Yi-Xin Zhao

List of Publications by Citations

199 papers	14,732 citations	61 h-index	118 g-index
223 ext. papers	17,378 ext. citations	11 avg, IF	7.42 L-index

#	Paper	IF	Citations
199	Organic-inorganic hybrid lead halide perovskites for optoelectronic and electronic applications. *Chemical Society Reviews*, **2016**, 45, 655-89	58.5	1049
198	Plasmonic Cu(2-x)S nanocrystals: optical and structural properties of copper-deficient copper(I) sulfides. *Journal of the American Chemical Society*, **2009**, 131, 4253-61	16.4	785
197	Thermodynamically stabilized □CsPbI-based perovskite solar cells with efficiencies >18. *Science*, **2019**, 365, 591-595	33.3	644
196	CH3NH3Cl-Assisted One-Step Solution Growth of CH3NH3PbI3: Structure, Charge-Carrier Dynamics, and Photovoltaic Properties of Perovskite Solar Cells. *Journal of Physical Chemistry C*, **2014**, 118, 9412-9418	3.8	461
195	Bication lead iodide 2D perovskite component to stabilize inorganic □CsPbI perovskite phase for high-efficiency solar cells. *Science Advances*, **2017**, 3, e1700841	14.3	450
194	Bifunctional Stabilization of All-Inorganic □CsPbI Perovskite for 17% Efficiency Photovoltaics. *Journal of the American Chemical Society*, **2018**, 140, 12345-12348	16.4	434
193	Femtosecond time-resolved transient absorption spectroscopy of CH3NH3PbI3 perovskite films: evidence for passivation effect of PbI2. *Journal of the American Chemical Society*, **2014**, 136, 12205-8	16.4	417
192	Facile fabrication of large-grain CH3NH3PbI3-xBrx films for high-efficiency solar cells via CH3NH3Br-selective Ostwald ripening. *Nature Communications*, **2016**, 7, 12305	17.4	358
191	TiO2 nanoparticles as functional building blocks. *Chemical Reviews*, **2014**, 114, 9283-318	68.1	340
190	Chemical stability and instability of inorganic halide perovskites. *Energy and Environmental Science*, **2019**, 12, 1495-1511	35.4	335
189	Development of plasmonic semiconductor nanomaterials with copper chalcogenides for a future with sustainable energy materials. *Energy and Environmental Science*, **2012**, 5, 5564-5576	35.4	296
188	The Role of Dimethylammonium Iodide in CsPbI Perovskite Fabrication: Additive or Dopant?. *Angewandte Chemie - International Edition*, **2019**, 58, 16691-16696	16.4	264
187	Improving the efficiency of water splitting in dye-sensitized solar cells by using a biomimetic electron transfer mediator. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 15612-6	11.5	260
186	Charge Transport and Recombination in Perovskite (CH3NH3)PbI3 Sensitized TiO2 Solar Cells. *Journal of Physical Chemistry Letters*, **2013**, 4, 2880-2884	6.4	255
185	A High Yield Synthesis of Ligand-Free Iridium Oxide Nanoparticles with High Electrocatalytic Activity. *Journal of Physical Chemistry Letters*, **2011**, 2, 402-406	6.4	250
184	Solid-State Mesostructured Perovskite CH3NH3PbI3 Solar Cells: Charge Transport, Recombination, and Diffusion Length. *Journal of Physical Chemistry Letters*, **2014**, 5, 490-4	6.4	244
183	Controllable Sequential Deposition of Planar CH□NH□PbI□Perovskite Films via Adjustable Volume Expansion. *Nano Letters*, **2015**, 15, 3959-63	11.5	217

182	Identification and characterization of the intermediate phase in hybrid organic-inorganic MAPbI3 perovskite. *Dalton Transactions*, **2016**, 45, 3806-13	4.3	212
