

# Peter Chen

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

92  
papers

9,104  
citations

35  
h-index

95  
g-index

101  
ext. papers

9,725  
ext. citations

7.9  
avg, IF

5.91  
L-index

#	Paper	IF	Citations
92	Characterize and Retard the Impact of the Bias-Induced Mobile Ions in CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> Perovskite Light-Emitting Diodes. <i>Advanced Optical Materials</i> , <b>2022</b> , 10, 2101439	8.1	1
91	Recent progress in inorganic tin perovskite solar cells. <i>Materials Today Energy</i> , <b>2021</b> , 23, 100891	7	5
90	Hemispherical Cesium Lead Bromide Perovskite Single-Mode Microlasers with High-Quality Factors and Strong Purcell Enhancement. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 13556-13564	9.5	8
89	Investigation of the mechanism of a facile method for ammonia treatment to effectively tune the morphology and conductivity of PEDOT:PSS films. <i>Organic Electronics</i> , <b>2021</b> , 91, 106081	3.5	0
88	Effects of Choline Chloride in Lead Bromide Layer and Methylammonium Bromide Precursor on Perovskite Conversion and Optoelectronic Properties of Perovskite-Based Light-Emitting Diodes. <i>ACS Applied Electronic Materials</i> , <b>2021</b> , 3, 2035-2043	4	3
87	Pseudo-Halide Perovskite Solar Cells. <i>Advanced Energy Materials</i> , <b>2021</b> , 11, 2100818	21.8	16
86	Automatic Inverse Design of High-Performance Beam-Steering Metasurfaces via Genetic-type Tree Optimization. <i>Nano Letters</i> , <b>2021</b> , 21, 4981-4989	11.5	8
85	Back-contact perovskite solar cells. <i>Semiconductor Science and Technology</i> , <b>2021</b> , 36, 083001	1.8	0
84	The Effects of Solvent on Doctor-Bladed Perovskite Light Absorber under Ambient Process Condition for Multiple-Cation Mixed Halide Perovskites. <i>Energy Technology</i> , <b>2021</b> , 9, 2000792	3.5	1
83	Formamide iodide: a new cation additive for inhibiting $\beta$ phase formation of formamidinium lead iodide perovskite. <i>Materials Advances</i> , <b>2021</b> , 2, 2272-2277	3.3	2
82	Conversion efficiency enhancement of methylammonium lead triiodide perovskite solar cells converted from thermally deposited lead iodide via thin methylammonium iodide interlayer. <i>Organic Electronics</i> , <b>2020</b> , 82, 105713	3.5	1
81	Synergistic Reinforcement of Built-In Electric Fields for Highly Efficient and Stable Perovskite Photovoltaics. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 1909755	15.6	29
80	Porphyrin-Based Simple and Practical Dopant-Free Hole-Transporting Materials for Efficient Perovskite Solar Cells Using TiO <sub>2</sub> Semiconductors. <i>Solar Rrl</i> , <b>2020</b> , 4, 2000119	7.1	3
79	Lead-Free Double Perovskites for Perovskite Solar Cells. <i>Solar Rrl</i> , <b>2020</b> , 4, 1900306	7.1	64
78	High-Performance Perovskite-Based Light-Emitting Diodes from the Conversion of Amorphous Spin-Coated Lead Bromide with Phenethylamine Doping. <i>ACS Omega</i> , <b>2020</b> , 5, 8697-8706	3.9	3
77	Cooling dynamics of electrons in MAPbBr <sub>3</sub> probed in the deep-UV. <i>EPJ Web of Conferences</i> , <b>2019</b> , 205, 05020	0.3	
76	Improved conversion efficiency of perovskite solar cells converted from thermally deposited lead iodide with dimethyl sulfoxide-treated poly(3,4-ethylenedioxythiophene) poly(styrene sulfonate). <i>Organic Electronics</i> , <b>2019</b> , 73, 266-272	3.5	3

