

# Vincent Fourmond

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

77  
papers

3,142  
citations

29  
h-index

55  
g-index

84  
ext. papers

3,639  
ext. citations

11.8  
avg, IF

5.24  
L-index

#	Paper	IF	Citations
77	Mechanism of Hydrogen Sulfide-Dependent Inhibition of FeFe Hydrogenase. <i>ACS Catalysis</i> , <b>2021</b> , 11, 15162-15176	13.1	1
76	Optimizing the mass transport of wall-tube electrodes for protein film electrochemistry. <i>Electrochimica Acta</i> , <b>2021</b> , 139521	6.7	
75	Reversible or Irreversible Catalysis of H/H Conversion by FeFe Hydrogenases. <i>Journal of the American Chemical Society</i> , <b>2021</b> , 143, 20320-20325	16.4	4
74	Formate Dehydrogenases Reduce CO Rather than HCO : An Electrochemical Demonstration. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 9964-9967	16.4	9
73	Reversible H Oxidation and Evolution by Hydrogenase Embedded in a Redox Polymer Film. <i>Nature Catalysis</i> , <b>2021</b> , 4, 251-258	36.5	18
72	Reversible catalysis. <i>Nature Reviews Chemistry</i> , <b>2021</b> , 5, 348-360	34.6	7
71	Artificial maturation of [FeFe] hydrogenase in a redox polymer film. <i>Chemical Communications</i> , <b>2021</b> , 57, 1750-1753	5.8	2
70	A safety cap protects hydrogenase from oxygen attack. <i>Nature Communications</i> , <b>2021</b> , 12, 756	17.4	16
69	Formate Dehydrogenases Reduce CO <sub>2</sub> Rather than HCO <sub>3</sub> <sup>-</sup> An Electrochemical Demonstration. <i>Angewandte Chemie</i> , <b>2021</b> , 133, 10052-10055	3.6	0
68	Theoretical Understanding of the Penetration of O <sub>2</sub> in Enzymatic Redox Polymer Films: The Case of Unidirectional Catalysis and Irreversible Inactivation in a Film of Arbitrary Thickness. <i>ChemElectroChem</i> , <b>2021</b> , 8, 2607-2615	4.3	1
67	Photochemistry and photoinhibition of the H-cluster of FeFe hydrogenases. <i>Sustainable Energy and Fuels</i> , <b>2021</b> , 5, 4248-4260	5.8	2
66	The Solvent-Exposed Fe-S D-Cluster Contributes to Oxygen-Resistance in Ni-Fe Carbon Monoxide Dehydrogenase. <i>ACS Catalysis</i> , <b>2020</b> , 10, 7328-7335	13.1	7
65	The two CO-dehydrogenases of Thermococcus sp. AM4. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2020</b> , 1861, 148188	4.6	9
64	An introduction to electrochemical methods for the functional analysis of metalloproteins <b>2020</b> , 325-373		4
63	Numerical computations of Marcus-Hush-Hidsey electron transfer rate constants. <i>Journal of Electroanalytical Chemistry</i> , <b>2020</b> , 879, 114762	4.1	1
62	Electrochemical Characterization of a Complex FeFe Hydrogenase, the Electron-Bifurcating Hnd From. <i>Frontiers in Chemistry</i> , <b>2020</b> , 8, 573305	5	2
61	Complete Protection of O-Sensitive Catalysts in Thin Films. <i>Journal of the American Chemical Society</i> , <b>2019</b> , 141, 16734-16742	16.4	31

