Cong Chen

List of Publications by Citations

82 papers	3,544 citations	30 h-index	58 g-index
87 ext. papers	4,656 ext. citations	12.3 avg, IF	5.61 L-index

#	Paper	IF	Citations
82	Carrier lifetimes of >1 μs in Sn-Pb perovskites enable efficient all-perovskite tandem solar cells. *Science*, **2019**, 364, 475-479	33.3	496
81	Efficient two-terminal all-perovskite tandem solar cells enabled by high-quality low-bandgap absorber layers. *Nature Energy*, **2018**, 3, 1093-1100	62.3	284
80	Effective Carrier-Concentration Tuning of SnO Quantum Dot Electron-Selective Layers for High-Performance Planar Perovskite Solar Cells. *Advanced Materials*, **2018**, 30, e1706023	24	245
79	Four-Terminal All-Perovskite Tandem Solar Cells Achieving Power Conversion Efficiencies Exceeding 23%. *ACS Energy Letters*, **2018**, 3, 305-306	20.1	169
78	CsPbBr3 perovskite nanoparticles as additive for environmentally stable perovskite solar cells with 20.46% efficiency. *Nano Energy*, **2019**, 59, 517-526	17.1	120
77	Fully High-Temperature-Processed SnO2 as Blocking Layer and Scaffold for Efficient, Stable, and Hysteresis-Free Mesoporous Perovskite Solar Cells. *Advanced Functional Materials*, **2018**, 28, 1706276	15.6	111
76	Self-Powered All-Inorganic Perovskite Microcrystal Photodetectors with High Detectivity. *Journal of Physical Chemistry Letters*, **2018**, 9, 2043-2048	6.4	99
75	Long-Lasting Nanophosphors Applied to UV-Resistant and Energy Storage Perovskite Solar Cells. *Advanced Energy Materials*, **2017**, 7, 1700758	21.8	83
74	Enhanced Performance of Perovskite Solar Cells with Zinc Chloride Additives. *ACS Applied Materials & Interfaces*, **2017**, 9, 42875-42882	9.5	81
73	Low-bandgap mixed tin–lead iodide perovskites with reduced methylammonium for simultaneous enhancement of solar cell efficiency and stability. *Nature Energy*, **2020**, 5, 768-776	62.3	80
72	Trap State Passivation by Rational Ligand Molecule Engineering toward Efficient and Stable Perovskite Solar Cells Exceeding 23% Efficiency. *Advanced Energy Materials*, **2021**, 11, 2100529	21.8	80
71	APTES-functionalized thin-walled porous WO3 nanotubes for highly selective sensing of NO2 in a polluted environment. *Journal of Materials Chemistry A*, **2018**, 6, 10976-10989	13	74
70	Engineered IrO@NiO Core-Shell Nanowires for Sensitive Non-enzymatic Detection of Trace Glucose in Saliva. *Analytical Chemistry*, **2016**, 88, 12346-12353	7.8	73
69	Radio Frequency Magnetron Sputtering Deposition of TiO2 Thin Films and Their Perovskite Solar Cell Applications. *Scientific Reports*, **2015**, 5, 17684	4.9	64
68	Enhanced Performance and Photostability of Perovskite Solar Cells by Introduction of Fluorescent Carbon Dots. *ACS Applied Materials & Interfaces*, **2017**, 9, 14518-14524	9.5	59
67	Efficient and Stable Nonfullerene-Graded Heterojunction Inverted Perovskite Solar Cells with Inorganic Ga2O3 Tunneling Protective Nanolayer. *Advanced Functional Materials*, **2018**, 28, 1804128	15.6	58
66	Probing the origins of photodegradation in organic–inorganic metal halide perovskites with time-resolved mass spectrometry. *Sustainable Energy and Fuels*, **2018**, 2, 2460-2467	5.8	56

