Tsutomu Miyasaka

List of Publications by Citations

233 papers	35,779 citations	60 h-index	189 g-index
263 ext. papers	40,652 ext. citations	7.9 avg, IF	7.89 L-index

#	Paper	IF	Citations
233	Organometal halide perovskites as visible-light sensitizers for photovoltaic cells. *Journal of the American Chemical Society*, **2009**, 131, 6050-1	16.4	13684
232	Efficient hybrid solar cells based on meso-superstructured organometal halide perovskites. *Science*, **2012**, 338, 643-7	33.3	7959
231	Tin-Based Amorphous Oxide: A High-Capacity Lithium-Ion-Storage Material. *Science*, **1997**, 276, 1395-1397	33.3	2266
230	Halide Perovskite Photovoltaics: Background, Status, and Future Prospects. *Chemical Reviews*, **2019**, 119, 3036-3103	68.1	1189
229	Towards stable and commercially available perovskite solar cells. *Nature Energy*, **2016**, 1,	62.3	763
228	Stabilizing the Efficiency Beyond 20% with a Mixed Cation Perovskite Solar Cell Fabricated in Ambient Air under Controlled Humidity. *Advanced Energy Materials*, **2018**, 8, 1700677	21.8	334
227	Highly Luminescent Lead Bromide Perovskite Nanoparticles Synthesized with Porous Alumina Media. *Chemistry Letters*, **2012**, 41, 397-399	1.7	285
226	Low-temperature SnO2-based electron selective contact for efficient and stable perovskite solar cells. *Journal of Materials Chemistry A*, **2015**, 3, 10837-10844	13	272
225	Emergence of Hysteresis and Transient Ferroelectric Response in Organo-Lead Halide Perovskite Solar Cells. *Journal of Physical Chemistry Letters*, **2015**, 6, 164-9	6.4	256
224	Quantum conversion and image detection by a bacteriorhodopsin-based artificial photoreceptor. *Science*, **1992**, 255, 342-4	33.3	232
223	Effect of Electron Transporting Layer on Bismuth-Based Lead-Free Perovskite (CH3NH3)3 Bi2I9 for Photovoltaic Applications. *ACS Applied Materials & Interfaces*, **2016**, 8, 14542-7	9.5	225
222	Low-Temperature Fabrication of Dye-Sensitized Plastic Electrodes by Electrophoretic Preparation of Mesoporous TiO[sub 2] Layers. *Journal of the Electrochemical Society*, **2004**, 151, A1767	3.9	207
221	Perovskite Photovoltaics: Rare Functions of Organo Lead Halide in Solar Cells and Optoelectronic Devices. *Chemistry Letters*, **2015**, 44, 720-729	1.7	194
220	The photocapacitor: An efficient self-charging capacitor for direct storage of solar energy. *Applied Physics Letters*, **2004**, 85, 3932-3934	3.4	176
219	Photovoltaic Performance of Plastic Dye-Sensitized Electrodes Prepared by Low-Temperature Binder-Free Coating of Mesoscopic Titania. *Journal of the Electrochemical Society*, **2007**, 154, A455	3.9	166
218	Role of spiro-OMeTAD in performance deterioration of perovskite solar cells at high temperature and reuse of the perovskite films to avoid Pb-waste. *Journal of Materials Chemistry A*, **2018**, 6, 2219-2230	13	161
217	Light energy conversion with chlorophyll monolayer electrodes. In vitro electrochemical simulation of photosynthetic primary processes. *Journal of the American Chemical Society*, **1978**, 100, 6657-6665	16.4	155

216	Stability of solution-processed MAPbI3 and FAPbI3 layers. *Physical Chemistry Chemical Physics*, **2016**, 18, 13413-22	3.6	151
215	Sulfate-Assisted Interfacial Engineering for High Yield and Efficiency of Triple Cation Perovskite Solar Cells with Alkali-Doped TiO2 Electron-Transporting Layers. *Advanced Functional Materials*, **2018**, 28, 1706287	15.6	147
214	Antibody-mediated bacteriorhodopsin orientation for molecular device architectures. *Science*, **1994**, 265, 762-5	33.3	144
