Christian M Wolff

List of Publications by Year
in descending order

41 papers	5,688 citations	172457 29 h-index	302126 39 g-index
42 all docs	42 docs citations	42 times ranked	6821 citing authors

#	Article	IF	Citations
1	Visualization and suppression of interfacial recombination for high-efficiency large-area pin perovskite solar cells. Nature Energy, 2018, 3, 847-854.	39.5	721
2	The impact of energy alignment and interfacial recombination on the internal and external open-circuit voltage of perovskite solar cells. Energy and Environmental Science, 2019, 12, 2778-2788.	30.8	570
3	How to Make over 20% Efficient Perovskite Solar Cells in Regular (<i>nâ€“iâ€“p</i>) and Inverted (<i>pâ€“iâ€“n</i>) Architectures. Chemistry of Materials, 2018, 30, 4193-4201.	6.7	473
4	Nonradiative Recombination in Perovskite Solar Cells: The Role of Interfaces. Advanced Materials, 2019, 31, e1902762.	21.0	422
5	All-in-one visible-light-driven water splitting by combining nanoparticulate and molecular co-catalysts on CdS nanorods. Nature Energy, 2018, 3, 862-869.	39.5	356
6	Approaching the fill factor Shockleyâ€“Queisser limit in stable, dopant-free triple cation perovskite solar cells. Energy and Environmental Science, 2017, 10, 1530-1539.	30.8	311
7	On the Relation between the Openâ€Circuit Voltage and Quasiâ€Fermi Level Splitting in Efficient Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1901631.	19.5	275
8	Barrierless Free Charge Generation in the Highâ€Performance PM6:Y6 Bulk Heterojunction Nonâ€Fullerene Solar Cell. Advanced Materials, 2020, 32, e1906763.	21.0	258
9	Reduced Interfaceâ€Mediated Recombination for High Openâ€Circuit Voltages in CH₃NH₃PbI₃ Solar Cells. Advanced Materials, 2017, 29, 1700159.	21.0	210
10	â€œThe Easier the Betterâ€•Preparation of Efficient Photocatalystsâ€”Metastable Poly(heptazine imide) Salts. Advanced Materials, 2017, 29, 1700555.	21.0	206
11	On the Origin of the Ideality Factor in Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 2000502.	19.5	175
12	Potassium Poly(heptazine imides) from Aminotetrazoles: Shifting Band Gaps of Carbon Nitrideâ€•like Materials for More Efficient Solar Hydrogen and Oxygen Evolution. ChemCatChem, 2017, 9, 167-174.	3.7	151
13	How To Quantify the Efficiency Potential of Neat Perovskite Films: Perovskite Semiconductors with an Implied Efficiency Exceeding 28%. Advanced Materials, 2020, 32, e2000080.	21.0	134
14	Tuning halide perovskite energy levels. Energy and Environmental Science, 2021, 14, 1429-1438.	30.8	124
15	Measuring Aging Stability of Perovskite Solar Cells. Joule, 2018, 2, 1019-1024.	24.0	115
16	Perfluorinated Self-Assembled Monolayers Enhance the Stability and Efficiency of Inverted Perovskite Solar Cells. ACS Nano, 2020, 14, 1445-1456.	14.6	115
17	Halide Segregation versus Interfacial Recombination in Bromide-Rich Wide-Gap Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 2728-2736.	17.4	114
18	Charge Transport Layers Limiting the Efficiency of Perovskite Solar Cells: How To Optimize Conductivity, Doping, and Thickness. ACS Applied Energy Materials, 2019, 2, 6280-6287.	5.1	110