75	Energy Harvesting Under Dim-Light Condition With Dye-Sensitized and Perovskite Solar Cells. <i>Frontiers in Chemistry</i> , <b>2019</b> , 7, 209	5	32
74	Low-temperature growth of uniform ultrathin TiO <sub>2</sub> blocking layer for efficient perovskite solar cell. <i>Organic Electronics</i> , <b>2019</b> , 75, 105379	3.5	4
73	Double-side operable perovskite photodetector using Cu/CuO as a hole transport layer. <i>Optics Express</i> , <b>2019</b> , 27, 24900-24913	3.3	6
72	Segregation-free bromine-doped perovskite solar cells for IoT applications.. <i>RSC Advances</i> , <b>2019</b> , 9, 32833-32838	3.7	38
71	Efficient CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite/fullerene planar heterojunction hybrid solar cells with oxidized Ni/Au/Cu transparent electrode. <i>Applied Physics Letters</i> , <b>2018</b> , 112, 071103	3.4	9
70	Perovskite-based solar cells with inorganic inverted hybrid planar heterojunction structure. <i>AIP Advances</i> , <b>2018</b> , 8, 015109	1.5	15
69	Facile fabrication method of small-sized crystal silicon solar cells for ubiquitous applications and tandem device with perovskite solar cells. <i>Materials Today Energy</i> , <b>2018</b> , 7, 190-198	7	15
68	The utilization of IZO transparent conductive oxide for tandem and substrate type perovskite solar cells. <i>Journal Physics D: Applied Physics</i> , <b>2018</b> , 51, 424002	3	9
67	Mapping Highly Efficient Mixed-cation Pseudohalide-perovskite Solar Cells with a Scanning Transmission X-ray Microscope. <i>Microscopy and Microanalysis</i> , <b>2018</b> , 24, 462-463	0.5	
66	Highly Efficient 2D/3D Hybrid Perovskite Solar Cells via Low-Pressure Vapor-Assisted Solution Process. <i>Advanced Materials</i> , <b>2018</b> , 30, e1801401	24	106
65	Porphyrin Dimers as Hole-Transporting Layers for High-Efficiency and Stable Perovskite Solar Cells. <i>ACS Energy Letters</i> , <b>2018</b> , 3, 1620-1626	20.1	44
64	A Review of Inorganic Hole Transport Materials for Perovskite Solar Cells. <i>Advanced Materials Interfaces</i> , <b>2018</b> , 5, 1800882	4.6	122
63	The Cu/Cu <sub>2</sub> O nanocomposite as a p-type transparent-conductive-oxide for efficient bifacial-illuminated perovskite solar cells. <i>Journal of Materials Chemistry C</i> , <b>2018</b> , 6, 6280-6286	7.1	11
62	Cu/CuO nanocomposite films as a p-type modified layer for efficient perovskite solar cells. <i>Scientific Reports</i> , <b>2018</b> , 8, 7646	4.9	19
61	Performance Characterization of Dye-Sensitized Photovoltaics under Indoor Lighting. <i>Journal of Physical Chemistry Letters</i> , <b>2017</b> , 8, 1824-1830	6.4	43
60	Mixed Cation Thiocyanate-Based Pseudohalide Perovskite Solar Cells with High Efficiency and Stability. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 2403-2409	9.5	49
59	Observation of strain-induced phonon mode splitting in the tetragonal hybrid halide perovskite. <i>Japanese Journal of Applied Physics</i> , <b>2017</b> , 56, 110307	1.4	1
58	P-Type and Inorganic Hole Transporting Materials for Perovskite Solar Cells. <i>Series on Chemistry, Energy and the Environment</i> , <b>2017</b> , 63-109	0.2	1

