Chen Han

List of Publications by Year in Descending Order

56 papers	6,120 citations	29 h-index	56 g-index
56 ext. papers	6,926 ext. citations	14.8 avg, IF	5.79 L-index

#	Paper	IF	Citations
56	Coating of Phosphide Catalysts on p-Silicon by a Necking Strategy for Improved Photoelectrochemical Characteristics in Alkaline Media. *ACS Applied Materials & Interfaces*, **2021**, 13, 20185-20193	9.5	6
55	Slot-die coating large-area formamidinium-cesium perovskite film for efficient and stable parallel solar module. *Science Advances*, **2021**, 7,	14.3	66
54	Stable tin perovskite solar cells developed via additive engineering. *Science China Materials*, **2021**, 64, 2645-2654	7.1	4
53	A Scalable Integrated Dopant-Free Heterostructure to Stabilize Perovskite Solar Cell Modules. *Advanced Energy Materials*, **2021**, 11, 2003301	21.8	22
52	Stable tin perovskite solar cells enabled by widening the time window for crystallization. *Science China Materials*, **2021**, 64, 1849-1857	7.1	5
51	Efficient and stable tin perovskite solar cells enabled by amorphous-polycrystalline structure. *Nature Communications*, **2020**, 11, 2678	17.4	90
50	Electron-enriched thione enables strong Pb-S interaction for stabilizing high quality CsPbI perovskite films with low-temperature processing. *Chemical Science*, **2020**, 11, 3132-3140	9.4	17
49	High Electron Affinity Enables Fast Hole Extraction for Efficient Flexible Inverted Perovskite Solar Cells. *Advanced Energy Materials*, **2020**, 10, 1903487	21.8	106
48	Confinement Effect of Mesopores: In Situ Synthesis of Cationic Tungsten-Vacancies for a Highly Ordered Mesoporous Tungsten Phosphide Electrocatalyst. *ACS Applied Materials & Interfaces*, **2020**, 12, 22741-22750	9.5	17
47	Flow Structures and Unsteady Behaviors of Film Cooling from Discrete Holes Fed by Internal Crossflow. *Journal of Turbomachinery*, **2020**, 142,	1.8	6
46	Synergistic Coassembly of Highly Wettable and Uniform Hole-Extraction Monolayers for Scaling-up Perovskite Solar Cells. *Advanced Functional Materials*, **2020**, 30, 1909509	15.6	13
45	Templated growth of FASnI3 crystals for efficient tin perovskite solar cells. *Energy and Environmental Science*, **2020**, 13, 2896-2902	35.4	82
44	Reliable Measurement of Perovskite Solar Cells. *Advanced Materials*, **2019**, 31, e1803231	24	44
43	Stabilizing heterostructures of soft perovskite semiconductors. *Science*, **2019**, 365, 687-691	33.3	281
42	Efficient Perovskite Solar Cell Modules with High Stability Enabled by Iodide Diffusion Barriers. *Joule*, **2019**, 3, 2748-2760	27.8	105
41	Ligand-Free, Highly Dispersed NiOx Nanocrystal for Efficient, Stable, Low-Temperature Processable Perovskite Solar Cells. *Solar Rrl*, **2018**, 2, 1800004	7.1	40
40	Low-Temperature Soft-Cover-Assisted Hydrolysis Deposition of Large-Scale TiO Layer for Efficient Perovskite Solar Modules. *Nano-Micro Letters*, **2018**, 10, 49	19.5	10

39	Unsteady analysis of adiabatic film cooling effectiveness for discrete hole with oscillating mainstream flow. *Physics of Fluids*, **2018**, 30, 127103	4.4	18
38	Thermally Stable MAPbI Perovskite Solar Cells with Efficiency of 19.19% and Area over 1 cm achieved by Additive Engineering. *Advanced Materials*, **2017**, 29, 1701073	24	447
37	Effect of thermal-convection-induced defects on the performance of perovskite solar cells. *Applied Physics Express*, **2017**, 10, 075502	2.4	6
36	Accurate and fast evaluation of perovskite solar cells with least hysteresis. *Applied Physics Express*, **2017**, 10, 076601	2.4	11
35	Diffusion engineering of ions and charge carriers for stable efficient perovskite solar cells. *Nature Communications*, **2017**, 8, 15330	17.4	290
34	A solvent- and vacuum-free route to large-area perovskite films for efficient solar modules. *Nature*, **2017**, 550, 92-95	50.4	510
33	Low-Temperature Soft-Cover Deposition of Uniform Large-Scale Perovskite Films for High-Performance Solar Cells. *Advanced Materials*, **2017**, 29, 1701440	24	61
32	Enhanced photoelectrochemical performance of planar p-Silicon by APCVD deposition of surface mesoporous hematite coating. *Applied Catalysis B: Environmental*, **2017**, 200, 372-377	21.8	9
31	Cost-Performance Analysis of Perovskite Solar Modules. *Advanced Science*, **2017**, 4, 1600269	13.6	238
30	Soft-cover deposition of scaling-up uniform perovskite thin films for high cost-performance solar cells. *Energy and Environmental Science*, **2016**, 9, 2295-2301	35.4	144
29	Annealing-free perovskite films by instant crystallization for efficient solar cells. *Journal of Materials Chemistry A*, **2016**, 4, 8548-8553	13	87
28	Efficient and stable large-area perovskite solar cells with inorganic charge extraction layers. *Science* , **2015**, 350, 944-8	33.3	1732
27	Fullerene-Structured MoSe2 Hollow Spheres Anchored on Highly Nitrogen-Doped Graphene as a Conductive Catalyst for Photovoltaic Applications. *Scientific Reports*, **2015**, 5, 13214	4.9	38
26	A hybrid catalyst composed of reduced graphene oxide/Cu2S quantum dots as a transparent counter electrode for dye sensitized solar cells. *RSC Advances*, **2015**, 5, 9075-9078	3.7	16
25	Key issues in highly efficient perovskite solar cells. *Wuli Xuebao/Acta Physica Sinica*, **2015**, 64, 038404	0.6	12
24	High-Performance, Transparent, Dye-Sensitized Solar Cells for See-Through Photovoltaic Windows. *Advanced Energy Materials*, **2014**, 4, 1301966	21.8	66
23	Novel Near-Infrared Squaraine Sensitizers for Stable and Efficient Dye-Sensitized Solar Cells. *Advanced Functional Materials*, **2014**, 24, 3059-3066	15.6	68
22	Photovoltaic effect of TiO2 thick films with an ultrathin BiFeO3 as buffer layer. *Applied Physics A: Materials Science and Processing*, **2014**, 117, 1301-1306	2.6	4

