Marc Fontecave

List of Publications by Year in descending order

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7745 5574 25,770 251 82 150 citations h-index g-index papers 370 370 370 20260 docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	Splitting Water with Cobalt. Angewandte Chemie - International Edition, 2011, 50, 7238-7266.	13.8	1,231
2	From Hydrogenases to Noble Metal–Free Catalytic Nanomaterials for H ₂ Production and Uptake. Science, 2009, 326, 1384-1387.	12.6	886
3	A Janus cobalt-based catalytic material for electro-splitting of water. Nature Materials, 2012, 11, 802-807.	27.5	784
4	Engineering the Optical Response of the Titanium-MIL-125 Metal–Organic Framework through Ligand Functionalization. Journal of the American Chemical Society, 2013, 135, 10942-10945.	13.7	701
5	Biomimetic assembly and activation of [FeFe]-hydrogenases. Nature, 2013, 499, 66-69.	27.8	597
6	Bio-inspired hydrophobicity promotes CO2 reduction on a Cu surface. Nature Materials, 2019, 18, 1222-1227.	27.5	507
7	S-adenosylmethionine: nothing goes to waste. Trends in Biochemical Sciences, 2004, 29, 243-249.	7.5	496
8	Solar fuels generation and molecular systems: is it homogeneous or heterogeneous catalysis?. Chemical Society Reviews, 2013, 42, 2338-2356.	38.1	437
9	Mimicking hydrogenases: From biomimetics to artificial enzymes. Coordination Chemistry Reviews, 2014, 270-271, 127-150.	18.8	426
10	Molecular polypyridine-based metal complexes as catalysts for the reduction of CO ₂ . Chemical Society Reviews, 2017, 46, 761-796.	38.1	426
11	Cobaloximeâ€Based Photocatalytic Devices for Hydrogen Production. Angewandte Chemie - International Edition, 2008, 47, 564-567.	13.8	400
12	Proton Electroreduction Catalyzed by Cobaloximes:Â Functional Models for Hydrogenases. Inorganic Chemistry, 2005, 44, 4786-4795.	4.0	389
13	Cobalt and nickel diimine-dioxime complexes as molecular electrocatalysts for hydrogen evolution with low overvoltages. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 20627-20632.	7.1	388
14	H ₂ Evolution and Molecular Electrocatalysts: Determination of Overpotentials and Effect of Homoconjugation. Inorganic Chemistry, 2010, 49, 10338-10347.	4.0	380
15	Electroreduction of CO ₂ on Singleâ€Site Copperâ€Nitrogenâ€Doped Carbon Material: Selective Formation of Ethanol and Reversible Restructuration of the Metal Sites. Angewandte Chemie - International Edition, 2019, 58, 15098-15103.	13.8	369
16	Electrochemical Reduction of CO ₂ Catalyzed by Fe-N-C Materials: A Structure–Selectivity Study. ACS Catalysis, 2017, 7, 1520-1525.	11.2	363
17	Cobaloximes as Functional Models for Hydrogenases. 2. Proton Electroreduction Catalyzed by Difluoroborylbis(dimethylglyoximato)cobalt(II) Complexes in Organic Media. Inorganic Chemistry, 2007, 46, 1817-1824.	4.0	350
18	Molecular engineering of a cobalt-based electrocatalytic nanomaterial for H2 evolution under fully aqueous conditions. Nature Chemistry, 2013, 5, 48-53.	13.6	349

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19	Some general principles for designing electrocatalysts with hydrogenase activity. Coordination Chemistry Reviews, 2005, 249, 1518-1535.	18.8	321
20	Spontaneous activation of [FeFe]-hydrogenases by an inorganic [2Fe] active site mimic. Nature Chemical Biology, 2013, 9, 607-609.	8.0	316
21	Mechanistic Understanding of CO ₂ Reduction Reaction (CO2RR) Toward Multicarbon Products by Heterogeneous Copper-Based Catalysts. ACS Catalysis, 2020, 10, 1754-1768.	11.2	309
22	Artificial photosynthesis as a frontier technology for energy sustainability. Energy and Environmental Science, 2013, 6, 1074.	30.8	284
23	Artificial Photosynthesis: From Molecular Catalysts for Lightâ€driven Water Splitting to Photoelectrochemical Cells. Photochemistry and Photobiology, 2011, 87, 946-964.	2.5	273
24	A Fully Noble Metal-Free Photosystem Based on Cobalt-Polyoxometalates Immobilized in a Porphyrinic Metal–Organic Framework for Water Oxidation. Journal of the American Chemical Society, 2018, 140, 3613-3618.	13.7	272
25	Molecular Cobalt Complexes with Pendant Amines for Selective Electrocatalytic Reduction of Carbon Dioxide to Formic Acid. Journal of the American Chemical Society, 2017, 139, 3685-3696.	13.7	256
26	Noncovalent Modification of Carbon Nanotubes with Pyreneâ€Functionalized Nickel Complexes: Carbon Monoxide Tolerant Catalysts for Hydrogen Evolution and Uptake. Angewandte Chemie - International Edition, 2011, 50, 1371-1374.	13.8	254
27	Gas diffusion electrodes, reactor designs and key metrics of low-temperature CO2 electrolysers. Nature Energy, 2022, 7, 130-143.	39.5	237
28	Iron and activated oxygen species in biology: the basic chemistry. , 1999, 12, 195-199.		227
29	Efficient H2-producing photocatalytic systems based on cyclometalated iridium- and tricarbonylrhenium-diimine photosensitizers and cobaloxime catalysts. Dalton Transactions, 2008, , 5567.	3.3	226
30	A Dendritic Nanostructured Copper Oxide Electrocatalyst for the Oxygen Evolution Reaction. Angewandte Chemie - International Edition, 2017, 56, 4792-4796.	13.8	201
31	Maximizing the Photocatalytic Activity of Metal–Organic Frameworks with Aminated-Functionalized Linkers: Substoichiometric Effects in MIL-125-NH ₂ . Journal of the American Chemical Society, 2017, 139, 8222-8228.	13.7	195
32	Biogenesis of Fe-S Cluster by the Bacterial Suf System. Journal of Biological Chemistry, 2003, 278, 38352-38359.	3.4	194
33	Iron-sulfur clusters: ever-expanding roles. Nature Chemical Biology, 2006, 2, 171-174.	8.0	192
34	Water electrolysis and photoelectrolysis on electrodes engineered using biological and bio-inspired molecular systems. Energy and Environmental Science, 2010, 3, 727.	30.8	192
35	Biological Radical Sulfur Insertion Reactions. Chemical Reviews, 2003, 103, 2149-2166.	47.7	178
36	Photocatalytic Carbon Dioxide Reduction with Rhodiumâ€based Catalysts in Solution and Heterogenized within Metal–Organic Frameworks. ChemSusChem, 2015, 8, 603-608.	6.8	177