57	Highly stable perovskite solar cells with all-inorganic selective contacts from microwave-synthesized oxide nanoparticles. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 25485-25493	13	35
56	Robust and Recyclable Substrate Template with an Ultrathin Nanoporous Counter Electrode for Organic-Hole-Conductor-Free Monolithic Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 41845-41854	9.5	12
55	A novel porous Ti/TiN/Ti thin film as a working electrode for back-contact, monolithic and non-TCO dye-sensitized solar cells. <i>Sustainable Energy and Fuels</i> , <b>2017</b> , 1, 851-858	5.8	3
54	Clean and flexible synthesis of TiO <sub>2</sub> nanocrystallites for dye-sensitized and perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , <b>2017</b> , 159, 336-344	6.4	7
53	Effects of microwave condition on the formation and characteristics of TiO <sub>2</sub> submicron-sized beads and its use in all-plastic flexible dye-sensitized solar cells. <i>Solar Energy Materials and Solar Cells</i> , <b>2016</b> , 144, 7-13	6.4	12
52	Low-Pressure Vapor-Assisted Solution Process for Thiocyanate-Based Pseudohalide Perovskite Solar Cells. <i>ChemSusChem</i> , <b>2016</b> , 9, 2620-2627	8.3	26
51	Zinc Porphyrin-ethynylaniline Conjugates as Novel Hole-Transporting Materials for Perovskite Solar Cells with Power Conversion Efficiency of 16.6%. <i>ACS Energy Letters</i> , <b>2016</b> , 1, 956-962	20.1	73
50	Oxidized Ni/Au Transparent Electrode in Efficient CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite/Fullerene Planar Heterojunction Hybrid Solar Cells. <i>Advanced Materials</i> , <b>2016</b> , 28, 3290-7	24	50
49	Lead antimony sulfide (Pb <sub>5</sub> Sb <sub>8</sub> S <sub>17</sub> ) solid-state quantum dot-sensitized solar cells with an efficiency of over 4%. <i>Journal of Power Sources</i> , <b>2016</b> , 312, 86-92	8.9	17
48	Ultrafast Dynamics of Hole Injection and Recombination in Organometal Halide Perovskite Using Nickel Oxide as p-Type Contact Electrode. <i>Journal of Physical Chemistry Letters</i> , <b>2016</b> , 7, 1096-101	6.4	78
47	Inorganic p-Type Semiconductors: Their Applications and Progress in Dye-Sensitized Solar Cells and Perovskite Solar Cells. <i>Energies</i> , <b>2016</b> , 9, 331	3.1	57
46	Low-Pressure Hybrid Chemical Vapor Growth for Efficient Perovskite Solar Cells and Large-Area Module. <i>Advanced Materials Interfaces</i> , <b>2016</b> , 3, 1500849	4.6	37
45	Improve Hole Collection by Interfacial Chemical Redox Reaction at a Mesoscopic NiO/CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Heterojunction for Efficient Photovoltaic Cells. <i>Advanced Materials Interfaces</i> , <b>2016</b> , 3, 1600135	4.6	14
44	Research Update: Hybrid organic-inorganic perovskite (HOIP) thin films and solar cells by vapor phase reaction. <i>APL Materials</i> , <b>2016</b> , 4, 091509	5.7	26
43	NiO Electrode Interlayer and CH <sub>3</sub> NH <sub>3</sub> /CH <sub>3</sub> NH <sub>3</sub> PbBr Interface Treatment to Markedly Advance Hybrid Perovskite-Based Light-Emitting Diodes. <i>Advanced Materials</i> , <b>2016</b> , 28, 8687-8694	24	134
42	Inorganic p-type contact materials for perovskite-based solar cells. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 9011-9019	13	133
41	Functional p-Type, Polymerized Organic Electrode Interlayer in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite/Fullerene Planar Heterojunction Hybrid Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 24973-81	9.5	30
40	Microwave-assisted synthesis of titanium dioxide nanocrystalline for efficient dye-sensitized and perovskite solar cells. <i>Solar Energy</i> , <b>2015</b> , 120, 345-356	6.8	28