181	Efficient □CsPbI3 Photovoltaics with Surface Terminated Organic Cations. *Joule*, **2018**, 2, 2065-2075	27.8	210
180	Solution Chemistry Engineering toward High-Efficiency Perovskite Solar Cells. *Journal of Physical Chemistry Letters*, **2014**, 5, 4175-86	6.4	209
179	Efficient planar perovskite solar cells based on 1.8 eV band gap CH3NH3PbI2Br nanosheets via thermal decomposition. *Journal of the American Chemical Society*, **2014**, 136, 12241-4	16.4	203
178	Carbon quantum dots decorated Bi2WO6 nanocomposite with enhanced photocatalytic oxidation activity for VOCs. *Applied Catalysis B: Environmental*, **2016**, 193, 16-21	21.8	198
177	Amorphous TiO2 Buffer Layer Boosts Efficiency of Quantum Dot Sensitized Solar Cells to over 9%. *Chemistry of Materials*, **2015**, 27, 8398-8405	9.6	184
176	Visible Light Assisted Heterogeneous Fenton-Like Degradation of Organic Pollutant via □FeOOH/Mesoporous Carbon Composites. *Environmental Science & Technology*, **2017**, 51, 3993-4000	10.3	167
175	Resistance and polarization losses in aqueous buffer□membrane electrolytes for water-splitting photoelectrochemical cells. *Energy and Environmental Science*, **2012**, 5, 7582	35.4	166
174	Carbon Counter-Electrode-Based Quantum-Dot-Sensitized Solar Cells with Certified Efficiency Exceeding 11. *Journal of Physical Chemistry Letters*, **2016**, 7, 3103-11	6.4	154
173	Substrate-controlled band positions in CH□NH□PbI□perovskite films. *Physical Chemistry Chemical Physics*, **2014**, 16, 22122-30	3.6	152
172	The Effects of Sintering on the Photocatalytic Activity of N-Doped TiO2 Nanoparticles. *Chemistry of Materials*, **2008**, 20, 2629-2636	9.6	145
171	FeOOH quantum dots coupled g-C3N4 for visible light driving photo- Fenton degradation of organic pollutants. *Applied Catalysis B: Environmental*, **2018**, 237, 513-520	21.8	143
170	Optical bleaching of perovskite (CH3NH3)PbI3 through room-temperature phase transformation induced by ammonia. *Chemical Communications*, **2014**, 50, 1605-7	5.8	141
169	A controllable fabrication of grain boundary PbI2 nanoplates passivated lead halide perovskites for high performance solar cells. *Nano Energy*, **2016**, 26, 50-56	17.1	138
168	Metal ions optical sensing by semiconductor quantum dots. *Journal of Materials Chemistry C*, **2014**, 2, 595-613	7.1	134
167	Effective hole extraction using MoOx-Al contact in perovskite CH3NH3PbI3 solar cells. *Applied Physics Letters*, **2014**, 104, 213906	3.4	126
166	A Facile Low Temperature Fabrication of High Performance CsPbI2Br All-Inorganic Perovskite Solar Cells. *Solar Rrl*, **2018**, 2, 1700180	7.1	124
165	Mixed cation hybrid lead halide perovskites with enhanced performance and stability. *Journal of Materials Chemistry A*, **2017**, 5, 11450-11461	13	123

164	Growth control of compact CH3NH3PbI3 thin films via enhanced solid-state precursor reaction for efficient planar perovskite solar cells. *Journal of Materials Chemistry A*, **2015**, 3, 9249-9256	13	118
163	Non-Thermal Annealing Fabrication of Efficient Planar Perovskite Solar Cells with Inclusion of NH4Cl. *Chemistry of Materials*, **2015**, 27, 1448-1451	9.6	114
162	A facile solvothermal growth of single crystal mixed halide perovskite CH3NH3Pb(Br(1-x)Cl(x))3. *Chemical Communications*, **2015**, 51, 7820-3	5.8	114
