Florian Le Formal

List of Publications by Year in descending order

47 papers	9,377 citations	126708 33 h-index	233125 45 g-index
47 all docs	47 docs citations	47 times ranked	9339 citing authors

#	Article	IF	Citations
1	Solar Water Splitting: Progress Using Hematite (Î±â€Fe₂O₃) Photoelectrodes. ChemSusChem, 2011, 4, 432-449.	3.6	2,334
2	Photoelectrochemical Water Splitting with Mesoporous Hematite Prepared by a Solution-Based Colloidal Approach. Journal of the American Chemical Society, 2010, 132, 7436-7444.	6.6	865
3	Passivating surface states on water splitting hematite photoanodes with alumina overlayers. Chemical Science, 2011, 2, 737-743.	3.7	763
4	WO₃â^'Fe₂O₃ Photoanodes for Water Splitting: A Host Scaffold, Guest Absorber Approach. Chemistry of Materials, 2009, 21, 2862-2867.	3.2	455
5	Influence of Plasmonic Au Nanoparticles on the Photoactivity of Fe₂O₃ Electrodes for Water Splitting. Nano Letters, 2011, 11, 35-43.	4.5	428
6	Back Electronâ€“Hole Recombination in Hematite Photoanodes for Water Splitting. Journal of the American Chemical Society, 2014, 136, 2564-2574.	6.6	393
7	Controlling Photoactivity in Ultrathin Hematite Films for Solar Waterâ€Splitting. Advanced Functional Materials, 2010, 20, 1099-1107.	7.8	357
8	Dynamics of photogenerated holes in undoped BiVO₄ photoanodes for solar water oxidation. Chemical Science, 2014, 5, 2964-2973.	3.7	317
9	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.	1.5	315
10	Rate Law Analysis of Water Oxidation on a Hematite Surface. Journal of the American Chemical Society, 2015, 137, 6629-6637.	6.6	273
11	Cathodic shift in onset potential of solar oxygen evolution on hematite by 13-group oxide overlayers. Energy and Environmental Science, 2011, 4, 2512.	15.6	269
12	Ultrafast Charge Carrier Recombination and Trapping in Hematite Photoanodes under Applied Bias. Journal of the American Chemical Society, 2014, 136, 9854-9857.	6.6	238
13	Solar hydrogen production with semiconductor metal oxides: new directions in experiment and theory. Physical Chemistry Chemical Physics, 2012, 14, 49-70.	1.3	198
14	Photoinduced Absorption Spectroscopy of CoPi on BiVO₄: The Function of CoPi during Water Oxidation. Advanced Functional Materials, 2016, 26, 4951-4960.	7.8	169
15	Examining architectures of photoanodeâ€“photovoltaic tandem cells for solar water splitting. Journal of Materials Research, 2010, 25, 17-24.	1.2	166
16	Hematite photoelectrodes for water splitting: evaluation of the role of film thickness by impedance spectroscopy. Physical Chemistry Chemical Physics, 2014, 16, 16515.	1.3	162
17	Evaluating Charge Carrier Transport and Surface States in CuFeO₂ Photocathodes. Chemistry of Materials, 2017, 29, 4952-4962.	3.2	133
18	Kinetics of Photoelectrochemical Oxidation of Methanol on Hematite Photoanodes. Journal of the American Chemical Society, 2017, 139, 11537-11543.	6.6	125

