Stephen W Ragsdale

List of Publications by Year
in descending order

179 papers	13,868 citations	26610 56 h-index	22808 112 g-index
191 all docs	191 docs citations	191 times ranked	11854 citing authors

#	Article	IF	Citations
1	Frontiers, Opportunities, and Challenges in Biochemical and Chemical Catalysis of CO₂ Fixation. Chemical Reviews, 2013, 113, 6621-6658.	23.0	1,786
2	Acetogenesis and the Woodâ€“Ljungdahl pathway of CO2 fixation. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2008, 1784, 1873-1898.	1.1	971
3	The Many Faces of Vitamin B12: Catalysis by Cobalamin-Dependent Enzymes. Annual Review of Biochemistry, 2003, 72, 209-247.	5.0	672
4	A Ni-Fe-Cu Center in a Bifunctional Carbon Monoxide Dehydrogenase/ Acetyl-CoA Synthase. Science, 2002, 298, 567-572.	6.0	519
5	Structure, Function, and Mechanism of the Nickel Metalloenzymes, CO Dehydrogenase, and Acetyl-CoA Synthase. Chemical Reviews, 2014, 114, 4149-4174.	23.0	470
6	Efficient and Clean Photoreduction of CO₂ to CO by Enzyme-Modified TiO₂ Nanoparticles Using Visible Light. Journal of the American Chemical Society, 2010, 132, 2132-2133.	6.6	392
7	Life with Carbon Monoxide. Critical Reviews in Biochemistry and Molecular Biology, 2004, 39, 165-195.	2.3	346
8	Nickel-Containing Carbon Monoxide Dehydrogenase/Acetyl-CoA Synthase[,]. Chemical Reviews, 1996, 96, 2515-2540.	23.0	333
9	Nickel-based Enzyme Systems. Journal of Biological Chemistry, 2009, 284, 18571-18575.	1.6	288
10	<i>Enzymology of the Woodâ€“Ljungdahl Pathway of Acetogenesis</i>. Annals of the New York Academy of Sciences, 2008, 1125, 129-136.	1.8	285
11	The complete genome sequence of<i>Moorella thermoacetica</i>(f.<i>Clostridium) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 34	1.8	256
12	Enzymology of the Acetyl-CoA Pathway of CO₂Fixation. Critical Reviews in Biochemistry and Molecular Biology, 1991, 26, 261-300.	2.3	248
13	Pyruvate Ferredoxin Oxidoreductase and Its Radical Intermediate. Chemical Reviews, 2003, 103, 2333-2346.	23.0	205
14	Visible light-driven CO₂reduction by enzyme coupled CdS nanocrystals. Chemical Communications, 2012, 48, 58-60.	2.2	184
15	Rapid and Efficient Electrocatalytic CO₂/CO Interconversions by <i>Carboxydothermus </i><i>hydrogenoformans</i> CO Dehydrogenase I on an Electrode. Journal of the American Chemical Society, 2007, 129, 10328-10329.	6.6	181
16	Metals and Their Scaffolds To Promote Difficult Enzymatic Reactions. Chemical Reviews, 2006, 106, 3317-3337.	23.0	177
17	The Role of Pyruvate Ferredoxin Oxidoreductase in Pyruvate Synthesis during Autotrophic Growth by the Wood-Ljungdahl Pathway. Journal of Biological Chemistry, 2000, 275, 28494-28499.	1.6	162
18	CO2 photoreduction at enzyme-modified metal oxide nanoparticles. Energy and Environmental Science, 2011, 4, 2393.	15.6	155

#	Article	IF	Citations
19	Mechanism of reductive activation of cobalamin-dependent methionine synthase: an electron paramagnetic resonance spectroelectrochemical study. Biochemistry, 1990, 29, 1129-1135.	1.2	154
20	Nickel and the carbon cycle. Journal of Inorganic Biochemistry, 2007, 101, 1657-1666.	1.5	153
21	The radical mechanism of biological methane synthesis by methyl-coenzyme M reductase. Science, 2016, 352, 953-958.	6.0	129
