

Stephen W Ragsdale

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175
papers

11,300
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54
h-index

103
g-index

191
ext. papers

12,769
ext. citations

10.1
avg, IF

6.63
L-index

#	Paper	IF	Citations
175	Frontiers, opportunities, and challenges in biochemical and chemical catalysis of CO ₂ fixation. <i>Chemical Reviews</i> , 2013 , 113, 6621-58	68.1	1415
174	Acetogenesis and the Wood-Ljungdahl pathway of CO(2) fixation. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2008 , 1784, 1873-98	4	695
173	The many faces of vitamin B12: catalysis by cobalamin-dependent enzymes. <i>Annual Review of Biochemistry</i> , 2003 , 72, 209-47	29.1	577
172	A Ni-Fe-Cu center in a bifunctional carbon monoxide dehydrogenase/acetyl-CoA synthase. <i>Science</i> , 2002 , 298, 567-72	33.3	440
171	Efficient and clean photoreduction of CO(2) to CO by enzyme-modified TiO(2) nanoparticles using visible light. <i>Journal of the American Chemical Society</i> , 2010 , 132, 2132-3	16.4	354
170	Structure, function, and mechanism of the nickel metalloenzymes, CO dehydrogenase, and acetyl-CoA synthase. <i>Chemical Reviews</i> , 2014 , 114, 4149-74	68.1	341
169	Life with carbon monoxide. <i>Critical Reviews in Biochemistry and Molecular Biology</i> , 2004 , 39, 165-95	8.7	284
168	Nickel-Containing Carbon Monoxide Dehydrogenase/Acetyl-CoA Synthase(,). <i>Chemical Reviews</i> , 1996 , 96, 2515-2540	68.1	281
167	Nickel-based Enzyme Systems. <i>Journal of Biological Chemistry</i> , 2009 , 284, 18571-5	5.4	231
166	The complete genome sequence of Moorella thermoacetica (f. Clostridium thermoaceticum). <i>Environmental Microbiology</i> , 2008 , 10, 2550-73	5.2	212
165	Enzymology of the wood-Ljungdahl pathway of acetogenesis. <i>Annals of the New York Academy of Sciences</i> , 2008 , 1125, 129-36	6.5	211
164	Enzymology of the acetyl-CoA pathway of CO ₂ fixation. <i>Critical Reviews in Biochemistry and Molecular Biology</i> , 1991 , 26, 261-300	8.7	197
163	Pyruvate ferredoxin oxidoreductase and its radical intermediate. <i>Chemical Reviews</i> , 2003 , 103, 2333-46	68.1	172
162	Visible light-driven CO ₂ reduction by enzyme coupled CdS nanocrystals. <i>Chemical Communications</i> , 2012 , 48, 58-60	5.8	157
161	Rapid and efficient electrocatalytic CO ₂ /CO interconversions by Carboxydotherrmus hydrogenoformans CO dehydrogenase I on an electrode. <i>Journal of the American Chemical Society</i> , 2007 , 129, 10328-9	16.4	154
160	Metals and their scaffolds to promote difficult enzymatic reactions. <i>Chemical Reviews</i> , 2006 , 106, 3317-368	68.1	153
159	CO ₂ photoreduction at enzyme-modified metal oxide nanoparticles. <i>Energy and Environmental Science</i> , 2011 , 4, 2393	35.4	135