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37	Iron-Sulfur Cluster Assembly. Journal of Biological Chemistry, 2001, 276, 22604-22607.	3.4	176
38	NAD(P)H:flavin oxidoreductase of Escherichia coli. A ferric iron reductase participating in the generation of the free radical of ribonucleotide reductase Journal of Biological Chemistry, 1987, 262, 12325-12331.	3.4	172
39	Cobalt Stress in Escherichia coli. Journal of Biological Chemistry, 2007, 282, 30442-30451.	3.4	160
40	Iron–sulfur cluster biosynthesis in bacteria: Mechanisms of cluster assembly and transfer. Archives of Biochemistry and Biophysics, 2008, 474, 226-237.	3.0	159
41	Iron-Sulfur Cluster Biosynthesis. Journal of Biological Chemistry, 2006, 281, 16256-16263.	3.4	156
42	Terpyridine complexes of first row transition metals and electrochemical reduction of CO ₂ to CO. Physical Chemistry Chemical Physics, 2014, 16, 13635-13644.	2.8	154
43	Turning it off! Disfavouring hydrogen evolution to enhance selectivity for CO production during homogeneous CO ₂ reduction by cobalt–terpyridine complexes. Chemical Science, 2015, 6, 2522-2531.	7.4	152
44	MiaB Protein Is a Bifunctional Radical-S-Adenosylmethionine Enzyme Involved in Thiolation and Methylation of tRNA. Journal of Biological Chemistry, 2004, 279, 47555-47563.	3.4	149
45	Biochemical characterization of the HydE and HydG iron-only hydrogenase maturation enzymes fromThermatoga maritima. FEBS Letters, 2005, 579, 5055-5060.	2.8	142
46	Modelling NiFe hydrogenases: nickel-based electrocatalysts for hydrogen production. Dalton Transactions, 2008, , 315-325.	3.3	142
47	SufE Transfers Sulfur from SufS to SufB for Iron-Sulfur Cluster Assembly. Journal of Biological Chemistry, 2007, 282, 13342-13350.	3.4	140
48	Co-immobilization of a Rh Catalyst and a Keggin Polyoxometalate in the UiO-67 Zr-Based Metal–Organic Framework: In Depth Structural Characterization and Photocatalytic Properties for CO⟨sub⟩2⟨ sub⟩ Reduction. Journal of the American Chemical Society, 2020, 142, 9428-9438.	13.7	138
49	Activation of the Anaerobic Ribonucleotide Reductase from Escherichia coli. Journal of Biological Chemistry, 1997, 272, 24216-24223.	3.4	137
50	ErpA, an iron–sulfur (Fe–S) protein of the A-type essential for respiratory metabolism in <i>Escherichia coli</i> . Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 13626-13631.	7.1	134
51	The role of the maturase HydG in [FeFe]â€hydrogenase active site synthesis and assembly. FEBS Letters, 2009, 583, 506-511.	2.8	134
52	The Free Radical of the Anaerobic Ribonucleotide Reductase from Escherichia coli Is at Glycine 681. Journal of Biological Chemistry, 1996, 271, 6827-6831.	3.4	133
53	Chemistry for an essential biological process: the reduction of ferric iron. BioMetals, 2002, 15, 341-346.	4.1	133
54	NfuA, a New Factor Required for Maturing Fe/S Proteins in Escherichia coli under Oxidative Stress and Iron Starvation Conditions. Journal of Biological Chemistry, 2008, 283, 14084-14091.	3.4	132

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55	Electrochemical CO ₂ Reduction to Ethanol with Copper-Based Catalysts. ACS Energy Letters, 2021, 6, 694-706.	17.4	130
56	Porous dendritic copper: an electrocatalyst for highly selective CO ₂ reduction to formate in water/ionic liquid electrolyte. Chemical Science, 2017, 8, 742-747.	7.4	128
57	Low-cost high-efficiency system for solar-driven conversion of CO ₂ to hydrocarbons. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 9735-9740.	7.1	126
58	Biosynthesis and physiology of coenzyme Q in bacteria. Biochimica Et Biophysica Acta - Bioenergetics, 2014, 1837, 1004-1011.	1.0	123
59	The [Fe-Fe]-Hydrogenase Maturation Protein HydF from Thermotoga maritima Is a GTPase with an Iron-Sulfur Cluster. Journal of Biological Chemistry, 2006, 281, 769-774.	3.4	119
60	X-ray Structure of the [FeFe]-Hydrogenase Maturase HydE from Thermotoga maritima. Journal of Biological Chemistry, 2008, 283, 18861-18872.	3.4	119
61	Iron-Sulfur (Fe-S) Cluster Assembly. Journal of Biological Chemistry, 2010, 285, 23331-23341.	3.4	119
62	Two Fe-S clusters catalyze sulfur insertion by radical-SAM methylthiotransferases. Nature Chemical Biology, 2013, 9, 333-338.	8.0	113
63	MiaB, a Bifunctional Radical-S-Adenosylmethionine Enzyme Involved in the Thiolation and Methylation of tRNA, Contains Two Essential [4Fe-4S] Clusters. Biochemistry, 2007, 46, 5140-5147.	2.5	111
64	Identification of Eukaryotic and Prokaryotic Methylthiotransferase for Biosynthesis of 2-Methylthio-N6-threonylcarbamoyladenosine in tRNA. Journal of Biological Chemistry, 2010, 285, 28425-28433.	3.4	111
65	The Mechanism and Substrate Specificity of the NADPH:Flavin Oxidoreductase from Escherichia coli. Journal of Biological Chemistry, 1995, 270, 30392-30400.	3.4	109
66	Iron-Sulfur Center of Biotin Synthase and Lipoate Synthase. Biochemistry, 2000, 39, 4165-4173.	2.5	107
67	Physiologically relevant reconstitution of iron-sulfur cluster biosynthesis uncovers persulfide-processing functions of ferredoxin-2 and frataxin. Nature Communications, 2019, 10, 3566.	12.8	107
68	Ferric reductases or flavin reductases?. BioMetals, 1994, 7, 3-8.	4.1	103
69	Mechanisms of iron–sulfur cluster assembly: the SUF machinery. Journal of Biological Inorganic Chemistry, 2005, 10, 713-721.	2.6	102
70	A structural and functional mimic of the active site of NiFe hydrogenases. Chemical Communications, 2010, 46, 5876.	4.1	101
71	Enzymatic Modification of tRNAs. Journal of Biological Chemistry, 2002, 277, 13367-13370.	3.4	98
72	Phosphine Coordination to a Cobalt Diimine–Dioxime Catalyst Increases Stability during Light-Driven H ₂ Production. Inorganic Chemistry, 2012, 51, 2115-2120.	4.0	98

