Florian Le Formal

List of Publications by Year in descending order

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47 papers	9,377 citations	126907 33 h-index	233421 45 g-index
47 all docs	47 docs citations	47 times ranked	9339 citing authors

#	Article	IF	Citations
1	Spray Synthesis of CuFeO₂ Photocathodes and In-Operando Assessment of Charge Carrier Recombination. Journal of Physical Chemistry C, 2021, 125, 10883-10890.	3.1	12
2	Influence of Composition on Performance in Metallic Ironâ€“Nickelâ€“Cobalt Ternary Anodes for Alkaline Water Electrolysis. ACS Catalysis, 2020, 10, 12139-12147.	11.2	20
3	Establishing Stability in Organic Semiconductor Photocathodes for Solar Hydrogen Production. Journal of the American Chemical Society, 2020, 142, 7795-7802.	13.7	45
4	Hematite Photoanodes for Solar Water Splitting: A Detailed Spectroelectrochemical Analysis on the pH-Dependent Performance. ACS Applied Energy Materials, 2019, 2, 6825-6833.	5.1	59
5	Lead Halide Perovskite Quantum Dots To Enhance the Power Conversion Efficiency of Organic Solar Cells. Angewandte Chemie - International Edition, 2019, 58, 12696-12704.	13.8	27
6	Insights into the interfacial carrier behaviour of copper ferrite (CuFe₂O₄) photoanodes for solar water oxidation. Journal of Materials Chemistry A, 2019, 7, 1669-1677.	10.3	65
7	Evaluating spinel ferrites MFe₂O₄ (M = Cu, Mg, Zn) as photoanodes for solar water oxidation: prospects and limitations. Sustainable Energy and Fuels, 2018, 2, 103-117.	4.9	119
8	Spinel Structural Disorder Influences Solarâ€Waterâ€Splitting Performance of ZnFe₂O₄ Nanorod Photoanodes. Advanced Materials, 2018, 30, e1801612.	21.0	111
9	Nanocrystalline Boron-Doped Diamond as a Corrosion-Resistant Anode for Water Oxidation via Si Photoelectrodes. ACS Applied Materials & Interfaces, 2018, 10, 29552-29564.	8.0	23
10	CuInGaS₂photocathodes treated with SbX₃(Xâ€‰â€‰=â€‰â€‰Cl, I): the effect of the halide on solar water splitting performance. Journal Physics D: Applied Physics, 2017, 50, 044003.	2.8	12
11	Spectroelectrochemical analysis of the mechanism of (photo)electrochemical hydrogen evolution at a catalytic interface. Nature Communications, 2017, 8, 14280.	12.8	83
12	Water Oxidation Kinetics of Accumulated Holes on the Surface of a TiO₂ Photoanode: A Rate Law Analysis. ACS Catalysis, 2017, 7, 4896-4903.	11.2	105
13	Evaluating Charge Carrier Transport and Surface States in CuFeO₂ Photocathodes. Chemistry of Materials, 2017, 29, 4952-4962.	6.7	133
14	Kinetics of Photoelectrochemical Oxidation of Methanol on Hematite Photoanodes. Journal of the American Chemical Society, 2017, 139, 11537-11543.	13.7	125
15	Formation of Efficient Water Oxidation Electrocatalyst on Gibeon Meteorite and Stainless Steel Electrodes. ECS Meeting Abstracts, 2017, , .	0.0	0
16	Spinel Ferrites MFe₂O₄ (M = Cu, Mg, Zn) As Emerging Photoanodes for Water Oxidation: An in-Depth Analysis of the Photoelectrochemical Properties. ECS Meeting Abstracts, 2017, MA2017-01, 1523-1523.	0.0	1
17	Photoinduced Absorption Spectroscopy of CoPi on BiVO₄: The Function of CoPi during Water Oxidation. Advanced Functional Materials, 2016, 26, 4951-4960.	14.9	169
18	Robust Hierarchically Structured Biphasic Ambipolar Oxide Photoelectrodes for Lightâ€Driven Chemical Regulation and Switchable Logic Applications. Advanced Materials, 2016, 28, 9308-9312.	21.0	30

