-<i>c</i>]pyrrole-4,6(5<i>H</i>)-dione-Based Small-Molecule Donor for Efficient Solution-Processed Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 6213-6219.	4.0	20
35	Efficient and 1,8-diiodooctane-free ternary organic solar cells fabricated via nanoscale morphology tuning using small-molecule dye additive. Nano Research, 2017, 10, 3765-3774.	5.8	20
36	In Situ Structure Characterization in Slotâ€Dieâ€Printed Allâ€Polymer Solar Cells with Efficiency Over 9%. Solar Rrl, 2019, 3, 1900032.	3.1	20

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37	Manipulating the Crystallization Kinetics by Additive Engineering toward Highâ€Efficient Photovoltaic Performance. Advanced Functional Materials, 2021, 31, 2009103.	7.8	20
38	Fast-growing procedure for perovskite films in planar heterojunction perovskite solar cells. Chinese Chemical Letters, 2015, 26, 1518-1521.	4.8	16
39	Ternary non-fullerene polymer solar cells with a high crystallinity n-type organic semiconductor as the second acceptor. Journal of Materials Chemistry A, 2018, 6, 24814-24822.	5.2	16
40	Manipulating Film Morphology of Allâ€Polymer Solar Cells by Incorporating Polymer Compatibilizer. Solar Rrl, 2020, 4, 2000148.	3.1	16
41	Enhancing Performances of Solutionâ€Processed Inverted Ternary Smallâ€Molecule Organic Solar Cells: Manipulating the Hostâ€Guest Donors and Acceptor Interaction. Solar Rrl, 2017, 1, 1600003.	3.1	15
42	Overcoming the morphological and efficiency limit in all-polymer solar cells by designing conjugated random copolymers containing a naphtho[1,2-<i>c</i>:5,6-<i>c</i>â€²]bis([1,2,5]thiadiazole)] moiety. Journal of Materials Chemistry A, 2018, 6, 23295-23300.	5.2	15
43	Improving the efficiencies of small molecule solar cells by solvent vapor annealing to enhance J-aggregation. Journal of Materials Chemistry C, 2019, 7, 9618-9624.	2.7	15
44	Applying the heteroatom effect of chalcogen for high-performance small-molecule solar cells. Journal of Materials Chemistry A, 2017, 5, 3425-3433.	5.2	14
45	Naphthaleneâ€Diimideâ€Based Ionenes as Universal Interlayers for Efficient Organic Solar Cells. Angewandte Chemie, 2020, 132, 18288-18292.	1.6	14
46	Optimizing Vertical Crystallization for Efficient Perovskite Solar Cells by Buried Composite Layers. Solar Rrl, 2021, 5, 2100457.	3.1	14
47	Bifunctional Bisâ€benzophenone as A Solid Additive for Nonâ€Fullerene Solar Cells. Advanced Functional Materials, 2021, 31, 2008699.	7.8	13
48	Hysteresis-free Ga2O3 solar-blind phototransistor modulated from photoconduction to photogating effect. Applied Physics Letters, 2022, 120, .	1.5	13
49	Fabrication of compact and stable perovskite films with optimized precursor composition in the fast-growing procedure. Science China Materials, 2017, 60, 608-616.	3.5	12
50	Ternary polymer solar cells based-on two polymer donors with similar HOMO levels and an organic acceptor with absorption extending to 850â€¯nm. Organic Electronics, 2018, 62, 89-94.	1.4	10
51	Comparison of Fused-Ring Electron Acceptors with One- and Multidimensional Conformations. ACS Applied Materials & Interfaces, 2020, 12, 23976-23983.	4.0	10
52	Surface and grain boundary carbon heterogeneity in CH3NH3PbI3 perovskites and its impact on optoelectronic properties. Applied Physics Reviews, 2020, 7, .	5.5	9
53	Perovskite Solar Cells: High-Performance Inverted Planar Heterojunction Perovskite Solar Cells Based on Lead Acetate Precursor with Efficiency Exceeding 18% (Adv. Funct. Mater. 20/2016). Advanced Functional Materials, 2016, 26, 3551-3551.	7.8	6
54	Visualizing Interfacial Jamming Using an Aggregationâ€Inducedâ€Emission Molecular Reporter. Angewandte Chemie, 2021, 133, 8776-8781.	1.6	4

#	Article	IF	Citations
55	Organic Solar Cells: Multi-Length Scaled Silver Nanowire Grid for Application in Efficient Organic Solar Cells (Adv. Funct. Mater. 27/2016). Advanced Functional Materials, 2016, 26, 4806-4806.	7.8	3
56	Conductive Thin Films over Large Areas by Supramolecular Self-Assembly. ACS Applied Materials & Interfaces, 2020, 12, 54020-54025.	4.0	2
57	Laserâ€induced recoverable fluorescence quenching of perovskite films at a microscopic grainâ€scale. Energy and Environmental Materials, 0, , .	7.3	2
58	Characteristics of Non-Fullerene Acceptor-Based Organic Photovoltaic Active Layers Using X-ray Scattering and Solid-State NMR. Journal of Physical Chemistry C, 2021, 125, 15863-15871.	1.5	2
59	Bimolecular crystal instability and morphology of bulk heterojunction blends in organic and perovskite solar cells. Journal of Materials Chemistry C, 2020, 8, 11695-11703.	2.7	1
60	Charge Carrier Balance for Highly Efficient Inverted Planar Heterojunction Perovskite Solar Cells Based on Interface Engineering. , 2016, , .		0
61	Polymer Solar Cells: Highâ€Performance Polymer Solar Cells Based on a Wideâ€Bandgap Polymer Containing Pyrrolo[3,4â€<i>f</i>]benzotriazoleâ€5,7â€dione with a Power Conversion Efficiency of 8.63% (Adv. Sci. 9/2016). Advanced Science, 2016, 3, .	5.6	0
62	Charged Exciton Formation in Compact Polycrystalline Perovskite Thin Films. ACS Photonics, 2022, 9, 1614-1620.	3.2	0