Zhenxiao Pan

List of Publications by Year
in descending order

59 papers	5,878 citations	117453 34 h-index	133063 59 g-index
59 all docs	59 docs citations	59 times ranked	4188 citing authors

#	Article	IF	Citations
1	Synergistic passivation by alkali metal and halogenoid ions for high efficiency HTM-free carbon-based CsPbI2Br solar cells. Chemical Engineering Journal, 2022, 430, 133083.	6.6	26
2	Dualâ€Functional Quantum Dot Seeding Growth of Highâ€Quality Airâ€Processed CsPbI₂Br Film for Carbonâ€Based Perovskite Solar Cells. Solar Rrl, 2022, 6, 2100989.	3.1	20
3	Free-standing 3D nitrogen-doped graphene/Co4N aerogels with ultrahigh sulfur loading for high volumetric energy density Li-S batteries. Journal of Alloys and Compounds, 2022, 901, 163625.	2.8	25
4	Colloidal Inorganic Ligand-Capped Nanocrystals: Fundamentals, Status, and Insights into Advanced Functional Nanodevices. Chemical Reviews, 2022, 122, 4091-4162.	23.0	52
5	Airâ€Processed Carbonâ€Based Cs_{0.5}FA_{0.5}PbI₃â€“Cs₄PbI₆ Heterostructure Perovskite Solar Cells with Efficiency Over 16%. Solar Rrl, 2022, 6, .	3.1	11
6	Cs2SnI6 nanocrystals enhancing hole extraction for efficient carbon-based CsPbI2Br perovskite solar cells. Chemical Engineering Journal, 2022, 440, 135710.	6.6	31
7	Antioxidative Stannous Oxalate Derived Leadâ€Free Stable CsSnX₃ (X=Cl, Br, and I) Perovskite Nanocrystals. Angewandte Chemie, 2021, 133, 670-675.	1.6	23
8	Allâ€Inorganic CsPbI₃ Quantum Dot Solar Cells with Efficiency over 16% by Defect Control. Advanced Functional Materials, 2021, 31, 2005930.	7.8	101
9	Znâ€Cuâ€Inâ€Sâ€Se Quinary â€œGreenâ€• Alloyed Quantumâ€Dotâ€Sensitized Solar Cells with a Certified Efficiency of 14.4â€‰%. Angewandte Chemie - International Edition, 2021, 60, 6137-6144.	7.2	72
10	Hole transport materials mediating hole transfer for high efficiency quantum dot sensitized solar cells. Journal of Materials Chemistry A, 2021, 9, 997-1005.	5.2	12
11	Antioxidative Stannous Oxalate Derived Leadâ€Free Stable CsSnX₃ (X=Cl, Br, and I) Perovskite Nanocrystals. Angewandte Chemie - International Edition, 2021, 60, 660-665.	7.2	55
12	Znâ€Cuâ€Inâ€Sâ€Se Quinary â€œGreenâ€• Alloyed Quantumâ€Dotâ€Sensitized Solar Cells with a Certified Efficiency of 14.4â€‰%. Angewandte Chemie, 2021, 133, 6202-6209.	1.6	8
13	Improving the Efficiency of Quantum Dot Sensitized Solar Cells beyond 15% via Secondary Deposition. Journal of the American Chemical Society, 2021, 143, 4790-4800.	6.6	112
14	Modification of Energy Level Alignment for Boosting Carbonâ€Based CsPbI₂Br Solar Cells with 14% Certified Efficiency. Advanced Functional Materials, 2021, 31, 2011187.	7.8	89
15	Surface Defect Engineering of CsPbBr₃ Nanocrystals for High Efficient Photocatalytic CO₂ Reduction. Solar Rrl, 2021, 5, 2100154.	3.1	39
16	Modification of compact TiO2 layer by TiCl4-TiCl3 mixture treatment and construction of high-efficiency carbon-based CsPbI2Br perovskite solar cells. Journal of Energy Chemistry, 2021, 63, 442-451.	7.1	17
17	Lightweight Free-Standing 3D Nitrogen-Doped Graphene/TiN Aerogels with Ultrahigh Sulfur Loading for High Energy Density Liâ€“S Batteries. ACS Applied Energy Materials, 2021, 4, 7599-7610.	2.5	15
18	Proton Initiated Ligand Exchange Reactions for Colloidal Nanocrystals Functionalized by Inorganic Ligands with Extremely Weak Coordination Ability. Chemistry of Materials, 2020, 32, 630-637.	3.2	14

