Frederic Gloaguen

List of Publications by Year
in descending order

84 papers	6,726 citations	53794 45 h-index	58581 82 g-index
89 all docs	89 docs citations	89 times ranked	3884 citing authors

#	Article	IF	Citations
1	Small molecule mimics of hydrogenases: hydrides and redox. Chemical Society Reviews, 2009, 38, 100-108.	38.1	615
2	Biomimetic Hydrogen Evolution Catalyzed by an Iron Carbonyl Thiolate. Journal of the American Chemical Society, 2001, 123, 9476-9477.	13.7	441
3	Electron and proton transfers at diiron dithiolate sites relevant to the catalysis of proton reduction by the [FeFe]-hydrogenases. Coordination Chemistry Reviews, 2009, 253, 1476-1494.	18.8	298
4	Synthetic and Structural Studies on [Fe2(SR)2(CN)x(CO)6-x]x- as Active Site Models for Fe-Only Hydrogenases. Journal of the American Chemical Society, 2001, 123, 12518-12527.	13.7	284
5	Catalysis of the electrochemical H evolution by di-iron sub-site models. Coordination Chemistry Reviews, 2005, 249, 1664-1676.	18.8	253
6	Bimetallic Carbonyl Thiolates as Functional Models for Fe-Only Hydrogenases. Inorganic Chemistry, 2002, 41, 6573-6582.	4.0	221
7	Evidence for the Formation of Terminal Hydrides by Protonation of an Asymmetric Iron Hydrogenase Active Site Mimic. Inorganic Chemistry, 2007, 46, 3426-3428.	4.0	209
8	Kinetic study of electrochemical reactions at catalyst-recast ionomer interfaces from thin active layer modelling. Journal of Applied Electrochemistry, 1994, 24, 863-869.	2.9	203
9	Oxygen electroreduction on carbon-supported platinum catalysts. Particle-size effect on the tolerance to methanol competition. Electrochimica Acta, 2002, 47, 3431-3440.	5.2	196
10	Title is missing!. Journal of Applied Electrochemistry, 1997, 27, 1052-1060.	2.9	195
11	N-Heterocyclic Carbene Ligands as Cyanide Mimics in Diiron Models of the All-Iron Hydrogenase Active Site. Organometallics, 2005, 24, 2020-2022.	2.3	149
12	Influence of a Pendant Amine in the Second Coordination Sphere on Proton Transfer at a Dissymmetrically Disubstituted Diiron System Related to the [2Fe]_H Subsite of [FeFe]H₂ase. Inorganic Chemistry, 2009, 48, 2-4.	4.0	147
13	Particle size effect for oxygen reduction and methanol oxidation on Pt/C inside a proton exchange membrane. Journal of Electroanalytical Chemistry, 1994, 373, 251-254.	3.8	145
14	Platinum electrodeposition on graphite: electrochemical study and STM imaging. Electrochimica Acta, 1999, 44, 1805-1816.	5.2	145
15	N-Heterocyclic Carbene Ligands in Nonsymmetric Diiron Models of Hydrogenase Active Sites. Organometallics, 2007, 26, 2042-2052.	2.3	141
16	Oxygen reduction on well-defined platinum nanoparticles inside recast ionomer. Electrochimica Acta, 1996, 41, 307-314.	5.2	140
17	Comprehensive review and future perspectives on the photocatalytic hydrogen production. Journal of Chemical Technology and Biotechnology, 2019, 94, 3049-3063.	3.2	136
18	Electrochemical proton reduction by thiolate-bridged hexacarbonyldiiron clusters. Journal of Electroanalytical Chemistry, 2004, 566, 241-247.	3.8	135