22	Xenon in and at the End of the Tunnel of Bifunctional Carbon Monoxide Dehydrogenase/Acetyl-CoA Synthase[,]. Biochemistry, 2008, 47, 3474-3483.	1.2	116
23	The metalloclusters of carbon monoxide dehydrogenase/acetyl-CoA synthase: a story in pictures. Journal of Biological Inorganic Chemistry, 2004, 9, 511-515.	1.1	112
24	Nickel biochemistry. Current Opinion in Chemical Biology, 1998, 2, 208-215.	2.8	109
25	Characterization of the nickel-iron-carbon complex formed by reaction of carbon monoxide with the carbon monoxide dehydrogenase from Clostridium thermoaceticum by Q-band ENDOR. Biochemistry, 1991, 30, 431-435.	1.2	104
26	Spectroelectrochemical studies of the corrinoid/iron-sulfur protein involved in acetyl coenzyme A synthesis by Clostridium thermoaceticum. Biochemistry, 1989, 28, 9080-9087.	1.2	99
27	Selective Visible-Light-Driven CO₂ Reduction on a p-Type Dye-Sensitized NiO Photocathode. Journal of the American Chemical Society, 2014, 136, 13518-13521.	6.6	97
28	Channeling of Carbon Monoxide during Anaerobic Carbon Dioxide Fixationâ€. Biochemistry, 2000, 39, 1274-1277.	1.2	89
29	Characterization of a Three-Component Vanillate O -Demethylase from Moorella thermoacetica. Journal of Bacteriology, 2001, 183, 3276-3281.	1.0	89
30	Rapid Kinetic Studies of Acetyl-CoA Synthesis:Â Evidence Supporting the Catalytic Intermediacy of a Paramagnetic NiFeC Species in the Autotrophic Woodâˆ'Ljungdahl Pathwayâ€. Biochemistry, 2002, 41, 1807-1819.	1.2	89
31	Thiol-disulfide Redox Dependence of Heme Binding and Heme Ligand Switching in Nuclear Hormone Receptor Rev-erbÎ². Journal of Biological Chemistry, 2011, 286, 4392-4403.	1.6	85
32	Evidence That NiNi Acetyl-CoA Synthase Is Active and That the CuNi Enzyme Is Notâ€. Biochemistry, 2004, 43, 3944-3955.	1.2	83
33	Fast and Selective Photoreduction of CO₂ to CO Catalyzed by a Complex of Carbon Monoxide Dehydrogenase, TiO₂, and Ag Nanoclusters. ACS Catalysis, 2018, 8, 2789-2795.	5.5	82
34	The Eastern and Western branches of the Wood/Ljungdahl pathway: how the East and West were won. BioFactors, 1997, 6, 3-11.	2.6	81
35	Characterization of the B12- and Iron-Sulfur-containing Reductive Dehalogenase fromDesulfitobacterium chlororespirans. Journal of Biological Chemistry, 2001, 276, 40991-40997.	1.6	77
36	Visualizing molecular juggling within a B12-dependent methyltransferase complex. Nature, 2012, 484, 265-269.	13.7	77

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37	How Light-Harvesting Semiconductors Can Alter the Bias of Reversible Electrocatalysts in Favor of H₂ Production and CO₂ Reduction. Journal of the American Chemical Society, 2013, 135, 15026-15032.	6.6	77
38	Kinetic evidence that carbon monoxide dehydrogenase catalyzes the oxidation of carbon monoxide and the synthesis of acetyl-CoA at separate metal clusters. Journal of the American Chemical Society, 1993, 115, 11646-11647.	6.6	76
39	Crystal structure of a methyltetrahydrofolate- and corrinoid-dependent methyltransferase. Structure, 2000, 8, 817-830.	1.6	76
40	Unleashing Hydrogenase Activity in Carbon Monoxide Dehydrogenase/Acetyl-CoA Synthase and Pyruvate:Ferredoxin Oxidoreductaseâ€. Biochemistry, 1996, 35, 15814-15821.	1.2	75