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19	Perovskiteâ€Compatible Carbon Electrode Improving the Efficiency and Stability of CsPbI₂Br Solar Cells. Solar Rrl, 2020, 4, 2000431.	3.1	30
20	Enhancing Adsorption and Reaction Kinetics of Polysulfides Using CoP-Coated N-Doped Mesoporous Carbon for High-Energy-Density Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2020, 12, 43844-43853.	4.0	60
21	Mild-method synthesised rGOâ€“TiO2 as an effective Polysulphideâ€“Barrier for Lithiumâ€“Sulphur batteries. Journal of Alloys and Compounds, 2020, 836, 155341.	2.8	17
22	Quantum dot materials engineering boosting the quantum dot sensitized solar cell efficiency over 13%. Journal of Materials Chemistry A, 2020, 8, 10233-10241.	5.2	61
23	Bifunctional TiS2/CNT as efficient polysulfide barrier to improve the performance of lithiumâ€“sulfur battery. Journal of Alloys and Compounds, 2020, 832, 154947.	2.8	34
24	MOF-Derived Co,N Codoped Carbon/Ti Mesh Counter Electrode for High-Efficiency Quantum Dot Sensitized Solar Cells. Journal of Physical Chemistry Letters, 2019, 10, 4974-4979.	2.1	25
25	Plasmonic Effect with Tailored Au@TiO₂ Nanorods in Photoanode for Quantum Dot Sensitized Solar Cells. ACS Applied Energy Materials, 2019, 2, 5917-5924.	2.5	19
26	ZnS_{<i>x</i>}Se_{1â€“<i>x</i>} Alloy Passivation Layer for High-Efficiency Quantum-Dot-Sensitized Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 41415-41423.	4.0	29
27	Boosting the Performance of Environmentally Friendly Quantum Dotâ€Sensitized Solar Cells over 13% Efficiency by Dual Sensitizers with Cascade Energy Structure. Advanced Materials, 2019, 31, e1903696.	11.1	51
28	TiO2 hierarchical nanowire-P25 particulate composite photoanodes in combination with N-doped mesoporous carbon/Ti counter electrodes for high performance quantum dot-sensitized solar cells. Solar Energy, 2019, 191, 459-467.	2.9	11
29	One-step solution deposition of CsPbBr₃based on precursor engineering for efficient all-inorganic perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 22420-22428.	5.2	116
30	Enhancing Loading Amount and Performance of Quantum-Dot-Sensitized Solar Cells Based on Direct Adsorption of Quantum Dots from Bicomponent Solvents. Journal of Physical Chemistry Letters, 2019, 10, 229-237.	2.1	21
31	Selenium cooperated polysulfide electrolyte for efficiency enhancement of quantum dot-sensitized solar cells. Journal of Energy Chemistry, 2019, 38, 147-152.	7.1	15
32	Solar Paint from TiO2 Particles Supported Quantum Dots for Photoanodes in Quantum Dotâ€“Sensitized Solar Cells. ACS Omega, 2018, 3, 1102-1109.	1.6	24
33	Comparative advantages of Znâ€“Cuâ€“Inâ€“S alloy QDs in the construction of quantum dot-sensitized solar cells. RSC Advances, 2018, 8, 3637-3645.	1.7	52
34	Quantum dot-sensitized solar cells. Chemical Society Reviews, 2018, 47, 7659-7702.	18.7	344
35	Self-supported metal sulphide nanocrystals-assembled nanosheets on carbon paper as efficient counter electrodes for quantum-dot-sensitized solar cells. Science China Chemistry, 2018, 61, 1338-1344.	4.2	7
36	Alloying Strategy in Cuâ€“Inâ€“Gaâ€“Se Quantum Dots for High Efficiency Quantum Dot Sensitized Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 5328-5336.	4.0	87

