Yaoguang Rong

List of Publications by Year
in descending order

115 papers	12,228 citations	47006 47 h-index	24982 109 g-index
117 all docs	117 docs citations	117 times ranked	11381 citing authors

#	Article	IF	Citations
1	A hole-conductorâ€"free, fully printable mesoscopic perovskite solar cell with high stability. Science, 2014, 345, 295-298.	12.6	2,685
2	Challenges for commercializing perovskite solar cells. Science, 2018, 361, .	12.6	1,327
3	Full Printable Processed Mesoscopic CH3NH3PbI3/TiO2 Heterojunction Solar Cells with Carbon Counter Electrode. Scientific Reports, 2013, 3, 3132.	3.3	697
4	Highâ€Strain Sensors Based on ZnO Nanowire/Polystyrene Hybridized Flexible Films. Advanced Materials, 2011, 23, 5440-5444.	21.0	497
5	Beyond Efficiency: the Challenge of Stability in Mesoscopic Perovskite Solar Cells. Advanced Energy Materials, 2015, 5, 1501066.	19.5	395
6	Solvent engineering towards controlled grain growth in perovskite planar heterojunction solar cells. Nanoscale, 2015, 7, 10595-10599.	5.6	294
7	Stable Largeâ€Area (10â€‰Ã—â€‰10â€‰cm²) Printable Mesoscopic Perovskite Module Exceeding 10% Efficiency. Solar Rrl, 2017, 1, 1600019.	5.8	272
8	Synergy of ammonium chloride and moisture on perovskite crystallization for efficient printable mesoscopic solar cells. Nature Communications, 2017, 8, 14555.	12.8	270
9	Heavily n-Dopable Ï€-Conjugated Redox Polymers with Ultrafast Energy Storage Capability. Journal of the American Chemical Society, 2015, 137, 4956-4959.	13.7	242
10	A Review on Additives for Halide Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1902492.	19.5	240
11	Hole-Conductor-Free Mesoscopic TiO₂/CH₃NH₃PbI₃ Heterojunction Solar Cells Based on Anatase Nanosheets and Carbon Counter Electrodes. Journal of Physical Chemistry Letters, 2014, 5, 2160-2164.	4.6	224
12	Stabilizing Perovskite Solar Cells to IEC61215:2016 Standards with over 9,000-h Operational Tracking. Joule, 2020, 4, 2646-2660.	24.0	218
13	Improved Performance of Printable Perovskite Solar Cells with Bifunctional Conjugated Organic Molecule. Advanced Materials, 2018, 30, 1705786.	21.0	209
14	Multifunctional Polymerâ€Regulated SnO₂ Nanocrystals Enhance Interface Contact for Efficient and Stable Planar Perovskite Solar Cells. Advanced Materials, 2020, 32, e2003990.	21.0	208
15	Tunable hysteresis effect for perovskite solar cells. Energy and Environmental Science, 2017, 10, 2383-2391.	30.8	188
16	Interaction of Organic Cation with Water Molecule in Perovskite MAPbI₃: From Dynamic Orientational Disorder to Hydrogen Bonding. Chemistry of Materials, 2016, 28, 7385-7393.	6.7	169
17	Holeâ€Conductorâ€Free Fully Printable Mesoscopic Solar Cell with Mixedâ€Anion Perovskite CH₃NH₃PbI_{(3âˆ’}<i>_x</i>₎(BF₄)<i>_x</i>. Advanced Energy Materials, 2016, 6, 1502009.	19.5	161
18	Effect of guanidinium on mesoscopic perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 73-78.	10.3	146