21	A quasi core□shell nitrogen-doped graphene/cobalt sulfide conductive catalyst for highly efficient dye-sensitized solar cells. *Energy and Environmental Science*, **2014**, 7, 2637-2641	35.4	177
20	Highly compact TiO2layer for efficient hole-blocking in perovskite solar cells. *Applied Physics Express*, **2014**, 7, 052301	2.4	181
19	Tin oxide microspheres with exposed {101} facets for dye-sensitized solar cells: enhanced photocurrent and photovoltage. *ChemSusChem*, **2014**, 7, 172-8	8.3	12
18	Efficient metal-free sensitizers bearing circle chain embracing □spacers for dye-sensitized solar cells. *Journal of Materials Chemistry A*, **2013**, 1, 10889	13	31
17	Coordinated shifts of interfacial energy levels: insight into electron injection in highly efficient dye-sensitized solar cells. *Energy and Environmental Science*, **2013**, 6, 3637	35.4	31
16	Energy band tunable TixSn1□O2 photoanode for efficient non-TiO2 type dye sensitized solar cells. *Journal of Materials Chemistry A*, **2013**, 1, 8453	13	14
15	Improvement of spectral response by co-sensitizers for high efficiency dye-sensitized solar cells. *Journal of Materials Chemistry A*, **2013**, 1, 4812	13	68
14	MODELS OF ELECTRON INJECTION, DIFFUSION AND RECOMBINATION IN DYE-SENSITIZED SOLAR CELLS. *International Journal of Modern Physics B*, **2012**, 26, 1230009	1.1	1
13	High-efficiency dye-sensitized solar cell with a novel co-adsorbent. *Energy and Environmental Science*, **2012**, 5, 6057	35.4	617
12	Aggregation-free branch-type organic dye with a twisted molecular architecture for dye-sensitized solar cells. *Energy and Environmental Science*, **2012**, 5, 8548	35.4	72
11	Tuning the electrical and optical properties of diketopyrrolopyrrole complexes for panchromatic dye-sensitized solar cells. *Chemistry - an Asian Journal*, **2012**, 7, 2895-903	4.5	31
10	Effect of Cerium Doping in the TiO2 Photoanode on the Electron Transport of Dye-Sensitized Solar Cells. *Journal of Physical Chemistry C*, **2012**, 116, 19182-19190	3.8	114
9	Ellipsoidal TiO2 hierarchitectures with enhanced photovoltaic performance. *Chemistry - A European Journal*, **2012**, 18, 5269-74	4.8	14
8	A New Factor Affecting the Performance of Dye-Sensitized Solar Cells in the Presence of 4-tert-Butylpyridine. *Applied Physics Express*, **2012**, 5, 042303	2.4	10
7	Surface Treatment for Effective Dye Adsorption on Nanocrystalline TiO$_{2}$. *Japanese Journal of Applied Physics*, **2012**, 51, 10NE16	1.4	5
6	Surface Treatment for Effective Dye Adsorption on Nanocrystalline TiO2. *Japanese Journal of Applied Physics*, **2012**, 51, 10NE16	1.4	
5	Effects of 4-tert-butylpyridine on the quasi-Fermi levels of TiO2 films in the presence of different cations in dye-sensitized solar cells. *Physical Chemistry Chemical Physics*, **2011**, 13, 19310-3	3.6	29
4	Voltammetric potentials of polyaniline varying with electric percolation. *Electrochimica Acta*, **2010**, 55, 6959-6963	6.7	6

3	Electrochemically instantaneous reduction of conducting polyaniline-coated latex particles dispersed in acidic solution. *Electrochimica Acta*, **2008**, 53, 7100-7106	6.7	17
2	Catalytic generation of chlorine with slight overpotential by micellar ferrocene. *Electrochemistry Communications*, **2007**, 9, 2304-2307	5.1	3
1	Crystal-array-assisted growth of perovskite absorption layer for efficient and stable solar cell. *Energy and Environmental Science*,	35.4	16