41	Evidence That the Heme Regulatory Motifs in Heme Oxygenase-2 Serve as a Thiol/Disulfide Redox Switch Regulating Heme Binding*. Journal of Biological Chemistry, 2007, 282, 21056-21067.	1.6	74
42	Identification of a Thiol/Disulfide Redox Switch in the Human BK Channel That Controls Its Affinity for Heme and CO. Journal of Biological Chemistry, 2010, 285, 20117-20127.	1.6	72
43	Characterization of the carbon monoxide binding site of carbon monoxide dehydrogenase from Clostridium thermoaceticum by infrared spectroscopy. Journal of the American Chemical Society, 1992, 114, 8713-8715.	6.6	70
44	Mechanism of the Clostridium thermoaceticum Pyruvate:Ferredoxin Oxidoreductase:â€‰ Evidence for the Common Catalytic Intermediacy of the Hydroxyethylthiamine Pyropyrosphate Radical. Biochemistry, 1997, 36, 8484-8494.	1.2	70
45	Crystallographic Snapshots of Cyanide- and Water-Bound C-Clusters from Bifunctional Carbon Monoxide Dehydrogenase/Acetyl-CoA Synthase,. Biochemistry, 2009, 48, 7432-7440.	1.2	70
46	Functional copper at the acetyl-CoA synthase active site. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 3689-3694.	3.3	69
47	Heme Regulatory Motifs in Heme Oxygenase-2 Form a Thiol/Disulfide Redox Switch That Responds to the Cellular Redox State. Journal of Biological Chemistry, 2009, 284, 20556-20561.	1.6	68
48	Metal centers in the anaerobic microbial metabolism of CO and CO2. Metallomics, 2011, 3, 797.	1.0	67
49	Role of the [4Fe-4S] Cluster in Reductive Activation of the Cobalt Center of the Corrinoid Ironâ˘'Sulfur Protein from Clostridium thermoaceticum during Acetate Biosynthesis. Biochemistry, 1998, 37, 5689-5698.	1.2	66
50	EPR Spectroscopic and Computational Characterization of the Hydroxyethylidene-Thiamine Pyrophosphate Radical Intermediate of Pyruvate:Ferredoxin Oxidoreductaseâ€. Biochemistry, 2006, 45, 7122-7131.	1.2	66
51	Biochemical and Spectroscopic Studies of the Electronic Structure and Reactivity of a Methylâ˘'Ni Species Formed on Methyl-Coenzyme M Reductase. Journal of the American Chemical Society, 2007, 129, 11030-11032.	6.6	65
52	On the Assignment of Nickel Oxidation States of the Ox1, Ox2 Forms of Methylâ˘'Coenzyme M Reductase. Journal of the American Chemical Society, 2000, 122, 182-183.	6.6	64
53	Mechanistic Studies of Methane Biogenesis by Methyl-Coenzyme M Reductase:Â Evidence that Coenzyme B Participates in Cleaving the Câ˘'S Bond of Methyl-Coenzyme Mâ€. Biochemistry, 2001, 40, 12875-12885.	1.2	64
54	Activation of Methyl-SCoM Reductase to High Specific Activity after Treatment of Whole Cells with Sodium Sulfideâ€. Biochemistry, 1998, 37, 2639-2647.	1.2	63

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55	The Role of an Iron-Sulfur Cluster in an Enzymatic Methylation Reaction. Journal of Biological Chemistry, 1999, 274, 11513-11518.	1.6	63
56	Cryoreduction of Methyl-Coenzyme M Reductase:Â EPR Characterization of Forms, MCRox1and MCRred1. Journal of the American Chemical Society, 2001, 123, 5853-5860.	6.6	61
57	Mechanism of Carbon Monoxide Oxidation by the Carbon Monoxide Dehydrogenase/Acetyl-CoA Synthase from Clostridium thermoaceticum:â€‰ Kinetic Characterization of the Intermediates. Biochemistry, 1997, 36, 11241-11251.	1.2	60