158	Mechanism of reductive activation of cobalamin-dependent methionine synthase: an electron paramagnetic resonance spectroelectrochemical study. <i>Biochemistry</i> , 1990 , 29, 1129-35	3.2	132
157	Nickel and the carbon cycle. <i>Journal of Inorganic Biochemistry</i> , 2007 , 101, 1657-66	4.2	128
156	The role of pyruvate ferredoxin oxidoreductase in pyruvate synthesis during autotrophic growth by the Wood-Ljungdahl pathway. <i>Journal of Biological Chemistry</i> , 2000 , 275, 28494-9	5.4	126
155	The metalloclusters of carbon monoxide dehydrogenase/acetyl-CoA synthase: a story in pictures. <i>Journal of Biological Inorganic Chemistry</i> , 2004 , 9, 511-5	3.7	100
154	The radical mechanism of biological methane synthesis by methyl-coenzyme M reductase. <i>Science</i> , 2016 , 352, 953-8	33.3	96
153	Xenon in and at the end of the tunnel of bifunctional carbon monoxide dehydrogenase/acetyl-CoA synthase. <i>Biochemistry</i> , 2008 , 47, 3474-83	3.2	93
152	Characterization of the Ni-Fe-C complex formed by reaction of carbon monoxide with the carbon monoxide dehydrogenase from <i>Clostridium thermoaceticum</i> by Q-band ENDOR. <i>Biochemistry</i> , 1991 , 30, 431-5	3.2	93
151	Nickel biochemistry. <i>Current Opinion in Chemical Biology</i> , 1998 , 2, 208-15	9.7	92
150	Spectroelectrochemical studies of the corrinoid/iron-sulfur protein involved in acetyl coenzyme A synthesis by <i>Clostridium thermoaceticum</i> . <i>Biochemistry</i> , 1989 , 28, 9080-7	3.2	91
149	Selective visible-light-driven CO ₂ reduction on a p-type dye-sensitized NiO photocathode. <i>Journal of the American Chemical Society</i> , 2014 , 136, 13518-21	16.4	84
148	Thiol-disulfide redox dependence of heme binding and heme ligand switching in nuclear hormone receptor rev-erbβ. <i>Journal of Biological Chemistry</i> , 2011 , 286, 4392-403	5.4	78
147	Rapid kinetic studies of acetyl-CoA synthesis: evidence supporting the catalytic intermediacy of a paramagnetic NiFeC species in the autotrophic Wood-Ljungdahl pathway. <i>Biochemistry</i> , 2002 , 41, 1807-19 ²	3.2	76
146	Channeling of carbon monoxide during anaerobic carbon dioxide fixation. <i>Biochemistry</i> , 2000 , 39, 1274-73.2	3.2	75
145	Evidence that NiNi acetyl-CoA synthase is active and that the CuNi enzyme is not. <i>Biochemistry</i> , 2004 , 43, 3944-55	3.2	74
144	Evidence that the heme regulatory motifs in heme oxygenase-2 serve as a thiol/disulfide redox switch regulating heme binding. <i>Journal of Biological Chemistry</i> , 2007 , 282, 21056-67	5.4	68
143	How light-harvesting semiconductors can alter the bias of reversible electrocatalysts in favor of H ₂ production and CO ₂ reduction. <i>Journal of the American Chemical Society</i> , 2013 , 135, 15026-32	16.4	67
142	Mechanism of the <i>Clostridium thermoaceticum</i> pyruvate:ferredoxin oxidoreductase: evidence for the common catalytic intermediacy of the hydroxyethylthiamine pyropyrrophosphate radical. <i>Biochemistry</i> , 1997 , 36, 8484-94	3.2	67
141	The eastern and western branches of the Wood/Ljungdahl pathway: how the east and west were won. <i>BioFactors</i> , 1997 , 6, 3-11	6.1	67

