Xichuan Yang

List of Publications by Year
in descending order

114 papers	6,956 citations	57758 44 h-index	60623 81 g-index
116 all docs	116 docs citations	116 times ranked	6377 citing authors

#	Article	IF	Citations
1	Natural Chlorophyll Derivative Assisted Defect Passivation and Hole Extraction for MAPbI₃ Perovskite Solar Cells with Efficiency Exceeding 20%. ACS Applied Energy Materials, 2022, 5, 1390-1396.	5.1	5
2	A Dâ€“Ï€â€“A Organic Dye as a Passivator to Effectively Regulate the Performance of Perovskite Solar Cells. Energy Technology, 2022, 10, .	3.8	2
3	A crosslinked polymer as dopant-free hole-transport material for efficient n-i-p type perovskite solar cells. Journal of Energy Chemistry, 2021, 55, 211-218.	12.9	29
4	Facile synthesized fluorine substituted benzothiadiazole based dopant-free hole transport material for high efficiency perovskite solar cell. Dyes and Pigments, 2021, 184, 108786.	3.7	15
5	Compositionally Designed 2D Ruddlesdenâ€“Popper Perovskites for Efficient and Stable Solar Cells. Solar Rrl, 2021, 5, 2000661.	5.8	8
6	Copper redox mediators with alkoxy groups suppressing recombination for dye-sensitized solar cells. Electrochimica Acta, 2021, 368, 137564.	5.2	10
7	<i>N</i>-Bromosuccinimide as a p-type dopant for a Spiro-OMeTAD hole transport material to enhance the performance of perovskite solar cells. Sustainable Energy and Fuels, 2021, 5, 2294-2300.	4.9	5
8	Surface Defect Passivation and Energy Level Alignment Engineering with a Fluorine-Substituted Hole Transport Material for Efficient Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 13470-13477.	8.0	26
9	Helical Copper Redox Mediator with Low Electron Recombination for Dye-Sensitized Solar Cells. ACS Sustainable Chemistry and Engineering, 2021, 9, 5252-5259.	6.7	6
10	Passivation functionalized phenothiazine-based hole transport material for highly efficient perovskite solar cell with efficiency exceeding 22%. Chemical Engineering Journal, 2021, 410, 128328.	12.7	83
11	Effect of Different Site Trifluoromethylbenzoic Acid Organic Photosensitizer for Dyeâ€sensitized Solar Cells. ChemistrySelect, 2021, 6, 4645-4650.	1.5	3
12	Thiophene-fused carbazole derivative dyes for high-performance dye-sensitized solar cells. Tetrahedron, 2021, 88, 132124.	1.9	5
13	Interfacial Molecular Doping and Energy Level Alignment Regulation for Perovskite Solar Cells with Efficiency Exceeding 23%. ACS Energy Letters, 2021, 6, 2690-2696.	17.4	96
14	A carbazole-based dopant-free hole-transport material for perovskite solar cells by increasing the molecular conjugation. Organic Electronics, 2021, 96, 106244.	2.6	2
15	Construct efficient CsPbI2Br solar cells by minimizing the open-circuit voltage loss through controlling the peripheral substituents of hole-transport materials. Chemical Engineering Journal, 2021, 425, 131675.	12.7	34
16	Construction of efficient perovskite solar cell through small-molecule synergistically assisted surface defect passivation and fluorescence resonance energy transfer. Chemical Engineering Journal, 2021, 426, 131358.	12.7	22
17	Supramolecular Co-adsorption on TiO₂ to enhance the efficiency of dye-sensitized solar cells. Journal of Materials Chemistry A, 2021, 9, 13697-13703.	10.3	5
18	Copper Piperazine Complex with a High Diffusion Coefficient for Dye-Sensitized Solar Cells. ACS Applied Energy Materials, 2021, 4, 14004-14013.	5.1	2