58	EPR and Infrared Spectroscopic Evidence That a Kinetically Competent Paramagnetic Intermediate is Formed When Acetyl-Coenzyme A Synthase Reacts with CO. Journal of the American Chemical Society, 2005, 127, 13500-13501.	6.6	60
59	A Unified Electrocatalytic Description of the Action of Inhibitors of Nickel Carbon Monoxide Dehydrogenase. Journal of the American Chemical Society, 2013, 135, 2198-2206.	6.6	60
60	Evidence That Carbon Monoxide Is an Obligatory Intermediate in Anaerobic Acetyl-CoA Synthesisâ€. Biochemistry, 1996, 35, 12119-12125.	1.2	56
61	Comparison of Apo- and Heme-bound Crystal Structures of a Truncated Human Heme Oxygenase-2. Journal of Biological Chemistry, 2007, 282, 37624-37631.	1.6	56
62	Nickelâ€"Ironâ€"Sulfur Active Sites: Hydrogenase and Co Dehydrogenase. Advances in Inorganic Chemistry, 1999, 47, 283-333.	0.4	55
63	Waterâ^'Gas Shift Reaction Catalyzed by Redox Enzymes on Conducting Graphite Platelets. Journal of the American Chemical Society, 2009, 131, 14154-14155.	6.6	55
64	Structural Insight into Methyl-Coenzyme M Reductase Chemistry Using Coenzyme B Analogues,. Biochemistry, 2010, 49, 7683-7693.	1.2	55
65	Nickel Oxidation States of F430Cofactor in Methyl-Coenzyme M Reductase. Journal of the American Chemical Society, 2004, 126, 4068-4069.	6.6	53
66	Catalysis of Methyl Group Transfers Involving Tetrahydrofolate and B12. Vitamins and Hormones, 2008, 79, 293-324.	0.7	52
67	¹³C NMR Characterization of an Exchange Reaction between CO and CO₂ Catalyzed by Carbon Monoxide Dehydrogenase. Biochemistry, 2008, 47, 6770-6781.	1.2	52
68	The Reaction Mechanism of Methyl-Coenzyme M Reductase. Journal of Biological Chemistry, 2015, 290, 9322-9334.	1.6	52
69	Mechanistic Studies of the Methyltransferase from Clostridium thermoaceticum: Origin of the pH Dependence of the Methyl Group Transfer from Methyl Tetrahydrofolate to the Corrinoid/Iron-Sulfur Protein. Biochemistry, 1995, 34, 15075-15083.	1.2	51
70	Infrared Studies of Carbon Monoxide Binding to Carbon Monoxide Dehydrogenase/Acetyl-CoA Synthase from Moorella thermoacetica. Biochemistry, 2003, 42, 14822-14830.	1.2	51
71	Spectroscopic Studies of the Corrinoid/Ironâ^'Sulfur Protein fromMoorella thermoacetica. Journal of the American Chemical Society, 2006, 128, 5010-5020.	6.6	51
72	The Roles of Coenzyme A in the Pyruvate:Ferredoxin Oxidoreductase Reaction Mechanism:Â Rate Enhancement of Electron Transfer from a Radical Intermediate to an Ironâ^'Sulfur Clusterâ€. Biochemistry, 2002, 41, 9921-9937.	1.2	50

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73	Pulse-Chase Studies of the Synthesis of Acetyl-CoA by Carbon Monoxide Dehydrogenase/Acetyl-CoA Synthase. Journal of Biological Chemistry, 2008, 283, 8384-8394.	1.6	50
74	Binding of Carbon Disulfide to the Site of Acetyl-CoA Synthesis by the Nickel-Iron-Sulfur Protein, Carbon Monoxide Dehydrogenase, from Clostridium thermoaceticum. Biochemistry, 1994, 33, 9769-9777.	1.2	48
75	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.	6.6	48
76	Exploring Hydrogenotrophic Methanogenesis: a Genome Scale Metabolic Reconstruction of Methanococcus maripaludis. Journal of Bacteriology, 2016, 198, 3379-3390.	1.0	48
77	Anaerobic Pathway for Conversion of the Methyl Group of Aromatic Methyl Ethers to Acetic Acid by Clostridium thermoaceticum. Biochemistry, 1994, 33, 11217-11224.	1.2	47
