Xihan Chen

List of Publications by Year
in descending order

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49	4,210	147801	206112
papers	citations	31 h-index	48 g-index

53	53	53	5171
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Carrier lifetimes of >1 Î¼s in Sn-Pb perovskites enable efficient all-perovskite tandem solar cells. Science, 2019, 364, 475-479.	12.6	781
2	High efficiency perovskite quantum dot solar cells with charge separating heterostructure. Nature Communications, 2019, 10, 2842.	12.8	308
3	Spin-dependent charge transport through 2D chiral hybrid lead-iodide perovskites. Science Advances, 2019, 5, eaay0571.	10.3	275
4	Enhanced Charge Transport in 2D Perovskites via Fluorination of Organic Cation. Journal of the American Chemical Society, 2019, 141, 5972-5979.	13.7	274
5	Enhancing electron diffusion length in narrow-bandgap perovskites for efficient monolithic perovskite tandem solar cells. Nature Communications, 2019, 10, 4498.	12.8	234
6	Metastable Dion-Jacobson 2D structure enables efficient and stable perovskite solar cells. Science, 2022, 375, 71-76.	12.6	216
7	Reconfiguring the band-edge states of photovoltaic perovskites by conjugated organic cations. Science, 2021, 371, 636-640.	12.6	184
8	Impact of Layer Thickness on the Charge Carrier and Spin Coherence Lifetime in Two-Dimensional Layered Perovskite Single Crystals. ACS Energy Letters, 2018, 3, 2273-2279.	17.4	126
9	Self-Seeding Growth for Perovskite Solar Cells with Enhanced Stability. Joule, 2019, 3, 1452-1463.	24.0	120
10	Detecting the oxyl radical of photocatalytic water oxidation at an n-SrTiO3/aqueous interface through its subsurface vibration. Nature Chemistry, 2016, 8, 549-555.	13.6	117
11	Theoretical studies of reactions of carbon dioxide mediated and catalysed by transition metal complexes. Chemical Communications, 2012, 48, 10808.	4.1	113
12	Excitonic Effects in Methylammonium Lead Halide Perovskites. Journal of Physical Chemistry Letters, 2018, 9, 2595-2603.	4.6	107
13	Improving Charge Transport via Intermediateâ€Controlled Crystal Growth in 2D Perovskite Solar Cells. Advanced Functional Materials, 2019, 29, 1901652.	14.9	103
14	Sensitizing Singlet Fission with Perovskite Nanocrystals. Journal of the American Chemical Society, 2019, 141, 4919-4927.	13.7	83
15	Enhancing Charge Transport of 2D Perovskite Passivation Agent for Wideâ€Bandgap Perovskite Solar Cells Beyond 21%. Solar Rrl, 2020, 4, 2000082.	5.8	79
16	The Formation Time of Tiâ€“O^{â€¢} and Tiâ€“O^{â€¢}â€“Ti Radicals at the n-SrTiO₃/Aqueous Interface during Photocatalytic Water Oxidation. Journal of the American Chemical Society, 2017, 139, 1830-1841.	13.7	76
17	Direct Detection of Circularly Polarized Light Using Chiral Copper Chlorideâ€“Carbon Nanotube Heterostructures. ACS Nano, 2021, 15, 7608-7617.	14.6	69
18	Enhanced Charge Transport by Incorporating Formamidinium and Cesium Cations into Twoâ€Dimensional Perovskite Solar Cells. Angewandte Chemie - International Edition, 2019, 58, 11737-11741.	13.8	67