39	Novel spiro-based hole transporting materials for efficient perovskite solar cells. <i>Chemical Communications</i> , <b>2015</b> , 51, 15518-21	5.8	76
38	Conversion efficiency improvement of inverted CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite solar cells with room temperature sputtered ZnO by adding the C60 interlayer. <i>Applied Physics Letters</i> , <b>2015</b> , 107, 253301	3.4	34
37	p-type Mesoscopic nickel oxide/organometallic perovskite heterojunction solar cells. <i>Scientific Reports</i> , <b>2014</b> , 4, 4756	4.9	333
36	Clean and time-effective synthesis of anatase TiO <sub>2</sub> nanocrystalline by microwave-assisted solvothermal method for dye-sensitized solar cells. <i>Journal of Power Sources</i> , <b>2014</b> , 247, 444-451	8.9	19
35	High voltage and efficient bilayer heterojunction solar cells based on an organic-inorganic hybrid perovskite absorber with a low-cost flexible substrate. <i>Physical Chemistry Chemical Physics</i> , <b>2014</b> , 16, 6033-40	3.6	79
34	Femtosecond Excitonic Relaxation Dynamics of Perovskite on Mesoporous Films of Al <sub>2</sub> O <sub>3</sub> and NiO Nanoparticles. <i>Angewandte Chemie</i> , <b>2014</b> , 126, 9493-9496	3.6	29
33	Femtosecond excitonic relaxation dynamics of perovskite on mesoporous films of Al <sub>2</sub> O <sub>3</sub> and NiO nanoparticles. <i>Angewandte Chemie - International Edition</i> , <b>2014</b> , 53, 9339-42	16.4	54
32	Low-temperature sputtered nickel oxide compact thin film as effective electron blocking layer for mesoscopic NiO/CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite heterojunction solar cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 11851-8	9.5	270
31	p-Type dye-sensitized solar cell based on nickel oxide photocathode with or without Li doping. <i>Journal of Alloys and Compounds</i> , <b>2014</b> , 584, 142-147	5.7	21
30	Nickel oxide electrode interlayer in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite/PCBM planar-heterojunction hybrid solar cells. <i>Advanced Materials</i> , <b>2014</b> , 26, 4107-13	24	588
29	Facile one-pot synthesis of Cu <sub>2</sub> ZnSnS <sub>4</sub> quaternary nanoparticles using a microwave-assisted method. <i>CrystEngComm</i> , <b>2013</b> , 15, 9863	3.3	20
28	Extension lifetime for dye-sensitized solar cells through multiple dye adsorption/desorption process. <i>Journal of Power Sources</i> , <b>2013</b> , 225, 257-262	8.9	12
27	The use of sputter deposited TiN thin film as a surface conducting layer on the counter electrode of flexible plastic dye-sensitized solar cells. <i>Surface and Coatings Technology</i> , <b>2013</b> , 231, 140-143	4.4	10
26	Microwave-assisted hydrothermal synthesis of TiO <sub>2</sub> spheres with efficient photovoltaic performance for dye-sensitized solar cells. <i>Journal of Nanoparticle Research</i> , <b>2013</b> , 15, 1	2.3	15
25	Non-color distortion for visible light transmitted tandem solid state dye-sensitized solar cells. <i>Renewable Energy</i> , <b>2013</b> , 59, 136-140	8.1	13
24	CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite/fullerene planar-heterojunction hybrid solar cells. <i>Advanced Materials</i> , <b>2013</b> , 25, 3727-32	24	1189
23	Microwave-Assisted Hydrothermal Synthesis of TiO <sub>2</sub> Mesoporous Beads Having C and/or N Doping for Use in High Efficiency All-Plastic Flexible Dye-Sensitized Solar Cells. <i>Journal of the Electrochemical Society</i> , <b>2013</b> , 160, H160-H165	3.9	15
22	Bifacial transparent solid-state dye-sensitized solar cell with sputtered indium-tin-oxide counter electrode. <i>Solar Energy</i> , <b>2012</b> , 86, 1967-1972	6.8	14