78	Geometric and Electronic Structures of the Ni^I and Methylâ^'Ni^{III} Intermediates of Methyl-Coenzyme M Reductase. Biochemistry, 2009, 48, 3146-3156.	1.2	47
79	Thiol/Disulfide Redox Switches in the Regulation of Heme Binding to Proteins. Antioxidants and Redox Signaling, 2011, 14, 1039-1047.	2.5	45
80	High Affinity Heme Binding to a Heme Regulatory Motif on the Nuclear Receptor Rev-erbÎ² Leads to Its Degradation and Indirectly Regulates Its Interaction with Nuclear Receptor Corepressor. Journal of Biological Chemistry, 2016, 291, 2196-2222.	1.6	45
81	Nucleotide Excision Repair in the Third Kingdom. Journal of Bacteriology, 1998, 180, 5796-5798.	1.0	45
82	Structural Analysis of a Ni-Methyl Species in Methyl-Coenzyme M Reductase from <i>Methanothermobacter marburgensis</i>. Journal of the American Chemical Society, 2011, 133, 5626-5628.	6.6	44
83	Detection of Organometallic and Radical Intermediates in the Catalytic Mechanism of Methyl-Coenzyme M Reductase Using the Natural Substrate Methyl-Coenzyme M and a Coenzyme B Substrate Analogue. Biochemistry, 2010, 49, 10902-10911.	1.2	43
84	The F420H2:heterodisulfide oxidoreductase system fromMethanosarcinaspecies. FEBS Letters, 1998, 428, 295-298.	1.3	41
85	Regulation of Anaerobic Dehalorespiration by the Transcriptional Activator CprK. Journal of Biological Chemistry, 2004, 279, 49910-49918.	1.6	41
86	Infrared and EPR Spectroscopic Characterization of a Ni(I) Species Formed by Photolysis of a Catalytically Competent Ni(I)-CO Intermediate in the Acetyl-CoA Synthase Reaction. Biochemistry, 2010, 49, 7516-7523.	1.2	41
87	Structural and Kinetic Evidence for an Extended Hydrogen-bonding Network in Catalysis of Methyl Group Transfer. Journal of Biological Chemistry, 2007, 282, 6609-6618.	1.6	39
88	Redox Centers of 4-Hydroxybenzoyl-CoA Reductase, a Member of the Xanthine Oxidase Family of Molybdenum-containing Enzymes. Journal of Biological Chemistry, 2001, 276, 47853-47862.	1.6	37
89	Investigations of Two Bidirectional Carbon Monoxide Dehydrogenases from <i>Carboxydothermus hydrogenoformans</i> by Protein Film Electrochemistry. ChemBioChem, 2013, 14, 1845-1851.	1.3	37
90	A spectroelectrochemical cell designed for low temperature electron paramagnetic resonance titration of oxygen-sensitive proteins. Analytical Biochemistry, 1989, 181, 283-287.	1.1	36

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91	Pulsed Electron Paramagnetic Resonance Experiments Identify the Paramagnetic Intermediates in the Pyruvate Ferredoxin Oxidoreductase Catalytic Cycle. Journal of the American Chemical Society, 2006, 128, 3888-3889.	6.6	35
92	Characterization of Alkyl-Nickel Adducts Generated by Reaction of Methyl-Coenzyme M Reductase with Brominated Acids. Biochemistry, 2007, 46, 11969-11978.	1.2	35
93	X-ray absorption spectroscopy of the corrinoid/iron-sulfur protein involved in acetyl coenzyme A synthesis by Clostridium thermoaceticum. Journal of the American Chemical Society, 1993, 115, 2146-2150.	6.6	34
94	Mechanism of Transfer of the Methyl Group from (6S)-Methyltetrahydrofolate to the Corrinoid/Ironâ˘Sulfur Protein Catalyzed by the Methyltransferase fromClostridium thermoaceticum:Â A Key Step in the Woodâ˘Ljungdahl Pathway of Acetyl-CoA Synthesisâ€. Biochemistry, 1999, 38, 5728-5735.	1.2	34
