Michael J Maroney

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/5075811/publications.pdf

Version: 2024-02-01

128 papers	6,551 citations	47006 47 h-index	71685 76 g-index
215 all docs	215 docs citations	215 times ranked	6019 citing authors

#	Article	IF	Citations
1	Superoxide Dismutases and Superoxide Reductases. Chemical Reviews, 2014, 114, 3854-3918.	47.7	717
2	X-ray spectroscopic studies of nickel complexes, with application to the structure of nickel sites in hydrogenases. Inorganic Chemistry, 1991, 30, 920-928.	4.0	304
3	Nonredox Nickel Enzymes. Chemical Reviews, 2014, 114, 4206-4228.	47.7	235
4	Examination of the Nickel Site Structure and Reaction Mechanism inStreptomycesseoulensisSuperoxide Dismutase. Biochemistry, 1999, 38, 3744-3752.	2.5	159
5	Cysteine dioxygenase: structure and mechanism. Chemical Communications, 2007, , 3338.	4.1	155
6	Biochemical characterization of purified OmcS, a c-type cytochrome required for insoluble Fe(III) reduction in Geobacter sulfurreducens. Biochimica Et Biophysica Acta - Bioenergetics, 2011, 1807, 404-412.	1.0	154
7	Nickel Ions Inhibit Histone Demethylase JMJD1A and DNA Repair Enzyme ABH2 by Replacing the Ferrous Iron in the Catalytic Centers. Journal of Biological Chemistry, 2010, 285, 7374-7383.	3.4	130
8	Structural investigations of nickel complexes with nitrogen and sulfur donor ligands. Inorganic Chemistry, 1990, 29, 4779-4788.	4.0	121
9	Isolation, characterization and gene sequence analysis of a membrane-associated 89ÂkDa Fe(III) reducing cytochrome c from Geobacter sulfurreducens. Biochemical Journal, 2001, 359, 147-152.	3.7	121
10	The hydrogen binding site in hydrogenase: 35-GHz ENDOR and XAS studies of the nickel-C (reduced and) Tj ETQq0 0 0 rgBT /Overlock 10	13.7	120
11	Structure/function relationships in nickel metallobiochemistry. Current Opinion in Chemical Biology, 1999, 3, 188-199.	6.1	116
12	Structure of the Ni Sites in Hydrogenases by X-ray Absorption Spectroscopy. Species Variation and the Effects of Redox Poise. Journal of the American Chemical Society, 1996, 118, 11155-11165.	13.7	113
13	Direct Evidence of Active-Site Reduction and Photodriven Catalysis in Sensitized Hydrogenase Assemblies. Journal of the American Chemical Society, 2012, 134, 11108-11111.	13.7	113
14	Spectroscopic and Computational Studies of Ni Superoxide Dismutase:Â Electronic Structure Contributions to Enzymatic Function. Journal of the American Chemical Society, 2005, 127, 5449-5462.	13.7	110
15	Ni(II) and Co(II) Sensing by Escherichia coli RcnR. Journal of the American Chemical Society, 2008, 130, 7592-7606.	13.7	110
16	Structural Examination of the Nickel Site inChromatium vinosumHydrogenase:Â Redox State Oscillations and Structural Changes Accompanying Reductive Activation and CO Bindingâ€. Biochemistry, 2000, 39, 7468-7479.	2.5	106
17	An x-ray absorption spectroscopic study of nickel redox chemistry in hydrogenase. Journal of the American Chemical Society, 1993, 115, 3576-3585.	13.7	105
18	EXAFS studies of binuclear iron proteins: hemerythrin and ribonucleotide reductase. Journal of the American Chemical Society, 1987, 109, 7857-7864.	13.7	104

