Zhaolai Chen

List of Publications by Year
in descending order

44 papers	4,476 citations	201658 27 h-index	233409 45 g-index
46 all docs	46 docs citations	46 times ranked	5855 citing authors

#	Article	IF	Citations
1	Selfâ€Powered FA_{0.55}MA_{0.45}PbI₃ Singleâ€Crystal Perovskite Xâ€Ray Detectors with High Sensitivity. Advanced Functional Materials, 2022, 32, 2109149.	14.9	62
2	Engineering the Hole Extraction Interface Enables Singleâ€Crystal MAPbI₃ Perovskite Solar Cells with Efficiency Exceeding 22% and Superior Indoor Response. Advanced Energy Materials, 2022, 12, .	19.5	87
3	Enhanced Structural Stability and Pressureâ€Induced Photoconductivity in Twoâ€Dimensional Hybrid Perovskite (C₆H₅CH₂NH₃)₂CuBr₄. Angewandte Chemie, 2022, 134, .	2.0	2
4	Enhanced Structural Stability and Pressureâ€Induced Photoconductivity in Twoâ€Dimensional Hybrid Perovskite (C₆H₅CH₂NH₃)₂CuBr₄. Angewandte Chemie - International Edition, 2022, 61, .	13.8	10
5	Bulk Defect Suppression of Micrometer-Thick Perovskite Single Crystals Enables Stable Photovoltaics. , 2022, 4, 1332-1340.		17
6	Thin MAPb0.5Sn0.5I3 Perovskite Single Crystals for Sensitive Infrared Light Detection. Frontiers in Chemistry, 2021, 9, 821699.	3.6	4
7	Inch-Sized Thin Metal Halide Perovskite Single-Crystal Wafers for Sensitive X-Ray Detection. Frontiers in Chemistry, 2021, 9, 823868.	3.6	8
8	Single Crystal Perovskite Solar Cells: Development and Perspectives. Advanced Functional Materials, 2020, 30, 1905021.	14.9	171
9	Shape Control of Metal Halide Perovskite Single Crystals: From Bulk to Nanoscale. Chemistry of Materials, 2020, 32, 7602-7617.	6.7	46
10	Single-crystal perovskite detectors: development and perspectives. Journal of Materials Chemistry C, 2020, 8, 11664-11674.	5.5	35
11	Designing Large-Area Single-Crystal Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 1797-1803.	17.4	46
12	(1-C5H14N2Br)2MnBr4: A Lead-Free Zero-Dimensional Organic-Metal Halide With Intense Green Photoluminescence. Frontiers in Chemistry, 2020, 8, 352.	3.6	19
13	Quantum Dots Supply Bulk- and Surface-Passivation Agents for Efficient and Stable Perovskite Solar Cells. Joule, 2019, 3, 1963-1976.	24.0	222
14	Exploring Organic Metal Halides with Reversible Temperatureâ€Responsive Dualâ€Emissive Photoluminescence. ChemSusChem, 2019, 12, 5228-5232.	6.8	37
15	Solutionâ€Processed Visibleâ€Blind Ultraviolet Photodetectors with Nanosecond Response Time and High Detectivity. Advanced Optical Materials, 2019, 7, 1900506.	7.3	60
16	Single-Crystal MAPbI₃ Perovskite Solar Cells Exceeding 21% Power Conversion Efficiency. ACS Energy Letters, 2019, 4, 1258-1259.	17.4	424
17	Inorganic CsPbI₂Br Perovskite Solar Cells: The Progress and Perspective. Solar Rrl, 2019, 3, 1800239.	5.8	217
18	Enhanced Thermal Stability in Perovskite Solar Cells by Assembling 2D/3D Stacking Structures. Journal of Physical Chemistry Letters, 2018, 9, 654-658.	4.6	447