21	Surface modifications of CdS/CdSe co-sensitized TiO <sub>2</sub> photoelectrodes for solid-state quantum-dot-sensitized solar cells. <i>Journal of Materials Chemistry</i> , <b>2011</b> , 21, 17534		61
20	Ultra-Thin TiO <sub>2</sub> Layers for Enhancing the Conversion Efficiency of Flexible Dye-Sensitized Solar Cells. <i>Journal of the Electrochemical Society</i> , <b>2011</b> , 158, H1252	3.9	9
19	Plasma Surface Treatments of TiO <sub>2</sub> Photoelectrodes for Use in Dye-Sensitized Solar Cells. <i>Journal of the Electrochemical Society</i> , <b>2011</b> , 158, K101	3.9	17
18	Synthesis and Structure-Property Correlation in Shape-Controlled ZnO Nanoparticles Prepared by Chemical Vapor Synthesis and their Application in Dye-Sensitized Solar Cells. <i>Advanced Functional Materials</i> , <b>2009</b> , 19, 875-886	15.6	67
17	PbS and CdS Quantum Dot-Sensitized Solid-State Solar Cells: Old Concepts, New Results. <i>Advanced Functional Materials</i> , <b>2009</b> , 19, 2735-2742	15.6	433
16	The influence of charge transport and recombination on the performance of dye-sensitized solar cells. <i>ChemPhysChem</i> , <b>2009</b> , 10, 290-9	3.2	248
15	Regenerative PbS and CdS quantum dot sensitized solar cells with a cobalt complex as hole mediator. <i>Langmuir</i> , <b>2009</b> , 25, 7602-8	4	262
14	High open-circuit voltage solid-state dye-sensitized solar cells with organic dye. <i>Nano Letters</i> , <b>2009</b> , 9, 2487-92	11.5	220
13	Solid-state dye-sensitized solar cells using TiO <sub>2</sub> nanotube arrays on FTO glass. <i>Journal of Materials Chemistry</i> , <b>2009</b> , 19, 5325		39
12	Electron transport and recombination in solid-state dye solar cell with spiro-OMeTAD as hole conductor. <i>Journal of the American Chemical Society</i> , <b>2009</b> , 131, 558-62	16.4	386
11	Efficient CdSe quantum dot-sensitized solar cells prepared by an improved successive ionic layer adsorption and reaction process. <i>Nano Letters</i> , <b>2009</b> , 9, 4221-7	11.5	587
10	Charge collection and pore filling in solid-state dye-sensitized solar cells. <i>Nanotechnology</i> , <b>2008</b> , 19, 424003	10.3	232
9	Application of highly ordered TiO <sub>2</sub> nanotube arrays in flexible dye-sensitized solar cells. <i>ACS Nano</i> , <b>2008</b> , 2, 1113-6	16.7	590
8	The Influence of Particle Sizes on the Optical Characteristics of Nanocrystalline TiO <sub>2</sub> Films for Dye-Sensitized Solar Cells. <i>Materials Research Society Symposia Proceedings</i> , <b>2008</b> , 1101, 1		
7	Recent developments in solid-state dye-sensitized solar cells. <i>ChemSusChem</i> , <b>2008</b> , 1, 699-707	8.3	268
6	The 2,2,6,6-Tetramethyl-1-piperidinyloxy Radical: An Efficient, Iodine-Free Redox Mediator for Dye-Sensitized Solar Cells. <i>Advanced Functional Materials</i> , <b>2008</b> , 18, 341-346	15.6	238
5	CdSe Quantum Dot-Sensitized Solar Cells Exceeding Efficiency 1% at Full-Sun Intensity. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 11600-11608	3.8	328
4	Fabrication of screen-printing pastes from TiO <sub>2</sub> powders for dye-sensitized solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , <b>2007</b> , 15, 603-612	6.8	870

3	Dependence of compositions and crystallization behaviors of dc-sputtered TiNi thin films on the deposition conditions. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , <b>2001</b> , 19, 2382-2387	2.9	10
2	Characteristics of TiNi alloy thin films. <i>Thin Solid Films</i> , <b>2001</b> , 398-399, 597-601	2.2	18
1	Halide perovskite for low-power consumption neuromorphic devices. <i>EcoMat</i> , e12142	9.4	5