65	Arylammonium-Assisted Reduction of the Open-Circuit Voltage Deficit in Wide-Bandgap Perovskite Solar Cells: The Role of Suppressed Ion Migration. *ACS Energy Letters*, **2020**, 5, 2560-2568	20.1	56
64	High-Performance Rigid and Flexible Perovskite Solar Cells with Low-Temperature Solution-Processable Binary Metal Oxide Hole-Transporting Materials. *Solar Rrl*, **2017**, 1, 1700058	7.1	54
63	Dual Interfacial Modification Engineering with 2D MXene Quantum Dots and Copper Sulphide Nanocrystals Enabled High-Performance Perovskite Solar Cells. *Advanced Functional Materials*, **2020**, 30, 2003295	15.6	53
62	Highly Efficient and Stable Planar Perovskite Solar Cells With Large-Scale Manufacture of E-Beam Evaporated SnO2 Toward Commercialization. *Solar Rrl*, **2017**, 1, 1700118	7.1	53
61	Narrow-Bandgap Mixed Lead/Tin-Based 2D Dion-Jacobson Perovskites Boost the Performance of Solar Cells. *Journal of the American Chemical Society*, **2020**, 142, 15049-15057	16.4	53
60	Highly enhanced long time stability of perovskite solar cells by involving a hydrophobic hole modification layer. *Nano Energy*, **2017**, 32, 165-173	17.1	50
59	Roles of MACl in Sequentially Deposited Bromine-Free Perovskite Absorbers for Efficient Solar Cells. *Advanced Materials*, **2021**, 33, e2007126	24	44
58	Incorporation of High-Mobility and Room-Temperature-Deposited CuxS as a Hole Transport Layer for Efficient and Stable Organo-Lead Halide Perovskite Solar Cells. *Solar Rrl*, **2017**, 1, 1700038	7.1	43
57	Carrier Interfacial Engineering by Bismuth Modification for Efficient and Thermoresistant Perovskite Solar Cells. *Advanced Energy Materials*, **2018**, 8, 1703659	21.8	43
56	Dual interfacial modifications by conjugated small-molecules and lanthanides doping for full functional perovskite solar cells. *Nano Energy*, **2018**, 53, 849-862	17.1	41
55	Pressure-Assisted Annealing Strategy for High-Performance Self-Powered All-Inorganic Perovskite Microcrystal Photodetectors. *Journal of Physical Chemistry Letters*, **2018**, 9, 4714-4719	6.4	39
54	Dye Sensitization and Local Surface Plasmon Resonance-Enhanced Upconversion Luminescence for Efficient Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2020**, 12, 24737-24746	9.5	35
53	Considerably enhanced perovskite solar cells via the introduction of metallic nanostructures. *Journal of Materials Chemistry A*, **2017**, 5, 6515-6521	13	34
52	Erbium-ytterbium codoped waveguide amplifier fabricated with solution-processable complex. *Applied Physics Letters*, **2009**, 94, 041119	3.4	30
51	Interface modification of sputtered NiOx as the hole-transporting layer for efficient inverted planar perovskite solar cells. *Journal of Materials Chemistry C*, **2020**, 8, 1972-1980	7.1	30
50	Interfacial Engineering and Photon Downshifting of CsPbBr Nanocrystals for Efficient, Stable, and Colorful Vapor Phase Perovskite Solar Cells. *Advanced Science*, **2019**, 6, 1802046	13.6	29
49	Photon management to reduce energy loss in perovskite solar cells. *Chemical Society Reviews*, **2021** , 50, 7250-7329	58.5	29
48	Efficient rare earth co-doped TiO electron transport layer for high-performance perovskite solar cells. *Journal of Colloid and Interface Science*, **2019**, 553, 14-21	9.3	28