161	Hydrochloric acid accelerated formation of planar CH3NH3PbI3 perovskite with high humidity tolerance. *Journal of Materials Chemistry A*, **2015**, 3, 19674-19678	13	108
160	Mesoporous perovskite solar cells: material composition, charge-carrier dynamics, and device characteristics. *Faraday Discussions*, **2014**, 176, 301-12	3.6	103
159	In Situ Fabrication of Highly Luminescent Bifunctional Amino Acid Crosslinked 2D/3D NH3C4H9COO(CH3NH3PbBr3)n Perovskite Films. *Advanced Functional Materials*, **2017**, 27, 1603568	15.6	103
158	Anodic deposition of colloidal iridium oxide thin films from hexahydroxyiridate(IV) solutions. *Small*, **2011**, 7, 2087-93	11	100
157	Synthesis and Characterization of Nitrogen-Doped Group IVB Visible-Light-Photoactive Metal Oxide Nanoparticles. *Advanced Materials*, **2007**, 19, 3995-3999	24	98
156	Ultrasensitive Photodetectors Based on Island-Structured CH3NH3PbI3 Thin Films. *ACS Applied Materials & Interfaces*, **2015**, 7, 21634-8	9.5	96
155	CsPb(I Br1)3 solar cells. *Science Bulletin*, **2019**, 64, 1532-1539	10.6	92
154	Mesoporous TiO 2 films coated on carbon foam based on waste polyurethane for enhanced photocatalytic oxidation of VOCs. *Applied Catalysis B: Environmental*, **2017**, 212, 1-6	21.8	89
153	Three-step sequential solution deposition of PbI2-free CH3NH3PbI3 perovskite. *Journal of Materials Chemistry A*, **2015**, 3, 9086-9091	13	89
152	Enhancing thermoelectric performance of ternary nanocrystals through adjusting carrier concentration. *Journal of the American Chemical Society*, **2010**, 132, 4982-3	16.4	88
151	Synthesis, characterization and computational study of nitrogen-doped CeO2 nanoparticles with visible-light activity. *Physical Chemistry Chemical Physics*, **2008**, 10, 5633-8	3.6	84
150	Highly Efficient Utilization of Nano-Fe(0) Embedded in Mesoporous Carbon for Activation of Peroxydisulfate. *Environmental Science & Technology*, **2019**, 53, 9081-9090	10.3	83
149	Formation of highly luminescent cesium bismuth halide perovskite quantum dots tuned by anion exchange. *Chemical Communications*, **2018**, 54, 3779-3782	5.8	82
148	Lead-free double perovskite Cs2AgBiBr6/RGO composite for efficient visible light photocatalytic H2 evolution. *Applied Catalysis B: Environmental*, **2020**, 268, 118399	21.8	79
147	All-inorganic lead-free perovskites for optoelectronic applications. *Materials Chemistry Frontiers*, **2019**, 3, 365-375	7.8	77

146	Hydrophilic mesoporous carbon as iron(III)/(II) electron shuttle for visible light enhanced Fenton-like degradation of organic pollutants. *Applied Catalysis B: Environmental*, **2018**, 231, 108-114	21.8	72
145	General Method for the Synthesis of Ultrastable Core/Shell Quantum Dots by Aluminum Doping. *Journal of the American Chemical Society*, **2015**, 137, 12430-3	16.4	71
144	Ion-Exchange-Induced 2D-3D Conversion of HMA FA PbI Cl Perovskite into a High-Quality MA FA PbI Perovskite. *Angewandte Chemie - International Edition*, **2016**, 55, 13460-13464	16.4	71
143	Oxidatively stable nanoporous silicon photocathodes with enhanced onset voltage for photoelectrochemical proton reduction. *Nano Letters*, **2015**, 15, 2517-25	11.5	69
