Yongzhen Wu

List of Publications by Year
in descending order

84 papers	14,652 citations	44069 48 h-index	54911 84 g-index
85 all docs	85 docs citations	85 times ranked	12457 citing authors

#	Article	IF	Citations
1	Efficient and stable large-area perovskite solar cells with inorganic charge extraction layers. Science, 2015, 350, 944-948.	12.6	2,007
2	Organic sensitizers from Dâ€“Ï€â€“A to Dâ€“Aâ€“Ï€â€“A: effect of the internal electron-withdrawing units on molecular absorption, energy levels and photovoltaic performances. Chemical Society Reviews, 2013, 42, 2039-2058.	38.1	997
3	Sulfone-containing covalent organic frameworks for photocatalytic hydrogen evolution from water. Nature Chemistry, 2018, 10, 1180-1189.	13.6	883
4	Retarding the crystallization of PbI₂for highly reproducible planar-structured perovskite solar cells via sequential deposition. Energy and Environmental Science, 2014, 7, 2934-2938.	30.8	807
5	A dopant-free hole-transporting material for efficient and stable perovskite solar cells. Energy and Environmental Science, 2014, 7, 2963-2967.	30.8	668
6	Organic Dâ€Aâ€Ï€â€A Solar Cell Sensitizers with Improved Stability and Spectral Response. Advanced Functional Materials, 2011, 21, 756-763.	14.9	601
7	Perovskite solar cells with 18.21% efficiency andÂarea over 1â€‰cm2 fabricated by heterojunctionÂengineering. Nature Energy, 2016, 1, .	39.5	555
8	Thermally Stable MAPbI₃ Perovskite Solar Cells with Efficiency of 19.19% and Area over 1 cm² achieved by Additive Engineering. Advanced Materials, 2017, 29, 1701073.	21.0	541
9	Vertical recrystallization for highly efficient and stable formamidinium-based inverted-structure perovskite solar cells. Energy and Environmental Science, 2017, 10, 1942-1949.	30.8	402
10	Diffusion engineering of ions and charge carriers for stable efficient perovskite solar cells. Nature Communications, 2017, 8, 15330.	12.8	356
11	Costâ€Performance Analysis of Perovskite Solar Modules. Advanced Science, 2017, 4, 1600269.	11.2	345
12	High-conversion-efficiency organic dye-sensitized solar cells: molecular engineering on Dâ€“Aâ€“Ï€-A featured organic indoline dyes. Energy and Environmental Science, 2012, 5, 8261.	30.8	308
13	Hybrid interfacial layer leads to solid performance improvement of inverted perovskite solar cells. Energy and Environmental Science, 2015, 8, 629-640.	30.8	285
14	Efficient Defect Passivation for Perovskite Solar Cells by Controlling the Electron Density Distribution of Donorâ€Ï€â€Acceptor Molecules. Advanced Energy Materials, 2019, 9, 1803766.	19.5	280
15	Insight into Dâ€“Aâˆ'Ï€â€“A Structured Sensitizers: A Promising Route to Highly Efficient and Stable Dye-Sensitized Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 9307-9318.	8.0	278
16	Incorporating Benzotriazole Moiety to Construct Dâ€“Aâˆ'Ï€â€“A Organic Sensitizers for Solar Cells: Significant Enhancement of Open-Circuit Photovoltage with Long Alkyl Group. Chemistry of Materials, 2011, 23, 4394-4401.	6.7	253
17	The Main Progress of Perovskite Solar Cells in 2020â€“2021. Nano-Micro Letters, 2021, 13, 152.	27.0	250
18	Efficient and Stable Chemical Passivation on Perovskite Surface via Bidentate Anchoring. Advanced Energy Materials, 2019, 9, 1803573.	19.5	232