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73	Chiral-at-Metal Complexes as Asymmetric Catalysts. , 0, , 271-288.		96
74	Analysis of the Heteromeric CsdA-CsdE Cysteine Desulfurase, Assisting Fe-S Cluster Biogenesis in Escherichia coli. Journal of Biological Chemistry, 2005, 280, 26760-26769.	3.4	96
75	A Computational Study of the Mechanism of Hydrogen Evolution by Cobalt(Diimineâ€Dioxime) Catalysts. Chemistry - A European Journal, 2013, 19, 15166-15174.	3.3	91
76	Mechanistic studies of the SufS-SufE cysteine desulfurase: evidence for sulfur transfer from SufS to SufE. FEBS Letters, 2003, 555, 263-267.	2.8	90
77	Characterization of Arabidopsis thaliana SufE2 and SufE3. Journal of Biological Chemistry, 2007, 282, 18254-18264.	3.4	89
78	Native Escherichia coli SufA, Coexpressed with SufBCDSE, Purifies as a [2Feâ^2S] Protein and Acts as an Feâ^S Transporter to Feâ^S Target Enzymes. Journal of the American Chemical Society, 2009, 131, 6149-6153.	13.7	89
79	Adenosylmethionine as a source of 5′-deoxyadenosyl radicals. Current Opinion in Chemical Biology, 2001, 5, 506-512.	6.1	88
80	High-Current-Density CO2-to-CO Electroreduction on Ag-Alloyed Zn Dendrites at Elevated Pressure. Joule, 2020, 4, 395-406.	24.0	88
81	Formate is the hydrogen donor for the anaerobic ribonucleotide reductase from Escherichia coli Proceedings of the National Academy of Sciences of the United States of America, 1995, 92, 8759-8762.	7.1	87
82	Quinolinate synthetase, an iron-sulfur enzyme in NAD biosynthesis. FEBS Letters, 2005, 579, 3737-3743.	2.8	87
83	Cobalt stress in Escherichia coli and Salmonella enterica: molecular bases for toxicity and resistance. Metallomics, 2011, 3, 1130.	2.4	87
84	Crystal Structure of NAD(P)H:Flavin Oxidoreductase from Escherichia coli,. Biochemistry, 1999, 38, 7040-7049.	2.5	86
85	SufA/IscA: reactivity studies of a class of scaffold proteins involved in [Fe-S] cluster assembly. Journal of Biological Inorganic Chemistry, 2004, 9, 828-838.	2.6	86
86	A Bioinspired Nickel(bis-dithiolene) Complex as a Homogeneous Catalyst for Carbon Dioxide Electroreduction. ACS Catalysis, 2018, 8, 2030-2038.	11.2	86
87	SufA from Erwinia chrysanthemi. Journal of Biological Chemistry, 2003, 278, 17993-18001.	3.4	85
88	The Anaerobic Escherichia coli Ribonucleotide Reductase. Journal of Biological Chemistry, 1996, 271, 9410-9416.	3.4	83
89	The anaerobic ribonucleoside triphosphate reductase from Escherichia coli requires S-adenosylmethionine as a cofactor Proceedings of the National Academy of Sciences of the United States of America, 1990, 87, 3314-3318.	7.1	80
90	Molecular organization, biochemical function, cellular role and evolution of NfuA, an atypical Feâ€S carrier. Molecular Microbiology, 2012, 86, 155-171.	2.5	80