142	Organic-inorganic interactions of single crystalline organolead halide perovskites studied by Raman spectroscopy. *Physical Chemistry Chemical Physics*, **2016**, 18, 18112-8	3.6	68
141	Li dopant induces moisture sensitive phase degradation of an all-inorganic CsPbIBr perovskite. *Chemical Communications*, **2018**, 54, 9809-9812	5.8	66
140	All-inorganic CsCuX (X = Cl, Br, and Br/I) perovskite quantum dots with blue-green luminescence. *Chemical Communications*, **2018**, 54, 11638-11641	5.8	65
139	A Stable Plasmonic Cu@Cu O/ZnO Heterojunction for Enhanced Photocatalytic Hydrogen Generation. *ChemSusChem*, **2018**, 11, 1505-1511	8.3	63
138	Tuning layered Fe-doped g-C3N4 structure through pyrolysis for enhanced Fenton and photo-Fenton activities. *Carbon*, **2020**, 159, 461-470	10.4	58
137	Electron transfer kinetics in water splitting dye-sensitized solar cells based on core-shell oxide electrodes. *Faraday Discussions*, **2012**, 155, 165-76; discussion 207-22	3.6	57
136	Toward high-performance nanostructured thermoelectric materials: the progress of bottom-up solution chemistry approaches. *Journal of Materials Chemistry*, **2011**, 21, 17049		57
135	Improving Thermoelectric Properties of Chemically Synthesized Bi2Te3-Based Nanocrystals by Annealing. *Journal of Physical Chemistry C*, **2010**, 114, 11607-11613	3.8	56
134	MoS-Stratified CdS-CuS Core-Shell Nanorods for Highly Efficient Photocatalytic Hydrogen Production. *ACS Nano*, **2020**, 14, 5468-5479	16.7	54
133	Chemical synthesis of Bi(0.5)Sb(1.5)Te3 nanocrystals and their surface oxidation properties. *ACS Applied Materials & Interfaces*, **2009**, 1, 1259-63	9.5	53
132	CdTe/CdS Core/Shell Quantum Dots Cocatalyzed by Sulfur Tolerant [Mo3S13]2□Nanoclusters for Efficient Visible-Light-Driven Hydrogen Evolution. *ACS Sustainable Chemistry and Engineering*, **2016**, 4, 6653-6658	8.3	50
131	Sulfurated [NiFe]-based layered double hydroxides nanoparticles as efficient co-catalysts for photocatalytic hydrogen evolution using CdTe/CdS quantum dots. *Applied Catalysis B: Environmental*, **2017**, 209, 155-160	21.8	48
130	Photocatalytic remediation of ionic pollutant. *Science Bulletin*, **2015**, 60, 1791-1806	10.6	48
129	A novel highly active nanostructured IrO2/Ti anode for water oxidation. *International Journal of Hydrogen Energy*, **2015**, 40, 14279-14283	6.7	48

128	Chemically Stable Black Phase CsPbI Inorganic Perovskites for High-Efficiency Photovoltaics. *Advanced Materials*, **2020**, 32, e2001025	24	48
127	Stable Lead-Free (CH3NH3)3Bi2I9 Perovskite for Photocatalytic Hydrogen Generation. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 15080-15085	8.3	47
126	Photocurrent enhanced by singlet fission in a dye-sensitized solar cell. *ACS Applied Materials & Interfaces*, **2015**, 7, 2286-93	9.5	47
125	Sn-doped hematite films as photoanodes for efficient photoelectrochemical water oxidation. *Journal of Materials Chemistry A*, **2015**, 3, 6751-6755	13	43
124	A general non-CH3NH3X (X = I, Br) one-step deposition of CH3NH3PbX3 perovskite for high performance solar cells. *Journal of Materials Chemistry A*, **2016**, 4, 3245-3248	13	43
123	Synergetic Effect of Chloride Doping and CH NH PbCl on CH NH PbI Cl Perovskite-Based Solar Cells. *ChemSusChem*, **2017**, 10, 2365-2369	8.3	42