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19	A super-efficient cobalt catalyst for electrochemical hydrogen production from neutral water with 80 mV overpotential. Energy and Environmental Science, 2014, 7, 329-334.	30.8	121
20	Activation of proton by the two-electron reduction of a di-iron organometallic complex. Journal of Electroanalytical Chemistry, 2006, 595, 47-52.	3.8	119
21	Electrochemical hydrogen production in aqueous micellar solution by a diiron benzenedithiolate complex relevant to [FeFe] hydrogenases. Energy and Environmental Science, 2012, 5, 7757.	30.8	101
22	Electrochemical and theoretical investigations of the reduction of [Fe2(CO)5L{Âµ-SCH2XCH2S}] complexes related to [FeFe] hydrogenase. New Journal of Chemistry, 2007, 31, 2052.	2.8	98
23	Electron-Transfer-Catalyzed Rearrangement of Unsymmetrically Substituted Diiron Dithiolate Complexes Related to the Active Site of the [FeFe]-Hydrogenases. Inorganic Chemistry, 2007, 46, 9863-9872.	4.0	98
24	An evaluation of the macro-homogeneous and agglomerate model for oxygen reduction in PEMFCs. Electrochimica Acta, 1998, 43, 3767-3772.	5.2	95
25	Electrochemical Insights into the Mechanisms of Proton Reduction by [Fe₂(CO)₆{Î¼â€•SCH₂N(R)CH₂S}] Complexes Related to the [2Fe]_H Subsite of [FeFe]Hydrogenase. Chemistry - A European Journal, 2008, 14, 1954-1964.	3.3	95
26	Electrocatalytic hydrogen evolution from neutral water by molecular cobalt tripyridineâ€“diamine complexes. Chemical Communications, 2013, 49, 9455.	4.1	91
27	Concerted proton-coupled electron transfer from a metal-hydride complex. Nature Chemistry, 2015, 7, 140-145.	13.6	88
28	Title is missing!. Journal of Applied Electrochemistry, 2001, 31, 945-952.	2.9	85
29	Selective Earth-Abundant System for CO₂ Reduction: Comparing Photo- and Electrocatalytic Processes. ACS Catalysis, 2019, 9, 2091-2100.	11.2	80
30	Organometallic Diiron Complex Chemistry Related to the [2Fe]_H Subsite of [FeFe]H₂ase. European Journal of Inorganic Chemistry, 2008, 2008, 4671-4681.	2.0	76
31	In Situ Infrared Study of Carbon Monoxide Adsorbed onto Commercial Fuel-Cell-Grade Carbon-Supported Platinum Nanoparticles:Â Correlation with13C NMR Results. Journal of Physical Chemistry B, 2000, 104, 5803-5807.	2.6	75
32	Di-Iron Aza Diphosphido Complexes:Â Mimics for the Active Site of Fe-Only Hydrogenase, and Effects of Changing the Coordinating Atoms of the Bridging Ligand in [Fe2{Î¼-(ECH2)2NR}(CO)6]. Inorganic Chemistry, 2004, 43, 8203-8205.	4.0	66
33	Use of 1,10-phenanthroline in diiron dithiolate derivatives related to the [Feâ€“Fe] hydrogenase active site. Dalton Transactions, 2007, , 3754.	3.3	65
34	Simulations of PEFC cathodes: an effectiveness factor approach. Journal of Applied Electrochemistry, 1997, 27, 1029-1035.	2.9	64
35	Electrochemical proton reduction at mild potentials by monosubstituted diiron organometallic complexes bearing a benzenedithiolate bridge. Journal of Electroanalytical Chemistry, 2007, 603, 15-20.	3.8	63
36	Chemically modified electrode based on an organometallic model of the [FeFe] hydrogenase active center. Electrochemistry Communications, 2005, 7, 427-430.	4.7	62