95	Nitrate-Dependent Regulation of Acetate Biosynthesis and Nitrate Respiration by <i>Clostridium thermoaceticum</i>. Journal of Bacteriology, 1999, 181, 1489-1495.	1.0	34
96	The heme-regulatory motif of nuclear receptor Rev-erbÎ² is a key mediator of heme and redox signaling in circadian rhythm maintenance and metabolism. Journal of Biological Chemistry, 2017, 292, 11280-11299.	1.6	33
97	Characterization of the Intramolecular Electron Transfer Pathway from 2-Hydroxyphenazine to the Heterodisulfide Reductase fromMethanosarcina thermophila. Journal of Biological Chemistry, 2001, 276, 2432-2439.	1.6	31
98	Freeze-quench resonance Raman spectroscopic evidence for an Fe-CO adduct during acetyl-CoA synthesis and Ni involvement in CO oxidation by carbon monoxide dehydrogenase from Clostridium thermoaceticum. Journal of the American Chemical Society, 1995, 117, 2653-2654.	6.6	30
99	CprK Crystal Structures Reveal Mechanism for Transcriptional Control of Halorespiration. Journal of Biological Chemistry, 2006, 281, 28318-28325.	1.6	30
100	Spectroscopic and Kinetic Studies of the Reaction of Bromopropanesulfonate with Methyl-coenzyme M Reductase. Journal of Biological Chemistry, 2006, 281, 34663-34676.	1.6	30
101	Biochemistry of Methyl-Coenzyme M Reductase: The Nickel Metalloenzyme that Catalyzes the Final Step in Synthesis and the First Step in Anaerobic Oxidation of the Greenhouse Gas Methane. Metal Ions in Life Sciences, 2014, 14, 125-145.	2.8	30
102	Investigations by Protein Film Electrochemistry of Alternative Reactions of Nickel-Containing Carbon Monoxide Dehydrogenase. Journal of Physical Chemistry B, 2015, 119, 13690-13697.	1.2	30
103	Structure determination of the HgcAB complex using metagenome sequence data: insights into microbial mercury methylation. Communications Biology, 2020, 3, 320.	2.0	30
104	Protein/Protein Interactions in the Mammalian Heme Degradation Pathway. Journal of Biological Chemistry, 2014, 289, 29836-29858.	1.6	29
105	Acetyl Coenzyme A Synthesis from Unnatural Methylated Corrinoids:Â Requirement for â€œBase-Offâ€• Coordination at Cobalt. Journal of the American Chemical Society, 2001, 123, 1786-1787.	6.6	28
106	Transcriptional Activation of Dehalorespiration. Journal of Biological Chemistry, 2006, 281, 26382-26390.	1.6	28
107	Targeting Methanopterin Biosynthesis ToInhibitMethanogenesis. Applied and Environmental Microbiology, 2003, 69, 7236-7241.	1.4	27
108	Spectroscopic and computational characterization of the nickel-containing F430 cofactor of methyl-coenzyme M reductase. Journal of Biological Inorganic Chemistry, 2004, 9, 77-89.	1.1	26

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109	Characterization of the Thioether Product Formed from the Thiolytic Cleavage of the Alkylâˆ'Nickel Bond in Methyl-Coenzyme M Reductase. Biochemistry, 2008, 47, 2661-2667.	1.2	26
110	Evidence That Ferredoxin Interfaces with an Internal Redox Shuttle in Acetyl-CoA Synthase during Reductive Activation and Catalysis. Biochemistry, 2011, 50, 276-286.	1.2	26