213	Stabilization of □CsPbI3 in Ambient Room Temperature Conditions by Incorporating Eu into CsPbI3. *Chemistry of Materials*, **2018**, 30, 6668-6674	9.6	143
212	Atomistic origins of CH3NH3PbI3 degradation to PbI2 in vacuum. *Applied Physics Letters*, **2015**, 106, 131904	3.4	141
211	Low temperature preparation of mesoporous TiO2 films for efficient dye-sensitized photoelectrode by chemical vapor deposition combined with UV light irradiation. *Journal of Photochemistry and Photobiology A: Chemistry*, **2004**, 164, 187-191	4.7	141
210	Poly(4-Vinylpyridine)-Based Interfacial Passivation to Enhance Voltage and Moisture Stability of Lead Halide Perovskite Solar Cells. *ChemSusChem*, **2017**, 10, 2473-2479	8.3	132
209	The Interface between FTO and the TiO2 Compact Layer Can Be One of the Origins to Hysteresis in Planar Heterojunction Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2015**, 7, 9817-23	9.5	129
208	Perovskite Solar Cells: Can We Go Organic-Free, Lead-Free, and Dopant-Free?. *Advanced Energy Materials*, **2020**, 10, 1902500	21.8	124
207	Synthesis, optoelectronic properties and applications of halide perovskites. *Chemical Society Reviews*, **2020**, 49, 2869-2885	58.5	123
206	A high-voltage dye-sensitized photocapacitor of a three-electrode system. *Chemical Communications*, **2005**, 3346-8	5.8	121
205	Low-temperature-processed ZnO□SnO2 nanocomposite for efficient planar perovskite solar cells. *Solar Energy Materials and Solar Cells*, **2016**, 144, 623-630	6.4	120
204	SnO2□Ti3C2 MXene electron transport layers for perovskite solar cells. *Journal of Materials Chemistry A*, **2019**, 7, 5635-5642	13	111
203	Highly efficient quantum conversion at chlorophyll a□lecithin mixed monolayer coated electrodes. *Nature*, **1979**, 277, 638-640	50.4	107
202	Toward Printable Sensitized Mesoscopic Solar Cells: Light-Harvesting Management with Thin TiO2 Films. *Journal of Physical Chemistry Letters*, **2011**, 2, 262-269	6.4	104
201	Severe Morphological Deformation of Spiro-OMeTAD in (CH3NH3)PbI3 Solar Cells at High Temperature. *ACS Energy Letters*, **2017**, 2, 1760-1761	20.1	103
200	Efficient Nonsintering Type Dye-sensitized Photocells Based on Electrophoretically Deposited TiO2Layers. *Chemistry Letters*, **2002**, 31, 1250-1251	1.7	101
199	Highly porous PProDOT-Et2 film as counter electrode for plastic dye-sensitized solar cells. *Physical Chemistry Chemical Physics*, **2009**, 11, 3375-9	3.6	94

198	Highly Efficient Plastic Dye-sensitized Photoelectrodes Prepared by Low-temperature Binder-free Coating of Mesoscopic Titania Pastes. *Chemistry Letters*, **2007**, 36, 190-191	1.7	91
197	Conductive polymer-carbon-imidazolium composite: a simple means for constructing solid-state dye-sensitized solar cells. *Chemical Communications*, **2006**, 1733-5	5.8	91
196	100 ℃ Thermal Stability of Printable Perovskite Solar Cells Using Porous Carbon Counter Electrodes. *ChemSusChem*, **2016**, 9, 2604-2608	8.3	88
195	Tolerance of Perovskite Solar Cell to High-Energy Particle Irradiations in Space Environment. *IScience*, **2018**, 2, 148-155	6.1	87
194	Light-Emitting Diodes: Sensitized Yb3+ Luminescence in CsPbCl3 Film for Highly Efficient Near-Infrared Light-Emitting Diodes (Adv. Sci. 4/2020). *Advanced Science*, **2020**, 7, 2070021	13.6	78
193	Amorphous Metal Oxide Blocking Layers for Highly Efficient Low-Temperature Brookite TiO-Based Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2018**, 10, 2224-2229	9.5	78
192	Efficiency Enhancement of ZnO-Based Dye-Sensitized Solar Cells by Low-Temperature TiCl4 Treatment and Dye Optimization. *Journal of Physical Chemistry C*, **2013**, 117, 10949-10956	3.8	77