122	A metal-free visible light active photo-electro-Fenton-like cell for organic pollutants degradation. *Applied Catalysis B: Environmental*, **2018**, 229, 211-217	21.8	39
121	Defect Engineering in Semiconductors: Manipulating Nonstoichiometric Defects and Understanding Their Impact in Oxynitrides for Solar Energy Conversion. *Advanced Functional Materials*, **2019**, 29, 1808389	15.6	37
120	Understanding the Effect of Monomeric Iridium(III/IV) Aquo Complexes on the Photoelectrochemistry of IrO(x)·nH2O-Catalyzed Water-Splitting Systems. *Journal of the American Chemical Society*, **2015**, 137, 8749-57	16.4	36
119	Steric Mixed-Cation 2D Perovskite as a Methylammonium Locker to Stabilize MAPbI. *Angewandte Chemie - International Edition*, **2020**, 59, 1469-1473	16.4	35
118	Light-Driven Overall Water Splitting Enabled by a Photo-Dember Effect Realized on 3D Plasmonic Structures. *ACS Nano*, **2016**, 10, 6693-701	16.7	34
117	Proton Reduction Using a Hydrogenase-Modified Nanoporous Black Silicon Photoelectrode. *ACS Applied Materials & Interfaces*, **2016**, 8, 14481-7	9.5	33
116	Intercalation crystallization of phase-pure □HC(NH)□PbI□ upon microstructurally engineered PbI□ thin films for planar perovskite solar cells. *Nanoscale*, **2016**, 8, 6265-70	7.7	33
115	Nonvolatile chlorinated additives adversely influence CH3NH3PbI3 based planar solar cells. *Journal of Materials Chemistry A*, **2015**, 3, 9137-9140	13	32
114	The Role of Dimethylammonium Iodide in CsPbI3 Perovskite Fabrication: Additive or Dopant?. *Angewandte Chemie*, **2019**, 131, 16844-16849	3.6	32
113	Binderless and Oxygen Vacancies Rich FeNi/Graphitized Mesoporous Carbon/Ni Foam for Electrocatalytic Reduction of Nitrate. *Environmental Science & Technology*, **2020**, 54, 13344-13353	10.3	32
112	Organic Tetrabutylammonium Cation Intercalation to Heal Inorganic CsPbI Perovskite. *Angewandte Chemie - International Edition*, **2021**, 60, 12351-12355	16.4	32
111	Highly efficient colloidal MnxCd1□S nanorod solid solution for photocatalytic hydrogen generation. *Journal of Materials Chemistry A*, **2018**, 6, 23683-23689	13	32

110	Rod-shaped thiocyanate-induced abnormal band gap broadening in SCN□doped CsPbBr3 perovskite nanocrystals. *Nano Research*, **2018**, 11, 2715-2723	10	30
109	Organic salt mediated growth of phase pure and stable all-inorganic CsPbX3 (X = I, Br) perovskites for efficient photovoltaics. *Science Bulletin*, **2019**, 64, 1773-1779	10.6	29
108	A highly efficient nanoporous BiVO4 photoelectrode with enhanced interface charge transfer Co-catalyzed by molecular catalyst. *Applied Catalysis B: Environmental*, **2018**, 225, 504-511	21.8	29
107	Photostability of MAPbI3 Perovskite Solar Cells by Incorporating Black Phosphorus. *Solar Rrl*, **2019**, 3, 1900197	7.1	28
106	Highly photocatalytic active thiomolybdate [Mo3S13]2□clusters/BiOBr nanocomposite with enhanced sulfur tolerance. *Applied Catalysis B: Environmental*, **2016**, 183, 1-7	21.8	28
105	Spontaneous low-temperature crystallization of □FAPbI3 for highly efficient perovskite solar cells. *Science Bulletin*, **2019**, 64, 1608-1616	10.6	27
104	Inorganic CsPbI3 Perovskites toward High-Efficiency Photovoltaics. *Energy and Environmental Materials*, **2019**, 2, 73-78	13	27
103	CsI Enhanced Buried Interface for Efficient and UV-Robust Perovskite Solar Cells. *Advanced Energy Materials*,2103151	21.8	27