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19	Electronâ€Withdrawing Anchor Group of Sensitizer for Dyeâ€Sensitized Solar Cells, Cyanoacrylic Acid, or Benzoic Acid?. Solar Rrl, 2020, 4, 1900436.	5.8	20
20	Fine-Tuning by Triple Bond of Carbazole Derivative Dyes to Obtain High Efficiency for Dye-Sensitized Solar Cells with Copper Electrolyte. ACS Applied Materials & Interfaces, 2020, 12, 46397-46405.	8.0	27
21	Unveiling the light soaking effects of the CsPbI3 perovskite solar cells. Journal of Power Sources, 2020, 472, 228506.	7.8	21
22	Benzo[1,2-<i>c</i>:4,5-<i>c</i>â€²]dithiophene-4,8-dione (BDD) Core Building Block Based Dopant-Free Hole-Transport Materials for Efficient and Stable Perovskite Solar Cell. ACS Applied Energy Materials, 2020, 3, 10333-10339.	5.1	3
23	Conformational and Compositional Tuning of Phenanthrocarbazole-Based Dopant-Free Hole-Transport Polymers Boosting the Performance of Perovskite Solar Cells. Journal of the American Chemical Society, 2020, 142, 17681-17692.	13.7	83
24	Bipolar Organic Material Assisted Surface and Boundary Defects Passivation for Highly Efficient MAPbI 3 â€Based Inverted Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000369.	5.8	5
25	Triazatruxene-based sensitizers for highly efficient solid-state dye-sensitized solar cells. Solar Energy, 2020, 212, 1-5.	6.1	9
26	Side-chain engineering of PEDOT derivatives as dopant-free hole-transporting materials for efficient and stable nâ€“iâ€“p structured perovskite solar cells. Journal of Materials Chemistry C, 2020, 8, 9236-9242.	5.5	14
27	Effect of Side Substituents Incorporated into Ï€â€Bridges of Quinoxalineâ€Based Sensitizers for Dyeâ€Sensitized Solar Cells. Energy Technology, 2020, 8, 2000032.	3.8	5
28	Effect of fluorine substituents on benzothiadiazole-based Dâ€“Ï€â€“Aâ€²â€“Ï€â€“A photosensitizers for dye-sensitized solar cells. RSC Advances, 2020, 10, 9203-9209.	3.6	12
29	Two-dimensional cyclohexane methylamine based perovskites as stable light absorbers for solar cells. Solar Energy, 2020, 201, 13-20.	6.1	7
30	High isotropic dispiro structure hole transporting materials for planar perovskite solar cells. Journal of Energy Chemistry, 2019, 32, 152-158.	12.9	7
31	Improving energy transfer efficiency of dye-sensitized solar cell by fine tuning of dye planarity. Solar Energy, 2019, 187, 274-280.	6.1	24
32	Perovskite Solar Cells: Reverseâ€Graded 2D Ruddlesdenâ€“Popper Perovskites for Efficient Airâ€Stable Solar Cells (Adv. Energy Mater. 21/2019). Advanced Energy Materials, 2019, 9, 1970075.	19.5	1
33	Boosting the power conversion efficiency of perovskite solar cells to 17.7% with an indolo[3,2-<i>b</i>]carbazole dopant-free hole transporting material by improving its spatial configuration. Journal of Materials Chemistry A, 2019, 7, 14835-14841.	10.3	39
34	Reverseâ€Graded 2D Ruddlesdenâ€“Popper Perovskites for Efficient Airâ€Stable Solar Cells. Advanced Energy Materials, 2019, 9, 1900612.	19.5	69
35	Analysis and optimization of alloyed Al-p⁺ region and rear contacts for highly efficient industrial n-type silicon solar cells. RSC Advances, 2019, 9, 6681-6688.	3.6	4
36	13.6% Efficient Organic Dye-Sensitized Solar Cells by Minimizing Energy Losses of the Excited State. ACS Energy Letters, 2019, 4, 943-951.	17.4	284