191	Highly efficient plastic-based quasi-solid-state dye-sensitized solar□cells with light-harvesting mesoporous silica nanoparticles gel-electrolyte. *Journal of Power Sources*, **2014**, 245, 411-417	8.9	76
190	The mechanism of toluene-assisted crystallization of organic□inorganic perovskites for highly efficient solar cells. *Journal of Materials Chemistry A*, **2016**, 4, 4464-4471	13	74
189	Lead Halide Perovskites in Thin Film Photovoltaics: Background and Perspectives. *Bulletin of the Chemical Society of Japan*, **2018**, 91, 1058-1068	5.1	73
188	Stability and Degradation in Hybrid Perovskites: Is the Glass Half-Empty or Half-Full?. *Journal of Physical Chemistry Letters*, **2018**, 9, 3000-3007	6.4	72
187	Highly efficient and stable low-temperature processed ZnO solar cells with triple cation perovskite absorber. *Journal of Materials Chemistry A*, **2017**, 5, 13439-13447	13	71
186	Nb2O5 Blocking Layer for High Open-circuit Voltage Perovskite Solar Cells. *Chemistry Letters*, **2015**, 44, 829-830	1.7	69
185	Similar Structural Dynamics for the Degradation of CH3 NH3 PbI3 in Air and in Vacuum. *ChemPhysChem*, **2015**, 16, 3064-71	3.2	68
184	Surface-Modified Metallic Ti3C2Tx MXene as Electron Transport Layer for Planar Heterojunction Perovskite Solar Cells. *Advanced Functional Materials*, **2019**, 29, 1905694	15.6	67
183	A Switchable High-Sensitivity Photodetecting and Photovoltaic Device with Perovskite Absorber. *Journal of Physical Chemistry Letters*, **2015**, 6, 1773-9	6.4	66
182	Improvement in durability of flexible plastic dye-sensitized solar cell modules. *Solar Energy Materials and Solar Cells*, **2009**, 93, 836-839	6.4	66
181	Efficient and Environmentally Stable Perovskite Solar Cells Based on ZnO Electron Collection Layer. *Chemistry Letters*, **2015**, 44, 610-612	1.7	65

180	Platinum/titanium bilayer deposited on polymer film as efficient counter electrodes for plastic dye-sensitized solar cells. *Applied Physics Letters*, **2007**, 90, 153122	3.4	65
179	A solid-state dye-sensitized photovoltaic cell with a poly(N-vinyl-carbazole) hole transporter mediated by an alkali iodide. *Chemical Communications*, **2005**, 1886-8	5.8	64
178	Photovoltaic enhancement of bismuth halide hybrid perovskite by N-methyl pyrrolidone-assisted morphology conversion. *RSC Advances*, **2017**, 7, 9456-9460	3.7	63
177	Efficiency Enhancement of Hybrid Perovskite Solar Cells with MEH-PPV Hole-Transporting Layers. *Scientific Reports*, **2016**, 6, 34319	4.9	63
176	Artemisinin-passivated mixed-cation perovskite films for durable flexible perovskite solar cells with over 21% efficiency. *Journal of Materials Chemistry A*, **2021**, 9, 1574-1582	13	63
175	Efficient and stable plastic dye-sensitized solar cells based on a high light-harvesting ruthenium sensitizer. *Journal of Materials Chemistry*, **2009**, 19, 5009		62
174	Chlorophyll Derivative-Sensitized TiO Electron Transport Layer for Record Efficiency of CsAgBiBr Double Perovskite Solar Cells. *Journal of the American Chemical Society*, **2021**, 143, 2207-2211	16.4	61
173	PbI2-Based Dipping-Controlled Material Conversion for Compact Layer Free Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2015**, 7, 18156-62	9.5	60
172	Image sensing and processing by a bacteriorhodopsin-based artificial photoreceptor. *Applied Optics* , **1993**, 32, 6371-9	1.7	60
171	Efficient perovskite solar cells fabricated using an aqueous lead nitrate precursor. *Chemical Communications*, **2015**, 51, 13294-7	5.8	59
170	Role of Metal Oxide Electron-Transport Layer Modification on the Stability of High Performing Perovskite Solar Cells. *ChemSusChem*, **2016**, 9, 2559-2566	8.3	59
