

# Axel F Palmstrom

## List of Publications by Year in descending order

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Version: 2024-02-01

35  
papers

6,064  
citations

279798

23  
h-index

477307

29  
g-index

35  
all docs

35  
docs citations

35  
times ranked

6682  
citing authors

#	ARTICLE	IF	CITATIONS
1	23.6%-efficient monolithic perovskite/silicon tandem solar cells with improved stability. <i>Nature Energy</i> , 2017, 2, .	39.5	1,204
2	Perovskite-perovskite tandem photovoltaics with optimized band gaps. <i>Science</i> , 2016, 354, 861-865.	12.6	1,107
3	Carrier lifetimes of $>1 \mu\text{s}$ in Sn-Pb perovskites enable efficient all-perovskite tandem solar cells. <i>Science</i> , 2019, 364, 475-479.	12.6	781
4	Triple-halide wide-band gap perovskites with suppressed phase segregation for efficient tandems. <i>Science</i> , 2020, 367, 1097-1104.	12.6	669
5	Enabling Flexible All-Perovskite Tandem Solar Cells. <i>Joule</i> , 2019, 3, 2193-2204.	24.0	331
6	Overcoming Redox Reactions at Perovskite-Nickel Oxide Interfaces to Boost Voltages in Perovskite Solar Cells. <i>Joule</i> , 2020, 4, 1759-1775.	24.0	284
7	Design of low bandgap tin-lead halide perovskite solar cells to achieve thermal, atmospheric and operational stability. <i>Nature Energy</i> , 2019, 4, 939-947.	39.5	235
8	Bimolecular Additives Improve Wide-Band-Gap Perovskites for Efficient Tandem Solar Cells with CIGS. <i>Joule</i> , 2019, 3, 1734-1745.	24.0	227
9	Minimizing Current and Voltage Losses to Reach 25% Efficient Monolithic Two-Terminal Perovskite-Silicon Tandem Solar Cells. <i>ACS Energy Letters</i> , 2018, 3, 2173-2180.	17.4	194
10	Carrier control in Sn-Pb perovskites via 2D cation engineering for all-perovskite tandem solar cells with improved efficiency and stability. <i>Nature Energy</i> , 2022, 7, 642-651.	39.5	121
11	Optical modeling of wide-bandgap perovskite and perovskite/silicon tandem solar cells using complex refractive indices for arbitrary-bandgap perovskite absorbers. <i>Optics Express</i> , 2018, 26, 27441.	3.4	102
12	Improved light management in planar silicon and perovskite solar cells using PDMS scattering layer. <i>Solar Energy Materials and Solar Cells</i> , 2017, 173, 59-65.	6.2	82
13	Improving Low-Bandgap Tin-Lead Perovskite Solar Cells via Contact Engineering and Gas Quench Processing. <i>ACS Energy Letters</i> , 2020, 5, 1215-1223.	17.4	78
14	Atomic layer deposition of vanadium oxide to reduce parasitic absorption and improve stability in n-i-p perovskite solar cells for tandems. <i>Sustainable Energy and Fuels</i> , 2019, 3, 1517-1525.	4.9	76
15	Atomic layer deposition in nanostructured photovoltaics: tuning optical, electronic and surface properties. <i>Nanoscale</i> , 2015, 7, 12266-12283.	5.6	73
16	Reduced Self-Doping of Perovskites Induced by Short Annealing for Efficient Solar Modules. <i>Joule</i> , 2020, 4, 1949-1960.	24.0	72
17	Interfacial Effects of Tin Oxide Atomic Layer Deposition in Metal Halide Perovskite Photovoltaics. <i>Advanced Energy Materials</i> , 2018, 8, 1800591.	19.5	62
18	Improving Performance in Colloidal Quantum Dot Solar Cells by Tuning Band Alignment through Surface Dipole Moments. <i>Journal of Physical Chemistry C</i> , 2015, 119, 2996-3005.	3.1	58

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19	Surface-Activated Corrosion in Tin-Lead Halide Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 3344-3351.	17.4	55
20	Enhanced Nucleation of Atomic Layer Deposited Contacts Improves Operational Stability of Perovskite Solar Cells in Air. Advanced Energy Materials, 2019, 9, 1902353.	19.5	47
21	Mitigating Measurement Artifacts in TOF-SIMS Analysis of Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 30911-30918.	8.0	44
22	The Structural Origin of Chiroptical Properties in Perovskite Nanocrystals with Chiral Organic Ligands. Advanced Functional Materials, 2022, 32, .	14.9	43
23	Developing a Robust Recombination Contact to Realize Monolithic Perovskite Tandems With Industrially Common p-Type Silicon Solar Cells. IEEE Journal of Photovoltaics, 2018, 8, 1023-1028.	2.5	27
24	Tailoring Mixed-Halide, Wide-Gap Perovskites via Multistep Conversion Process. ACS Applied Materials & Interfaces, 2016, 8, 14301-14306.	8.0	23
25	Mixing Matters: Nanoscale Heterogeneity and Stability in Metal Halide Perovskite Solar Cells. ACS Energy Letters, 2022, 7, 471-480.	17.4	23
26	Impact of Conformality and Crystallinity for Ultrathin 4 nm Compact TiO <sub>2</sub> Layers in Perovskite Solar Cells. Advanced Materials Interfaces, 2016, 3, 1600580.	3.7	19
27	Molecular Ligands Control Superlattice Structure and Crystallite Orientation in Colloidal Quantum Dot Solids. Chemistry of Materials, 2016, 28, 7072-7081.	6.7	17
28	Electrochemical Screening of Contact Layers for Metal Halide Perovskites. ACS Energy Letters, 2022, 7, 683-689.	17.4	5
29	Nanoscale Photoexcited Carrier Dynamics in Perovskites. Journal of Physical Chemistry Letters, 2022, 13, 2388-2395.	4.6	3
30	Understanding Measurement Artifacts Causing Inherent Cation Gradients in Depth Profiles of Perovskite Photovoltaics with TOF-SIMS. , 2019, , .		2
31	Optical and Compositional Engineering of Wide Band Gap Perovskites with Improved Stability to Photoinduced Phase Segregation for Efficient Monolithic Perovskite/Silicon Tandem Solar Cells. , 2018, , .		0
32	Stability of Tin-Lead Halide Perovskite Solar Cells. , 2019, , .		0
33	Designing Contact Layers and Surface Treatments to Overcome Performance Challenges for Perovskite Tandems. , 0, , .		0
34	Structural Stability of Tin-Lead Halide Perovskite Solar Cells. , 2020, , .		0
35	Halide Organic Photovoltaics for Energy: Hybrid Perovskites for Solar Cells. , 2022, , 1-59.		0