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91	Cobaloxime-Based Artificial Hydrogenases. Inorganic Chemistry, 2014, 53, 8071-8082.	4.0	78
92	Enantioselective Sulfoxidation as a Probe for a Metal-Based Mechanism in H2O2-Dependent Oxidations Catalyzed by a Diiron Complex. Inorganic Chemistry, 1999, 38, 1261-1268.	4.0	76
93	Benchmarking of oxygen evolution catalysts on porous nickel supports. Joule, 2021, 5, 1281-1300.	24.0	74
94	Artificial hydrogenases: biohybrid and supramolecular systems for catalytic hydrogen production or uptake. Current Opinion in Chemical Biology, 2015, 25, 36-47.	6.1	71
95	Versatile functionalization of carbon electrodes with a polypyridine ligand: metallation and electrocatalytic H ⁺ and CO ₂ reduction. Chemical Communications, 2015, 51, 2995-2998.	4.1	70
96	From molecular copper complexes to composite electrocatalytic materials for selective reduction of CO ₂ to formic acid. Journal of Materials Chemistry A, 2015, 3, 3901-3907.	10.3	69
97	Solarâ€Driven Electrochemical CO ₂ Reduction with Heterogeneous Catalysts. Advanced Energy Materials, 2021, 11, 2002652.	19.5	67
98	[Ni(xbsms)Ru(CO)2Cl2]: A Bioinspired Nickelâ^'Ruthenium Functional Model of [NiFe] Hydrogenase. Inorganic Chemistry, 2006, 45, 4334-4336.	4.0	66
99	The NAD(P)H:flavin oxidoreductase from Escherichia coli as a source of superoxide radicals Journal of Biological Chemistry, 1994, 269, 8182-8188.	3.4	66
100	Spectroscopic Characterization of the Bridging Amine in the Active Site of [FeFe] Hydrogenase Using Isotopologues of the H-Cluster. Journal of the American Chemical Society, 2015, 137, 12744-12747.	13.7	64
101	From Enzyme Maturation to Synthetic Chemistry: The Case of Hydrogenases. Accounts of Chemical Research, 2015, 48, 2380-2387.	15.6	63
102	Assembly of 2Fe-2S and 4Fe-4S Clusters in the Anaerobic Ribonucleotide Reductase from Escherichia coli. Journal of the American Chemical Society, 1999, 121, 6344-6350.	13.7	62
103	DNA Repair and Free Radicals, New Insights into the Mechanism of Spore Photoproduct Lyase Revealed by Single Amino Acid Substitution. Journal of Biological Chemistry, 2008, 283, 36361-36368.	3.4	62
104	Cyclopentadienyl Ruthenium–Nickel Catalysts for Biomimetic Hydrogen Evolution: Electrocatalytic Properties and Mechanistic DFT Studies. Chemistry - A European Journal, 2009, 15, 9350-9364.	3.3	61
105	Carbonâ€Nanotubeâ€Supported Copper Polyphthalocyanine for Efficient and Selective Electrocatalytic CO ₂ Reduction to CO. ChemSusChem, 2020, 13, 173-179.	6.8	60
106	Reductive Cleavage of S-Adenosylmethionine by Biotin Synthase from Escherichia coli. Journal of Biological Chemistry, 2002, 277, 13449-13454.	3.4	59
107	MiaB Protein from Thermotoga maritima. Journal of Biological Chemistry, 2003, 278, 29515-29524.	3.4	59
108	Dinuclear Nickel–Ruthenium Complexes as Functional Bio-Inspired Models of [NiFe] Hydrogenases. European Journal of Inorganic Chemistry, 2007, 2007, 2613-2626.	2.0	59

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109	Post-translational Modification of Ribosomal Proteins. Journal of Biological Chemistry, 2010, 285, 5792-5801.	3.4	59
110	The Activating Component of the Anaerobic Ribonucleotide Reductase from Escherichia coli. Journal of Biological Chemistry, 2000, 275, 15669-15675.	3.4	58
111	Thin Films of Fully Noble Metal-Free POM@MOF for Photocatalytic Water Oxidation. ACS Applied Materials & Samp; Interfaces, 2019, 11, 47837-47845.	8.0	58
112	The Anaerobic Ribonucleotide Reductase from Escherichia coli. Journal of Biological Chemistry, 1999, 274, 31291-31296.	3.4	57
113	A genetic analysis of the response of <i>Escherichia coli</i> to cobalt stress. Environmental Microbiology, 2010, 12, 2846-2857.	3.8	57
114	TtcA a new tRNA-thioltransferase with an Fe-S cluster. Nucleic Acids Research, 2014, 42, 7960-7970.	14.5	57
115	Immobilization of a Full Photosystem in the Largeâ€Pore MILâ€101 Metal–Organic Framework for CO ₂ reduction. ChemSusChem, 2018, 11, 3315-3322.	6.8	57
116	The lipoate synthase from Escherichia coli is an iron-sulfur protein. FEBS Letters, 1999, 453, 25-28.	2.8	56
117	Mesoporous α-Fe2O3 thin films synthesized via the sol–gel process for light-driven water oxidation. Physical Chemistry Chemical Physics, 2012, 14, 13224.	2.8	55
118	Combined Experimental–Theoretical Characterization of the Hydrido-Cobaloxime [HCo(dmgH) ₂ (P <i>n</i> Bu ₃)]. Inorganic Chemistry, 2012, 51, 7087-7093.	4.0	55
119	Keeping sight of copper in single-atom catalysts for electrochemical carbon dioxide reduction. Nature Communications, 2022, 13, 2280.	12.8	55
120	Catalytic hydrogen production by a Ni–Ru mimic of NiFe hydrogenases involves a proton-coupled electron transfer step. Chemical Communications, 2013, 49, 5004.	4.1	54
121	Biotin Synthase Is a Pyridoxal Phosphate-Dependent Cysteine Desulfurase. Biochemistry, 2002, 41, 9145-9152.	2.5	53
122	The CsdA cysteine desulphurase promotes Fe/S biogenesis by recruiting Suf components and participates to a new sulphur transfer pathway by recruiting CsdL (exâ€YgdL), a ubiquitinâ€modifyingâ€like protein. Molecular Microbiology, 2009, 74, 1527-1542.	2.5	52
123	S-Adenosylmethionine-dependent radical-based modification of biological macromolecules. Current Opinion in Structural Biology, 2010, 20, 684-692.	5.7	52
124	Synthesis, Characterization, and DFT Analysis of Bis-Terpyridyl-Based Molecular Cobalt Complexes. Inorganic Chemistry, 2017, 56, 5930-5940.	4.0	52
125	Dinucleotide Spore Photoproduct, a Minimal Substrate of the DNA Repair Spore Photoproduct Lyase Enzyme from Bacillus subtilis. Journal of Biological Chemistry, 2006, 281, 26922-26931.	3.4	51
126	Effect of Cations on the Structure and Electrocatalytic Response of Polyoxometalate-Based Coordination Polymers. Crystal Growth and Design, 2017, 17, 1600-1609.	3.0	50