47	Improving Performance and Stability of Planar Perovskite Solar Cells through Grain Boundary Passivation with Block Copolymers. *Solar Rrl*, **2019**, 3, 1900078	7.1	28
46	Pb-Based Perovskite Solar Cells and the Underlying Pollution behind Clean Energy: Dynamic Leaching of Toxic Substances from Discarded Perovskite Solar Cells. *Journal of Physical Chemistry Letters*, **2020**, 11, 2812-2817	6.4	28
45	Enhancing Photostability of Perovskite Solar Cells by Eu(TTA)(Phen)MAA Interfacial Modification. *ACS Applied Materials & Interfaces*, **2019**, 11, 11481-11487	9.5	27
44	Dual Functions of Crystallization Control and Defect Passivation Enabled by an Ionic Compensation Strategy for Stable and High-Efficient Perovskite Solar Cells. *ACS Applied Materials & Interfaces* , **2020**, 12, 3631-3641	9.5	26
43	Wide-bandgap organic□inorganic hybrid and all-inorganic perovskite solar cells and their application in all-perovskite tandem solar cells. *Energy and Environmental Science*,	35.4	25
42	Strontium titanate nanoparticles as the photoanode for CdS quantum dot sensitized solar cells. *RSC Advances*, **2015**, 5, 4844-4852	3.7	23
41	Doping in inorganic perovskite for photovoltaic application. *Nano Energy*, **2020**, 78, 105354	17.1	23
40	Improving Efficiency and Light Stability of Perovskite Solar Cells by Incorporating YVO4:Eu3+, Bi3+ Nanophosphor into the Mesoporous TiO2 Layer. *ACS Applied Energy Materials*, **2018**, 1, 2096-2102	6.1	22
39	A dithieno[3,2-b:2?,3?-d]pyrrole-cored four-arm hole transporting material for over 19% efficiency dopant-free perovskite solar cells. *Journal of Materials Chemistry C*, **2019**, 7, 9455-9459	7.1	19
38	A Cu3PS4 nanoparticle hole selective layer for efficient inverted perovskite solar cells. *Journal of Materials Chemistry A*, **2019**, 7, 4604-4610	13	18
37	Optimizing electron density of nickel sulfide electrocatalysts through sulfur vacancy engineering for alkaline hydrogen evolution. *Journal of Materials Chemistry A*, **2020**, 8, 18207-18214	13	18
36	CdS/CdSe quantum dots and ZnPc dye co-sensitized solar cells with Au nanoparticles/graphene oxide as efficient modified layer. *Journal of Colloid and Interface Science*, **2016**, 480, 49-56	9.3	18
35	Dysprosium, holmium and erbium ions doped indium oxide nanotubes as photoanodes for dye sensitized solar cells and improved device performance. *Journal of Colloid and Interface Science*, **2015**, 440, 162-7	9.3	17
34	Correlating Hysteresis and Stability with Organic Cation Composition in the Two-Step Solution-Processed Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2020**, 12, 10588-10596	9.5	17
33	Low-Temperature-Processed WOx as Electron Transfer Layer for Planar Perovskite Solar Cells Exceeding 20% Efficiency. *Solar Rrl*, **2020**, 4, 1900499	7.1	17
32	Chemical inhibition of reversible decomposition for efficient and super-stable perovskite solar cells. *Nano Energy*, **2020**, 68, 104315	17.1	16
31	Suppressing the Phase Segregation with Potassium for Highly Efficient and Photostable Inverted Wide-Band Gap Halide Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2020**, 12, 48458-48466	9.5	16
30	Charge Compensating Defects in Methylammonium Lead Iodide Perovskite Suppressed by Formamidinium Inclusion. *Journal of Physical Chemistry Letters*, **2020**, 11, 121-128	6.4	14