140	Characterization of a three-component vanillate O-demethylase from <i>Moorella thermoacetica</i> . <i>Journal of Bacteriology</i> , 2001 , 183, 3276-81	3.5	67
139	Kinetic evidence that carbon monoxide dehydrogenase catalyzes the oxidation of carbon monoxide and the synthesis of acetyl-CoA at separate metal clusters. <i>Journal of the American Chemical Society</i> , 1993 , 115, 11646-11647	16.4	66
138	EPR spectroscopic and computational characterization of the hydroxyethylidene-thiamine pyrophosphate radical intermediate of pyruvate:ferredoxin oxidoreductase. <i>Biochemistry</i> , 2006 , 45, 7122-31	3.3	65
137	Characterization of the B12- and iron-sulfur-containing reductive dehalogenase from <i>Desulfitobacterium chlororespirans</i> . <i>Journal of Biological Chemistry</i> , 2001 , 276, 40991-7	5.4	65
136	Heme regulatory motifs in heme oxygenase-2 form a thiol/disulfide redox switch that responds to the cellular redox state. <i>Journal of Biological Chemistry</i> , 2009 , 284, 20556-61	5.4	64
135	Functional copper at the acetyl-CoA synthase active site. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003 , 100, 3689-94	11.5	64
134	Identification of a thiol/disulfide redox switch in the human BK channel that controls its affinity for heme and CO. <i>Journal of Biological Chemistry</i> , 2010 , 285, 20117-27	5.4	63
133	Biochemical and spectroscopic studies of the electronic structure and reactivity of a methyl-Ni species formed on methyl-coenzyme M reductase. <i>Journal of the American Chemical Society</i> , 2007 , 129, 11030-2	16.4	63
132	Crystallographic snapshots of cyanide- and water-bound C-clusters from bifunctional carbon monoxide dehydrogenase/acetyl-CoA synthase. <i>Biochemistry</i> , 2009 , 48, 7432-40	3.2	62
131	Crystal structure of a methyltetrahydrofolate- and corrinoid-dependent methyltransferase. <i>Structure</i> , 2000 , 8, 817-30	5.2	62
130	Characterization of the carbon monoxide binding site of carbon monoxide dehydrogenase from <i>Clostridium thermoaceticum</i> by infrared spectroscopy. <i>Journal of the American Chemical Society</i> , 1992 , 114, 8713-8715	16.4	59
129	Mechanistic studies of methane biogenesis by methyl-coenzyme M reductase: evidence that coenzyme B participates in cleaving the C-S bond of methyl-coenzyme M. <i>Biochemistry</i> , 2001 , 40, 12875-85	3.5	58
128	Role of the [4Fe-4S] cluster in reductive activation of the cobalt center of the corrinoid iron-sulfur protein from <i>Clostridium thermoaceticum</i> during acetate biosynthesis. <i>Biochemistry</i> , 1998 , 37, 5689-98	3.2	58
127	Metal centers in the anaerobic microbial metabolism of CO and CO ₂ . <i>Metallomics</i> , 2011 , 3, 797-815	4.5	57
126	On the Assignment of Nickel Oxidation States of the Ox1, Ox2 Forms of Methyl-coenzyme M Reductase. <i>Journal of the American Chemical Society</i> , 2000 , 122, 182-183	16.4	56
125	Unleashing hydrogenase activity in carbon monoxide dehydrogenase/acetyl-CoA synthase and pyruvate:ferredoxin oxidoreductase. <i>Biochemistry</i> , 1996 , 35, 15814-21	3.2	56
124	Fast and Selective Photoreduction of CO to CO Catalyzed by a Complex of Carbon Monoxide Dehydrogenase, TiO ₂ , and Ag Nanoclusters. <i>ACS Catalysis</i> , 2018 , 8, 2789-2795	13.1	55
123	Activation of methyl-SCoM reductase to high specific activity after treatment of whole cells with sodium sulfide. <i>Biochemistry</i> , 1998 , 37, 2639-47	3.2	55