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127	Zn–Cu Alloy Nanofoams as Efficient Catalysts for the Reduction of CO ₂ to Syngas Mixtures with a Potentialâ€Independent H ₂ /CO Ratio. ChemSusChem, 2019, 12, 511-517.	6.8	49
128	Rhenium Complexes Based on 2-Pyridyl-1,2,3-triazole Ligands: A New Class of CO ₂ Reduction Catalysts. Inorganic Chemistry, 2017, 56, 2966-2976.	4.0	48
129	Engineering an [FeFe]-Hydrogenase: Do Accessory Clusters Influence O ₂ Resistance and Catalytic Bias?. Journal of the American Chemical Society, 2018, 140, 5516-5526.	13.7	48
130	Deoxyribonucleotide synthesis in anaerobic microorganisms: The class III ribonucleotide reductase. Progress in Molecular Biology and Translational Science, 2002, 72, 95-127.	1.9	47
131	The NAD(P)H:flavin oxidoreductase from Escherichia coli as a source of superoxide radicals. Journal of Biological Chemistry, 1994, 269, 8182-8.	3.4	47
132	Activation of Class III Ribonucleotide Reductase fromE. coli. The Electron Transfer from the Ironâ°Sulfur Center toS-Adenosylmethionineâ€. Biochemistry, 2001, 40, 6713-6719.	2.5	46
133	A Soluble Metabolon Synthesizes the Isoprenoid Lipid Ubiquinone. Cell Chemical Biology, 2019, 26, 482-492.e7.	5.2	46
134	Activation of Class III Ribonucleotide Reductase by Flavodoxin:Â A Protein Radical-Driven Electron Transfer to the Ironâ [^] Sulfur Center. Biochemistry, 2001, 40, 3730-3736.	2.5	45
135	The iron-sulfur center of biotin synthase: site-directed mutants. Journal of Biological Inorganic Chemistry, 2002, 7, 83-93.	2.6	45
136	Chiral-at-Metal Ruthenium Complex as a Metalloligand for Asymmetric Catalysis. Inorganic Chemistry, 2007, 46, 5354-5360.	4.0	45
137	ubil, a New Gene in Escherichia coli Coenzyme Q Biosynthesis, Is Involved in Aerobic C5-hydroxylation. Journal of Biological Chemistry, 2013, 288, 20085-20092.	3.4	45
138	Electroâ€Assisted Reduction of CO ₂ to CO and Formaldehyde by (TOA) ₆ [αâ€SiW ₁₁ O ₃₉ Co(_)] Polyoxometalate. European Journal of Inorganic Chemistry, 2015, 2015, 3642-3648.	2.0	45
139	A Bioinspired Molybdenum Complex as a Catalyst for the Photo―and Electroreduction of Protons. Angewandte Chemie - International Edition, 2015, 54, 14090-14093.	13.8	45
140	CO ₂ Reduction to CO in Water: Carbon Nanotube–Gold Nanohybrid as a Selective and Efficient Electrocatalyst. ChemSusChem, 2016, 9, 2317-2320.	6.8	45
141	tRNA-modifying MiaE protein from <i>Salmonella typhimurium</i> is a nonheme diiron monooxygenase. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 13295-13300.	7.1	44
142	Nonredox thiolation in tRNA occurring via sulfur activation by a [4Fe-4S] cluster. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 7355-7360.	7.1	44
143	⟨i>In vivo⟨ i> [⟨scp>F⟨ scp>eâ€⟨scp>S⟨ scp>] cluster acquisition by ⟨scp> scR⟨ scp> and ⟨scp>NsrR⟨ scp>, two stress regulators in ⟨i>⟨scp>E⟨ scp>scherichia coli⟨ i>⟩. Molecular Microbiology, 2013, 87, 493-508.	2.5	43
144	Electroreduction of CO ₂ on Singleâ€Site Copperâ€Nitrogenâ€Doped Carbon Material: Selective Formation of Ethanol and Reversible Restructuration of the Metal Sites. Angewandte Chemie, 2019, 131, 15242-15247.	2.0	43

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145	The SUF iron-sulfur cluster biosynthetic machinery: Sulfur transfer from the SUFS-SUFE complex to SUFA. FEBS Letters, 2007, 581, 1362-1368.	2.8	42
146	4-Demethylwyosine Synthase from Pyrococcus abyssi Is a Radical-S-adenosyl-I-methionine Enzyme with an Additional [4Fe-4S]+2 Cluster That Interacts with the Pyruvate Co-substrate. Journal of Biological Chemistry, 2012, 287, 41174-41185.	3.4	42
147	Site-isolated manganese carbonyl on bipyridine-functionalities of periodic mesoporous organosilicas: efficient CO ₂ photoreduction and detection of key reaction intermediates. Chemical Science, 2017, 8, 8204-8213.	7.4	42
148	Bimetallic effects on Zn-Cu electrocatalysts enhance activity and selectivity for the conversion of CO2 to CO. Chem Catalysis, 2021 , 1 , $663-680$.	6.1	42
149	A Dendritic Nanostructured Copper Oxide Electrocatalyst for the Oxygen Evolution Reaction. Angewandte Chemie, 2017, 129, 4870-4874.	2.0	41
150	Designing a Zn–Ag Catalyst Matrix and Electrolyzer System for CO ₂ Conversion to CO and Beyond. Advanced Materials, 2022, 34, e2103963.	21.0	41
151	Pyranopterin Related Dithiolene Molybdenum Complexes as Homogeneous Catalysts for CO ₂ Photoreduction. Angewandte Chemie - International Edition, 2018, 57, 17033-17037.	13.8	40
152	A bioinspired molybdenum–copper molecular catalyst for CO ₂ electroreduction. Chemical Science, 2020, 11, 5503-5510.	7.4	40
153	The spore photoproduct lyase repairs the 5S- and not the 5R-configured spore photoproduct DNA lesion. Chemical Communications, 2006, , 445-447.	4.1	39
154	Mechanism of hydrogen evolution catalyzed by NiFe hydrogenases: insights from a Ni–Ru model compound. Dalton Transactions, 2010, 39, 3043-3049.	3.3	39
155	FAD/Folate-Dependent tRNA Methyltransferase: Flavin as a New Methyl-Transfer Agent. Journal of the American Chemical Society, 2012, 134, 19739-19745.	13.7	39
156	Artificially maturated [FeFe] hydrogenase from Chlamydomonas reinhardtii: a HYSCORE and ENDOR study of a non-natural H-cluster. Physical Chemistry Chemical Physics, 2015, 17, 5421-5430.	2.8	39
157	The NAD(P)H:Flavin Oxidoreductase from Escherichia coli. Journal of Biological Chemistry, 1999, 274, 18252-18260.	3.4	38
158	The PLP-dependent biotin synthase from Escherichia coli: mechanistic studies. FEBS Letters, 2002, 532, 465-468.	2.8	38
159	ubil, a New Gene Required for Aerobic Growth and Proliferation in Macrophage, Is Involved in Coenzyme Q Biosynthesis in Escherichia coli and Salmonella enterica Serovar Typhimurium. Journal of Bacteriology, 2014, 196, 70-79.	2.2	38
160	Structural and functional characterization of the hydrogenase-maturation HydF protein. Nature Chemical Biology, 2017, 13, 779-784.	8.0	38
161	Electroreduction of CO ₂ to Formate with Low Overpotential using Cobalt Pyridine Thiolate Complexes. Angewandte Chemie - International Edition, 2020, 59, 15726-15733.	13.8	38
162	Bioinspired Tungsten Dithiolene Catalysts for Hydrogen Evolution: A Combined Electrochemical, Photochemical, and Computational Study. Journal of Physical Chemistry B, 2015, 119, 13524-13533.	2.6	37