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19	Gradient Doping in Snâ€“Pb Perovskites by Barium Ions for Efficient Singleâ€Junction and Tandem Solar Cells. Advanced Materials, 2022, 34, e2110351.	21.0	62
20	Ultrafast Reaction Mechanisms in Perovskite Based Photocatalytic Câ€“C Coupling. ACS Energy Letters, 2020, 5, 566-571.	17.4	61
21	How Surface Potential Determines the Kinetics of the First Hole Transfer of Photocatalytic Water Oxidation. Journal of the American Chemical Society, 2014, 136, 10632-10639.	13.7	57
22	Origin of Broad-Band Emission and Impact of Structural Dimensionality in Tin-Alloyed Ruddlesdenâ€“Popper Hybrid Lead Iodide Perovskites. ACS Energy Letters, 2020, 5, 347-352.	17.4	55
23	Enhanced photoredox activity of CsPbBr3 nanocrystals by quantitative colloidal ligand exchange. Journal of Chemical Physics, 2019, 151, 204305.	3.0	52
24	Carbazole-Based Hole-Transport Materials for High-Efficiency and Stable Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 4492-4498.	5.1	47
25	A Nanocrystal Catalyst Incorporating a Surface Bound Transition Metal to Induce Photocatalytic Sequential Electron Transfer Events. Journal of the American Chemical Society, 2021, 143, 11361-11369.	13.7	47
26	Tuning Spin-Polarized Lifetime in Two-Dimensional Metalâ€“Halide Perovskite through Exciton Binding Energy. Journal of the American Chemical Society, 2021, 143, 19438-19445.	13.7	42
27	Systemic Studies of Tetraphenyletheneâ€“Triphenylamine Oligomers and a Polymer: Achieving Both Efficient Solidâ€State Emissions and Holeâ€Transporting Capability. Chemistry - A European Journal, 2012, 18, 9929-9938.	3.3	41
28	Selecting between two transition states by which water oxidation intermediates decay on an oxide surface. Nature Catalysis, 2019, 2, 820-827.	34.4	39
29	Inhomogeneous Doping of Perovskite Materials by Dopants from Hole-Transport Layer. Matter, 2020, 2, 261-272.	10.0	38
30	Surface lattice engineering through three-dimensional lead iodide perovskitoid for high-performance perovskite solar cells. CheM, 2021, 7, 774-785.	11.7	37
31	Stiffening the Pb-X Framework through a Ï€-Conjugated Small-Molecule Cross-Linker for High-Performance Inorganic CsPbI₂Br Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 40489-40501.	8.0	33
32	Ultrafast probes at the interfaces of solar energy conversion materials. Physical Chemistry Chemical Physics, 2019, 21, 16399-16407.	2.8	31
33	DFT Studies on Gold-Catalyzed Cycloisomerization of 1,5-Enynes. Organometallics, 2012, 31, 4221-4227.	2.3	29
34	n-Type PbSe Quantum Dots via Post-Synthetic Indium Doping. Journal of the American Chemical Society, 2018, 140, 13753-13763.	13.7	28
35	Enhanced Charge Transport by Incorporating Formamidinium and Cesium Cations into Twoâ€Dimensional Perovskite Solar Cells. Angewandte Chemie, 2019, 131, 11863-11867.	2.0	22
36	Unraveling the surface state of photovoltaic perovskite thin film. Matter, 2021, 4, 2417-2428.	10.0	22

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37	Triplet Energy Transfer from Lead Halide Perovskite for Highly Selective Photocatalytic 2 + 2 Cycloaddition. ACS Applied Materials & Interfaces, 2022, 14, 25357-25365.	8.0	20
38	Exogenous electricity flowing through cyanobacterial photosystem I drives CO₂ valorization with high energy efficiency. Energy and Environmental Science, 2021, 14, 5480-5490.	30.8	19
39	Embedding PbS Quantum Dots (QDs) in Pb-Halide Perovskite Matrices: QD Surface Chemistry and Antisolvent Effects on QD Dispersion and Confinement Properties. , 2020, 2, 1464-1472.		18
40	SMART Perovskite Growth: Enabling a Larger Range of Process Conditions. ACS Energy Letters, 2021, 6, 650-658.	17.4	14
41	One-electron intermediates of water oxidation & the role of solvation in their stability. Journal of Materials Chemistry A, 2017, 5, 11410-11417.	10.3	13
42	Transient Evolution of the Built-in Field at Junctions of GaAs. ACS Applied Materials & Interfaces, 2020, 12, 40339-40346.	8.0	10
43	Superior photo-carrier diffusion dynamics in organic-inorganic hybrid perovskites revealed by spatiotemporal conductivity imaging. Nature Communications, 2021, 12, 5009.	12.8	10
44	Largeâ€Area Material and Junction Damage in câ€“Si Solar Cells by Potentialâ€Induced Degradation. Solar Rrl, 2019, 3, 1800303.	5.8	7
45	Nanomaterial catalysts for organic photoredox catalysis-mechanistic perspective. Nanoscale, 2021, 13, 18044-18053.	5.6	7
46	Faradaic oxygen evolution from SrTiO₃ under nano- and femto-second pulsed light excitation. Chemical Communications, 2017, 53, 7254-7257.	4.1	6
47	Ultrafast All-Optical Switching in the Visible Spectrum with 6H Silicon Carbide. ACS Photonics, 2021, 8, 2940-2946.	6.6	5
48	One-Electron Water Oxidation Intermediate on TiO₂ P25 Probed by Ultrafast Attenuated Total Reflection. Journal of Physical Chemistry C, 2021, 125, 18204-18209.	3.1	4
49	Metastable Dion-Jacobson 2D structure enables efficient and stable perovskite solar cells. Science, 2021, , eabj2637.	12.6	2