122	Visualizing molecular juggling within a B12-dependent methyltransferase complex. <i>Nature</i> , 2012 , 484, 265-9	50.4	54
121	Mechanism of carbon monoxide oxidation by the carbon monoxide dehydrogenase/acetyl-CoA synthase from <i>Clostridium thermoaceticum</i> : kinetic characterization of the intermediates. <i>Biochemistry</i> , 1997 , 36, 11241-51	3.2	54
120	EPR and infrared spectroscopic evidence that a kinetically competent paramagnetic intermediate is formed when acetyl-coenzyme A synthase reacts with CO. <i>Journal of the American Chemical Society</i> , 2005 , 127, 13500-1	16.4	54
119	Cryoreduction of methyl-coenzyme M reductase: EPR characterization of forms, MCR(ox1) and MCR (red1). <i>Journal of the American Chemical Society</i> , 2001 , 123, 5853-60	16.4	53
118	A unified electrocatalytic description of the action of inhibitors of nickel carbon monoxide dehydrogenase. <i>Journal of the American Chemical Society</i> , 2013 , 135, 2198-206	16.4	51
117	Nickel oxidation states of F(430) cofactor in methyl-coenzyme M reductase. <i>Journal of the American Chemical Society</i> , 2004 , 126, 4068-9	16.4	50
116	The role of an iron-sulfur cluster in an enzymatic methylation reaction. Methylation of CO dehydrogenase/acetyl-CoA synthase by the methylated corrinoid iron-sulfur protein. <i>Journal of Biological Chemistry</i> , 1999 , 274, 11513-8	5.4	49
115	Mechanistic studies of the methyltransferase from <i>Clostridium thermoaceticum</i> : origin of the pH dependence of the methyl group transfer from methyltetrahydrofolate to the corrinoid/iron-sulfur protein. <i>Biochemistry</i> , 1995 , 34, 15075-83	3.2	49
114	Comparison of apo- and heme-bound crystal structures of a truncated human heme oxygenase-2. <i>Journal of Biological Chemistry</i> , 2007 , 282, 37624-31	5.4	48
113	The roles of coenzyme A in the pyruvate:ferredoxin oxidoreductase reaction mechanism: rate enhancement of electron transfer from a radical intermediate to an iron-sulfur cluster. <i>Biochemistry</i> , 2002 , 41, 9921-37	3.2	47
112	Water-gas shift reaction catalyzed by redox enzymes on conducting graphite platelets. <i>Journal of the American Chemical Society</i> , 2009 , 131, 14154-5	16.4	45
111	Pulse-chase studies of the synthesis of acetyl-CoA by carbon monoxide dehydrogenase/acetyl-CoA synthase: evidence for a random mechanism of methyl and carbonyl addition. <i>Journal of Biological Chemistry</i> , 2008 , 283, 8384-94	5.4	45
110	Infrared studies of carbon monoxide binding to carbon monoxide dehydrogenase/acetyl-CoA synthase from <i>Moorella thermoacetica</i> . <i>Biochemistry</i> , 2003 , 42, 14822-30	3.2	45
109	Geometric and electronic structures of the Ni(I) and methyl-Ni(III) intermediates of methyl-coenzyme M reductase. <i>Biochemistry</i> , 2009 , 48, 3146-56	3.2	44
108	Evidence that carbon monoxide is an obligatory intermediate in anaerobic acetyl-CoA synthesis. <i>Biochemistry</i> , 1996 , 35, 12119-25	3.2	44
107	Spectroscopic studies of the corrinoid/iron-sulfur protein from <i>Moorella thermoacetica</i> . <i>Journal of the American Chemical Society</i> , 2006 , 128, 5010-20	16.4	43
106	¹³ C NMR characterization of an exchange reaction between CO and CO ₂ catalyzed by carbon monoxide dehydrogenase. <i>Biochemistry</i> , 2008 , 47, 6770-81	3.2	41
105	Nickel/Iron/Sulfur Active Sites: Hydrogenase and Co Dehydrogenase. <i>Advances in Inorganic Chemistry</i> , 1999 , 47, 283-333	2.1	41