#	Article	IF	Citations
19	A Review on Scaling Up Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2008621.	14.9	143
20	Solvent effect on the hole-conductor-free fully printable perovskite solar cells. Nano Energy, 2016, 27, 130-137.	16.0	141
21	Encapsulation of Printable Mesoscopic Perovskite Solar Cells Enables High Temperature and Longâ€Term Outdoor Stability. Advanced Functional Materials, 2019, 29, 1809129.	14.9	133
22	Toward Industrial-Scale Production of Perovskite Solar Cells: Screen Printing, Slot-Die Coating, and Emerging Techniques. Journal of Physical Chemistry Letters, 2018, 9, 2707-2713.	4.6	124
23	Lead-Free Dionâ€“Jacobson Tin Halide Perovskites for Photovoltaics. ACS Energy Letters, 2019, 4, 276-277.	17.4	101
24	Critical kinetic control of non-stoichiometric intermediate phase transformation for efficient perovskite solar cells. Nanoscale, 2016, 8, 12892-12899.	5.6	98
25	Synergistic Effect of PbI₂ Passivation and Chlorine Inclusion Yielding High Openâ€Circuit Voltage Exceeding 1.15 V in Both Mesoscopic and Inverted Planar CH3NH₃PbI₃(Cl)â€Based Perovskite Solar Cells. Advanced Functional Materials, 2016, 26, 8119-8127.	14.9	93
26	Improvement and Regeneration of Perovskite Solar Cells via Methylamine Gas Postâ€Treatment. Advanced Functional Materials, 2017, 27, 1703060.	14.9	89
27	Highly ordered mesoporous carbon for mesoscopic CH3NH3PbI3/TiO2 heterojunction solar cell. Journal of Materials Chemistry A, 2014, 2, 8607.	10.3	88
28	Tailoring the Dimensionality of Hybrid Perovskites in Mesoporous Carbon Electrodes for Typeâ€II Band Alignment and Enhanced Performance of Printable Holeâ€Conductorâ€Free Perovskite Solar Cells. Advanced Energy Materials, 2021, 11, 2100292.	19.5	85
29	A mesoscopic platinized graphite/carbon black counter electrode for a highly efficient monolithic dye-sensitized solar cell. Electrochimica Acta, 2012, 69, 334-339.	5.2	83
30	Boron-Doped Graphite for High Work Function Carbon Electrode in Printable Hole-Conductor-Free Mesoscopic Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 31721-31727.	8.0	83
31	Oxygen management in carbon electrode for high-performance printable perovskite solar cells. Nano Energy, 2018, 53, 160-167.	16.0	83
32	Flexible electrode for long-life rechargeable sodium-ion batteries: effect of oxygen vacancy in MoO_{3âˆ’x}. Journal of Materials Chemistry A, 2016, 4, 5402-5405.	10.3	82
33	Enhanced electronic properties in CH₃NH₃PbI₃via LiCl mixing for hole-conductor-free printable perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 16731-16736.	10.3	81
34	Fully printable perovskite solar cells with highly-conductive, low-temperature, perovskite-compatible carbon electrode. Carbon, 2018, 129, 830-836.	10.3	79
35	Efficient hole-conductor-free, fully printable mesoscopic perovskite solar cells with carbon electrode based on ultrathin graphite. Carbon, 2017, 120, 71-76.	10.3	77
36	Low-temperature solution-processed p-type vanadium oxide for perovskite solar cells. Chemical Communications, 2016, 52, 8099-8102.	4.1	71

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37	Efficient Perovskite Photovoltaicâ€Thermoelectric Hybrid Device. Advanced Energy Materials, 2018, 8, 1702937.	19.5	71
38	Highly efficient poly(3-hexylthiophene) based monolithic dye-sensitized solar cells with carbon counter electrode. Energy and Environmental Science, 2011, 4, 2025.	30.8	70
39	Transparent NiS counter electrodes for thiolate/disulfide mediated dye-sensitized solar cells. Journal of Materials Chemistry A, 2013, 1, 237-240.	10.3	68
40	Improvement in Solid-State Dye Sensitized Solar Cells by <i>p</i>-Type Doping with Lewis Acid SnCl₄. Journal of Physical Chemistry C, 2013, 117, 22492-22496.	3.1	64
41	Crystallization Control of Ternaryâ€Cation Perovskite Absorber in Tripleâ€Mesoscopic Layer for Efficient Solar Cells. Advanced Energy Materials, 2020, 10, 1903092.	19.5	63
42	Efficient triple-mesoscopic perovskite solar mini-modules fabricated with slot-die coating. Nano Energy, 2020, 74, 104842.	16.0	63
43	Amide Additives Induced a Fermi Level Shift To Improve the Performance of Hole-Conductor-Free, Printable Mesoscopic Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2019, 10, 6865-6872.	4.6	62
44	Standardizing Perovskite Solar Modules beyond Cells. Joule, 2019, 3, 2076-2085.	24.0	56
45	The Influence of the Work Function of Hybrid Carbon Electrodes on Printable Mesoscopic Perovskite Solar Cells. Journal of Physical Chemistry C, 2018, 122, 16481-16487.	3.1	52
46	Designs and applications of multi-functional covalent organic frameworks in rechargeable batteries. Energy Storage Materials, 2021, 41, 354-379.	18.0	52
47	Stable monolithic hole-conductor-free perovskite solar cells using TiO 2 nanoparticle binding carbon films. Organic Electronics, 2017, 45, 131-138.	2.6	49
48	Printable carbon-based hole-conductor-free mesoscopic perovskite solar cells: From lab to market. Materials Today Energy, 2018, 7, 221-231.	4.7	47
49	A favored crystal orientation for efficient printable mesoscopic perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 11148-11154.	10.3	42
50	Minimizing the Voltage Loss in Holeâ€Conductorâ€Free Printable Mesoscopic Perovskite Solar Cells. Advanced Energy Materials, 2022, 12, .	19.5	41
51	Mixed (5-AVA)_xMA_{1âˆ’x}PbI_{3âˆ’y}(BF₄)_y perovskites enhance the photovoltaic performance of hole-conductor-free printable mesoscopic solar cells. Journal of Materials Chemistry A, 2018, 6, 2360-2364.	10.3	40
52	A low-temperature carbon electrode with good perovskite compatibility and high flexibility in carbon based perovskite solar cells. Chemical Communications, 2019, 55, 2765-2768.	4.1	40
53	Highly oriented MAPbI3 crystals for efficient hole-conductor-free printable mesoscopic perovskite solar cells. Fundamental Research, 2022, 2, 276-283.	3.3	40
54	An efficient thiolate/disulfide redox couple based dye-sensitized solar cell with a graphene modified mesoscopic carbon counter electrode. Carbon, 2013, 53, 11-18.	10.3	38