102	CuO nanosheet as a recyclable Fenton-like catalyst prepared from simulated Cu(II) waste effluents by alkaline H2O2 reaction. *Environmental Science: Nano*, **2019**, 6, 105-114	7.1	25
101	Size-dependent nanocrystal sorbent for copper removal from water. *Chemical Engineering Journal*, **2016**, 284, 565-570	14.7	25
100	Lead-free silver-antimony halide double perovskite quantum dots with superior blue photoluminescence. *Chemical Communications*, **2019**, 55, 14741-14744	5.8	25
99	Advances to High-Performance Black-Phase FAPbI3 Perovskite for Efficient and Stable Photovoltaics. *Small Structures*, **2021**, 2, 2000130	8.7	25
98	Secondary battery inspired NiO nanosheets with rich Ni(III) defects for enhancing persulfates activation in phenolic waste water degradation. *Chemical Engineering Journal*, **2019**, 360, 97-103	14.7	24
97	Efficient and Stable CsPbI Inorganic Perovskite Photovoltaics Enabled by Crystal Secondary Growth. *Advanced Materials*, **2021**, 33, e2103688	24	24
96	Highly Active IrOx Nanoparticles/Black Si Electrode for Efficient Water Splitting with Conformal TiO2 Interface Engineering. *ACS Sustainable Chemistry and Engineering*, **2017**, 5, 10940-10946	8.3	22
95	NiFe Layered Double Hydroxide (LDH) Nanosheet Catalysts with Fe as Electron Transfer Mediator for Enhanced Persulfate Activation. *Journal of Physical Chemistry Letters*, **2020**, 11, 968-973	6.4	22
94	Phosphorus-doped Isotype g-C3N4/g-C3N4: An Efficient Charge Transfer System for Photoelectrochemical Water Oxidation. *ChemCatChem*, **2019**, 11, 729-736	5.2	22
93	Integration of a functionalized graphene nano-network into a planar perovskite absorber for high-efficiency large-area solar cells. *Materials Horizons*, **2018**, 5, 868-873	14.4	21

92	Efficient hydrogen evolution from the hydrolysis of ammonia borane using bilateral-like WO nanorods coupled with NiP nanoparticles. *Chemical Communications*, **2018**, 54, 6188-6191	5.8	21
91	CH3NH3Cl Assisted Solvent Engineering for Highly Crystallized and Large Grain Size Mixed-Composition (FAPbI3)0.85(MAPbBr3)0.15 Perovskites. *Crystals*, **2017**, 7, 272	2.3	20
90	In situ growth of ultra-thin perovskitoid layer to stabilize and passivate MAPbI3 for efficient and stable photovoltaics. *EScience*, **2021**,		20
89	CaMnO3 perovskite nanocrystals for efficient peroxydisulfate activation. *Chemical Engineering Journal*, **2020**, 398, 125638	14.7	19
88	Effect of chloride substitution on interfacial charge transfer processes in MAPbI3 perovskite thin film solar cells: planar versus mesoporous. *Nanoscale Advances*, **2019**, 1, 827-833	5.1	19
87	A facile deposition of large grain and phase pure □FAPbI 3 for perovskite solar cells via a flash crystallization. *Materials Today Energy*, **2017**, 5, 293-298	7	19
86	A mixed-cation lead iodide MA1⊠EAxPbI3 absorber for perovskite solar cells. *Journal of Energy Chemistry*, **2018**, 27, 215-218	12	18
85	Interfacial crosslinked quasi-2D perovskite with boosted carrier transport and enhanced stability. *Journal Physics D: Applied Physics*, **2018**, 51, 404001	3	18
84	Wireless activation of neurons in brain slices using nanostructured semiconductor photoelectrodes. *Angewandte Chemie - International Edition*, **2009**, 48, 2407-10	16.4	18