104	Binding of carbon disulfide to the site of acetyl-CoA synthesis by the nickel-iron-sulfur protein, carbon monoxide dehydrogenase, from <i>Clostridium thermoaceticum</i> . <i>Biochemistry</i> , 1994 , 33, 9769-77	3.2	41
103	Regulation of anaerobic dehalorespiration by the transcriptional activator CprK. <i>Journal of Biological Chemistry</i> , 2004 , 279, 49910-8	5.4	40
102	Anaerobic pathway for conversion of the methyl group of aromatic methyl ethers to acetic acid by <i>Clostridium thermoaceticum</i> . <i>Biochemistry</i> , 1994 , 33, 11217-24	3.2	40
101	The reaction mechanism of methyl-coenzyme M reductase: how an enzyme enforces strict binding order. <i>Journal of Biological Chemistry</i> , 2015 , 290, 9322-34	5.4	39
100	Structural analysis of a Ni-methyl species in methyl-coenzyme M reductase from <i>Methanothermobacter marburgensis</i> . <i>Journal of the American Chemical Society</i> , 2011 , 133, 5626-8	16.4	38
99	Catalysis of methyl group transfers involving tetrahydrofolate and B(12). <i>Vitamins and Hormones</i> , 2008 , 79, 293-324	2.5	37
98	X-ray absorption and resonance Raman studies of methyl-coenzyme M reductase indicating that ligand exchange and macrocycle reduction accompany reductive activation. <i>Journal of the American Chemical Society</i> , 2002 , 124, 13242-56	16.4	37
97	Structural insight into methyl-coenzyme M reductase chemistry using coenzyme B analogues. <i>Biochemistry</i> , 2010 , 49, 7683-93	3.2	36
96	Structural and kinetic evidence for an extended hydrogen-bonding network in catalysis of methyl group transfer. Role of an active site asparagine residue in activation of methyl transfer by methyltransferases. <i>Journal of Biological Chemistry</i> , 2007 , 282, 6609-6618	5.4	36
95	High Affinity Heme Binding to a Heme Regulatory Motif on the Nuclear Receptor Rev-erb α Leads to Its Degradation and Indirectly Regulates Its Interaction with Nuclear Receptor Corepressor. <i>Journal of Biological Chemistry</i> , 2016 , 291, 2196-222	5.4	35
94	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. <i>Biochemistry</i> , 2010 , 49, 10902-11	3.2	35
93	Nucleotide excision repair in the third kingdom. <i>Journal of Bacteriology</i> , 1998 , 180, 5796-8	3.5	35
92	Thiol/Disulfide redox switches in the regulation of heme binding to proteins. <i>Antioxidants and Redox Signaling</i> , 2011 , 14, 1039-47	8.4	34
91	The F420H2:heterodisulfide oxidoreductase system from <i>Methanosarcina</i> species. 2-Hydroxyphenazine mediates electron transfer from F420H2 dehydrogenase to heterodisulfide reductase. <i>FEBS Letters</i> , 1998 , 428, 295-8	3.8	34
90	A spectroelectrochemical cell designed for low temperature electron paramagnetic resonance titration of oxygen-sensitive proteins. <i>Analytical Biochemistry</i> , 1989 , 181, 283-7	3.1	34
89	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. <i>Biochemistry</i> , 2010 , 49, 7516-23	3.2	33
88	Pulsed electron paramagnetic resonance experiments identify the paramagnetic intermediates in the pyruvate ferredoxin oxidoreductase catalytic cycle. <i>Journal of the American Chemical Society</i> , 2006 , 128, 3888-9	16.4	33
87	X-ray absorption spectroscopy of the corrinoid/iron-sulfur protein involved in acetyl coenzyme A synthesis by <i>Clostridium thermoaceticum</i> . <i>Journal of the American Chemical Society</i> , 1993 , 115, 2146-2150	16.4	33