111	The C-Terminal Heme Regulatory Motifs of Heme Oxygenase-2 Are Redox-Regulated Heme Binding Sites. Biochemistry, 2015, 54, 2709-2718.	1.2	26
112	X-ray Absorption Spectroscopy Reveals an Organometallic Niâ€"C Bond in the CO-Treated Form of Acetyl-CoA Synthase. Biochemistry, 2017, 56, 1248-1260.	1.2	25
113	Heme oxygenase-2 is post-translationally regulated by heme occupancy in the catalytic site. Journal of Biological Chemistry, 2020, 295, 17227-17240.	1.6	24
114	Raman and Infrared Spectroscopy of Cyanide-Inhibited CO Dehydrogenase/Acetyl-CoA Synthase fromClostridium thermoaceticum:Â Evidence for Bimetallic Enzymatic CO Oxidation. Journal of the American Chemical Society, 1996, 118, 10429-10435.	6.6	23
115	Evidence for Intersubunit Communication during Acetyl-CoA Cleavage by the Multienzyme CO Dehydrogenase/Acetyl-CoA Synthase Complex from Methanosarcina thermophila. Journal of Biological Chemistry, 2000, 275, 4699-4707.	1.6	23
116	Modulation of nuclear receptor function by cellular redox poise. Journal of Inorganic Biochemistry, 2014, 133, 92-103.	1.5	23
117	Redox Regulation of Heme Oxygenase-2 and the Transcription Factor, Rev-Erb, Through Heme Regulatory Motifs. Antioxidants and Redox Signaling, 2018, 29, 1841-1857.	2.5	23
118	Binding of (6R,S)-Methyltetrahydrofolate to Methyltransferase fromClostridium thermoaceticum:Â Role of Protonation of Methyltetrahydrofolate in the Mechanism of Methyl Transferâ€. Biochemistry, 1999, 38, 5736-5745.	1.2	22
119	Kinetics of Enzymatic Mercury Methylation at Nanomolar Concentrations Catalyzed by HgcAB. Applied and Environmental Microbiology, 2019, 85, .	1.4	20
120	n-Butyl isocyanide: A structural and functional analog of carbon monoxide for carbon monoxide dehydrogenase from Clostridium thermoaceticum. Journal of the American Chemical Society, 1995, 117, 11604-11605.	6.6	19
121	Mechanism of 4-(Î²-D-Ribofuranosyl)aminobenzene 5â€²-Phosphate Synthase, a Key Enzyme in the Methanopterin Biosynthetic Pathway. Journal of Biological Chemistry, 2004, 279, 39389-39395.	1.6	19
122	Radical reactions of thiamin pyrophosphate in 2-oxoacid oxidoreductases. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2012, 1824, 1291-1298.	1.1	19
123	In vivo activation of methyl-coenzyme M reductase by carbon monoxide. Frontiers in Microbiology, 2013, 4, 69.	1.5	19
124	Binding site for coenzyme A revealed in the structure of pyruvate:ferredoxin oxidoreductase from <i>Moorella thermoacetica</i>. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 3846-3851.	3.3	19
125	Oxygen and Conformation Dependent Protein Oxidation and Aggregation by Porphyrins in Hepatocytes and Light-Exposed Cells. Cellular and Molecular Gastroenterology and Hepatology, 2019, 8, 659-682.e1.	2.3	19
126	Crystallographic Characterization of the Carbonylated A-Cluster in Carbon Monoxide Dehydrogenase/Acetyl-CoA Synthase. ACS Catalysis, 2020, 10, 9741-9746.	5.5	19

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127	Ferric heme as a CO/NO sensor in the nuclear receptor Rev-ErbÃŸ by coupling gas binding to electron transfer. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	19
128	Identification and Characterization of Oxalate Oxidoreductase, a Novel Thiamine Pyrophosphate-dependent 2-Oxoacid Oxidoreductase That Enables Anaerobic Growth on Oxalate. Journal of Biological Chemistry, 2010, 285, 40515-40524.	1.6	18