169	Direct detection of circular polarized light in helical 1D perovskite-based photodiode. *Science Advances*, **2020**, 6,	14.3	59
168	HC(NH2)2PbI3 as a thermally stable absorber for efficient ZnO-based perovskite solar cells. *Journal of Materials Chemistry A*, **2016**, 4, 8435-8443	13	59
167	Formamidine and cesium-based quasi-two-dimensional perovskites as photovoltaic absorbers. *Chemical Communications*, **2017**, 53, 4366-4369	5.8	58
166	Co-sensitization promoted light harvesting for plastic dye-sensitized solar cells. *Journal of Power Sources*, **2011**, 196, 2416-2421	8.9	56
165	Magnesium-doped Zinc Oxide as Electron Selective Contact Layers for Efficient Perovskite Solar Cells. *ChemSusChem*, **2016**, 9, 2640-2647	8.3	56
164	Over 1.4 V for Amorphous Tin-Oxide-Based Dopant-Free CsPbIBr Perovskite Solar Cells. *Journal of the American Chemical Society*, **2020**, 142, 9725-9734	16.4	55
163	Invalidity of Band-Gap Engineering Concept for Bi Heterovalent Doping in CsPbBr Halide Perovskite. *Journal of Physical Chemistry Letters*, **2018**, 9, 5408-5411	6.4	55

162	Lead(II) Propionate Additive and a Dopant-Free Polymer Hole Transport Material for CsPbI2Br Perovskite Solar Cells. *ACS Energy Letters*, **2020**, 5, 1292-1299	20.1	54
161	A SnOx-brookite TiO2 bilayer electron collector for hysteresis-less high efficiency plastic perovskite solar cells fabricated at low process temperature. *Chemical Communications*, **2016**, 52, 8119-22	5.8	54
160	UV Light-assisted Chemical Vapor Deposition of TiO2for Efficiency Development at Dye-sensitized Mesoporous Layers on Plastic Film Electrodes. *Chemistry Letters*, **2003**, 32, 1076-1077	1.7	54
159	Dopant-Free Zinc Chlorophyll Aggregates as an Efficient Biocompatible Hole Transporter for Perovskite Solar Cells. *ChemSusChem*, **2016**, 9, 2862-2869	8.3	52
158	Polythiophene-Based Mesoporous Counter Electrodes for Plastic Dye-Sensitized Solar Cells. *Journal of the Electrochemical Society*, **2010**, 157, B1195	3.9	52
157	Rectified photocurrents from purple membrane Langmuir-Blodgett films at the electrode-electrolyte interface. *Thin Solid Films*, **1992**, 210-211, 146-149	2.2	50
156	Conductive Polymer-based Mesoscopic Counterelectrodes for Plastic Dye-sensitized Solar Cells. *Chemistry Letters*, **2007**, 36, 804-805	1.7	48
155	Mechanism of Photocurrent Generation from Bacteriorhodopsin on Gold Electrodes. *Journal of Physical Chemistry B*, **1999**, 103, 234-238	3.4	47
154	Revealing and reducing the possible recombination loss within TiO2 compact layer by incorporating MgO layer in perovskite solar cells. *Solar Energy*, **2016**, 136, 379-384	6.8	43
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152	Excitonic Feature in Hybrid Perovskite CH3NH3PbBr3 Single Crystals. *Chemistry Letters*, **2015**, 44, 852-854	1.7	43
151	Steady state performance, photo-induced performance degradation and their relation to transient hysteresis in perovskite solar cells. *Journal of Power Sources*, **2016**, 309, 1-10	8.9	41
150	Plastic and Solid-state Dye-sensitized Solar Cells Incorporating Single-wall Carbon Nanotubes. *Chemistry Letters*, **2007**, 36, 466-467	1.7	40
149	Lead-free perovskite solar cells using Sb and Bi-based ABX and ABX crystals with normal and inverse cell structures. *Nano Convergence*, **2017**, 4, 26	9.2	38
148	Plastic Dye-sensitized Photovoltaic Cells and Modules Based on Low-temperature Preparation of Mesoscopic Titania Electrodes. *Electrochemistry*, **2007**, 75, 2-12	1.2	38