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37	Polymeric, Cost-Effective, Dopant-Free Hole Transport Materials for Efficient and Stable Perovskite Solar Cells. Journal of the American Chemical Society, 2019, 141, 19700-19707.	13.7	119
38	Molecular Engineering of Copper Phthalocyanines: A Strategy in Developing Dopantâ€Free Holeâ€Transporting Materials for Efficient and Ambientâ€Stable Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1803287.	19.5	138
39	DDQ as an effective p-type dopant for the hole-transport material X1 and its application in stable solid-state dye-sensitized solar cells. Journal of Energy Chemistry, 2018, 27, 413-418.	12.9	9
40	Progress in hole-transporting materials for perovskite solar cells. Journal of Energy Chemistry, 2018, 27, 650-672.	12.9	90
41	Enhancing the Energyâ€Conversion Efficiency of Solidâ€State Dyeâ€Sensitized Solar Cells with a Chargeâ€Transfer Complex based on 2,3â€Dichloroâ€5,6â€dicyanoâ€1,4â€benzoquinone. Energy Technology, 2018, 6, 752-758.	3.8	5
42	Improved performance and air stability of perovskite solar cells based on low-cost organic hole-transporting material X60 by incorporating its dicationic salt. Science China Chemistry, 2018, 61, 172-179.	8.2	20
43	One plus one greater than two: high-performance inverted planar perovskite solar cells based on a composite CuI/CuSCN hole-transporting layer. Journal of Materials Chemistry A, 2018, 6, 21435-21444.	10.3	64
44	A facile route to grain morphology controllable perovskite thin films towards highly efficient perovskite solar cells. Nano Energy, 2018, 53, 405-414.	16.0	60
45	A novel analysis method to determine the surface recombination velocities on unequally passivated surfaces of a silicon wafer by the short wavelength spectrum excited quasi-steady-state photoconductance measurement. AIP Advances, 2018, 8, 065218.	1.3	3
46	Efficient and Stable Dye-Sensitized Solar Cells Based on a Tetradentate Copper(II/I) Redox Mediator. ACS Applied Materials & Interfaces, 2018, 10, 30409-30416.	8.0	31
47	Efficient dye-sensitized solar cells with [copper(6,6â€²-dimethyl-2,2â€²-bipyridine)₂]^{2+/1+} redox shuttle. RSC Advances, 2017, 7, 4611-4615.	3.6	48
48	High-Performance Regular Perovskite Solar Cells Employing Low-Cost Poly(ethylenedioxythiophene) as a Hole-Transporting Material. Scientific Reports, 2017, 7, 42564.	3.3	52
49	Interfacial Engineering of Perovskite Solar Cells by Employing a Hydrophobic Copper Phthalocyanine Derivative as Holeâ€Transporting Material with Improved Performance and Stability. ChemSusChem, 2017, 10, 1838-1845.	6.8	54
50	A Perylenediimide Tetramerâ€Based 3D Electron Transport Material for Efficient Planar Perovskite Solar Cell. Solar Rrl, 2017, 1, 1700046.	5.8	28
51	High-efficiency perovskite solar cells employing a conjugated donorâ€"acceptor co-polymer as a hole-transporting material. RSC Advances, 2017, 7, 27189-27197.	3.6	27
52	Efficient and Stable Inverted Planar Perovskite Solar Cells Employing CuI as Holeâ€Transporting Layer Prepared by Solidâ€"Gas Transformation. Energy Technology, 2017, 5, 1836-1843.	3.8	94
53	Low-cost solution-processed digenite Cu₉S₅ counter electrode for dye-sensitized solar cells. RSC Advances, 2017, 7, 38452-38457.	3.6	6
54	A solution-processable copper(<scp>ii</scp>) phthalocyanine derivative as a dopant-free hole-transporting material for efficient and stable carbon counter electrode-based perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 17862-17866.	10.3	67