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19	Rate Law Analysis of Water Oxidation and Hole Scavenging on a BiVO₄ Photoanode. ACS Energy Letters, 2016, 1, 618-623.	17.4	76
20	A Gibeon meteorite yields a high-performance water oxidation electrocatalyst. Energy and Environmental Science, 2016, 9, 3448-3455.	30.8	35
21	Switchable Photoelectrodes: Robust Hierarchically Structured Biphasic Ambipolar Oxide Photoelectrodes for Lightâ€Driven Chemical Regulation and Switchable Logic Applications (Adv. Mater.) Tj ETQq1 1 0.784314 rgBT /Ove	20.8	4
22	A Bottomâ€Up Approach toward Allâ€Solutionâ€Processed Highâ€Efficiency Cu(In,Ga)S₂ Photocathodes for Solar Water Splitting. Advanced Energy Materials, 2016, 6, 1501949.	19.5	88
23	Photocurrents from photosystem II in a metal oxide hybrid system: Electron transfer pathways. Biochimica Et Biophysica Acta - Bioenergetics, 2016, 1857, 1497-1505.	1.0	34
24	Challenges towards Economic Fuel Generation from Renewable Electricity: The Need for Efficient Electro-Catalysis. Chimia, 2015, 69, 789.	0.6	35
25	Artificial Photosynthesis with Semiconductorâ€“Liquid Junctions. Chimia, 2015, 69, 30.	0.6	5
26	Rate Law Analysis of Water Oxidation on a Hematite Surface. Journal of the American Chemical Society, 2015, 137, 6629-6637.	13.7	273
27	Efficient suppression of back electron/hole recombination in cobalt phosphate surface-modified undoped bismuth vanadate photoanodes. Journal of Materials Chemistry A, 2015, 3, 20649-20657.	10.3	117
28	Hematite photoelectrodes for water splitting: evaluation of the role of film thickness by impedance spectroscopy. Physical Chemistry Chemical Physics, 2014, 16, 16515.	2.8	162
29	Dynamics of photogenerated holes in undoped BiVO₄ photoanodes for solar water oxidation. Chemical Science, 2014, 5, 2964-2973.	7.4	317
30	Ultrafast Charge Carrier Recombination and Trapping in Hematite Photoanodes under Applied Bias. Journal of the American Chemical Society, 2014, 136, 9854-9857.	13.7	238
31	Back Electronâ€“Hole Recombination in Hematite Photoanodes for Water Splitting. Journal of the American Chemical Society, 2014, 136, 2564-2574.	13.7	393
32	Solid-State Dye-Sensitized Solar Cells using Ordered TiO₂ Nanorods on Transparent Conductive Oxide as Photoanodes. Journal of Physical Chemistry C, 2012, 116, 3266-3273.	3.1	75
33	The Transient Photocurrent and Photovoltage Behavior of a Hematite Photoanode under Working Conditions and the Influence of Surface Treatments. Journal of Physical Chemistry C, 2012, 116, 26707-26720.	3.1	315
34	A Ga₂O₃underlayer as an isomorphic template for ultrathin hematite films toward efficient photoelectrochemical water splitting. Faraday Discussions, 2012, 155, 223-232.	3.2	95
35	Solar hydrogen production with semiconductor metal oxides: new directions in experiment and theory. Physical Chemistry Chemical Physics, 2012, 14, 49-70.	2.8	198
36	Cathodic shift in onset potential of solar oxygen evolution on hematite by 13-group oxide overlayers. Energy and Environmental Science, 2011, 4, 2512.	30.8	269

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37	Influence of Plasmonic Au Nanoparticles on the Photoactivity of Fe₂O₃ Electrodes for Water Splitting. Nano Letters, 2011, 11, 35-43.	9.1	428
38	Passivating surface states on water splitting hematite photoanodes with alumina overlayers. Chemical Science, 2011, 2, 737-743.	7.4	763
39	Adsorbate-localized states at water-covered (100) SrTiO3 surfaces. Applied Physics Letters, 2011, 98, 012106.	3.3	8
40	Solar Water Splitting: Progress Using Hematite (Î±â€Fe₂O₃) Photoelectrodes. ChemSusChem, 2011, 4, 432-449.	6.8	2,334
41	Controlling Photoactivity in Ultrathin Hematite Films for Solar Waterâ€Splitting. Advanced Functional Materials, 2010, 20, 1099-1107.	14.9	357
42	Enhancedâ€Lightâ€Harvesting Amphiphilic Ruthenium Dye for Efficient Solidâ€State Dyeâ€Sensitized Solar Cells. Advanced Functional Materials, 2010, 20, 1821-1826.	14.9	68
43	Multi-walled carbon nanotubes functionalized by carboxylic groups: Activation of TiO2 (anatase) and phosphate olivines (LiMnPO4; LiFePO4) for electrochemical Li-storage. Journal of Power Sources, 2010, 195, 5360-5369.	7.8	68
44	Examining architectures of photoanodeâ€“photovoltaic tandem cells for solar water splitting. Journal of Materials Research, 2010, 25, 17-24.	2.6	166
45	Photoelectrochemical Water Splitting with Mesoporous Hematite Prepared by a Solution-Based Colloidal Approach. Journal of the American Chemical Society, 2010, 132, 7436-7444.	13.7	865
46	WO₃â^'Fe₂O₃ Photoanodes for Water Splitting: A Host Scaffold, Guest Absorber Approach. Chemistry of Materials, 2009, 21, 2862-2867.	6.7	455
47	Operando Potential-Sensing at the Semiconductor-Liquid Junctions: Tracking the Surface Energetics and Interfacial Kinetics during Photoelectrosynthetic Reactions. , 0, , .		0