129	Observation of Organometallic and Radical Intermediates Formed during the Reaction of Methyl-Coenzyme M Reductase with Bromoethanesulfonate. Biochemistry, 2010, 49, 6866-6876.	1.2	18
130	Transient B₁₂-Dependent Methyltransferase Complexes Revealed by Small-Angle X-ray Scattering. Journal of the American Chemical Society, 2012, 134, 17945-17954.	6.6	18
131	Protonation of the Hydroperoxo Intermediate of Cytochrome P450 2B4 Is Slower in the Presence of Cytochrome P450 Reductase Than in the Presence of Cytochrome b5. Biochemistry, 2016, 55, 6558-6567.	1.2	18
132	Dynamic and structural differences between heme oxygenase-1 and -2 are due to differences in their C-terminal regions. Journal of Biological Chemistry, 2019, 294, 8259-8272.	1.6	17
133	Azide Binding to Carbon Monoxide Dehydrogenase from Clostridium thermoaceticum. Journal of the American Chemical Society, 1995, 117, 2939-2940.	6.6	16
134	The heme-regulatory motifs of heme oxygenase-2 contribute to the transfer of heme to the catalytic site for degradation. Journal of Biological Chemistry, 2020, 295, 5177-5191.	1.6	16
135	Electrochemical and Spectroscopic Properties of the Iron-Sulfur Flavoprotein from Methanosarcina thermophila. Journal of Biological Chemistry, 1998, 273, 26462-26469.	1.6	15
136	The Structure of an Oxalate Oxidoreductase Provides Insight into Microbial 2-Oxoacid Metabolism. Biochemistry, 2015, 54, 4112-4120.	1.2	15
137	Spectroscopic Studies Reveal That the Heme Regulatory Motifs of Heme Oxygenase-2 Are Dynamically Disordered and Exhibit Redox-Dependent Interaction with Heme. Biochemistry, 2015, 54, 2693-2708.	1.2	15
138	Rapid Ligand Exchange in the MCRred1 Form of Methyl-coenzyme M Reductase. Journal of the American Chemical Society, 2003, 125, 2436-2443.	6.6	14
139	Dual Roles of an Essential Cysteine Residue in Activity of a Redox-regulated Bacterial Transcriptional Activator. Journal of Biological Chemistry, 2008, 283, 28721-28728.	1.6	13
140	Redox, haem and CO in enzymatic catalysis and regulation. Biochemical Society Transactions, 2012, 40, 501-507.	1.6	13
141	Investigations of the Efficient Electrocatalytic Interconversions of Carbon Dioxide and Carbon Monoxide by Nickel-Containing Carbon Monoxide Dehydrogenases. Metal Ions in Life Sciences, 2014, 14, 71-97.	2.8	13
142	One-carbon chemistry of oxalate oxidoreductase captured by X-ray crystallography. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 320-325.	3.3	13
143	Spectroscopic insights into axial ligation and active-site H-bonding in substrate-bound human heme oxygenase-2. Journal of Biological Inorganic Chemistry, 2010, 15, 1117-1127.	1.1	12
144	Pseudo-4D triple resonance experiments to resolve HN overlap in the backbone assignment of unfolded proteins. Journal of Biomolecular NMR, 2011, 49, 69-74.	1.6	12

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145	Nickelâ€“Sulfonate Mode of Substrate Binding for Forward and Reverse Reactions of Methyl-SCoM Reductase Suggest a Radical Mechanism Involving Long-Range Electron Transfer. Journal of the American Chemical Society, 2021, 143, 5481-5496.	6.6	12
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