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37	Nitrogen-Doped Mesoporous Carbons as Counter Electrodes in Quantum Dot Sensitized Solar Cells with a Conversion Efficiency Exceeding 12%. Journal of Physical Chemistry Letters, 2017, 8, 559-564.	2.1	193
38	High Efficiency Quantum Dot Sensitized Solar Cells Based on Direct Adsorption of Quantum Dots on Photoanodes. ACS Applied Materials & Interfaces, 2017, 9, 22549-22559.	4.0	39
39	Inorganic Ligand Thiosulfate-Capped Quantum Dots for Efficient Quantum Dot Sensitized Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 18936-18944.	4.0	28
40	Quantum dot sensitized solar cells with efficiency over 12% based on tetraethyl orthosilicate additive in polysulfide electrolyte. Journal of Materials Chemistry A, 2017, 5, 14124-14133.	5.2	86
41	Copper deficient Znâ€“Cuâ€“Inâ€“Se quantum dot sensitized solar cells for high efficiency. Journal of Materials Chemistry A, 2017, 5, 21442-21451.	5.2	73
42	Enhancing Electron and Hole Extractions for Efficient PbS Quantum Dot Solar Cells. Solar Rrl, 2017, 1, 1700176.	3.1	12
43	Carbon Counter-Electrode-Based Quantum-Dot-Sensitized Solar Cells with Certified Efficiency Exceeding 11%. Journal of Physical Chemistry Letters, 2016, 7, 3103-3111.	2.1	169
44	A ZnS and metal hydroxide composite passivation layer for recombination control in high efficiency quantum dot sensitized solar cells. Journal of Materials Chemistry A, 2016, 4, 18976-18982.	5.2	25
45	Improving Loading Amount and Performance of Quantum Dot-Sensitized Solar Cells through Metal Salt Solutions Treatment on Photoanode. ACS Applied Materials & Interfaces, 2016, 8, 31006-31015.	4.0	24
46	Poly(vinyl pyrrolidone): a superior and general additive in polysulfide electrolytes for high efficiency quantum dot sensitized solar cells. Journal of Materials Chemistry A, 2016, 4, 11416-11421.	5.2	49
47	Charge Recombination Control for High Efficiency Quantum Dot Sensitized Solar Cells. Journal of Physical Chemistry Letters, 2016, 7, 406-417.	2.1	140
48	Mn doped quantum dot sensitized solar cells with power conversion efficiency exceeding 9%. Journal of Materials Chemistry A, 2016, 4, 877-886.	5.2	122
49	Effects of Metal Oxyhydroxide Coatings on Photoanode in Quantum Dot Sensitized Solar Cells. Chemistry of Materials, 2016, 28, 2323-2330.	3.2	63
50	Znâ€“Cuâ€“Inâ€“Se Quantum Dot Solar Cells with a Certified Power Conversion Efficiency of 11.6%. Journal of the American Chemical Society, 2016, 138, 4201-4209.	6.6	537
51	Band Engineering in Core/Shell ZnTe/CdSe for Photovoltage and Efficiency Enhancement in Exciplex Quantum Dot Sensitized Solar Cells. ACS Nano, 2015, 9, 908-915.	7.3	241
52	Boosting Power Conversion Efficiencies of Quantum-Dot-Sensitized Solar Cells Beyond 8% by Recombination Control. Journal of the American Chemical Society, 2015, 137, 5602-5609.	6.6	367
53	Amorphous TiO₂ Buffer Layer Boosts Efficiency of Quantum Dot Sensitized Solar Cells to over 9%. Chemistry of Materials, 2015, 27, 8398-8405.	3.2	197
54	CuInSe₂ and CuInSe₂â€“ZnS based high efficiency â€œgreenâ€• quantum dot sensitized solar cells. Journal of Materials Chemistry A, 2015, 3, 1649-1655.	5.2	108

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55	Influence of linker molecules on interfacial electron transfer and photovoltaic performance of quantum dot sensitized solar cells. Journal of Materials Chemistry A, 2014, 2, 20882-20888.	5.2	52
56	High-Efficiency â€œGreenâ€•Quantum Dot Solar Cells. Journal of the American Chemical Society, 2014, 136, 9203-9210.	6.6	547
57	Core/Shell Colloidal Quantum Dot Exciplex States for the Development of Highly Efficient Quantum-Dot-Sensitized Solar Cells. Journal of the American Chemical Society, 2013, 135, 15913-15922.	6.6	400
58	Near Infrared Absorption of CdSe_{<i>x</i>}Te_{1â€“<i>x</i>} Alloyed Quantum Dot Sensitized Solar Cells with More than 6% Efficiency and High Stability. ACS Nano, 2013, 7, 5215-5222.	7.3	374
59	Highly Efficient Inverted Type-I CdS/CdSe Core/Shell Structure QD-Sensitized Solar Cells. ACS Nano, 2012, 6, 3982-3991.	7.3	307