83	In situ gas/solid reaction for the formation of luminescent quantum confined CH3NH3PbBr3 perovskite planar film. *Chemical Communications*, **2016**, 52, 11080-3	5.8	18
82	Optoelectronic Dichotomy of Mixed Halide CHNHPb(BrCl) Single Crystals: Surface versus Bulk Photoluminescence. *Journal of the American Chemical Society*, **2018**, 140, 11811-11819	16.4	18
81	[Mo3S13]2□modified TiO2 coating on non-woven fabric for efficient photocatalytic mineralization of acetone. *Applied Catalysis B: Environmental*, **2019**, 245, 190-196	21.8	17
80	Dry Chemistry of Ferrate(VI): A Solvent-Free Mechanochemical Way for Versatile Green Oxidation. *Angewandte Chemie - International Edition*, **2018**, 57, 10949-10953	16.4	17
79	Secondary battery inspired □nickel hydroxide as an efficient Ni-based heterogeneous catalyst for sulfate radical activation. *Science Bulletin*, **2018**, 63, 278-281	10.6	16
78	Potential lead toxicity and leakage issues on lead halide perovskite photovoltaics. *Journal of Hazardous Materials*, **2021**, 127848	12.8	16
77	Recent progress and prospects of integrated perovskite/organic solar cells. *Applied Physics Reviews*, **2020**, 7, 031303	17.3	16
76	In situ modification of BiVO nanosheets on graphene for boosting photocatalytic water oxidation. *Nanoscale*, **2020**, 12, 14853-14862	7.7	15
75	Ferric (hydr)oxide/mesoporous carbon composites as Fenton-like catalysts for degradation of phenol. *Research on Chemical Intermediates*, **2018**, 44, 4103-4117	2.8	15

74	Ultrasensitive optical detection of anions by quantum dots. *Nanoscale Horizons*, **2016**, 1, 125-134	10.8	14
73	Enhanced visible/near-infrared light harvesting and superior charge separation via 0D/2D all-carbon hybrid architecture for photocatalytic oxygen evolution. *Carbon*, **2020**, 167, 724-735	10.4	14
72	Using steric hindrance to manipulate and stabilize metal halide perovskites for optoelectronics. *Chemical Science*, **2021**, 12, 7231-7247	9.4	14
71	Improvement of the thermoelectric power factor through anisotropic growth of nanostructured PbSe thin films. *Dalton Transactions*, **2010**, 39, 1095-100	4.3	13
70	Effective removal of chlorinated organic pollutants by bimetallic iron-nickel sulfide activation of peroxydisulfate. *Chinese Chemical Letters*, **2020**, 31, 1535-1539	8.1	13
69	Stabilizing the MAPbI3 perovksite via the in-situ formed lead sulfide layer for efficient and robust solar cells. *Journal of Energy Chemistry*, **2020**, 47, 62-65	12	13
68	Incorporating quantum dots for high efficiency and stable perovskite photovoltaics. *Journal of Materials Chemistry A*, **2020**, 8, 25017-25027	13	13
67	Highly Efficient (110) Orientated FA-MA Mixed Cation Perovskite Solar Cells via Functionalized Carbon Nanotube and Methylammonium Chloride Additive. *Small Methods*, **2020**, 4, 1900511	12.8	13
66	Brand new 1D branched CuO nanowire arrays for efficient photoelectrochemical water reduction. *Dalton Transactions*, **2018**, 47, 14566-14572	4.3	12
65	2-Aminobenzenethiol-Functionalized Silver-Decorated Nanoporous Silicon Photoelectrodes for Selective CO Reduction. *Angewandte Chemie - International Edition*, **2020**, 59, 11462-11469	16.4	11
64	Steric Mixed-Cation 2D Perovskite as a Methylammonium Locker to Stabilize MAPbI3. *Angewandte Chemie*, **2020**, 132, 1485-1489	3.6	11