#	Article	IF	Citations
19	Structurally diverse manganese(III) Schiff base complexes: solution speciation via paramagnetic proton NMR spectroscopy and electrochemistry. Inorganic Chemistry, 1989, 28, 2044-2051.	4.0	102
20	Lactate racemase is a nickel-dependent enzyme activated by a widespread maturation system. Nature Communications, 2014, 5, 3615.	12.8	91
21	Oxidation of nickel thiolate ligands by dioxygen. Inorganic Chemistry, 1993, 32, 977-987.	4.0	89
22	Modeling and experiment yields the structure of acireductone dioxygenase from Klebsiella pneumoniae. Nature Structural Biology, 2002, 9, 966-972.	9.7	87
23	A new structural paradigm in copper resistance in Streptococcus pneumoniae. Nature Chemical Biology, 2013, 9, 177-183.	8.0	85
24	Proton NMR probes of the binuclear iron cluster in hemerythrin. Journal of the American Chemical Society, 1986, 108, 6871-6879.	13.7	81
25	Ligand oxidation in a nickel thiolate complex: a model for the deactivation of hydrogenase by oxygen. Journal of the American Chemical Society, 1989, 111, 8323-8325.	13.7	79
26	Expression, Reconstitution, and Mutation of RecombinantStreptomycescoelicolorNiSOD. Journal of the American Chemical Society, 2004, 126, 460-461.	13.7	76
27	S K-Edge X-ray Absorption Spectroscopic Investigation of the Ni-Containing Superoxide Dismutase Active Site:â€‰ New Structural Insight into the Mechanism. Journal of the American Chemical Society, 2004, 126, 3018-3019.	13.7	72
28	Nickel-Specific Response in the Transcriptional Regulator,EscherichiacoliNikR. Journal of the American Chemical Society, 2007, 129, 5085-5095.	13.7	72
29	Role of Conserved Tyrosine Residues in NiSOD Catalysis: A Case of Convergent Evolution. Biochemistry, 2009, 48, 3354-3369.	2.5	72
30	Ligand oxidation in a nickel thiolate complex. Journal of the American Chemical Society, 1989, 111, 5974-5976.	13.7	70
31	Isolation, characterization and gene sequence analysis of a membrane-associated 89ÂkDa Fe(III) reducing cytochrome c from Geobacter sulfurreducens. Biochemical Journal, 2001, 359, 147.	3.7	68
32	Pulsed ENDOR and ESEEM Study of [Bis(maleonitriledithiolato)nickel]-:Â An Investigation into the Ligand Electronic Structure. Inorganic Chemistry, 1998, 37, 1361-1367.	4.0	65
33	XAS Investigation of the Structure and Function of Ni in Acireductone Dioxygenaseâ€. Biochemistry, 2002, 41, 6761-6769.	2.5	64
34	Nickel coordination is regulated by the DNA-bound state of NikR. Nature Structural Biology, 2003, 10, 126-130.	9.7	64
35	Structure and Redox Chemistry of Analogous Nickel Thiolato and Selenolato Complexes: Implications for the Nickel Sites in Hydrogenases. Inorganic Chemistry, 1994, 33, 4831-4839.	4.0	61
36	Synthesis and structure of a trinickeliron cluster featuring single and double thiolato bridges. Inorganic Chemistry, 1992, 31, 5053-5055.	4.0	58