60	Tuning the redox properties of a [4Fe-4S] center to modulate the activity of Mo-bisPGD periplasmic nitrate reductase. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2019</b> , 1860, 402-413	4.6	8
59	Understanding and Design of Bidirectional and Reversible Catalysts of Multielectron, Multistep Reactions. <i>Journal of the American Chemical Society</i> , <b>2019</b> , 141, 11269-11285	16.4	32
58	A new electrochemical cell with a uniformly accessible electrode to study fast catalytic reactions. <i>Physical Chemistry Chemical Physics</i> , <b>2019</b> , 21, 12360-12371	3.6	5
57	Valine-to-Cysteine Mutation Further Increases the Oxygen Tolerance of Escherichia coli NiFe Hydrogenase Hyd-1. <i>ACS Catalysis</i> , <b>2019</b> , 9, 4084-4088	13.1	3
56	A Hydrophilic Channel Is Involved in Oxidative Inactivation of a [NiFeSe] Hydrogenase. <i>ACS Catalysis</i> , <b>2019</b> , 9, 8509-8519	13.1	10
55	Structural insight into metallocofactor maturation in carbon monoxide dehydrogenase. <i>Journal of Biological Chemistry</i> , <b>2019</b> , 294, 13017-13026	5.4	10
54	Redox (In)activations of Metalloenzymes: A Protein Film Voltammetry Approach. <i>ChemElectroChem</i> , <b>2019</b> , 6, 4949-4962	4.3	7
53	Electrochemical Investigations of Hydrogenases and Other Enzymes That Produce and Use Solar Fuels. <i>Accounts of Chemical Research</i> , <b>2018</b> , 51, 769-777	24.3	38
52	Maturation of the [Ni-4Fe-4S] active site of carbon monoxide dehydrogenases. <i>Journal of Biological Inorganic Chemistry</i> , <b>2018</b> , 23, 613-620	3.7	18
51	Impact of alignment defects of rotating disk electrode on transport properties. <i>Electrochimica Acta</i> , <b>2018</b> , 269, 534-543	6.7	5
50	Interaction of the H-Cluster of FeFe Hydrogenase with Halides. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 5485-5492	16.4	14
49	Engineering an [FeFe]-Hydrogenase: Do Accessory Clusters Influence O <sub>2</sub> Resistance and Catalytic Bias?. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 5516-5526	16.4	34
48	Roles of the F-domain in [FeFe] hydrogenase. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2018</b> , 1859, 69-77	4.6	20
47	Redox-dependent rearrangements of the NiFeS cluster of carbon monoxide dehydrogenase. <i>ELife</i> , <b>2018</b> , 7,	8.9	28
46	Modelling the voltammetry of adsorbed enzymes and molecular catalysts. <i>Current Opinion in Electrochemistry</i> , <b>2017</b> , 1, 110-120	7.2	55
45	Reliable estimation of the kinetic parameters of redox enzymes by taking into account mass transport towards rotating electrodes in protein film voltammetry experiments. <i>Electrochimica Acta</i> , <b>2017</b> , 245, 1059-1064	6.7	11
44	Dinitrogen Reduction: Interfacing the Enzyme Nitrogenase with Electrodes. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 4388-4390	16.4	20
43	N <sub>2</sub> -Reduktion: Verschaltung von Nitrogenase mit Elektroden. <i>Angewandte Chemie</i> , <b>2017</b> , 129, 4454-4456	6.6	2

42	CODH-IV: A High-Efficiency CO-Scavenging CO Dehydrogenase with Resistance to O. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 15466-15469	16.4	29
41	CODH-IV: eine hocheffiziente CO-Dehydrogenase mit Resistenz gegen O <sub>2</sub> . <i>Angewandte Chemie</i> , <b>2017</b> , 129, 15670-15674	3.6	0
40	Photoinhibition of FeFe Hydrogenase. <i>ACS Catalysis</i> , <b>2017</b> , 7, 7378-7387	13.1	13
39	Transient Catalytic Voltammetry of Sulfite Oxidase Reveals Rate Limiting Conformational Changes. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 11559-11567	16.4	14
38	New perspectives in hydrogenase direct electrochemistry. <i>Current Opinion in Electrochemistry</i> , <b>2017</b> , 5, 135-145	7.2	31
37	Mechanism of O diffusion and reduction in FeFe hydrogenases. <i>Nature Chemistry</i> , <b>2017</b> , 9, 88-95	17.6	86
36	Reactivity of the Excited States of the H-Cluster of FeFe Hydrogenases. <i>Journal of the American Chemical Society</i> , <b>2016</b> , 138, 13612-13618	16.4	21
35	QSoas: A Versatile Software for Data Analysis. <i>Analytical Chemistry</i> , <b>2016</b> , 88, 5050-2	7.8	55
34	Redox Behavior of the S-Adenosylmethionine (SAM)-Binding Fe-S Cluster in Methylthiotransferase RimO, toward Understanding Dual SAM Activity. <i>Biochemistry</i> , <b>2016</b> , 55, 5798-5808	3.2	13
33	Reductive activation of E. coli respiratory nitrate reductase. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2015</b> , 1847, 1055-63	4.6	16
32	Oxidative inactivation of NiFeSe hydrogenase. <i>Chemical Communications</i> , <b>2015</b> , 51, 14223-6	5.8	23
31	Mechanism of protection of catalysts supported in redox hydrogel films. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 5494-505	16.4	78
30	Electrochemical Measurements of the Kinetics of Inhibition of Two FeFe Hydrogenases by O <sub>2</sub> Demonstrate That the Reaction Is Partly Reversible. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 12580-7	16.4	46
29	The Carbon Monoxide Dehydrogenase from <i>Desulfovibrio vulgaris</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2015</b> , 1847, 1574-83	4.6	32
28	O <sub>2</sub> Inhibition of Ni-Containing CO Dehydrogenase Is Partly Reversible. <i>Chemistry - A European Journal</i> , <b>2015</b> , 21, 18934-8	4.8	18
27	Reductive activation in periplasmic nitrate reductase involves chemical modifications of the Mo-cofactor beyond the first coordination sphere of the metal ion. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2014</b> , 1837, 277-86	4.6	23
26	FeFe hydrogenase reductive inactivation and implication for catalysis. <i>Energy and Environmental Science</i> , <b>2014</b> , 7, 715-719	35.4	29
25	Combining experimental and theoretical methods to learn about the reactivity of gas-processing metalloenzymes. <i>Energy and Environmental Science</i> , <b>2014</b> , 7, 3543-3573	35.4	33