147	Water-based Dye-sensitized Solar Cells: Interfacial Activation of TiO2Mesopores in Contact with Aqueous Electrolyte for Efficiency Development. *Chemistry Letters*, **2003**, 32, 1154-1155	1.7	36
146	Solution-Processed Transparent Nickel-Mesh Counter Electrode with in-Situ Electrodeposited Platinum Nanoparticles for Full-Plastic Bifacial Dye-Sensitized Solar Cells. *ACS Applied Materials & Interfaces*, **2017**, 9, 8083-8091	9.5	35
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143	Brookite TiO2 as a low-temperature solution-processed mesoporous layer for hybrid perovskite solar cells. *Journal of Materials Chemistry A*, **2015**, 3, 20952-20957	13	35
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141	Controlled Crystal Grain Growth in Mixed Cation-Halide Perovskite by Evaporated Solvent Vapor Recycling Method for High Efficiency Solar Cells. *ACS Applied Materials & Interfaces*, **2017**, 9, 18739-18747	9.5	34
140	High performance perovskite solar cell via multi-cycle low temperature processing of lead acetate precursor solutions. *Chemical Communications*, **2016**, 52, 4784-7	5.8	33
139	Analysis of Sputtering Damage on I□V Curves for Perovskite Solar Cells and Simulation with Reversed Diode Model. *Journal of Physical Chemistry C*, **2016**, 120, 28441-28447	3.8	32
138	PHOTOELECTROCHEMICAL STUDY OF CHLOROPHYLL-a MULTILAYERS ON SnO2 ELECTRODE. *Photochemistry and Photobiology*, **1980**, 32, 217-222	3.6	32
137	Photoactive Zn-Chlorophyll Hole Transporter-Sensitized Lead-Free Cs2AgBiBr6 Perovskite Solar Cells. *Solar Rrl*, **2020**, 4, 2000166	7.1	31
136	Vapor Annealing Controlled Crystal Growth and Photovoltaic Performance of Bismuth Triiodide Embedded in Mesostructured Configurations. *ACS Applied Materials & Interfaces*, **2018**, 10, 9547-9554	9.5	31
135	Impacts of Heterogeneous TiO2 and Al2O3 Composite Mesoporous Scaffold on Formamidinium Lead Trihalide Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2016**, 8, 4608-15	9.5	31
134	Alternation of Charge Injection and Recombination in Dye-Sensitized Solar Cells by the Addition of Nonconjugated Bridge to Organic Dyes. *Journal of Physical Chemistry C*, **2013**, 117, 2024-2031	3.8	31
133	Investigating the Growth of CH3NH3PbI3 Thin Films on RF-Sputtered NiOx for Inverted Planar Perovskite Solar Cells: Effect of CH3NH3+ Halide Additives versus CH3NH3+ Halide Vapor Annealing. *Advanced Materials Interfaces*, **2020**, 7, 1901748	4.6	31
132	Enhancement of the hole conducting effect of NiO by a N blow drying method in printable perovskite solar cells with low-temperature carbon as the counter electrode. *Nanoscale*, **2017**, 9, 5475-5482	7.7	30
131	Microstructural analysis and optical properties of the halide double perovskite Cs2BiAgBr6 single crystals. *Chemical Physics Letters*, **2018**, 694, 18-22	2.5	29
130	Efficiency Enhancement in ZnO:Al-Based Dye-Sensitized Solar Cells Structured with Sputtered TiO2 Blocking Layers. *Journal of Physical Chemistry C*, **2014**, 118, 6576-6585	3.8	29
129	Determination of Chloride Content in Planar CH3NH3PbI3□Clx Solar Cells by Chemical Analysis. *Chemistry Letters*, **2015**, 44, 1089-1091	1.7	29
128	Light Energy Conversion and Storage with Soft Carbonaceous Materials that Solidify Mesoscopic Electrochemical Interfaces. *Chemistry Letters*, **2007**, 36, 480-487	1.7	29
127	High Efficiency and Robust Performance of Organo Lead Perovskite Solar Cells with Large Grain Absorbers Prepared in Ambient Air Conditions. *Chemistry Letters*, **2015**, 44, 321-323	1.7	28

126	Copper iodide-PEDOT:PSS double hole transport layers for improved efficiency and stability in perovskite solar cells. *Journal of Photochemistry and Photobiology A: Chemistry*, **2018**, 357, 36-40	4.7	28