29	Zwitterionic Ionic Liquid Confer Defect Tolerance, High Conductivity, and Hydrophobicity toward Efficient Perovskite Solar Cells Exceeding 22% Efficiency. *Solar Rrl*, **2021**, 5, 2100352	7.1	13
28	High-Rubidium-Formamidinium-Ratio Perovskites for High-Performance Photodetection with Enhanced Stability. *ACS Applied Materials & Interfaces*, **2019**, 11, 39875-39881	9.5	12
27	Unraveling the Dual-Functional Mechanism of Light Absorption and Hole Transport of CuCdZnSnS for Achieving Efficient and Stable Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2020**, 12, 17509-17518	9.5	12
26	Efficient and stable perovskite solar cells through e-beam preparation of cerium doped TiO2 electron transport layer, ultraviolet conversion layer CsPbBr3 and the encapsulation layer Al2O3. *Solar Energy*, **2020**, 198, 187-193	6.8	12
25	Low-Temperature Electron Beam Deposition of Zn-SnOx for Stable and Flexible Perovskite Solar Cells. *Solar Rrl*, **2020**, 4, 1900266	7.1	12
24	Surface treatment via Li-bis-(trifluoromethanesulfonyl) imide to eliminate the hysteresis and enhance the efficiency of inverted perovskite solar cells. *Journal of Materials Chemistry C*, **2017**, 5, 10280-10287	7.1	11
23	Grain boundary defect passivation by in situ formed wide-bandgap lead sulfate for efficient and stable perovskite solar cells. *Chemical Engineering Journal*, **2021**, 426, 130685	14.7	11
22	Improved Interface Charge Extraction by Double Electron Transport Layers for High-Efficient Planar Perovskite Solar Cells. *Solar Rrl*, **2019**, 3, 1900314	7.1	10
21	Synergistic Effects of Multifunctional Lanthanides Doped CsPbBrCl 2 Quantum Dots for Efficient and Stable MAPbI 3 Perovskite Solar Cells. *Advanced Functional Materials*,2110346	15.6	10
20	Reconfiguration of Interfacial and Bulk Energy Band Structure for High-Performance Organic and Thermal Stability Enhanced Perovskite Solar Cells. *Solar Rrl*, **2020**, 4, 1900482	7.1	10
19	High Remaining Factors in the Photovoltaic Performance of Perovskite Solar Cells after High-Fluence Electron Beam Irradiations. *Journal of Physical Chemistry C*, **2020**, 124, 1330-1336	3.8	9
18	Doping in Semiconductor Oxides-Based Electron Transport Materials for Perovskite Solar Cells Application. *Solar Rrl*, **2021**, 5, 2000605	7.1	9
17	Demonstration of optical gain at 1550 nm in erbium-ytterbium co-doped polymer waveguide amplifier. *Journal of Nanoscience and Nanotechnology*, **2010**, 10, 1947-50	1.3	7
16	Urbach Energy and Open-Circuit Voltage Deficit for Mixed Anion-Cation Perovskite Solar Cells.. *ACS Applied Materials & Interfaces*, **2022**,	9.5	7
15	Optical and Electronic Losses Arising from Physically Mixed Interfacial Layers in Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2021**, 13, 4923-4934	9.5	7
14	Passivating buried interface with multifunctional novel ionic liquid containing simultaneously fluorinated anion and cation yielding stable perovskite solar cells over 23% efficiency. *Journal of Energy Chemistry*, **2022**, 69, 659-666	12	5
13	Multifunctional Reductive Molecular Modulator toward Efficient and Stable Perovskite Solar Cells. *Solar Rrl*, **2021**, 5, 2100320	7.1	4
12	Assessing the true power of bifacial perovskite solar cells under concurrent bifacial illumination. *Sustainable Energy and Fuels*,	5.8	4

11	Functionalizing phenethylammonium by methoxy to achieve low-dimensional interface defects passivation for efficient and stable perovskite solar cells. *Nanotechnology*, **2021**, 33,	3.4	3
10	Impact of Humidity and Temperature on the Stability of the Optical Properties and Structure of MAPbI, MAFAPbI and (FAPbI)(MAPbBr) Perovskite Thin Films. *Materials*, **2021**, 14,	3.5	3
9	A simple synthesis of transparent and highly conducting p-type Cu Al S nanocomposite thin films as the hole transporting layer for organic solar cells.. *RSC Advances*, **2018**, 8, 16887-16896	3.7	3
8	Revealing the Mechanism of Aromatic Molecule as an Effective Passivator and Stabilizer in Highly Efficient Wide-Bandgap Perovskite Solar Cells. *Solar Rrl*, **2021**, 5, 2100249	7.1	3
7	Hybrid 3D Nanostructure-Based Hole Transport Layer for Highly Efficient Inverted Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2021**, 13, 16611-16619	9.5	2
6	Monolithic Two-Terminal All-Perovskite Tandem Solar Cells with Power Conversion Efficiency Exceeding 21% **2019**,		2
5	Organic ionic plastic crystals: A promising additive for achieving efficient and stable CsPbI2Br perovskite solar cells. *Journal of Physics and Chemistry of Solids*, **2022**, 168, 110798	3.9	1
4	Self-Formed Multifunctional Grain Boundary Passivation Layer Achieving 22.4% Efficient and Stable Perovskite Solar Cells. *Solar Rrl*, **2022**, 6, 2100893	7.1	0
3	3-Ammonium Propionic Acid: A Cation Tailoring Crystal Structure of Hybrid Perovskite for Improving Photovoltaic Performance. *ACS Applied Energy Materials*, **2021**, 4, 14662-14670	6.1	0
2	In Situ Electrochemically Formed Ag/NiOOH/Ni3S2 Heterostructure Electrocatalysts with Exceptional Performance toward Oxygen Evolution Reaction. *ACS Sustainable Chemistry and Engineering*, **2022**, 10, 5976-5985	8.3	0
1	Regulable DNA Protein Interactions in Vitro and Vivo at Epigenetic DNA Marks. *CCS Chemistry*,54-63	7.2	