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37	Electrochemical and spontaneous deposition of ruthenium at platinum electrodes for methanol oxidation: an electrochemical quartz crystal microbalance study. Electrochimica Acta, 2001, 46, 4331-4337.	5.2	60
38	Photocatalytic Hydrogen Production Using Models of the Ironâ€“Iron Hydrogenase Active Site Dispersed in Micellar Solution. ChemSusChem, 2014, 7, 638-643.	6.8	60
39	Effect of Electron-Withdrawing Dithiolate Bridge on the Electron-Transfer Steps in Diiron Molecules Related to [2Fe]_H Subsite of the [FeFe]-Hydrogenases. Inorganic Chemistry, 2010, 49, 2496-2501.	4.0	52
40	Title is missing!. Journal of Applied Electrochemistry, 2003, 33, 1-8.	2.9	50
41	Electrochemical study of the role of a H-bridged, unsymmetrically disubstituted diiron complex in proton reduction catalysis. Journal of Electroanalytical Chemistry, 2009, 626, 161-170.	3.8	49
42	First insights into the protonation of dissymetrically disubstituted di-iron azadithiolate models of the [FeFe]H2ases active site. Chemical Communications, 2008, , 2547.	4.1	48
43	Diiron chelate complexes relevant to the active site of the iron-only hydrogenase. Comptes Rendus Chimie, 2008, 11, 906-914.	0.5	47
44	Modeling [FeFe] hydrogenase: Synthesis and protonation of a diiron dithiolate complex containing a phosphine-N-heterocyclic-carbene ligand. Journal of Organometallic Chemistry, 2009, 694, 2801-2807.	1.8	47
45	On the electrochemistry of diiron dithiolate complexes related to the active site of the [FeFe]H2ase. Comptes Rendus Chimie, 2008, 11, 842-851.	0.5	46
46	Electrochemistry of Simple Organometallic Models of Ironâ€“Iron Hydrogenases in Organic Solvent and Water. Inorganic Chemistry, 2016, 55, 390-398.	4.0	44
47	Mechanistic Insights into the Catalysis of Electrochemical Proton Reduction by a Diiron Azadithiolate Complex. Inorganic Chemistry, 2014, 53, 10667-10673.	4.0	42
48	An electrochemical quartz crystal microbalance study of the hydrogen underpotential deposition at a Pt electrode. Journal of Electroanalytical Chemistry, 1999, 467, 186-192.	3.8	41
49	A Binuclear Ironâ€“Thiolate Catalyst for Electrochemical Hydrogen Production in Aqueous Micellar Solution. Chemistry - A European Journal, 2012, 18, 13473-13479.	3.3	37
50	Non-innocent bma ligand in a dissymetrically disubstituted diiron dithiolate related to the active site of the [FeFe] hydrogenases. Journal of Inorganic Biochemistry, 2010, 104, 1038-1042.	3.5	36
51	Oxidatively Induced Reactivity of [Fe₂(CO)₄(Îº²-dppe)(Î¼-pdt)]: an Electrochemical and Theoretical Study of the Structure Change and Ligand Binding Processes. Inorganic Chemistry, 2011, 50, 12575-12585.	4.0	33
52	Electrochemical Synthesis of Mono- and Disubstituted Diiron Dithiolate Complexes as Models for the Active Site of Iron-Only Hydrogenases. European Journal of Inorganic Chemistry, 2007, 2007, 5062-5068.	2.0	32
53	Investigation on the Protonation of a Trisubstituted [Fe₂(CO)₃(PPh₃)(Îº²-phen)(Î¼-pdt)] Complex: Rotated versus Unrotated Intermediate Pathways. Inorganic Chemistry, 2010, 49, 5003-5008.	4.0	31
54	Diiron species containing a cyclic P^{Ph}₂N^{Ph}₂diphosphine related to the [FeFe]H₂ases active site. Chemical Communications, 2011, 47, 878-880.	4.1	31

#	ARTICLE	IF	CITATIONS
55	Multielectronâ€Transfer Templates via Consecutive Twoâ€Electron Transformations: Ironâ€“Sulfur Complexes Relevant to Biological Enzymes. Chemistry - A European Journal, 2012, 18, 13968-13973.	3.3	31
56	Tetranuclear Iron Complexes Bearing Benzenetetrathiolate Bridges as Four-Electron Transformation Templates and Their Electrocatalytic Properties for Proton Reduction. Inorganic Chemistry, 2013, 52, 1798-1806.	4.0	31
57	New Nitrosyl Derivatives of Diiron Dithiolates Related to the Active Site of the [FeFe]-Hydrogenases. Inorganic Chemistry, 2008, 47, 11816-11824.	4.0	27
58	Tuning of electron transfer in diiron azo-bridged complexes relevant to hydrogenases. International Journal of Hydrogen Energy, 2010, 35, 10797-10802.	7.1	23
59	Kinetic and thermodynamic aspects of the electrocatalysis of acid reduction in organic solvent using molecular diiron-dithiolate compounds. Electrochimica Acta, 2013, 110, 641-645.	5.2	22
60	Magnetic crossover effect in Nickel nanowire arrays. Physica B: Condensed Matter, 2011, 406, 2046-2053.	2.7	20
61	Carboxy-functionalized dithiolate di-iron complexes related to the active site of Fe-only hydrogenase. Journal of Organometallic Chemistry, 2007, 692, 4177-4181.	1.8	17
62	Electrochemistry of dinuclear, thiolate-bridged transition-metal compounds. 7. Electrochemical generation of isomers of [Mo2Cp2(CO)2(.mu.-SMe)2] and their reactivity toward isocyanide ligands. Organometallics, 1991, 10, 2004-2011.	2.3	15
63	Reversible Redox Switching of Chromophoric Phenylmethylenepyrans by Carbonâ€“Carbon Bond Making/Breaking. Journal of Organic Chemistry, 2017, 82, 12395-12405.	3.2	12
64	Reactivity of [Fe₂(CO)₆(Î¼-S₂)] toward a Base-Containing Diphosphine (Ph₂PCH₂)₂NCH₃: Formation of Diiron Carbonyl Compounds Having Polydentate Heterofunctionalized Phosphine (PNS =) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 377 Td (Ph<su (Ph₂PS = PS) Bridges. Organometallics, 2010, 29, 1296-1301.	2.3	11
65	Magnetic properties of ferromagnetic nanowire arrays: Theory and experiment. Journal of Physics: Conference Series, 2010, 200, 072032.	0.4	10
66	Diiron Complexes with a [2Fe3S] Core Related to the Active Site of [FeFe]H2ases. European Journal of Inorganic Chemistry, 2011, 2011, 1038-1042.	2.0	10
67	Electrochemistry of cytochrome c immobilized on cardiolipin-modified electrodes: A probe for proteinâ€“lipid interactions. Biochimica Et Biophysica Acta - General Subjects, 2013, 1830, 2798-2803.	2.4	10
68	Oxo-functionalised mesoionic NHC nickel complexes for selective electrocatalytic reduction of CO₂ to formate. Green Chemistry, 2021, 23, 3365-3373.	9.0	10
69	Effects of anodization and electrodeposition conditions on the growth of copper and cobalt nanostructures in aluminum oxide films. Journal of Applied Electrochemistry, 2009, 39, 719-725.	2.9	9
70	Study of the magnetization behavior of ferromagnetic nanowire array: Existence of growth defects revealed by micromagnetic simulations. Journal of Magnetism and Magnetic Materials, 2016, 401, 378-385.	2.3	9
71	Spectral radiative analysis of bio-inspired H2 production in a benchmark photoreactor: A first investigation using spatial photonic balance. International Journal of Hydrogen Energy, 2018, 43, 8221-8231.	7.1	9
72	Electronic and molecular structure relations in diiron compounds mimicking the [FeFe]-hydrogenase active site studied by X-ray spectroscopy and quantum chemistry. Dalton Transactions, 2017, 46, 12544-12557.	3.3	8