#	Article	IF	Citations
37	Heterologous Expression, Purification, and Characterization of Recombinant Rat Cysteine Dioxygenase. Journal of Biological Chemistry, 2005, 280, 9865-9869.	3.4	58
38	One Protein, Two Enzymes Revisited: A Structural Entropy Switch Interconverts the Two Isoforms of Acireductone Dioxygenase. Journal of Molecular Biology, 2006, 363, 823-834.	4.2	58
39	A Novel Regulatory Metal Binding Domain Is Present in the C Terminus of Arabidopsis Zn2+-ATPase HMA2*. Journal of Biological Chemistry, 2006, 281, 33881-33891.	3.4	58
40	Communication between the Zinc and Nickel Sites in Dimeric HypA: Metal Recognition and pH Sensing. Journal of the American Chemical Society, 2010, 132, 10338-10351.	13.7	57
41	Theoretical Study of the Oxidation of Nickel Thiolate Complexes by O2. Inorganic Chemistry, 1996, 35, 1073-1076.	4.0	55
42	Crystallographic and X-ray absorption spectroscopic characterization of <i>Helicobacter pylori</i> UreE bound to Ni2+ and Zn2+ reveals a role for the disordered C-terminal arm in metal trafficking. Biochemical Journal, 2012, 441, 1017-1035.	3.7	52
43	Specific Metal Recognition in Nickel Trafficking. Biochemistry, 2012, 51, 7816-7832.	2.5	52
44	EXAFS investigations of the nickel site in Thiocapsa roseopersicina hydrogenase: evidence for a novel nickel-iron-sulfur cluster. Journal of the American Chemical Society, 1991, 113, 3962-3972.	13.7	51
45	Cu(I) Luminescence from the Tetranuclear Cu4S4Cofactor of a Synthetic 4-Helix Bundle. Journal of the American Chemical Society, 2005, 127, 7678-7679.	13.7	51
46	Selenium versus sulfur: Reversibility of chemical reactions and resistance to permanent oxidation in proteins and nucleic acids. Free Radical Biology and Medicine, 2018, 127, 228-237.	2.9	50
47	X-ray absorption spectra of nickel complexes with N3S2 chromophores and spectroscopic studies on hydride and carbon monoxide binding at these nickel centers: relevance to the reactivity of the nickel site(s) in [FeNi] hydrogenases. Inorganic Chemistry, 1992, 31, 3612-3619.	4.0	48
48	X-ray Absorption and Resonance Raman Studies of Methyl-Coenzyme M Reductase Indicating That Ligand Exchange and Macrocycle Reduction Accompany Reductive Activationâ€. Journal of the American Chemical Society, 2002, 124, 13242-13256.	13.7	48
49	Nickel superoxide dismutase: structural and functional roles of Cys2 and Cys6. Journal of Biological Inorganic Chemistry, 2010, 15, 795-807.	2.6	48
50	The mechanism of a formaldehyde-sensing transcriptional regulator. Scientific Reports, 2016, 6, 38879.	3.3	46
51	Role of the N-terminus in Determining Metal-Specific Responses in the <i>E. coli</i> Ni- and Co-Responsive Metalloregulator, RcnR. Journal of the American Chemical Society, 2012, 134, 7081-7093.	13.7	42
52	Coordination chemistry of copper macrocyclic complexes: synthesis and characterization of copper complexes of TIM. Inorganic Chemistry, 1984, 23, 2252-2261.	4.0	41
53	A Dynamic Zn Site in Helicobacter pylori HypA:â€‰ A Potential Mechanism for Metal-Specific Protein Activity. Journal of the American Chemical Society, 2007, 129, 16-17.	13.7	41
54	Physical Characterization of the Manganese-Sensing Pneumococcal Surface Antigen Repressor from <i>Streptococcus pneumoniae</i>. Biochemistry, 2013, 52, 7689-7701.	2.5	41