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55	Improving the Performance of Perovskite Solar Cells via a Novel Additive of <i>N</i>,1â€Fluoroformamidinium Iodide with Electronâ€Withdrawing Fluorine Group. Advanced Functional Materials, 2021, 31, 2010603.	14.9	37
56	Development of formamidinium lead iodide-based perovskite solar cells: efficiency and stability. Chemical Science, 2022, 13, 2167-2183.	7.4	37
57	Vanadium Oxide Post-Treatment for Enhanced Photovoltage of Printable Perovskite Solar Cells. ACS Sustainable Chemistry and Engineering, 2019, 7, 2619-2625.	6.7	36
58	Efficient Compact-Layer-Free, Hole-Conductor-Free, Fully Printable Mesoscopic Perovskite Solar Cell. Journal of Physical Chemistry Letters, 2016, 7, 4142-4146.	4.6	35
59	Design of an organic redox mediator and optimization of an organic counter electrode for efficient transparent bifacial dye-sensitized solar cells. Physical Chemistry Chemical Physics, 2012, 14, 14383.	2.8	34
60	High performance printable perovskite solar cells based on Cs0.1FA0.9PbI3 in mesoporous scaffolds. Journal of Power Sources, 2019, 415, 105-111.	7.8	34
61	Enhanced perovskite electronic properties via A-site cation engineering. Fundamental Research, 2021, 1, 385-392.	3.3	34
62	Oxygen Vacancy Management for Highâ€Temperature Mesoporous SnO₂ Electron Transport Layers in Printable Perovskite Solar Cells. Angewandte Chemie - International Edition, 2022, 61, .	13.8	32
63	Monolithic quasi-solid-state dye-sensitized solar cells based on iodine-free polymer gel electrolyte. Journal of Power Sources, 2013, 235, 243-250.	7.8	28
64	Enhancement of monobasal solid-state dye-sensitized solar cells with polymer electrolyte assembling imidazolium iodide-functionalized silica nanoparticles. Journal of Power Sources, 2014, 248, 283-288.	7.8	28
65	A Multifunctional Bis-Adduct Fullerene for Efficient Printable Mesoscopic Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 10835-10841.	8.0	28
66	Efficient hole-conductor-free printable mesoscopic perovskite solar cells based on SnO2 compact layer. Electrochimica Acta, 2018, 263, 134-139.	5.2	27
67	Mesoporous nitrogen-doped TiO2 sphere applied for quasi-solid-state dye-sensitized solar cell. Nanoscale Research Letters, 2011, 6, 606.	5.7	26
68	Monolithic all-solid-state dye-sensitized solar module based on mesoscopic carbon counter electrodes. Solar Energy Materials and Solar Cells, 2012, 105, 148-152.	6.2	26
69	Efficient monolithic solid-state dye-sensitized solar cell with a low-cost mesoscopic carbon based screen printable counter electrode. Organic Electronics, 2013, 14, 628-634.	2.6	26
70	Screen printing process control for coating high throughput titanium dioxide films toward printable mesoscopic perovskite solar cells. Frontiers of Optoelectronics, 2019, 12, 344-351.	3.7	26
71	van der Waals Mixed Valence Tin Oxides for Perovskite Solar Cells as UV-Stable Electron Transport Materials. Nano Letters, 2020, 20, 8178-8184.	9.1	26
72	Monolithic quasi-solid-state dye-sensitized solar cells based on graphene-modified mesoscopic carbon-counter electrodes. Journal of Nanophotonics, 2013, 7, 073090.	1.0	25