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73	Electrocatalytic Proton Reduction by a Cobalt Complex Containing a Protonâ€Responsive Bis(alkylimdazole)methane Ligand: Involvement of a Câˆ’H Bond in H₂Formation. Chemistry - A European Journal, 2020, 26, 12560-12569.	3.3	8
74	Influence of QD photosensitizers in the photocatalytic production of hydrogen with biomimetic [FeFe]-hydrogenase. Comparative performance of CdSe and CdTe. Chemosphere, 2021, 278, 130485.	8.2	8
75	Thermal Evolution of Magnetic Interactions in Ni Nanowires Embedded in Polycarbonate Membranes by Ferromagnetic Resonance. Acta Physica Polonica A, 2009, 116, 1039-1043.	0.5	8
76	Application of the energetic span model to the electrochemical catalysis of proton reduction by a diiron azadithiolate complex. New Journal of Chemistry, 2015, 39, 8073-8079.	2.8	7
77	A molecular material based on electropolymerized cobalt macrocycles for electrocatalytic hydrogen evolution. Physical Chemistry Chemical Physics, 2015, 17, 13374-13379.	2.8	6
78	Rhodium-based cathodes with ultra-low metal loading to increase the sustainability in the hydrogen evolution reaction. Journal of Environmental Chemical Engineering, 2022, 10, 107682.	6.7	6
79	Electrochemical and Computational Study of the Reactivity of a Diiron Azadithiolate Complex towards Protons in the Presence of Coordinating Anions. European Journal of Inorganic Chemistry, 2015, 2015, 4986-4990.	2.0	4
80	Insights into the radical-radical and radical-substrate dimerization processes for substituted phenylmethylenepyrans. Electrochimica Acta, 2019, 305, 304-311.	5.2	4
81	Why Cobalt macrocyclic complexes are not efficient catalysts for the oxygen reduction reaction, under acidic conditions. Electrochimica Acta, 2020, 358, 136854.	5.2	3
82	Electrochemically Driven Reduction of Carbon Dioxide Mediated by Monoâ€Reduced Moâ€Diimine Tetracarbonyl Complexes: Electrochemical, Spectroelectrochemical and Theoretical Studies. ChemElectroChem, 2021, 8, 1899-1910.	3.4	2
83	Electrochemistry of dinuclear, thiolate-bridged transition-metal compounds. 7. Electrochemical generation of isomers of [Mo2Cp2(CO)2(.mu.-SMe)2] and their reactivity toward isocyanide ligands [Erratum to document cited in CA115(2):17413c]. Organometallics, 1991, 10, 3412-3412.	2.3	0
84	Phosphorus Functionalized Carbenes: Synthesis and Coordination Properties. Phosphorus, Sulfur and Silicon and the Related Elements, 2008, 183, 669-670.	1.6	0