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19	A novel Dâ€"A-Ï€-A organic sensitizer containing a diketopyrrolopyrrole unit with a branched alkyl chain for highly efficient and stable dye-sensitized solar cells. Chemical Communications, 2012, 48, 6972.	4.1	229
20	High Electron Affinity Enables Fast Hole Extraction for Efficient Flexible Inverted Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1903487.	19.5	210
21	Highly compact TiO₂layer for efficient hole-blocking in perovskite solar cells. Applied Physics Express, 2014, 7, 052301.	2.4	199
22	Hexylthiopheneâ€Featured Dâ€"Aâ€"Ï€â€"A Structural Indoline Chromophores for Coadsorbentâ€Free and Panchromatic Dyeâ€Sensitized Solar Cells. Advanced Energy Materials, 2012, 2, 149-156.	19.5	190
23	Reconstructed covalent organic frameworks. Nature, 2022, 604, 72-79.	27.8	190
24	Constructing High-Efficiency Dâ€"Aâˆ'Ï€â€"A-Featured Solar Cell Sensitizers: a Promising Building Block of 2,3-Diphenylquinoxaline for Antiaggregation and Photostability. ACS Applied Materials & Interfaces, 2013, 5, 4986-4995.	8.0	187
25	Constructing Organic Dâ€"Aâ€"Ï€â€Aâ€Featured Sensitizers with a Quinoxaline Unit for Highâ€Efficiency Solar Cells: The Effect of an Auxiliary Acceptor on the Absorption and the Energy Level Alignment. Chemistry - A European Journal, 2012, 18, 8190-8200.	3.3	171
26	Semiâ€Locked Tetrathienylethene as a Building Block for Holeâ€Transporting Materials: Toward Efficient and Stable Perovskite Solar Cells. Angewandte Chemie - International Edition, 2019, 58, 3784-3789.	13.8	163
27	D-A-Ï€-A Featured Sensitizers Bearing Phthalimide and Benzotriazole as Auxiliary Acceptor: Effect on Absorption and Charge Recombination Dynamics in Dye-Sensitized Solar Cells. ACS Applied Materials & Interfaces, 2012, 4, 1822-1830.	8.0	148
28	Comprehensive control of voltage loss enables 11.7% efficient solid-state dye-sensitized solar cells. Energy and Environmental Science, 2018, 11, 1779-1787.	30.8	148
29	Enhanced Stability of Perovskite Solar Cells through Corrosionâ€Free Pyridine Derivatives in Holeâ€Transporting Materials. Advanced Materials, 2016, 28, 10738-10743.	21.0	147
30	Low cost and stable quinoxaline-based hole-transporting materials with a Dâ€"Aâ€"D molecular configuration for efficient perovskite solar cells. Chemical Science, 2018, 9, 5919-5928.	7.4	146
31	Highâ€Quality Mixedâ€Organicâ€Cation Perovskites from a Phaseâ€Pure Nonâ€stoichiometric Intermediate (FAI)_{1âˆ'}<i>_x</i>â€PbI₂ for Solar Cells. Advanced Materials, 2015, 27, 4918-4923.	21.0	140
32	A Coplanar Ï€â€Extended Quinoxaline Based Holeâ€Transporting Material Enabling over 21â€‰% Efficiency for Dopantâ€Free Perovskite Solar Cells. Angewandte Chemie - International Edition, 2021, 60, 2674-2679.	13.8	140
33	Control of Electrical Potential Distribution for High-Performance Perovskite Solar Cells. Joule, 2018, 2, 296-306.	24.0	138
34	Stable Inverted Planar Perovskite Solar Cells with Lowâ€Temperatureâ€Processed Holeâ€Transport Bilayer. Advanced Energy Materials, 2017, 7, 1700763.	19.5	115
35	Charge-transport layer engineering in perovskite solar cells. Science Bulletin, 2020, 65, 1237-1241.	9.0	115
36	Annealing-free perovskite films by instant crystallization for efficient solar cells. Journal of Materials Chemistry A, 2016, 4, 8548-8553.	10.3	103