24	The oxidative inactivation of FeFe hydrogenase reveals the flexibility of the H-cluster. <i>Nature Chemistry</i> , <b>2014</b> , 6, 336-42	17.6	75
23	Kinetics of substrate inhibition of periplasmic nitrate reductase. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2014</b> , 1837, 1801-9	4.6	15
22	The mechanism of inhibition by H <sub>2</sub> of H <sub>2</sub> -evolution by hydrogenases. <i>Chemical Communications</i> , <b>2013</b> , 49, 6840-2	5.8	40
21	Does the environment around the H-cluster allow coordination of the pendant amine to the catalytic iron center in [FeFe]-hydrogenases? Answers from theory. <i>Journal of Biological Inorganic Chemistry</i> , <b>2013</b> , 18, 693-700	3.7	11
20	A cyclic peptide-based redox-active model of rubredoxin. <i>Chemical Communications</i> , <b>2013</b> , 49, 2915-7	5.8	11
19	Catalytic hydrogen production by a Ni-Ru mimic of NiFe hydrogenases involves a proton-coupled electron transfer step. <i>Chemical Communications</i> , <b>2013</b> , 49, 5004-6	5.8	51
18	Steady-state catalytic wave-shapes for 2-electron reversible electrocatalysts and enzymes. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 3926-38	16.4	51
17	A Janus cobalt-based catalytic material for electro-splitting of water. <i>Nature Materials</i> , <b>2012</b> , 11, 802-7	27	691
16	Relation between anaerobic inactivation and oxygen tolerance in a large series of NiFe hydrogenase mutants. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2012</b> , 109, 19916-21	11.5	50
15	The quest for a functional substrate access tunnel in FeFe hydrogenase. <i>Faraday Discussions</i> , <b>2011</b> , 148, 385-407; discussion 421-41	3.6	67
14	A nickel-manganese catalyst as a biomimic of the active site of NiFe hydrogenases: a combined electrocatalytic and DFT mechanistic study. <i>Energy and Environmental Science</i> , <b>2011</b> , 4, 2417	35.4	78
13	Rates of intra- and intermolecular electron transfers in hydrogenase deduced from steady-state activity measurements. <i>Journal of the American Chemical Society</i> , <b>2011</b> , 133, 10211-21	16.4	46
12	Relating diffusion along the substrate tunnel and oxygen sensitivity in hydrogenase. <i>Nature Chemical Biology</i> , <b>2010</b> , 6, 63-70	11.7	162
11	Dependence of catalytic activity on driving force in solution assays and protein film voltammetry: insights from the comparison of nitrate reductase mutants. <i>Biochemistry</i> , <b>2010</b> , 49, 2424-32	3.2	24
10	"Two-step" chronoamperometric method for studying the anaerobic inactivation of an oxygen tolerant NiFe hydrogenase. <i>Journal of the American Chemical Society</i> , <b>2010</b> , 132, 4848-57	16.4	57
9	Reassessing the strategies for trapping catalytic intermediates during nitrate reductase turnover. <i>Journal of Physical Chemistry B</i> , <b>2010</b> , 114, 3341-7	3.4	28
8	H <sub>2</sub> evolution and molecular electrocatalysts: determination of overpotentials and effect of homoconjugation. <i>Inorganic Chemistry</i> , <b>2010</b> , 49, 10338-47	5.1	306
7	Membrane-bound hydrogenase I from the hyperthermophilic bacterium <i>Aquifex aeolicus</i> : enzyme activation, redox intermediates and oxygen tolerance. <i>Journal of the American Chemical Society</i> , <b>2010</b> , 132, 6991-7004	16.4	135

6	SOAS: a free program to analyze electrochemical data and other one-dimensional signals. <i>Bioelectrochemistry</i> , <b>2009</b> , 76, 141-7	5.6	95
5	Correcting for electrocatalyst desorption and inactivation in chronoamperometry experiments. <i>Analytical Chemistry</i> , <b>2009</b> , 81, 2962-8	7.8	47
4	Major Mo(V) EPR signature of <i>Rhodobacter sphaeroides</i> periplasmic nitrate reductase arising from a dead-end species that activates upon reduction. Relation to other molybdoenzymes from the DMSO reductase family. <i>Journal of Physical Chemistry B</i> , <b>2008</b> , 112, 15478-86	3.4	41
3	<i>Shewanella oneidensis</i> : a new and efficient system for expression and maturation of heterologous [Fe-Fe] hydrogenase from <i>Chlamydomonas reinhardtii</i> . <i>BMC Biotechnology</i> , <b>2008</b> , 8, 73	3.5	46
2	Electrochemical study of a reconstituted photosynthetic electron-transfer chain. <i>Journal of the American Chemical Society</i> , <b>2007</b> , 129, 9201-9	16.4	14
1	Ultrasonic Cavitation in Freon at Room Temperature <b>2002</b> , 307-313		1