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19	It Takes Two to Tangoâ€"Double-Layer Selective Contacts in Perovskite Solar Cells for Improved Device Performance and Reduced Hysteresis. ACS Applied Materials & Interfaces, 2017, 9, 17245-17255.	8.0	107
20	Efficient Light Management by Textured Nanoimprinted Layers for Perovskite Solar Cells. ACS Photonics, 2017, 4, 1232-1239.	6.6	103
21	Constructing the Electronic Structure of CH₃NH₃PbI₃ and CH₃NH₃PbBr₃ Perovskite Thin Films from Single-Crystal Band Structure Measurements. Journal of Physical Chemistry Letters, 2019, 10, 601-609.	4.6	78
22	Bi-functional interfaces by poly(ionic liquid) treatment in efficient pin and nip perovskite solar cells. Energy and Environmental Science, 2021, 14, 4508-4522.	30.8	76
23	The Role of Bulk and Interface Recombination in Highâ€Efficiency Lowâ€Dimensional Perovskite Solar Cells. Advanced Materials, 2019, 31, e1901090.	21.0	59
24	High open circuit voltages in pin-type perovskite solar cells through strontium addition. Sustainable Energy and Fuels, 2019, 3, 550-563.	4.9	57
25	Rationalizing the Molecular Design of Holeâ€Selective Contacts to Improve Charge Extraction in Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1900990.	19.5	56
26	Unraveling the Electronic Properties of Lead Halide Perovskites with Surface Photovoltage in Photoemission Studies. ACS Applied Materials & Interfaces, 2019, 11, 21578-21583.	8.0	44
27	Charge carrier recombination dynamics in perovskite and polymer solar cells. Applied Physics Letters, 2016, 108, .	3.3	42
28	Cs<i>_x</i>FA_{1â€"<i>x</i>}Pb(I_{1â€"<i>y</i>}Br<i>_y</i>)₃ Perovskite Compositions: the Appearance of Wrinkled Morphology and its Impact on Solar Cell Performance. Journal of Physical Chemistry C, 2018, 122, 17123-17135.	3.1	42
29	Nano-emitting Heterostructures Violate Optical Reciprocity and Enable Efficient Photoluminescence in Halide-Segregated Methylammonium-Free Wide Bandgap Perovskites. ACS Energy Letters, 2021, 6, 419-428.	17.4	31
30	Orders of Recombination in Complete Perovskite Solar Cells â€" Linking Timeâ€Resolved and Steadyâ€State Measurements. Advanced Energy Materials, 2021, 11, 2101823.	19.5	31
31	Mixtures of Dopant-Free Spiro-OMeTAD and Water-Free PEDOT as a Passivating Hole Contact in Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 9172-9181.	8.0	28
32	Recombination between Photogenerated and Electrode-Induced Charges Dominates the Fill Factor Losses in Optimized Organic Solar Cells. Journal of Physical Chemistry Letters, 2019, 10, 3473-3480.	4.6	26
33	Large Conduction Band Energy Offset Is Critical for High Fill Factors in Inorganic Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 2343-2348.	17.4	20
34	Managing Phase Purities and Crystal Orientation for Highâ€Performance and Photostable Cesium Lead Halide Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000213.	5.8	17
35	Position-locking of volatile reaction products by atmosphere and capping layers slows down photodecomposition of methylammonium lead triiodide perovskite. RSC Advances, 2020, 10, 17534-17542.	3.6	16
36	Laser Patterned Flexible 4T Perovskiteâ€Cu(In,Ga)Se₂ Tandem Miniâ€module with Over 18% Efficiency. Solar Rrl, 2022, 6, .	5.8	6

#	Article	IF	Citations
37	Lead Halide Perovskites as Charge Generation Layers for Electron Mobility Measurement in Organic Semiconductors. ACS Applied Materials & Interfaces, 2017, 9, 42011-42019.	8.0	5
38	Correction to â€œHow to Make over 20% Efficient Perovskite Solar Cells in Regular (<i>n</i>â€“<i>i</i>â€“<i>p</i>) and Inverted (<i>p</i>â€“<i>i</i>â€“<i>n</i>) Architecturesâ€. Chemistry of Materials, 2019, 31, 8576-8576.	6.7	3
39	Hybrid Multilayer Design for Efficient Perovskite-based Solar Cells. , 0, , .		0
40	The Efficiency Potential of Perovskite Solar Cells. , 0, , .		0
41	Degradation due to Transverse Ion Migration in Perovskite Devices. , 0, , .		0