#	Article	IF	CITATIONS
163	New Cobaltâ€Bisterpyridyl Catalysts for Hydrogen Evolution Reaction. ChemCatChem, 2017, 9, 2099-2105.	3.7	36
164	Porous–Hybrid Polymers as Platforms for Heterogeneous Photochemical Catalysis. ACS Applied Materials & Samp; Interfaces, 2016, 8, 19994-20002.	8.0	35
165	The UbiK protein is an accessory factor necessary for bacterial ubiquinone (UQ) biosynthesis and forms a complex with the UQ biogenesis factor UbiJ. Journal of Biological Chemistry, 2017, 292, 11937-11950.	3.4	35
166	Crystallization-Induced Asymmetric Transformation of Chiral-at-metal Ruthenium(II) Complexes Bearing Achiral Ligands. Chemistry - A European Journal, 2004, 10, 2548-2554.	3.3	34
167	Ubiquinone Biosynthesis over the Entire O ₂ Range: Characterization of a Conserved O ₂ -Independent Pathway. MBio, 2019, 10, .	4.1	34
168	Nickel Complexes Based on Molybdopterin-like Dithiolenes: Catalysts for CO ₂ Electroreduction. Organometallics, 2019, 38, 1344-1350.	2.3	34
169	Synthesis, crystal structure, magnetic properties and reactivity of a Ni–Ru model of NiFe hydrogenases with a pentacoordinated triplet (S=1) Nill center. Journal of Organometallic Chemistry, 2009, 694, 2866-2869.	1.8	33
170	Dye-sensitized nanostructured crystalline mesoporous tin-doped indium oxide films with tunable thickness for photoelectrochemical applications. Journal of Materials Chemistry A, 2013, 1, 8217.	10.3	33
171	A cobalt complex with a bioinspired molybdopterin-like ligand: a catalyst for hydrogen evolution. Dalton Transactions, 2016, 45, 14754-14763.	3.3	33
172	Cu/Cu ₂ O Electrodes and CO ₂ Reduction to Formic Acid: Effects of Organic Additives on Surface Morphology and Activity. Chemistry - A European Journal, 2016, 22, 14029-14035.	3.3	33
173	Is the NAD(P)H:Flavin Oxidoreductase from a Member of the Ferredoxin-NADP+ Reductase Family?. Journal of Biological Chemistry, 1996, 271, 16656-16661.	3.4	32
174	DNA Detection through Signal Amplification by Using NADH:Flavin Oxidoreductase and Oligonucleotide-Flavin Conjugates as Cofactors. Angewandte Chemie - International Edition, 2005, 44, 2764-2767.	13.8	31
175	On the Role of Additional [4Fe-4S] Clusters with a Free Coordination Site in Radical-SAM Enzymes. Frontiers in Chemistry, 2017, 5, 17.	3.6	31
176	Controlling Hydrogen Evolution during Photoreduction of CO ₂ to Formic Acid Using [Rh(R-bpy)(Cp*)Cl] ⁺ Catalysts: A Structureâ€"Activity Study. Inorganic Chemistry, 2019, 58, 6893-6903.	4.0	31
177	Cp* ^{â€"} â€Rutheniumâ€"Nickelâ€Based H ₂ â€Evolving Electrocatalysts as Bioâ€inspired Models of NiFe Hydrogenases. European Journal of Inorganic Chemistry, 2011, 2011, 1094-1099.	2.0	30
178	A metal-binding site in the catalytic subunit of anaerobic ribonucleotide reductase. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 3826-3831.	7.1	29
179	Bioinspired catalysis at the crossroads between biology and chemistry: A remarkable example of an electrocatalytic material mimicking hydrogenases. Comptes Rendus Chimie, 2011, 14, 362-371.	0.5	29
180	Reaction of the NAD(P)H:Flavin Oxidoreductase fromEscherichia coliwith NADPH and Riboflavin: Identification of Intermediatesâ€. Biochemistry, 1998, 37, 11879-11887.	2.5	28