125	Thiocyanate Containing Two-Dimensional Cesium Lead Iodide Perovskite, CsPbI(SCN): Characterization, Photovoltaic Application, and Degradation Mechanism. *ACS Applied Materials & Interfaces*, **2018**, 10, 42363-42371	9.5	28
124	Revealing a Discontinuity in the Degradation Behavior of CH3NH3PbI3 during Thermal Operation. *Journal of Physical Chemistry C*, **2017**, 121, 13577-13585	3.8	27
123	Sensitized Yb Luminescence in CsPbCl Film for Highly Efficient Near-Infrared Light-Emitting Diodes. *Advanced Science*, **2020**, 7, 1903142	13.6	27
122	Nb-doped amorphous titanium oxide compact layer for formamidinium-based high efficiency perovskite solar cells by low-temperature fabrication. *Journal of Materials Chemistry A*, **2018**, 6, 9583-9591	13	26
121	Degradation of CH3NH3PbI3 perovskite due to soft x-ray irradiation as analyzed by an x-ray photoelectron spectroscopy time-dependent measurement method. *Journal of Applied Physics*, **2017**, 121, 085501	2.5	25
120	Trend of Perovskite Solar Cells: Dig Deeper to Build Higher. *Journal of Physical Chemistry Letters*, **2015**, 6, 2315-7	6.4	25
119	Low-temperature and Ambient Air Processes of Amorphous SnOx-based Mixed Halide Perovskite Planar Solar Cell. *Chemistry Letters*, **2017**, 46, 382-384	1.7	24
118	Thermal Degradation Analysis of Sealed Perovskite Solar Cell with Porous Carbon Electrode at 100 °C for 7000 h. *Energy Technology*, **2019**, 7, 245-252	3.5	24
117	Performance improvement of MXene-based perovskite solar cells upon property transition from metallic to semiconductive by oxidation of Ti3C2Tx in air. *Journal of Materials Chemistry A*, **2021**, 9, 5016-5025	13	24
116	An Ultrathin Sputtered TiO2 Compact Layer for Mesoporous Brookite-based Plastic CH3NH3PbI3−xClx Solar Cells. *Chemistry Letters*, **2017**, 46, 530-532	1.7	22
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114	Fabrication and Efficiency Enhancement of Water-based Dye-Sensitized Solar Cells by Interfacial Activation of TiO2 Mesopores. *Electrochemistry*, **2004**, 72, 310-316	1.2	22
113	MACl-Assisted Ge Doping of Pb-Hybrid Perovskite: A Universal Route to Stabilize High Performance Perovskite Solar Cells. *Advanced Energy Materials*, **2020**, 10, 1903299	21.8	22
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111	Anticancer Effect of Dye-sensitized TiO2Nanocrystals by Polychromatic Visible Light Irradiation. *Chemistry Letters*, **2006**, 35, 496-497	1.7	21
110	Ambient Fabrication of 126 μm Thick Complete Perovskite Photovoltaic Device for High Flexibility and Performance. *ACS Applied Energy Materials*, **2018**, 1, 6741-6747	6.1	21
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108	Novel Photoelectrochemical Cell with Mesoscopic Electrodes Sensitized by Lead-halide Compounds (11). *ECS Meeting Abstracts*, **2008**,	0	20
107	Ionic Liquid-Assisted MAPbI Nanoparticle-Seeded Growth for Efficient and Stable Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2021**, 13, 21194-21206	9.5	20
106	A single-phase brookite TiO2 nanoparticle bridge enhances the stability of perovskite solar cells. *Sustainable Energy and Fuels*, **2020**, 4, 2009-2017	5.8	19
105	Organic Dye/CsAgBiBr Double Perovskite Heterojunction Solar Cells. *Journal of the American Chemical Society*, **2021**, 143, 14877-14883	16.4	19
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103	Photoelectrochemical studies on the monolayer assemblies of chlorophyll a on the quantum efficiency of photocurrent generation. *Surface Science*, **1980**, 101, 541-550	1.8	18