#	Article	IF	Citations
55	Probes of the Catalytic Site of Cysteine Dioxygenase. Journal of Biological Chemistry, 2006, 281, 15774-15779.	3.4	40
56	Nickel binding properties of Helicobacter pylori UreF, an accessory protein in the nickel-based activation of urease. Journal of Biological Inorganic Chemistry, 2014, 19, 319-334.	2.6	40
57	Characterization of Metal Binding in the Active Sites of Acireductone Dioxygenase Isoforms from Klebsiella ATCC 8724. Biochemistry, 2008, 47, 2428-2438.	2.5	39
58	Oxidation of a Dimeric Nickel Thiolate Complex with O2. Inorganic Chemistry, 1996, 35, 1992-1995.	4.0	38
59	An XAS Investigation of Product and Inhibitor Complexes of Ni-Containing GlxI fromEscherichia coli:Â Mechanistic Implicationsâ€. Biochemistry, 2001, 40, 4569-4582.	2.5	38
60	Spectroscopic and model studies of the Ni-Fe hydrogenase reaction mechanism. Journal of Biological Inorganic Chemistry, 2001, 6, 453-459.	2.6	37
61	Redox chemistry of cyclopentadienylcobalt tetraazabutadienes. Characterization of 19-electron anionic complexes. Journal of the American Chemical Society, 1984, 106, 4144-4151.	13.7	33
62	Nitric oxide adduct of the binuclear iron center in deoxyhemerythrin from Phascolopsis gouldii. Analog of a putative intermediate in the oxygenation reaction. Journal of the American Chemical Society, 1985, 107, 3382-3384.	13.7	33
63	XAS Investigation of the Nickel Active Site Structure in Escherichia coli Glyoxalase I. Inorganic Chemistry, 2000, 39, 2962-2963.	4.0	33
64	Unraveling the Helicobacter pylori UreG zinc binding site using X-ray absorption spectroscopy (XAS) and structural modeling. Journal of Biological Inorganic Chemistry, 2012, 17, 353-361.	2.6	32
65	EXAFS studies of the B2 subunit of the ribonucleotide reductase from E. coli. Journal of the American Chemical Society, 1986, 108, 6832-6834.	13.7	29
66	Structural model for the binding of iron by anthracycline drugs. Inorganic Chemistry, 1989, 28, 173-175.	4.0	29
67	Nickel Superoxide Dismutase: Structural and Functional Roles of His1 and Its H-Bonding Network. Biochemistry, 2015, 54, 1016-1027.	2.5	28
68	Metal-dependent allosteric activation and inhibition on the same molecular scaffold: theÂcopper sensor CopY from <i>Streptococcus pneumoniae</i>. Chemical Science, 2018, 9, 105-118.	7.4	27
69	Protonation and Alkylation of a Dinuclear Nickel Thiolate Complex. Inorganic Chemistry, 1998, 37, 4166-4167.	4.0	26
70	Inverse Solvent Isotope Effects Demonstrate Slow Aquo Release from Hypoxia Inducible Factor-Prolyl Hydroxylase (PHD2). Biochemistry, 2012, 51, 6654-6666.	2.5	26
71	Dynamic HypA zinc site is essential for acid viability and proper urease maturation in Helicobacter pylori. Metallomics, 2015, 7, 674-682.	2.4	26
72	Selective Oxidations of a Dithiolate Complex Produce a Mixed Sulfonate/Thiolate Complex. Inorganic Chemistry, 2006, 45, 1906-1908.	4.0	25

#	Article	IF	Citations
73	The structure and function of nickel sites in metalloproteins. , 1998, , 1-65.		23
74	Ligand Oxidations in High-Spin Nickel Thiolate Complexes and Zinc Analogues. Inorganic Chemistry, 2004, 43, 7726-7734.	4.0	23
75	Coordination changes and auto-hydroxylation of FIH-1: Uncoupled O2-activation in a human hypoxia sensor. Journal of Inorganic Biochemistry, 2008, 102, 2120-2129.	3.5	22
76	Immobilization of Active Hydrogenases by Encapsulation in Polymeric Porous Gels. Nano Letters, 2005, 5, 2085-2087.	9.1	21
77	Spectroscopic and computational investigation of three Cys-to-Ser mutants of nickel superoxide dismutase: insight into the roles played by the Cys2 and Cys6 active-site residues. Journal of Biological Inorganic Chemistry, 2010, 15, 777-793.	2.6	21
78	Paramagnetic proton NMR spectra of hemerythrin from Phascolopsis gouldii. Journal of the American Chemical Society, 1984, 106, 6445-6446.	13.7	20
79	X-ray absorption spectroscopic study of the reductive activation of Thiocapsa roseopersicina hydrogenase. Journal of the American Chemical Society, 1991, 113, 6288-6289.	13.7	20
80	Use of XAS for the elucidation of metal structure and function: applications to nickel biochemistry, molecular toxicology, and carcinogenesis.. Environmental Health Perspectives, 2002, 110, 705-708.	6.0	20
81	X-ray Absorption Spectroscopy Structural Investigation of Early Intermediates in the Mechanism of DNA Repair by Human ABH2. Biochemistry, 2011, 50, 5067-5076.	2.5	20
82	Unique Effect of Cu(II) in the Metal-Induced Amyloid Formation of Î²-2-Microglobulin. Biochemistry, 2014, 53, 1263-1274.	2.5	20
83	Structure and dynamics of Helicobacter pylori nickel-chaperone HypA: an integrated approach using NMR spectroscopy, functional assays and computational tools. Journal of Biological Inorganic Chemistry, 2018, 23, 1309-1330.	2.6	20
84	Iron chelating capability of physcion, a yellow pigment from Aspergillus ruber. Journal of Agricultural and Food Chemistry, 1980, 28, 1139-1141.	5.2	19
85	A Semisynthetic Strategy Leads to Alteration of the Backbone Amidate Ligand in the NiSOD Active Site. Journal of the American Chemical Society, 2015, 137, 9044-9052.	13.7	19
86	X-ray absorption spectroscopic structural investigations of the nickel site in reduced Thiocapsa roseopersicina hydrogenase. Journal of the American Chemical Society, 1990, 112, 7067-7068.	13.7	18
87	Structural Investigations of the Nickel-Induced Inhibition of Truncated Constructs of the JMJD2 Family of Histone Demethylases Using X-ray Absorption Spectroscopy. Biochemistry, 2013, 52, 4168-4183.	2.5	18
88	Effects of Select Histidine to Cysteine Mutations on Transcriptional Regulation by <i>Escherichia coli</i> RcnR. Biochemistry, 2013, 52, 84-97.	2.5	18
89	Photochemistry of cyclopentadienylcobalt 1,4-diaryltetraazadienes. Examples of CH, CF, and CC bond breaking. Inorganic Chemistry, 1984, 23, 2968-2973.	4.0	17
90	An X-ray Absorption Spectroscopic Structural Investigation of the Nickel Site inEscherichia coliNikA Protein. Inorganic Chemistry, 1998, 37, 5952-5955.	4.0	17