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73	Crystallization Control of Methylammoniumâ€Free Perovskite in Twoâ€Step Deposited Printable Tripleâ€Mesoscopic Solar Cells. Solar Rrl, 2020, 4, 2000455.	5.8	24
74	In Situ Formation of Î´-FAPbI₃ at the Perovskite/Carbon Interface for Enhanced Photovoltage of Printable Mesoscopic Perovskite Solar Cells. Chemistry of Materials, 2022, 34, 728-735.	6.7	24
75	Mesoporous-Carbon-Based Fully-Printable All-Inorganic Monoclinic CsPbBr₃ Perovskite Solar Cells with Ultrastability under High Temperature and High Humidity. Journal of Physical Chemistry Letters, 2020, 11, 9689-9695.	4.6	23
76	Postâ€Treatment of Mesoporous Scaffolds for Enhanced Photovoltage of Tripleâ€Mesoscopic Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000185.	5.8	22
77	Improvements in printable mesoscopic perovskite solar cells <i>via</i> thinner spacer layers. Sustainable Energy and Fuels, 2018, 2, 2412-2418.	4.9	21
78	Ethanol stabilized precursors for highly reproducible printable mesoscopic perovskite solar cells. Journal of Power Sources, 2019, 424, 261-267.	7.8	21
79	Moisture-driven phase transition for improved perovskite solar cells with reduced trap-state density. Nano Research, 2017, 10, 1413-1422.	10.4	20
80	Efficient monolithic quasi-solid-state dye-sensitized solar cells based on poly(ionic liquids) and carbon counter electrodes. RSC Advances, 2014, 4, 9271.	3.6	19
81	Spacer improvement for efficient and fully printable mesoscopic perovskite solar cells. RSC Advances, 2017, 7, 10118-10123.	3.6	19
82	A C₆₀ Modification Layer Using a Scalable Deposition Technology for Efficient Printable Mesoscopic Perovskite Solar Cells. Solar Rrl, 2018, 2, 1800174.	5.8	19
83	<i>In situ</i> transfer of CH₃NH₃PbI₃ single crystals in mesoporous scaffolds for efficient perovskite solar cells. Chemical Science, 2020, 11, 474-481.	7.4	19
84	Efficient Dyeâ€Sensitized Solar Cells with Potentialâ€Tunable Organic Sulfide Mediators and Grapheneâ€Modified Carbon Counter Electrodes. Advanced Functional Materials, 2013, 23, 3344-3352.	14.9	18
85	A class of carbon supported transition metalâ€“nitrogen complex catalysts for dye-sensitized solar cells. Journal of Materials Chemistry A, 2013, 1, 1475-1480.	10.3	17
86	Modulating Oxygen Vacancies in BaSnO₃ for Printable Carbon-Based Mesoscopic Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 11032-11040.	5.1	17
87	Beyond the Phase Segregation: Probing the Irreversible Phase Reconstruction of Mixedâ€Halide Perovskites. Advanced Science, 2022, 9, e2103948.	11.2	17
88	Effect of photo-doping on performance for solid-state dye-sensitized solar cell based on 2,2â€²7,7â€²-tetrakis-(N,N-di-p-methoxyphenyl-amine)-9,9â€²-spirobifluorene and carbon counter electrode. Electrochimica Acta, 2013, 99, 238-241.	5.2	16
89	Celluloseâ€Based Oxygenâ€Rich Activated Carbon for Printable Mesoscopic Perovskite Solar Cells. Solar Rrl, 2021, 5, 2100333.	5.8	16
90	Effects of 5-Ammonium Valeric Acid Iodide as Additive on Methyl Ammonium Lead Iodide Perovskite Solar Cells. Nanomaterials, 2020, 10, 2512.	4.1	15