102	Dopant-Free Polymer HTM-Based CsPbI2Br Solar Cells with Efficiency Over 17% in Sunlight and 34% in Indoor Light. *Advanced Functional Materials*, **2021**, 31, 2103614	15.6	18
101	Proton Irradiation Tolerance of High-Efficiency Perovskite Absorbers for Space Applications. *Journal of Physical Chemistry Letters*, **2019**, 10, 6990-6995	6.4	17
100	Nickel Oxide Hybridized Carbon Film as an Efficient Mesoscopic Cathode for Dye-Sensitized Solar Cells. *Journal of the Electrochemical Society*, **2013**, 160, H155-H159	3.9	17
99	A high voltage organic-inorganic hybrid photovoltaic cell sensitized with metal-ligand interfacial complexes. *Chemical Communications*, **2012**, 48, 9900-2	5.8	17
98	Effect of Thin TiO2 Buffer Layer on the Performance of Plastic-based Dye-sensitized Solar Cells Using Indoline Dye. *Electrochemistry*, **2008**, 76, 158-160	1.2	17
97	Photoelectrochemical Behavior of Purple Membrane Langmuir–Blodgett Films at the Electrode–Electrolyte Interface. *Chemistry Letters*, **1991**, 20, 1645-1648	1.7	17
96	Photovoltaic Properties of Two-dimensional (CH3(CH2)3NH3)2PbI4 Perovskite Crystals Oriented with TiO2 Nanowire Array. *Chemistry Letters*, **2017**, 46, 1204-1206	1.7	16
95	Biosupramolecular bacteriochlorin aggregates as hole-transporters for perovskite solar cells. *Journal of Photochemistry and Photobiology A: Chemistry*, **2018**, 353, 639-644	4.7	16
94	Evaluation of radiation tolerance of perovskite solar cell for use in space **2015**,		16
93	Tuning of perovskite solar cell performance via low-temperature brookite scaffolds surface modifications. *APL Materials*, **2017**, 5, 016103	5.7	15
92	A room-temperature process for fabricating a nano-Pt counter electrode on a plastic substrate for efficient dye-sensitized cells. *Journal of Power Sources*, **2015**, 283, 351-357	8.9	15
91	Low-Temperature Synthesized Nb-Doped TiO Electron Transport Layer Enabling High-Efficiency Perovskite Solar Cells by Band Alignment Tuning. *ACS Applied Materials & Interfaces*, **2020**, 12, 15173-15182	8.5	14

90	ZnO/ZnS core-shell composites for low-temperature-processed perovskite solar cells. *Journal of Energy Chemistry*, **2018**, 27, 1461-1467	12	14
89	All-inorganic inverse perovskite solar cells using zinc oxide nanocolloids on spin coated perovskite layer. *Nano Convergence*, **2017**, 4, 18	9.2	14
88	Photoelectrochemical Behavior of Chlorophyll a-Lipid Films on a Platinum Electrode in an Aqueous Electrolyte. *Bulletin of the Chemical Society of Japan*, **1981**, 54, 957-961	5.1	14
87	Residual PbI2 Beneficial in the Bulk or at the Interface? An Investigation Study in Sputtered NiOx Hole-Transport-Layer-Based Perovskite Solar Cells. *ACS Applied Energy Materials*, **2020**, 3, 6215-6221	6.1	13
86	A novel photoreactive amphiphile of nitrophenylazide for immobilization of bioactive proteins. *Thin Solid Films*, **1989**, 180, 73-83	2.2	13
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83	Design of Intelligent Optical Sensors with Organized Bacteriorhodopsin Films. *Japanese Journal of Applied Physics*, **1995**, 34, 3920-3924	1.4	12
82	Anatase and Brookite Electron Collectors from Binder-free Precursor Pastes for Low-temperature Solution-processed Perovskite Solar Cells. *Chemistry Letters*, **2016**, 45, 143-145	1.7	11
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80	Benzodithiophene-thienopyrroledione-thienothiophene-based random copolymeric hole transporting material for perovskite solar cell. *Chemical Engineering Journal*, **2020**, 382, 122830	14.7	11
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