#	Article	IF	CITATIONS
181	Activation of the Anaerobic Ribonucleotide Reductase by S-Adenosylmethionine. ChemBioChem, 2005, 6, 1960-1962.	2.6	28
182	A Simple and Nonâ€Destructive Method for Assessing the Incorporation of Bipyridine Dicarboxylates as Linkers within Metal–Organic Frameworks. Chemistry - A European Journal, 2016, 22, 3713-3718.	3.3	28
183	The methylthiolation reaction mediated by the Radical-SAM enzymes. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2012, 1824, 1223-1230.	2.3	27
184	Activation of a Unique Flavin-Dependent tRNA-Methylating Agent. Biochemistry, 2013, 52, 8949-8956.	2.5	27
185	Molecular Investigation of Iron–Sulfur Cluster Assembly Scaffolds under Stress. Biochemistry, 2014, 53, 7867-7869.	2.5	27
186	Functionalization of Carbon Nanotubes with Nickel Cyclam for the Electrochemical Reduction of CO ₂ . ChemSusChem, 2020, 13, 6449-6456.	6.8	27
187	Understanding the Photocatalytic Reduction of CO ₂ with Heterometallic Molybdenum(V) Phosphate Polyoxometalates in Aqueous Media. ACS Catalysis, 2022, 12, 453-464.	11.2	27
188	Method for Preparing New Flavin Derivatives: Â Synthesis of Flavinâ "Thymine Nucleotides and Flavinâ" Oligonucleotide Adducts. Journal of Organic Chemistry, 1997, 62, 3520-3528.	3.2	26
189	The [4Fe–4S] cluster of quinolinate synthase from <i>Escherichia coli</i> ilnvestigation of cluster ligands. FEBS Letters, 2008, 582, 2937-2944.	2.8	26
190	Chemical assembly of multiple metal cofactors: The heterologously expressed multidomain [FeFe]-hydrogenase from Megasphaera elsdenii. Biochimica Et Biophysica Acta - Bioenergetics, 2016, 1857, 1734-1740.	1.0	26
191	Artificial Hydrogenases Based on Cobaloximes and Heme Oxygenase. ChemPlusChem, 2016, 81, 1083-1089.	2.8	25
192	Reactivity of the Excited States of the H-Cluster of FeFe Hydrogenases. Journal of the American Chemical Society, 2016, 138, 13612-13618.	13.7	25
193	The O2-independent pathway of ubiquinone biosynthesis is essential for denitrification in Pseudomonas aeruginosa. Journal of Biological Chemistry, 2020, 295, 9021-9032.	3.4	25
194	Iron-sulfur interconversions in the anaerobic ribonucleotide reductase from Escherichia coli. Journal of Biological Inorganic Chemistry, 1999, 4, 614-620.	2.6	24
195	Activation of Class III Ribonucleotide Reductase by Thioredoxin. Journal of Biological Chemistry, 2001, 276, 9587-9589.	3.4	24
196	Fluorescent Deazaflavin-Oligonucleotide Probes for Selective Detection of DNA. Angewandte Chemie - International Edition, 2002, 41, 486-489.	13.8	24
197	A Diferric Peroxo Complex with an Unprecedented Spin Configuration: AnS=2 System Arising from anS=5/2, 1/2 Pair. Angewandte Chemie - International Edition, 2002, 41, 617-620.	13.8	24
198	Maturation of [FeFe]-hydrogenases: Structures and mechanisms. International Journal of Hydrogen Energy, 2010, 35, 10750-10760.	7.1	24

#	Article	IF	CITATIONS
199	An EPR/HYSCORE, Mössbauer, and resonance Raman study of the hydrogenase maturation enzyme HydF: a model for N-coordination to [4Fe–4S] clusters. Journal of Biological Inorganic Chemistry, 2014, 19, 75-84.	2.6	24
200	Further Characterization of the [FeFe]â€Hydrogenase Maturase HydG. European Journal of Inorganic Chemistry, 2011, 2011, 1121-1127.	2.0	23
201	Carbon Dioxide Reduction: A Bioinspired Catalysis Approach. Accounts of Chemical Research, 2021, 54, 4250-4261.	15.6	23
202	Origin of the Boosting Effect of Polyoxometalates in Photocatalysis: The Case of CO ₂ Reduction by a Rh-Containing Metal–Organic Framework. ACS Catalysis, 2022, 12, 9244-9255.	11.2	22
203	Structural and Functional Characterization of 4â€Hydroxyphenylacetate 3â€Hydroxylase from <i>Escherichia coli</i> . ChemBioChem, 2020, 21, 163-170.	2.6	21
204	Molecular Inhibition for Selective CO $<$ sub $>$ 2 $<$ /sub $>$ Conversion. Angewandte Chemie - International Edition, 2022, 61, .	13.8	21
205	Light-driven bioinspired water splitting: Recent developments in photoelectrode materials. Comptes Rendus Chimie, 2011, 14, 799-810.	0.5	20
206	An integrative computational model for large-scale identification of metalloproteins in microbial genomes: a focus on ironâ€"sulfur cluster proteins. Metallomics, 2014, 6, 1913-1930.	2.4	20
207	Ruthenium–cobalt dinuclear complexes as photocatalysts for CO ₂ reduction. Chemical Communications, 2017, 53, 5040-5043.	4.1	19
208	Shigella IpaA Binding to Talin Stimulates Filopodial Capture and Cell Adhesion. Cell Reports, 2019, 26, 921-932.e6.	6.4	17
209	Bioinspired Artificial [FeFe]-Hydrogenase with a Synthetic H-Cluster. ACS Catalysis, 2019, 9, 4495-4501.	11.2	17
210	Understanding Life as Molecules: Reductionism Versus Vitalism. Angewandte Chemie - International Edition, 2010, 49, 4016-4019.	13.8	16
211	Iron–sulfur biology invades tRNA modification: the case of U34 sulfuration. Nucleic Acids Research, 2021, 49, 3997-4007.	14.5	16
212	Selective Ethylene Production from CO ₂ and CO Reduction via Engineering Membrane Electrode Assembly with Porous Dendritic Copper Oxide. ACS Applied Materials & Diterfaces, 2022, 14, 31933-31941.	8.0	16
213	Structural Evidence for a [4Feâ€5S] Intermediate in the Nonâ€Redox Desulfuration of Thiouracil. Angewandte Chemie - International Edition, 2021, 60, 424-431.	13.8	15
214	DNA Detection through Signal Amplification by Using NADH:Flavin Oxidoreductase and Oligonucleotide-Flavin Conjugates as Cofactors. Angewandte Chemie, 2005, 117, 2824-2827.	2.0	14
215	The Zn center of the anaerobic ribonucleotide reductase from E. coli. Journal of Biological Inorganic Chemistry, 2009, 14, 923-933.	2.6	14
216	The flavin reductase ActVB fromStreptomyces coelicolor: Characterization of the electron transferase activity of the flavoprotein form. FEBS Letters, 2005, 579, 2817-2820.	2.8	13