63	Organic Tetrabutylammonium Cation Intercalation to Heal Inorganic CsPbI3 Perovskite. *Angewandte Chemie*, **2021**, 133, 12459-12463	3.6	11
62	A Tandem Water Splitting Cell Based on Nanoporous BiVO4 Photoanode Cocatalyzed by Ultrasmall Cobalt Borate Sandwiched with Conformal TiO2 Layers. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 16228-16234	8.3	11
61	Peroxydisulfate activation by photo-generated charges on mesoporous carbon nitride for removal of chlorophenols. *Applied Catalysis B: Environmental*, **2021**, 296, 120370	21.8	11
60	Highly photocatalytic active thiomolybdate [Mo 3 S 13] 2□clusters/Bi 2 WO 6 nanocomposites. *Catalysis Today*, **2016**, 274, 22-27	5.3	10
59	Relativistic DFT study on the reaction mechanism of second-row transition metal Ru with CO2. *Journal of Physical Chemistry A*, **2006**, 110, 3552-8	2.8	10
58	Harvest of ocean energy by triboelectric generator technology. *Applied Physics Reviews*, **2018**, 5, 031303	17.3	9
57	Photoelectrochemical reduction of nitrates with visible light by nanoporous Si photoelectrode. *Electrochimica Acta*, **2015**, 177, 366-369	6.7	9

56	Stable Cesium-Rich Formamidinium/Cesium Pure-Iodide Perovskites for Efficient Photovoltaics. *ACS Energy Letters*, **2021**, 6, 2735-2741	20.1	9
55	Highly Stable Inorganic Lead Halide Perovskite toward Efficient Photovoltaics. *Accounts of Chemical Research*, **2021**, 54, 3452-3461	24.3	9
54	Organic Matrix Assisted Low-temperature Crystallization of Black Phase Inorganic Perovskites. *Angewandte Chemie - International Edition*, **2021**,	16.4	9
53	Perovskite solar cells by vapor deposition based and assisted methods. *Applied Physics Reviews*, **2022**, 9, 021305	17.3	9
52	A simple fabrication of CH3NH3PbI3 perovskite for solar cells using low-purity PbI2. *Journal of Semiconductors*, **2017**, 38, 014004	2.3	8
51	Potassium stabilization of methylammonium lead bromide perovskite for robust photocatalytic H2 generation. *EcoMat*, **2020**, 2, e12015	9.4	8
50	Complete Conversion of PbI to Methyl Ammonium PbI Improves Perovskite Solar Cell Efficiency. *ChemPhysChem*, **2017**, 18, 47-50	3.2	8
49	Deep-Red Perovskite Light-Emitting Diodes Based on One-Step-Formed CsPbI Cuboid Crystallites. *Advanced Materials*, **2021**, 33, e2105699	24	8
48	Partial Cu ion exchange induced triangle hexagonal MnCuCdS nanocrystals for enhanced photocatalytic hydrogen evolution. *Chemical Communications*, **2020**, 56, 8127-8130	5.8	7
47	High performance nanoporous silicon photoelectrodes co-catalyzed with an earth abundant [Mo3S13]2 nanocluster via drop coating. *RSC Advances*, **2016**, 6, 15610-15614	3.7	7
46	Photodeposited FeOOH vs electrodeposited Co-Pi to enhance nanoporous BiVO4for photoelectrochemical water splitting. *Journal of Semiconductors*, **2017**, 38, 053004	2.3	7
45	Overcoming Acidic HO/Fe(II/III) Redox-Induced Low HO Utilization Efficiency by Carbon Quantum Dots Fenton-like Catalysis.. *Environmental Science & Technology*, **2022**,	10.3	7
44	Recent Progress of Lead Halide Perovskite Sensitized Solar Cells. *Acta Chimica Sinica*, **2015**, 73, 202	3.3	7
43	Recent Progress of Photocatalysis Based on Metal Halide Perovskites. *Acta Chimica Sinica*, **2019**, 77, 1075	3.3	7
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