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91	Two-Stage Melt Processing of Phase-Pure Selenium for Printable Triple-Mesoscopic Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 33879-33885.	8.0	14
92	Spacer layer design for efficient fully printable mesoscopic perovskite solar cells. RSC Advances, 2019, 9, 29840-29846.	3.6	14
93	Halogen Bond Involved Postâ€Treatment for Improved Performance of Printable Holeâ€Conductorâ€Free Mesoscopic Perovskite Solar Cells. Solar Rrl, 2022, 6, 2100851.	5.8	14
94	Progress in Multifunctional Molecules for Perovskite Solar Cells. Solar Rrl, 2020, 4, 1900248.	5.8	13
95	Series Resistance Modulation for Largeâ€Area Fully Printable Mesoscopic Perovskite Solar Cells. Solar Rrl, 2022, 6, 2100554.	5.8	13
96	Monolithic all-solid-state dye-sensitized solar cells. Frontiers of Optoelectronics, 2013, 6, 359-372.	3.7	12
97	Fully printable transparent monolithic solid-state dye-sensitized solar cell with mesoscopic indium tin oxide counter electrode. Physical Chemistry Chemical Physics, 2014, 16, 17743-17747.	2.8	11
98	Transparent bifacial dye-sensitized solar cells based on an electrochemically polymerized organic counter electrode and an iodine-free polymer gel electrolyte. Journal of Materials Science, 2015, 50, 3803-3811.	3.7	11
99	Modeling the edge effect for measuring the performance of mesoscopic solar cells with shading masks. Journal of Materials Chemistry A, 2019, 7, 10942-10948.	10.3	11
100	Influence of precursor concentration on printable mesoscopic perovskite solar cells. Frontiers of Optoelectronics, 2020, 13, 256-264.	3.7	11
101	Fullerene derivative as an additive for highly efficient printable mesoscopic perovskite solar cells. Organic Electronics, 2018, 62, 653-659.	2.6	10
102	Revealing the Role of Bifunctional Molecules in Crystallizing Methylammonium Lead Iodide through Geometric Isomers. Chemistry of Materials, 2021, 33, 4014-4022.	6.7	10
103	Interfacial Energy Band Alignment Enables the Reduction of Potential Loss for Hole-Conductor-Free Printable Mesoscopic Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2022, 13, 2144-2149.	4.6	10
104	Cl-Assisted Perovskite Crystallization Pathway in the Confined Space of Mesoporous Metal Oxides Unveiled by In Situ Grazing Incidence Wide-Angle X-ray Scattering. Chemistry of Materials, 2022, 34, 2231-2237.	6.7	9
105	Improvement of Thiolate/Disulfide Mediated Dye-Sensitized Solar Cells through Supramolecular Lithium Cation Assembling of Crown Ether. Scientific Reports, 2013, 3, 2413.	3.3	8
106	Investigating the iodide and bromide ion exchange in metal halide perovskite single crystals and thin films. Chemical Communications, 2021, 57, 6125-6128.	4.1	7
107	Improving Holeâ€Conductorâ€Free Fully Printable Mesoscopic Perovskite Solar Cellsâ€™ Performance with Enhanced Openâ€Circuit Voltage via the Octyltrimethylammonium Chloride Additive. Solar Rrl, 2021, 5, 2000825.	5.8	6
108	Hole-conductor-free perovskite solar cells. MRS Bulletin, 2020, 45, 449-457.	3.5	5

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109	All-solid-state Mesoscopic Solar Cells: From Dye-sensitized to Perovskite. Acta Chimica Sinica, 2015, 73, 237.	1.4	4
110	Oxygen Vacancy Management for Highâ€Temperature Mesoporous SnO₂ Electron Transport Layers in Printable Perovskite Solar Cells. Angewandte Chemie, 2022, 134, .	2.0	3
111	Aiming at the industrialization of perovskite solar cells: Coping with stability challenge. Applied Physics Letters, 2021, 119, .	3.3	3
112	Modeling and Balancing the Solvent Evaporation of Thermal Annealing Process for Metal Halide Perovskites and Solar Cells. Small Methods, 2022, 6, e2200161.	8.6	2
113	Solar Cells: Crystallization Control of Ternaryâ€Cation Perovskite Absorber in Tripleâ€Mesoscopic Layer for Efficient Solar Cells (Adv. Energy Mater. 5/2020). Advanced Energy Materials, 2020, 10, 2070022.	19.5	1
114	Application of highly reflective spacer layer in monolithic dye-sensitized solar cells. Chinese Science Bulletin, 2017, 62, 1492-1499.	0.7	0
115	Efficient hole-conductor-free printable mesoscopic perovskite solar cells based on hybrid carbon electrodes. , 2018, , .		0