86	Characterization of alkyl-nickel adducts generated by reaction of methyl-coenzyme m reductase with brominated acids. <i>Biochemistry</i> , 2007 , 46, 11969-78	3.2	32
85	Mechanism of transfer of the methyl group from (6S)-methyltetrahydrofolate to the corrinoid/iron-sulfur protein catalyzed by the methyltransferase from <i>Clostridium thermoaceticum</i> : a key step in the Wood-Ljungdahl pathway of acetyl-CoA synthesis. <i>Biochemistry</i> , 1999 , 38, 5728-35	3.2	31
84	CprK crystal structures reveal mechanism for transcriptional control of halorespiration. <i>Journal of Biological Chemistry</i> , 2006 , 281, 28318-25	5.4	29
83	Redox centers of 4-hydroxybenzoyl-CoA reductase, a member of the xanthine oxidase family of molybdenum-containing enzymes. <i>Journal of Biological Chemistry</i> , 2001 , 276, 47853-62	5.4	29
82	Protein/protein interactions in the mammalian heme degradation pathway: heme oxygenase-2, cytochrome P450 reductase, and biliverdin reductase. <i>Journal of Biological Chemistry</i> , 2014 , 289, 29836-58	5.4	27
81	Spectroscopic and kinetic studies of the reaction of bromopropanesulfonate with methyl-coenzyme M reductase. <i>Journal of Biological Chemistry</i> , 2006 , 281, 34663-76	5.4	27
80	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 <i>Clostridium thermoaceticum</i> . <i>Journal of the American Chemical Society</i> , 1995 , 117, 2653-2654	16.4	27
79	Exploring Hydrogenotrophic Methanogenesis: a Genome Scale Metabolic Reconstruction of <i>Methanococcus maripaludis</i> . <i>Journal of Bacteriology</i> , 2016 , 198, 3379-3390	3.5	27
78	Transcriptional activation of dehalorespiration. Identification of redox-active cysteines regulating dimerization and DNA binding. <i>Journal of Biological Chemistry</i> , 2006 , 281, 26382-90	5.4	26
77	Nitrate-dependent regulation of acetate biosynthesis and nitrate respiration by <i>Clostridium thermoaceticum</i> . <i>Journal of Bacteriology</i> , 1999 , 181, 1489-95	3.5	26
76	Characterization of the thioether product formed from the thiolytic cleavage of the alkyl-nickel bond in methyl-coenzyme M reductase. <i>Biochemistry</i> , 2008 , 47, 2661-7	3.2	25
75	Spectroscopic and computational characterization of the nickel-containing F430 cofactor of methyl-coenzyme M reductase. <i>Journal of Biological Inorganic Chemistry</i> , 2004 , 9, 77-89	3.7	24
74	Characterization of the intramolecular electron transfer pathway from 2-hydroxyphenazine to the heterodisulfide reductase from <i>Methanosarcina thermophila</i> . <i>Journal of Biological Chemistry</i> , 2001 , 276, 2432-9	5.4	24
73	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. <i>Metal Ions in Life Sciences</i> , 2014 , 14, 125-45	2.6	23
72	Evidence that ferredoxin interfaces with an internal redox shuttle in Acetyl-CoA synthase during reductive activation and catalysis. <i>Biochemistry</i> , 2011 , 50, 276-86	3.2	23
71	Acetyl coenzyme A synthesis from unnatural methylated corrinoids: requirement for "base-off" coordination at cobalt. <i>Journal of the American Chemical Society</i> , 2001 , 123, 1786-7	16.4	23
70	Investigations by Protein Film Electrochemistry of Alternative Reactions of Nickel-Containing Carbon Monoxide Dehydrogenase. <i>Journal of Physical Chemistry B</i> , 2015 , 119, 13690-7	3.4	22
69	The heme-regulatory motif of nuclear receptor Rev-erb β is a key mediator of heme and redox signaling in circadian rhythm maintenance and metabolism. <i>Journal of Biological Chemistry</i> , 2017 , 292, 11280-11299	5.4	22