#	Article	IF	Citations
91	Nickel Ligation of the N-Terminal Amine of HypA Is Required for Urease Maturation in <i>Helicobacter pylori</i>. Biochemistry, 2017, 56, 1105-1116.	2.5	17
92	Coupled carbon-hydrogen bond heterolysis and tautomerism in a nickel macrocyclic complex with a thiolate ligand. Journal of the American Chemical Society, 1991, 113, 6342-6343.	13.7	16
93	Glutamate Ligation in the Ni(II)- and Co(II)-Responsive <i>Escherichia coli</i> Transcriptional Regulator, RcnR. Inorganic Chemistry, 2017, 56, 6459-6476.	4.0	16
94	Structure-function analyses of metal-binding sites of HypA reveal residues important for hydrogenase maturation in Helicobacter pylori. PLoS ONE, 2017, 12, e0183260.	2.5	16
95	The Role of Nickel in Hydrogenases: Implications for a Heterodinuclear Active Site. Comments on Inorganic Chemistry, 1995, 17, 347-375.	5.2	14
96	Exhaustive oxidation of a nickel dithiolate complex: some mechanistic insights en route to sulfate formation. Dalton Transactions, 2012, 41, 804-816.	3.3	14
97	Nickel as a virulence factor in the Class I bacterial carcinogen, Helicobacter pylori. Seminars in Cancer Biology, 2021, 76, 143-155.	9.6	14
98	X-ray absorption spectroscopic studies of the sulfide complexes of hemerythrin. Inorganic Chemistry, 1989, 28, 1342-1348.	4.0	13
99	Metal substitutions at the diiron site of hemerythrin. A dicobalt(II) derivative. Inorganic Chemistry, 1992, 31, 1359-1366.	4.0	13
100	The <i>Helicobacter pylori</i> HypAÂ·UreE₂ Complex Contains a Novel High-Affinity Ni(II)-Binding Site. Biochemistry, 2018, 57, 2932-2942.	2.5	13
101	Electronic structure of copper complexes containing .alpha.-diimine ligands. Inorganic Chemistry, 1984, 23, 2261-2270.	4.0	12
102	Co(II) and Ni(II) binding of the Escherichia coli transcriptional repressor RcnR orders its N terminus, alters helix dynamics, and reduces DNA affinity. Journal of Biological Chemistry, 2018, 293, 324-332.	3.4	10
103	The Role of Mixed Amine/Amide Ligation in Nickel Superoxide Dismutase. Inorganic Chemistry, 2018, 57, 12521-12535.	4.0	10
104	Inner-Sphere Complexation of Cobalt(II) 2,9-Dimethyl-1,10-phenanthroline ([Co(neo)]2+) with Commercial and Solâˆ’Gel Derived Silica Gel Surfaces. Inorganic Chemistry, 2003, 42, 312-320.	4.0	9
105	Nickel Superoxide Dismutase. , 2007, , 417-443.		9
106	The PqrR Transcriptional Repressor of Pseudomonas aeruginosa Transduces Redox Signals via an Iron-Containing Prosthetic Group. Journal of Bacteriology, 2009, 191, 6709-6721.	2.2	9
107	Redox Metalloenzymes Featuring S-Donor Ligands Hydrogenase: A Case Study. ACS Symposium Series, 1996, , 74-100.	0.5	8
108	Insights into the Role of Nickel in Hydrogenase. Advances in Chemistry Series, 1996, , 21-60.	0.6	7