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19	Polymerâ€Passivated Inorganic Cesium Lead Mixedâ€Halide Perovskites for Stable and Efficient Solar Cells with High Openâ€Circuit Voltage over 1.3 V. Advanced Materials, 2018, 30, 1705393.	21.0	401
20	Large electrostrictive response in lead halide perovskites. Nature Materials, 2018, 17, 1020-1026.	27.5	137
21	Recent development and understanding of polymerâ€“nanocrystal hybrid solar cells. Materials Chemistry Frontiers, 2017, 1, 1502-1513.	5.9	23
22	Aqueousâ€Processed Polymer/Nanocrystals Hybrid Solar Cells: The Effects of Chlorine on the Synthesis of CdTe Nanocrystals, Crystal Growth, Defect Passivation, Photocarrier Dynamics, and Device Performance. Solar Rrl, 2017, 1, 1600020.	5.8	24
23	Lowâ€Noise and Largeâ€Linearâ€Dynamicâ€Range Photodetectors Based on Hybridâ€Perovskite Thinâ€Singleâ€Crystals. Advanced Materials, 2017, 29, 1703209.	21.0	281
24	Stabilizing the Î±-Phase of CsPbI3 Perovskite by Sulfobetaine Zwitterions in One-Step Spin-Coating Films. Joule, 2017, 1, 371-382.	24.0	442
25	Thin single crystal perovskite solar cells to harvest below-bandgap light absorption. Nature Communications, 2017, 8, 1890.	12.8	467
26	Stable Graphene-Two-Dimensional Multiphase Perovskite Heterostructure Phototransistors with High Gain. Nano Letters, 2017, 17, 7330-7338.	9.1	88
27	Improvement in Open-Circuit Voltage of Thin Film Solar Cells from Aqueous Nanocrystals by Interface Engineering. ACS Applied Materials & Interfaces, 2016, 8, 900-907.	8.0	35
28	Unravelling the working junction of aqueous-processed polymerâ€“nanocrystal solar cells towards improved performance. Physical Chemistry Chemical Physics, 2016, 18, 15791-15797.	2.8	15
29	High efficiency aqueous-processed MEH-PPV/CdTe hybrid solar cells with a PCE of 4.20%. Journal of Materials Chemistry A, 2016, 4, 1105-1111.	10.3	24
30	Aqueous-Processed Insulating Polymer/Nanocrystal Hybrid Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 7101-7110.	8.0	23
31	High-Efficiency Aqueous-Solution-Processed Hybrid Solar Cells Based on P3HT Dots and CdTe Nanocrystals. ACS Applied Materials & Interfaces, 2015, 7, 7146-7152.	8.0	26
32	Efficient aqueous-processed hybrid solar cells from a polymer with a wide bandgap. Journal of Materials Chemistry A, 2015, 3, 10969-10975.	10.3	30
33	Aqueous-Processed Inorganic Thin-Film Solar Cells Based on CdSe_{<i>x</i>}Te_{1â€“<i>x</i>} Nanocrystals: The Impact of Composition on Photovoltaic Performance. ACS Applied Materials & Interfaces, 2015, 7, 23223-23230.	8.0	48
34	Efficient inorganic solar cells from aqueous nanocrystals: the impact of composition on carrier dynamics. RSC Advances, 2015, 5, 74263-74269.	3.6	25
35	In Situ Construction of Nanoscale CdTeâ€CdS Bulk Heterojunctions for Inorganic Nanocrystal Solar Cells. Advanced Energy Materials, 2014, 4, 1400235.	19.5	44
36	Dipâ€Coated Gold Nanoparticle Electrodes for Aqueousâ€Solutionâ€Processed Largeâ€Area Solar Cells. Advanced Energy Materials, 2014, 4, 1400135.	19.5	37

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37	Tunable Polymer Brush/Au NPs Hybrid Plasmonic Arrays Based on Hostâ€“guest Interaction. ACS Applied Materials & Interfaces, 2014, 6, 19951-19957.	8.0	16
38	Aqueous-solution-processed hybrid solar cells with good thermal and morphological stability. Solar Energy Materials and Solar Cells, 2013, 109, 254-261.	6.2	26
39	Conducting the Temperature-Dependent Conformational Change of Macrocyclic Compounds to the Lattice Dilation of Quantum Dots for Achieving an Ultrasensitive Nanothermometer. ACS Nano, 2013, 7, 2273-2283.	14.6	67
40	From planar-heterojunction to nâ€“i structure: an efficient strategy to improve short-circuit current and power conversion efficiency of aqueous-solution-processed hybrid solar cells. Energy and Environmental Science, 2013, 6, 1597.	30.8	74
41	Inverted Hybrid Solar Cells from Aqueous Materials with a PCE of 3.61%. Advanced Energy Materials, 2013, 3, 433-437.	19.5	52
42	Aqueous-solution-processed PPVâ€“CdxHg1â^'xTe hybrid solar cells with a significant near-infrared contribution. Journal of Materials Chemistry, 2012, 22, 17827.	6.7	20
43	Construction of nanoparticle superstructures on the basis of hostâ€“guest interaction to achieve performance integration and modulation. Physical Chemistry Chemical Physics, 2012, 14, 6119.	2.8	10
44	Simple Synthesis of Highly Luminescent Water-Soluble CdTe Quantum Dots with Controllable Surface Functionality. Chemistry of Materials, 2011, 23, 4857-4862.	6.7	124