#	Article	IF	Citations
217	Synthesis and Reactivity of a Bioâ€inspired Dithiolene Ligand and its Mo Oxo Complex. Chemistry - A European Journal, 2016, 22, 4447-4453.	3.3	13
218	Spectroscopic investigations of a semi-synthetic [FeFe] hydrogenase with propane di-selenol as bridging ligand in the binuclear subsite: comparison to the wild type and propane di-thiol variants. Journal of Biological Inorganic Chemistry, 2018, 23, 481-491.	2.6	13
219	Electroreduction of CO 2 to Formate with Low Overpotential using Cobalt Pyridine Thiolate Complexes. Angewandte Chemie, 2020, 132, 15856-15863.	2.0	13
220	Advancing the Anode Compartment for Energy Efficient CO ₂ Reduction at Neutral pH. ChemElectroChem, 2021, 8, 2726-2736.	3.4	13
221	Characterization of the DNA repair spore photoproduct lyase enzyme from Clostridium acetobutylicum: A radical-SAM enzyme. Comptes Rendus Chimie, 2007, 10, 756-765.	0.5	12
222	From Iron and Cysteine to Iron-Sulfur Clusters: the Biogenesis Protein Machineries. EcoSal Plus, 2008, 3, .	5.4	12
223	FeNC catalysts for CO ₂ electroreduction to CO: effect of nanostructured carbon supports. Sustainable Energy and Fuels, 2019, 3, 1833-1840.	4.9	12
224	Flavin-oligonucleotide conjugates: sequence specific photocleavage of DNA. Chemical Communications, 1998, , 2457-2458.	4.1	11
225	Flavin Conjugates for Delivery of Peptide Nucleic Acids. ChemBioChem, 2012, 13, 2593-2598.	2.6	11
226	Theoretical Modeling of Lowâ€Energy Electronic Absorption Bands in Reduced Cobaloximes. ChemPhysChem, 2014, 15, 2951-2958.	2.1	11
227	The unusual ring scission of a quinoxaline-pyran-fused dithiolene system related to molybdopterin. Dalton Transactions, 2017, 46, 4161-4164.	3.3	10
228	Enzyme Activation with a Synthetic Catalytic Coâ€enzyme Intermediate: Nucleotide Methylation by Flavoenzymes. Angewandte Chemie - International Edition, 2017, 56, 12523-12527.	13.8	10
229	Synthesis, electrochemical and spectroscopic properties of ruthenium(<scp>ii</scp>) complexes containing 2,6-di(1H-imidazo[4,5-f][1,10]phenanthrolin-2-yl)aryl ligands. New Journal of Chemistry, 2016, 40, 1704-1714.	2.8	9
230	Immobilization of a Molecular Re Complex on MOFâ€derived Hierarchical Porous Carbon for CO ₂ Electroreduction in Water/Ionic Liquid Electrolyte. ChemSusChem, 2020, 13, 6418-6425.	6.8	9
231	Coupling Electrocatalytic CO ₂ Reduction with Thermocatalysis Enables the Formation of a Lactone Monomer. ChemSusChem, 2021, 14, 2198-2204.	6.8	9
232	Dihydrouridine in the Transcriptome: New Life for This Ancient RNA Chemical Modification. ACS Chemical Biology, 2022, 17, 1638-1657.	3.4	9
233	Copper-Substituted NiTiO ₃ Ilmenite-Type Materials for Oxygen Evolution Reaction. ACS Applied Materials & Discourse Applied & Discourse	8.0	8
234	A Heterogeneous Recyclable Rhodiumâ€based Catalyst for the Reduction of Pyridine Dinucleotides and Flavins. ChemCatChem, 2020, 12, 1236-1243.	3.7	8

#	Article	IF	CITATIONS
235	Pyranopterin Related Dithiolene Molybdenum Complexes as Homogeneous Catalysts for CO 2 Photoreduction. Angewandte Chemie, 2018, 130, 17279-17283.	2.0	7
236	New flavin and deazaflavin oligonucleotide conjugates for the amperometric detection of DNA hybridization. Chemical Communications, 2004, , 1624-1625.	4.1	6
237	Catalytic Transfer of Chiral Information from an Organic Compound to a Coordination Complex. ChemCatChem, 2010, 2, 1533-1534.	3.7	6
238	A Single Molecular Stoichiometric Pâ€Source for Phaseâ€Selective Synthesis of Crystalline and Amorphous Iron Phosphide Nanocatalysts. ChemNanoMat, 2020, 6, 1208-1219.	2.8	6
239	An enzymatic activation of formaldehyde for nucleotide methylation. Nature Communications, 2021, 12, 4542.	12.8	6
240	Mechanisms of formation of free radicals in biological catalysis. Comptes Rendus De L'Academie Des Sciences - Series Ilc: Chemistry, 2001, 4, 531-538.	0.1	5
241	Sequence-Specific Nucleic Acid Damage Induced by Peptide Nucleic Acid Conjugates That Can Be Enzyme-Activated. Angewandte Chemie - International Edition, 2006, 45, 6859-6861.	13.8	5
242	New Light on Methylthiolation Reactions. Chemistry and Biology, 2008, 15, 209-210.	6.0	5
243	Electrochemical CO ₂ reduction on Cu single atom catalyst and Cu nanoclusters: an <i>ab initio</i> approach. Physical Chemistry Chemical Physics, 2022, 24, 15767-15775.	2.8	4
244	From Nickel Foam to Highly Active NiFeâ€based Oxygen Evolution Catalysts. ChemElectroChem, 2022, 9, .	3.4	3
245	Molecular Inhibition for Selective CO ₂ Conversion. Angewandte Chemie, 2022, 134, .	2.0	3
246	Artificial maturation of [FeFe] hydrogenase in a redox polymer film. Chemical Communications, 2021, 57, 1750-1753.	4.1	2
247	Methylations: A Radical Mechanism. Chemistry and Biology, 2011, 18, 559-561.	6.0	1
248	Iron–Sulfur Clusters in "Radical SAM―Enzymes: Spectroscopy and Coordination. Biological Magnetic Resonance, 2010, , 53-82.	0.4	1
249	Biological Radical Sulfur Insertion Reactions. ChemInform, 2003, 34, no.	0.0	0
250	Structural Evidence for a [4Feâ€5S] Intermediate in the Nonâ€Redox Desulfuration of Thiouracil. Angewandte Chemie, 2021, 133, 428-435.	2.0	0
251	A Soluble Metabolon Synthesizes the Isoprenoid Lipid Ubiquinone. SSRN Electronic Journal, 0, , .	0.4	0