#	Article	IF	Citations
109	Chloride Supports O2 Activation in the D201G Facial Triad Variant of Factor-Inhibiting Hypoxia Inducible Factor, an Î±-Ketoglutarate Dependent Oxygenase. Inorganic Chemistry, 2018, 57, 12588-12595.	4.0	6
110	Ni(II) Sensing by RcnR Does Not Require an FrmR-Like Intersubunit Linkage. Inorganic Chemistry, 2019, 58, 13639-13653.	4.0	6
111	An XAS investigation of the nickel site structure in the transcriptional regulator InrS. Journal of Inorganic Biochemistry, 2017, 177, 352-358.	3.5	5
112	Structural, Photophysical, and Photochemical Characterization of Zinc Protoporphyrin IX in a Dimeric Variant of an Iron Storage Protein: Insights into the Mechanism of Photosensitized H₂ Generation. Journal of Physical Chemistry B, 2019, 123, 6740-6749.	2.6	5
113	Bioinorganic Chemistry of Nickel. Inorganics, 2019, 7, 131.	2.7	5
114	Synthesis, crystal structures and Hirshfeld surface analyses of two new Salen type nickel/sodium heteronuclear complexes. Journal of Molecular Structure, 2016, 1110, 119-127.	3.6	3
115	Non-thiolate ligation of nickel by nucleotide-free UreG of Klebsiella aerogenes. Journal of Biological Inorganic Chemistry, 2017, 22, 497-503.	2.6	3
116	Reinventing the Wheel: The NiSOD Story. 2-Oxoglutarate-Dependent Oxygenases, 2017, , 170-199.	0.8	3
117	Pro5 is not essential for the formation of â€˜Ni-hookâ€™ in nickel superoxide dismutase. Journal of Inorganic Biochemistry, 2022, 234, 111858.	3.5	3
118	The Role of Selenocysteine in Ni, Fe Hydrogenases: Biophysical and Synthetic Model Studies. Phosphorus, Sulfur and Silicon and the Related Elements, 1998, 136, 361-366.	1.6	2
119	The Ni-Fe hydrogenase reaction mechanism. Journal of Biological Inorganic Chemistry, 2001, 6, 452-452.	2.6	2
120	50 Years of Metals in Biology: the Gordon Research Conference. Metallomics, 2012, 4, 401.	2.4	2
121	The Electronic Structure of the Metal Active Site Determines the Geometric Structure and Function of the Metalloregulator NikR. Biochemistry, 2019, 58, 3585-3591.	2.5	2
122	Polydentate Thiolate and Selenolate Ligands, RN(CH2 CH2 S(Se)-)2 , and their Dimeric and MOnonuclear Ni(II) Complexes. Inorganic Syntheses, 2007, , 98-107.	0.3	1
123	Nailing down hydrogenase. Nature Chemical Biology, 2013, 9, 11-12.	8.0	1
124	Complexation of the nickel and cobalt transcriptional regulator RcnR with DNA. Acta Crystallographica Section F, Structural Biology Communications, 2020, 76, 25-30.	0.8	1
125	X-ray absorption spectroscopic studies of the sulfide complexes of hemerythrin. Physica B: Condensed Matter, 1989, 158, 101-102.	2.7	0
126	Ligand oxidation in a nickel thiolate complex [Erratum to document cited in CA111(12):108039u]. Journal of the American Chemical Society, 1989, 111, 8326-8326.	13.7	0

#	Article	IF	Citations
127	DNA and Metal Binding of the E. coli Transcription Factor RcnR. FASEB Journal, 2008, 22, .	0.5	0
128	General chemistry of metals, sampling, analytical methods, and speciation. , 2022, , 15-54.		0