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37	Cosensitization of D-A-Ï€-A Quinoxaline Organic Dye: Efficiently Filling the Absorption Valley with High Photovoltaic Efficiency. ACS Applied Materials & Interfaces, 2015, 7, 5296-5304.	8.0	102
38	Indeno[1,2â€<i>b</i>]carbazole as Methoxyâ€Free Donor Group: Constructing Efficient and Stable Holeâ€Transporting Materials for Perovskite Solar Cells. Angewandte Chemie - International Edition, 2019, 58, 15721-15725.	13.8	94
39	Absorption and photovoltaic properties of organic solar cell sensitizers containing fluorene unit as conjunction bridge. Energy and Environmental Science, 2011, 4, 1830.	30.8	88
40	Insight into Benzothiadiazole Acceptor in Dâ€“Aâˆ’Ï€â€“A Configuration on Photovoltaic Performances of Dye-Sensitized Solar Cells. ACS Sustainable Chemistry and Engineering, 2014, 2, 1026-1034.	6.7	86
41	Dye-Sensitized Solar Cells Based on Quinoxaline Dyes: Effect of Ï€-Linker on Absorption, Energy Levels, and Photovoltaic Performances. Journal of Physical Chemistry C, 2014, 118, 16552-16561.	3.1	72
42	In situ growth of graphene on both sides of a Cuâ€“Ni alloy electrode for perovskite solar cells with improved stability. Nature Energy, 2022, 7, 520-527.	39.5	68
43	Effect of a Long Alkyl Group on Cyclopentadithiophene as a Conjugated Bridge for Dâ€“Aâˆ’Ï€â€“A Organic Sensitizers: IPCE, Electron Diffusion Length, and Charge Recombination. ACS Applied Materials & Interfaces, 2014, 6, 14621-14630.	8.0	67
44	Extrinsic Movable Ions in MAPbI₃ Modulate Energy Band Alignment in Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1701981.	19.5	62
45	Phenanthreneâ€Fusedâ€Quinoxaline as a Key Building Block for Highly Efficient and Stable Sensitizers in Copperâ€Electrolyteâ€Based Dyeâ€Sensitized Solar Cells. Angewandte Chemie - International Edition, 2020, 59, 9324-9329.	13.8	59
46	Making Room for Growing Oriented FASnI₃ with Large Grains via Cold Precursor Solution. Advanced Functional Materials, 2021, 31, 2100931.	14.9	57
47	Near-Infrared Colorimetric and Fluorescent Cu²⁺ Sensors Based on Indolineâ€“Benzothiadiazole Derivatives via Formation of Radical Cations. ACS Applied Materials & Interfaces, 2013, 5, 12215-12220.	8.0	56
48	Bonding Strength Regulates Anchoringâ€Based Selfâ€Assembly Monolayers for Efficient and Stable Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2103847.	14.9	53
49	Rational Molecular Engineering of Indoline-Based D-A-Ï€-A Organic Sensitizers for Long-Wavelength-Responsive Dye-Sensitized Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 26802-26810.	8.0	48
50	Improving Contact and Passivation of Buried Interface for Highâ€Efficiency and Largeâ€Area Inverted Perovskite Solar Cells. Advanced Functional Materials, 2022, 32, 2109968.	14.9	47
51	Stable Î±â€FAPbI₃ in Inverted Perovskite Solar Cells with Efficiency Exceeding 22% via a Selfâ€Passivation Strategy. Advanced Functional Materials, 2022, 32, .	14.9	47
52	Robust hole transport material with interface anchors enhances the efficiency and stability of inverted formamidiniumâ€“cesium perovskite solar cells with a certified efficiency of 22.3%. Energy and Environmental Science, 2022, 15, 2567-2580.	30.8	46
53	Molecular Engineering of Quinoxaline-Based Dâ€“Aâˆ’Ï€â€“A Organic Sensitizers: Taking the Merits of a Large and Rigid Auxiliary Acceptor. ACS Applied Materials & Interfaces, 2018, 10, 13635-13644.	8.0	45
54	Consecutive Morphology Controlling Operations for Highly Reproducible Mesostructured Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 20707-20713.	8.0	43