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55	Can aliphatic anchoring groups be utilised with dyes for p-type dye sensitized solar cells?. Dalton Transactions, 2016, 45, 7708-7719.	3.3	24
56	Boosting the efficiency and the stability of low cost perovskite solar cells by using CuPc nanorods as hole transport material and carbon as counter electrode. Nano Energy, 2016, 20, 108-116.	16.0	240
57	Phenoxazineâ€Based Small Molecule Material for Efficient Perovskite Solar Cells and Bulk Heterojunction Organic Solar Cells. Advanced Energy Materials, 2015, 5, 1401720.	19.5	109
58	Phenoxazine-based panchromatic organic sensitizers for dye-sensitized solar cells. Dyes and Pigments, 2015, 116, 58-64.	3.7	21
59	Novel Small Molecular Materials Based on Phenoxazine Core Unit for Efficient Bulk Heterojunction Organic Solar Cells and Perovskite Solar Cells. Chemistry of Materials, 2015, 27, 1808-1814.	6.7	100
60	Engineering of hole-selective contact for low temperature-processed carbon counter electrode-based perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 24272-24280.	10.3	78
61	Influence of different methylene units on the performance of rhodanine organic dyes for dye-sensitized solar cells. RSC Advances, 2014, 4, 4811.	3.6	5
62	Molecular engineering of small molecules donor materials based on phenoxazine core unit for solution-processed organic solar cells. Journal of Materials Chemistry A, 2014, 2, 10465-10469.	10.3	15
63	Phenothiazine derivatives-based Dâ€“Ï€â€“A and Dâ€“Aâ€“Ï€â€“A organic dyes for dye-sensitized solar cells. RSC Advances, 2014, 4, 24377.	3.6	38
64	Organic Dâ€“Ï€â€“A sensitizer with pyridinium as the acceptor group for dye-sensitized solar cells. RSC Advances, 2014, 4, 34644-34648.	3.6	7
65	Red-Absorbing Cationic Acceptor Dyes for Photocathodes in Tandem Solar Cells. Journal of Physical Chemistry C, 2014, 118, 16536-16546.	3.1	51
66	Efficient Organic Sensitizers with Pyridineâ€<i>N</i>â€oxide as an Anchor Group for Dyeâ€Sensitized Solar Cells. ChemSusChem, 2014, 7, 2640-2646.	6.8	14
67	Structure Engineering of Holeâ€“Conductor Free Perovskite-Based Solar Cells with Low-Temperature-Processed Commercial Carbon Paste As Cathode. ACS Applied Materials & Interfaces, 2014, 6, 16140-16146.	8.0	245
68	Application of Small Molecule Donor Materials Based on Phenothiazine Core Unit in Bulk Heterojunction Solar Cells. Journal of Physical Chemistry C, 2014, 118, 16851-16855.	3.1	24
69	Highly efficient organic dyes containing a benzopyran ring as a Ï€â€“bridge for DSSCs. RSC Advances, 2013, 3, 12688.	3.6	5
70	Effect of the acceptor on the performance of dye-sensitized solar cells. Physical Chemistry Chemical Physics, 2013, 15, 17452.	2.8	37
71	Dye-sensitized solar cells based on hydroquinone/benzoquinone as bio-inspired redox couple with different counter electrodes. Physical Chemistry Chemical Physics, 2013, 15, 15146.	2.8	19
72	A new type of organic sensitizers with pyridine-N-oxide as the anchoring group for dye-sensitized solar cells. RSC Advances, 2013, 3, 13677.	3.6	35

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73	Efficient Panchromatic Organic Sensitizers with Dihydrothiazole Derivative as Ï€-Bridge for Dye-Sensitized Solar Cells. ACS Applied Materials & Interfaces, 2013, 5, 10960-10965.	8.0	35
74	Axial anchoring designed siliconâ€“porphyrin sensitizers for efficient dye-sensitized solar cells. Chemical Communications, 2013, 49, 11785.	4.1	26
