Ludmilla Steier

List of Publications by Year
in descending order

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31 papers	5,923 citations	257429 24 h-index	454934 30 g-index
31 all docs	31 docs citations	31 times ranked	9264 citing authors

#	Article	IF	Citations
1	Highly efficient planar perovskite solar cells through band alignment engineering. Energy and Environmental Science, 2015, 8, 2928-2934.	30.8	1,097
2	Highly efficient and stable planar perovskite solar cells by solution-processed tin oxide. Energy and Environmental Science, 2016, 9, 3128-3134.	30.8	720
3	Cu₂O Nanowire Photocathodes for Efficient and Durable Solar Water Splitting. Nano Letters, 2016, 16, 1848-1857.	9.1	542
4	Monolithic perovskite/silicon-heterojunction tandem solar cells processed at low temperature. Energy and Environmental Science, 2016, 9, 81-88.	30.8	536
5	Solar conversion of CO2 to CO using Earth-abundant electrocatalysts prepared by atomic layer modification of CuO. Nature Energy, 2017, 2, .	39.5	436
6	Efficient photosynthesis of carbon monoxide from CO2 using perovskite photovoltaics. Nature Communications, 2015, 6, 7326.	12.8	295
7	Understanding the Role of Underlayers and Overlayers in Thin Film Hematite Photoanodes. Advanced Functional Materials, 2014, 24, 7681-7688.	14.9	289
8	The effect of illumination on the formation of metal halide perovskite films. Nature, 2017, 545, 208-212.	27.8	242
9	Progress and Perspectives in Photoâ€•and Electrochemicalâ€Oxidation of Biomass for Sustainable Chemicals and Hydrogen Production. Advanced Energy Materials, 2021, 11, 2101180.	19.5	200
10	Electron Accumulation Induces Efficiency Bottleneck for Hydrogen Production in Carbon Nitride Photocatalysts. Journal of the American Chemical Society, 2019, 141, 11219-11229.	13.7	177
11	The kinetics of metal oxide photoanodes from charge generation to catalysis. Nature Reviews Materials, 2021, 6, 1136-1155.	48.7	161
12	Low-Temperature Nb-Doped SnO₂ Electron-Selective Contact Yields over 20% Efficiency in Planar Perovskite Solar Cells. ACS Energy Letters, 2018, 3, 773-778.	17.4	157
13	On the stability enhancement of cuprous oxide water splitting photocathodes by low temperature steam annealing. Energy and Environmental Science, 2014, 7, 4044-4052.	30.8	121
14	Ultrathin Buffer Layers of SnO₂ by Atomic Layer Deposition: Perfect Blocking Function and Thermal Stability. Journal of Physical Chemistry C, 2017, 121, 342-350.	3.1	118
15	Solution Transformation of Cu₂O into CuInS₂ for Solar Water Splitting. Nano Letters, 2015, 15, 1395-1402.	9.1	108
16	Highly Efficient and Stable Perovskite Solar Cells based on a Lowâ€Cost Carbon Cloth. Advanced Energy Materials, 2016, 6, 1601116.	19.5	107
17	In situ observation of picosecond polaron self-localisation in Î±-Fe2O3 photoelectrochemical cells. Nature Communications, 2019, 10, 3962.	12.8	93
18	A copper nickel mixed oxide hole selective layer for Au-free transparent cuprous oxide photocathodes. Energy and Environmental Science, 2017, 10, 912-918.	30.8	90

#	Article	IF	Citations
19	Linking in situ charge accumulation to electronic structure in doped SrTiO3 reveals design principles for hydrogen-evolving photocatalysts. Nature Materials, 2021, 20, 511-517.	27.5	82
20	Low-Temperature Atomic Layer Deposition of Crystalline and Photoactive Ultrathin Hematite Films for Solar Water Splitting. ACS Nano, 2015, 9, 11775-11783.	14.6	70
21	Pt single-atoms supported on nitrogen-doped carbon dots for highly efficient photocatalytic hydrogen generation. Journal of Materials Chemistry A, 2020, 8, 14690-14696.	10.3	62
22	A bright outlook on organic photoelectrochemical cells for water splitting. Journal of Materials Chemistry A, 2018, 6, 21809-21826.	10.3	53
23	Stabilizing organic photocathodes by low-temperature atomic layer deposition of TiO₂. Sustainable Energy and Fuels, 2017, 1, 1915-1920.	4.9	43
24	Impact of the Synthesis Route on the Water Oxidation Kinetics of Hematite Photoanodes. Journal of Physical Chemistry Letters, 2020, 11, 7285-7290.	4.6	34
25	Rational design of a neutral pH functional and stable organic photocathode. Chemical Communications, 2018, 54, 5732-5735.	4.1	24
26	Heteroepitaxy of GaP on silicon for efficient and cost-effective photoelectrochemical water splitting. Journal of Materials Chemistry A, 2019, 7, 8550-8558.	10.3	19
27	Analysis of Optical Losses in a Photoelectrochemical Cell: A Tool for Precise Absorptance Estimation. Advanced Functional Materials, 2018, 28, 1702768.	14.9	18
28	Insights from Transient Absorption Spectroscopy into Electron Dynamics Along the Gaâ€Gradient in Cu(In,Ga)Se₂ Solar Cells. Advanced Energy Materials, 2021, 11, 2003446.	19.5	14
29	Waterâ€Insensitive Electron Transport and Photoactive Layers for Improved Underwater Stability of Organic Photovoltaics. Advanced Functional Materials, 2022, 32, .	14.9	8
30	Impact of RbF and NaF Postdeposition Treatments on Charge Carrier Transport and Recombination in Gaâ€Graded Cu(In,Ga)Se₂ Solar Cells. Advanced Functional Materials, 2021, 31, 2103663.	14.9	7
31	(Invited) The Benefits of Nanoscale Metal Oxide Films to Solar Fuels Research. ECS Meeting Abstracts, 2018, , .	0.0	0