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55	Molecular engineering and sequential cosensitization for preventing the â€œtrade-offâ€• effect with photovoltaic enhancement. Chemical Science, 2017, 8, 2115-2124.	7.4	41
56	Synergistic Coassembly of Highly Wettable and Uniform Holeâ€Extraction Monolayers for Scalingâ€up Perovskite Solar Cells. Advanced Functional Materials, 2020, 30, 1909509.	14.9	41
57	Co-sensitization of benzoxadiazole based Dâ€“Aâ€“Ï€â€“A featured sensitizers: compensating light-harvesting and retarding charge recombination. Journal of Materials Chemistry A, 2014, 2, 14649-14657.	10.3	39
58	Dâ€“Aâ€“Ï€â€“A featured sensitizers containing an auxiliary acceptor of benzoxadiazole: molecular engineering and co-sensitization. Journal of Materials Chemistry A, 2015, 3, 10603-10609.	10.3	33
59	Stabilizing Formamidinium Lead Iodide Perovskite by Sulfonylâ€Functionalized Phenethylammonium Salt via Crystallization Control and Surface Passivation. Solar Rrl, 2020, 4, 2000069.	5.8	33
60	Reduction of Nonradiative Loss in Inverted Perovskite Solar Cells by Donorâ^'Ï€â€“Acceptor Dipoles. ACS Applied Materials & Interfaces, 2021, 13, 44321-44328.	8.0	30
61	Semiâ€Locked Tetrathienylethene as a Building Block for Holeâ€Transporting Materials: Toward Efficient and Stable Perovskite Solar Cells. Angewandte Chemie, 2019, 131, 3824-3829.	2.0	29
62	Electron-enriched thione enables strong Pbâ€“S interaction for stabilizing high quality CsPbI₃ perovskite films with low-temperature processing. Chemical Science, 2020, 11, 3132-3140.	7.4	29
63	Engineering Nanoparticulate Organic Photocatalysts via a Scalable Flash Nanoprecipitation Process for Efficient Hydrogen Production. Angewandte Chemie - International Edition, 2021, 60, 15590-15597.	13.8	29
64	Synergistic effect of amide and fluorine of polymers assist stable inverted perovskite solar cells with fill factorÂ>Â83%. Chemical Engineering Journal, 2022, 442, 136136.	12.7	29
65	Self-assembled naphthalimide derivatives as an efficient and low-cost electron extraction layer for n-i-p perovskite solar cells. Chemical Communications, 2019, 55, 13239-13242.	4.1	27
66	Novel Squaraine Cosensitization System of Panchromatic Light-Harvesting with Synergistic Effect for Highly Efficient Solar Cells. ACS Sustainable Chemistry and Engineering, 2016, 4, 3567-3574.	6.7	23
67	Organic sensitizers incorporating 3,4-ethylenedioxythiophene as the conjugated bridge: Joint photophysical and electrochemical analysis of photovoltaic performance. Dyes and Pigments, 2013, 99, 176-184.	3.7	17
68	Phenanthreneâ€Fusedâ€Quinoxaline as a Key Building Block for Highly Efficient and Stable Sensitizers in Copperâ€Electrolyteâ€Based Dyeâ€Sensitized Solar Cells. Angewandte Chemie, 2020, 132, 9410-9415.	2.0	17
69	A Coplanar Ï€â€Extended Quinoxaline Based Holeâ€Transporting Material Enabling over 21â€‰% Efficiency for Dopantâ€Free Perovskite Solar Cells. Angewandte Chemie, 2021, 133, 2706-2711.	2.0	17
70	Efficient p-i-n structured perovskite solar cells employing low-cost and highly reproducible oligomers as hole transporting materials. Science China Chemistry, 2019, 62, 767-774.	8.2	16
71	Comparative Studies on the Structureâ€“Performance Relationships of Phenothiazine-Based Organic Dyes for Dye-Sensitized Solar Cells. ACS Omega, 2021, 6, 6817-6823.	3.5	16
72	Indeno[1,2â€<i>b</i>]carbazole as Methoxyâ€Free Donor Group: Constructing Efficient and Stable Holeâ€Transporting Materials for Perovskite Solar Cells. Angewandte Chemie, 2019, 131, 15868-15872.	2.0	15

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73	Dopant-free hole-transporting materials for stable Sb₂(S,Se)₃ solar cells. Chemical Communications, 2022, 58, 4787-4790.	4.1	15
74	Anchorable Perylene Diimides as Chemically Inert Electron Transport Layer for Efficient and Stable Perovskite Solar Cells with High Reproducibility. Solar Rrl, 2021, 5, 2000736.	5.8	14
75	Lignin Nanoparticles: Promising Sustainable Building Blocks of Photoluminescent and Haze Films for Improving Efficiency of Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 33536-33545.	8.0	13
76	Efficient and Stable Methylammonium-Free Tin-Lead Perovskite Solar Cells with Hexaazatrinaphthylene-Based Hole-Transporting Materials. ACS Applied Materials & Interfaces, 2022, 14, 6852-6858.	8.0	13
77	Accurate and fast evaluation of perovskite solar cells with least hysteresis. Applied Physics Express, 2017, 10, 076601.	2.4	12
78	Selective Deposition of Insulating Metal Oxide in Perovskite Solar Cells with Enhanced Device Performance. ChemSusChem, 2015, 8, 2625-2629.	6.8	10
79	Incorporating quinoxaline unit as additional acceptor for constructing efficient donor-free solar cell sensitizers. Dyes and Pigments, 2018, 149, 65-72.	3.7	10
80	Star-shaped D-Ï€-D hole-transporting materials regulated by molecular planarity and their application in efficient perovskite solar cells. Journal of Power Sources, 2021, 506, 230102.	7.8	7
81	Pyridine functionalized phenothiazine derivatives as low-cost and stable hole-transporting material for perovskite solar cells. Materials Today Energy, 2021, , 100903.	4.7	4
82	Methylthiophene terminated Dâ€“Ï€â€“D molecular semiconductors as multifunctional interfacial materials for high performance perovskite solar cells. Journal of Materials Chemistry C, 2022, 10, 1862-1869.	5.5	4
83	Engineering Nanoparticulate Organic Photocatalysts via a Scalable Flash Nanoprecipitation Process for Efficient Hydrogen Production. Angewandte Chemie, 2021, 133, 15718-15725.	2.0	1
84	Molecular engineering of starâ€shaped indoline hole transport materials: The influence of planarity on the hole extraction and transport processes. Chemistry - A European Journal, 2022, , .	3.3	1