75	Efficient Organic Dyeâ€Sensitized Solar Cells: Molecular Engineering of Donorâ€“Acceptorâ€“Acceptor cationic dyes. ChemSusChem, 2013, 6, 2322-2329.	6.8	26
76	Tuning band structures of dyes for dye-sensitized solar cells: effect of different Ï€-bridges on the performance of cells. RSC Advances, 2013, 3, 15734.	3.6	23
77	Highly efficient iso-quinoline cationic organic dyes without vinyl groups for dye-sensitized solar cells. Journal of Materials Chemistry A, 2013, 1, 2441.	10.3	30
78	Coâ€sensitization of Organic Dyes for Efficient Dyeâ€Sensitized Solar Cells. ChemSusChem, 2013, 6, 70-77.	6.8	56
79	Tuning the HOMO and LUMO Energy Levels of Organic Dyes with <i>N</i>-Carboxomethylpyridinium as Acceptor To Optimize the Efficiency of Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2013, 117, 9076-9083.	3.1	72
80	Molecular Design and Performance of Hydroxylpyridium Sensitizers for Dye-Sensitized Solar Cells. ACS Applied Materials & Interfaces, 2013, 5, 5227-5231.	8.0	50
81	Degradation of Cyanoacrylic Acidâ€Based Organic Sensitizers in Dyeâ€Sensitized Solar Cells. ChemSusChem, 2013, 6, 1270-1275.	6.8	56
82	Solvent-free ionic liquid electrolytes without elemental iodine for dye-sensitized solar cells. Physical Chemistry Chemical Physics, 2012, 14, 11592.	2.8	28
83	Dyeâ€Sensitized Solar Cells Based on a Donorâ€“Acceptor System with a Pyridine Cation as an Electronâ€Withdrawing Anchoring Group. Chemistry - A European Journal, 2012, 18, 16196-16202.	3.3	57
84	Molecular Design of Dâ€Ï€â€A Type II Organic Sensitizers for Dye Sensitized Solar Cells. Chinese Journal of Chemistry, 2012, 30, 2315-2321.	4.9	14
85	A highly efficient colourless sulfur/iodide-based hybrid electrolyte for dye-sensitized solar cells. RSC Advances, 2012, 2, 3625.	3.6	39
86	Femtosecond to millisecond studies of electron transfer processes in a donorâ€“(Ï€-spacer)â€“acceptor series of organic dyes for solar cells interacting with titania nanoparticles and ordered nanotube array films. Physical Chemistry Chemical Physics, 2012, 14, 2816.	2.8	40
87	Iodine/iodide-free redox shuttles for liquid electrolyte-based dye-sensitized solar cells. Energy and Environmental Science, 2012, 5, 9180.	30.8	146
88	Efficient Dyeâ€Sensitized Solar Cells Based on Hydroquinone/Benzoquinone as a Bioinspired Redox Couple. Angewandte Chemie - International Edition, 2012, 51, 9896-9899.	13.8	61
89	Photo-induced electron transfer study of D-Ï€-A sensitizers with different type of anchoring groups for dye-sensitized solar cells. RSC Advances, 2012, 2, 6011.	3.6	8
90	Efficient dye-sensitized solar cells based on an iodine-free electrolyte using l-cysteine/l-cystine as a redox couple. Energy and Environmental Science, 2012, 5, 6290-6293.	30.8	56

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91	Engineering of highly efficient tetrahydroquinoline sensitizers for dye-sensitized solar cells. Tetrahedron, 2012, 68, 552-558.	1.9	42
92	Efficient organic dye sensitized solar cells based on modified sulfide/polysulfide electrolyte. Journal of Materials Chemistry, 2011, 21, 5573.	6.7	32
93	A photo-induced electron transfer study of an organic dye anchored on the surfaces of TiO2 nanotubes and nanoparticles. Physical Chemistry Chemical Physics, 2011, 13, 4032.	2.8	45
94	A Doubleâ€Band Tandem Organic Dyeâ€sensitized Solar Cell with an Efficiency of 11.5â€‰%. ChemSusChem, 2011, 4, 609-612.	6.8	33