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19	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.	2.5	119
20	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.	5.2	117
21	Spinel Structural Disorder Influences Solarâ€Waterâ€Splitting Performance of ZnFe₂O₄ Nanorod Photoanodes. Advanced Materials, 2018, 30, e1801612.	11.1	111
22	Water Oxidation Kinetics of Accumulated Holes on the Surface of a TiO₂ Photoanode: A Rate Law Analysis. ACS Catalysis, 2017, 7, 4896-4903.	5.5	105
23	A Ga₂O₃underlayer as an isomorphic template for ultrathin hematite films toward efficient photoelectrochemical water splitting. Faraday Discussions, 2012, 155, 223-232.	1.6	95
24	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.	10.2	88
25	Spectroelectrochemical analysis of the mechanism of (photo)electrochemical hydrogen evolution at a catalytic interface. Nature Communications, 2017, 8, 14280.	5.8	83
26	Rate Law Analysis of Water Oxidation and Hole Scavenging on a BiVO₄ Photoanode. ACS Energy Letters, 2016, 1, 618-623.	8.8	76
27	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.	1.5	75
28	Enhancedâ€Lightâ€Harvesting Amphiphilic Ruthenium Dye for Efficient Solidâ€State Dyeâ€Sensitized Solar Cells. Advanced Functional Materials, 2010, 20, 1821-1826.	7.8	68
29	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.	4.0	68
30	Insights into the interfacial carrier behaviour of copper ferrite (CuFe₂O₄) photoanodes for solar water oxidation. Journal of Materials Chemistry A, 2019, 7, 1669-1677.	5.2	65
31	Hematite Photoanodes for Solar Water Splitting: A Detailed Spectroelectrochemical Analysis on the pH-Dependent Performance. ACS Applied Energy Materials, 2019, 2, 6825-6833.	2.5	59
32	Establishing Stability in Organic Semiconductor Photocathodes for Solar Hydrogen Production. Journal of the American Chemical Society, 2020, 142, 7795-7802.	6.6	45
33	Challenges towards Economic Fuel Generation from Renewable Electricity: The Need for Efficient Electro-Catalysis. Chimia, 2015, 69, 789.	0.3	35
34	A Gibeon meteorite yields a high-performance water oxidation electrocatalyst. Energy and Environmental Science, 2016, 9, 3448-3455.	15.6	35
35	Photocurrents from photosystem II in a metal oxide hybrid system: Electron transfer pathways. Biochimica Et Biophysica Acta - Bioenergetics, 2016, 1857, 1497-1505.	0.5	34
36	Robust Hierarchically Structured Biphasic Ambipolar Oxide Photoelectrodes for Lightâ€Driven Chemical Regulation and Switchable Logic Applications. Advanced Materials, 2016, 28, 9308-9312.	11.1	30

#	Article	IF	Citations
37	Lead Halide Perovskite Quantum Dots To Enhance the Power Conversion Efficiency of Organic Solar Cells. Angewandte Chemie - International Edition, 2019, 58, 12696-12704.	7.2	27
38	Nanocrystalline Boron-Doped Diamond as a Corrosion-Resistant Anode for Water Oxidation via Si Photoelectrodes. ACS Applied Materials & Interfaces, 2018, 10, 29552-29564.	4.0	23
39	Influence of Composition on Performance in Metallic Ironâ€“Nickelâ€“Cobalt Ternary Anodes for Alkaline Water Electrolysis. ACS Catalysis, 2020, 10, 12139-12147.	5.5	20
40	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.	1.3	12
41	Spray Synthesis of CuFeO₂ Photocathodes and In-Operando Assessment of Charge Carrier Recombination. Journal of Physical Chemistry C, 2021, 125, 10883-10890.	1.5	12
42	Adsorbate-localized states at water-covered (100) SrTiO3 surfaces. Applied Physics Letters, 2011, 98, 012106.	1.5	8
43	Artificial Photosynthesis with Semiconductorâ€“Liquid Junctions. Chimia, 2015, 69, 30.	0.3	5
44	Switchable Photoelectrodes: Robust Hierarchically Structured Biphasic Ambipolar Oxide Photoelectrodes for Lightâ€Driven Chemical Regulation and Switchable Logic Applications (Adv. Mater.) Tj ETQq0 0 1 rgBT /Overlock 10	11.1	
45	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
46	Formation of Efficient Water Oxidation Electrocatalyst on Gibeon Meteorite and Stainless Steel Electrodes. ECS Meeting Abstracts, 2017, , .	0.0	0
47	Operando Potential-Sensing at the Semiconductor-Liquid Junctions: Tracking the Surface Energetics and Interfacial Kinetics during Photoelectrosynthetic Reactions. , 0, , .		0