Ludmilla Steier

List of Publications by Citations

29 papers	4,525 citations	23 h-index	31 g-index
31 ext. papers	5,231 ext. citations	22.6 avg, IF	5.47 L-index

#	Paper	IF	Citations
29	Highly efficient planar perovskite solar cells through band alignment engineering. *Energy and Environmental Science*, **2015**, 8, 2928-2934	35.4	949
28	Highly efficient and stable planar perovskite solar cells by solution-processed tin oxide. *Energy and Environmental Science*, **2016**, 9, 3128-3134	35.4	603
27	Monolithic perovskite/silicon-heterojunction tandem solar cells processed at low temperature. *Energy and Environmental Science*, **2016**, 9, 81-88	35.4	469
26	Cu2O Nanowire Photocathodes for Efficient and Durable Solar Water Splitting. *Nano Letters*, **2016**, 16, 1848-57	11.5	439
25	Solar conversion of CO2 to CO using Earth-abundant electrocatalysts prepared by atomic layer modification of CuO. *Nature Energy*, **2017**, 2,	62.3	334
24	Understanding the Role of Underlayers and Overlayers in Thin Film Hematite Photoanodes. *Advanced Functional Materials*, **2014**, 24, 7681-7688	15.6	258
23	Efficient photosynthesis of carbon monoxide from CO2 using perovskite photovoltaics. *Nature Communications*, **2015**, 6, 7326	17.4	245
22	The effect of illumination on the formation of metal halide perovskite films. *Nature*, **2017**, 545, 208-212	50.4	197
21	Low-Temperature Nb-Doped SnO2 Electron-Selective Contact Yields over 20% Efficiency in Planar Perovskite Solar Cells. *ACS Energy Letters*, **2018**, 3, 773-778	20.1	119
20	On the stability enhancement of cuprous oxide water splitting photocathodes by low temperature steam annealing. *Energy and Environmental Science*, **2014**, 7, 4044-4052	35.4	106
19	Solution transformation of Cu□ into CuInS□for solar water splitting. *Nano Letters*, **2015**, 15, 1395-402	11.5	102
18	Electron Accumulation Induces Efficiency Bottleneck for Hydrogen Production in Carbon Nitride Photocatalysts. *Journal of the American Chemical Society*, **2019**, 141, 11219-11229	16.4	100
17	Highly Efficient and Stable Perovskite Solar Cells based on a Low-Cost Carbon Cloth. *Advanced Energy Materials*, **2016**, 6, 1601116	21.8	91
16	Ultrathin Buffer Layers of SnO2 by Atomic Layer Deposition: Perfect Blocking Function and Thermal Stability. *Journal of Physical Chemistry C*, **2017**, 121, 342-350	3.8	84
15	Low-Temperature Atomic Layer Deposition of Crystalline and Photoactive Ultrathin Hematite Films for Solar Water Splitting. *ACS Nano*, **2015**, 9, 11775-83	16.7	59
14	A copper nickel mixed oxide hole selective layer for Au-free transparent cuprous oxide photocathodes. *Energy and Environmental Science*, **2017**, 10, 912-918	35.4	57
13	In situ observation of picosecond polaron self-localisation in □FeO photoelectrochemical cells. *Nature Communications*, **2019**, 10, 3962	17.4	52

List of Publications

12	Progress and Perspectives in Photo- and Electrochemical-Oxidation of Biomass for Sustainable Chemicals and Hydrogen Production. *Advanced Energy Materials*,2101180	21.8	40
11	The kinetics of metal oxide photoanodes from charge generation to catalysis. *Nature Reviews Materials*,	73.3	36
10	A bright outlook on organic photoelectrochemical cells for water splitting. *Journal of Materials Chemistry A*, **2018**, 6, 21809-21826	13	35
9	Stabilizing organic photocathodes by low-temperature atomic layer deposition of TiO2. *Sustainable Energy and Fuels*, **2017**, 1, 1915-1920	5.8	33
8	Pt single-atoms supported on nitrogen-doped carbon dots for highly efficient photocatalytic hydrogen generation. *Journal of Materials Chemistry A*, **2020**, 8, 14690-14696	13	25
7	Linking in situ charge accumulation to electronic structure in doped SrTiO reveals design principles for hydrogen-evolving photocatalysts. *Nature Materials*, **2021**, 20, 511-517	27	24
6	Rational design of a neutral pH functional and stable organic photocathode. *Chemical Communications*, **2018**, 54, 5732-5735	5.8	22
5	Impact of the Synthesis Route on the Water Oxidation Kinetics of Hematite Photoanodes. *Journal of Physical Chemistry Letters*, **2020**, 11, 7285-7290	6.4	17
4	Analysis of Optical Losses in a Photoelectrochemical Cell: A Tool for Precise Absorptance Estimation. *Advanced Functional Materials*, **2018**, 28, 1702768	15.6	13
3	Heteroepitaxy of GaP on silicon for efficient and cost-effective photoelectrochemical water splitting. *Journal of Materials Chemistry A*, **2019**, 7, 8550-8558	13	11
2	Insights from Transient Absorption Spectroscopy into Electron Dynamics Along the Ga-Gradient in Cu(In,Ga)Se2 Solar Cells. *Advanced Energy Materials*, **2021**, 11, 2003446	21.8	3
1	Impact of RbF and NaF Postdeposition Treatments on Charge Carrier Transport and Recombination in Ga-Graded Cu(In,Ga)Se2 Solar Cells. *Advanced Functional Materials*, **2021**, 31, 2103663	15.6	2