95	Molecular Design to Improve the Performance of Donorâ€“Ï€ Acceptor Nearâ€IR Organic Dyeâ€Sensitized Solar Cells. ChemSusChem, 2011, 4, 1601-1605.	6.8	30
96	Tuning the HOMO Energy Levels of Organic Dyes for Dyeâ€Sensitized Solar Cells Based on Br^{â^'}/Br₃^{â^'} Electrolytes. Chemistry - A European Journal, 2010, 16, 13127-13138.	3.3	112
97	Molecular Design of Anthracene-Bridged Metal-Free Organic Dyes for Efficient Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2010, 114, 9101-9110.	3.1	216
98	Interrogating the ultrafast dynamics of an efficient dye for sunlight conversion. Physical Chemistry Chemical Physics, 2010, 12, 8098.	2.8	22
99	Electrogenerated chemiluminescence of benzo 15â€crownâ€5 derivatives. Journal of Physical Organic Chemistry, 2009, 22, 1-8.	1.9	8
100	Tuning of phenoxazine chromophores for efficient organic dye-sensitized solar cells. Chemical Communications, 2009, , 6288.	4.1	156
101	Efficient near infrared Dâ€“Ï€â€“A sensitizers with lateral anchoring group for dye-sensitized solar cells. Chemical Communications, 2009, , 4031.	4.1	112
102	Two Novel Carbazole Dyes for Dye-Sensitized Solar Cells with Open-Circuit Voltages up to 1 V Based on Br^{â^'}/Br₃^{â^'} Electrolytes. Organic Letters, 2009, 11, 5542-5545.	4.6	166
103	A metal-free â€œblack dyeâ€• for panchromatic dye-sensitized solar cells. Energy and Environmental Science, 2009, 2, 674.	30.8	153
104	Photoinduced Intramolecular Charge Transfer and S₂ Fluorescence in Thiopheneâ€Ï€â€Conjugated Donorâ€“Acceptor Systems: Experimental and TDDFT Studies. Chemistry - A European Journal, 2008, 14, 6935-6947.	3.3	203
105	A Triphenylamine Dye Model for the Study of Intramolecular Energy Transfer and Charge Transfer in Dyeâ€Sensitized Solar Cells. Advanced Functional Materials, 2008, 18, 3461-3468.	14.9	131
106	Photoinduced intramolecular charge-transfer state in thiophene-Ï€-conjugated donorâ€“acceptor molecules. Journal of Molecular Structure, 2008, 876, 102-109.	3.6	72
107	Effect of Different Dye Baths and Dye-Structures on the Performance of Dye-Sensitized Solar Cells Based on Triphenylamine Dyes. Journal of Physical Chemistry C, 2008, 112, 11023-11033.	3.1	432
108	Electrogenerated Chemiluminescence of a Series of Donorâ^'Acceptor Molecules and X-ray Crystallographic Evidence for the Reaction Mechanisms. Journal of Physical Chemistry C, 2007, 111, 9595-9602.	3.1	29

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109	Influence of Ï€-Conjugation Units in Organic Dyes for Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2007, 111, 1853-1860.	3.1	160
110	Effect of Tetrahydroquinoline Dyes Structure on the Performance of Organic Dye-Sensitized Solar Cells. Chemistry of Materials, 2007, 19, 4007-4015.	6.7	302
111	Phenothiazine derivatives for efficient organic dye-sensitized solar cells. Chemical Communications, 2007, , 3741.	4.1	446
112	Anthraquinone dyes as photosensitizers for dye-sensitized solar cells. Solar Energy Materials and Solar Cells, 2007, 91, 1863-1871.	6.2	57
113	Tetrahydroquinoline dyes with different spacers for organic dye-sensitized solar cells. Journal of Photochemistry and Photobiology A: Chemistry, 2007, 189, 295-300.	3.9	170
114	Donorâ€"acceptor molecules containing thiophene chromophore: synthesis, spectroscopic study and electrogenerated chemiluminescence. Tetrahedron Letters, 2006, 47, 4961-4964.	1.4	16