68	Investigations of two bidirectional carbon monoxide dehydrogenases from Carboxydothemus hydrogenoformans by protein film electrochemistry. <i>ChemBioChem</i> , 2013 , 14, 1845-51	3.8	22
67	Targeting methanopterin biosynthesis to inhibit methanogenesis. <i>Applied and Environmental Microbiology</i> , 2003 , 69, 7236-41	4.8	22
66	The C-terminal heme regulatory motifs of heme oxygenase-2 are redox-regulated heme binding sites. <i>Biochemistry</i> , 2015 , 54, 2709-18	3.2	21
65	Binding of (6R,S)-methyltetrahydrofolate to methyltransferase from Clostridium thermoaceticum: role of protonation of methyltetrahydrofolate in the mechanism of methyl transfer. <i>Biochemistry</i> , 1999 , 38, 5736-45	3.2	21
64	Evidence for intersubunit communication during acetyl-CoA cleavage by the multienzyme CO dehydrogenase/acetyl-CoA synthase complex from Methanosarcina thermophila. Evidence that the beta subunit catalyzes C-C and C-S bond cleavage. <i>Journal of Biological Chemistry</i> , 2000 , 275, 4699-707	5.4	20
63	Modulation of nuclear receptor function by cellular redox poise. <i>Journal of Inorganic Biochemistry</i> , 2014 , 133, 92-103	4.2	19
62	Radical reactions of thiamin pyrophosphate in 2-oxoacid oxidoreductases. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2012 , 1824, 1291-8	4	19
61	X-ray Absorption Spectroscopy Reveals an Organometallic Ni-C Bond in the CO-Treated Form of Acetyl-CoA Synthase. <i>Biochemistry</i> , 2017 , 56, 1248-1260	3.2	17
60	In vivo activation of methyl-coenzyme M reductase by carbon monoxide. <i>Frontiers in Microbiology</i> , 2013 , 4, 69	5.7	17
59	Identification and characterization of oxalate oxidoreductase, a novel thiamine pyrophosphate-dependent 2-oxoacid oxidoreductase that enables anaerobic growth on oxalate. <i>Journal of Biological Chemistry</i> , 2010 , 285, 40515-24	5.4	17
58	Redox Regulation of Heme Oxygenase-2 and the Transcription Factor, Rev-Erb, Through Heme Regulatory Motifs. <i>Antioxidants and Redox Signaling</i> , 2018 , 29, 1841-1857	8.4	16
57	Heme oxygenase-2 is post-translationally regulated by heme occupancy in the catalytic site. <i>Journal of Biological Chemistry</i> , 2020 , 295, 17227-17240	5.4	15
56	Observation of organometallic and radical intermediates formed during the reaction of methyl-coenzyme M reductase with bromoethanesulfonate. <i>Biochemistry</i> , 2010 , 49, 6866-76	3.2	15
55	Mechanism of 4-(beta-D-ribofuranosyl)aminobenzene 5'-phosphate synthase, a key enzyme in the methanopterin biosynthetic pathway. <i>Journal of Biological Chemistry</i> , 2004 , 279, 39389-95	5.4	15
54	Spectroscopic studies reveal that the heme regulatory motifs of heme oxygenase-2 are dynamically disordered and exhibit redox-dependent interaction with heme. <i>Biochemistry</i> , 2015 , 54, 2693-708	3.2	14
53	Electrochemical and spectroscopic properties of the iron-sulfur flavoprotein from Methanosarcina thermophila. <i>Journal of Biological Chemistry</i> , 1998 , 273, 26462-9	5.4	14
52	Oxygen and Conformation Dependent Protein Oxidation and Aggregation by Porphyrins in Hepatocytes and Light-Exposed Cells. <i>Cellular and Molecular Gastroenterology and Hepatology</i> , 2019 , 8, 659-682.e1	7.9	13
51	Dynamic and structural differences between heme oxygenase-1 and -2 are due to differences in their C-terminal regions. <i>Journal of Biological Chemistry</i> , 2019 , 294, 8259-8272	5.4	13

50	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. <i>Biochemistry</i> , 2016 , 55, 6558-6567	3.2	13
49	Transient B12-dependent methyltransferase complexes revealed by small-angle X-ray scattering. <i>Journal of the American Chemical Society</i> , 2012 , 134, 17945-54	16.4	13
48	n-Butyl isocyanide: A structural and functional analog of carbon monoxide for carbon monoxide dehydrogenase from <i>Clostridium thermoaceticum</i> . <i>Journal of the American Chemical Society</i> , 1995 , 117, 11604-11605	16.4	13
47	Raman and Infrared Spectroscopy of Cyanide-Inhibited CO Dehydrogenase/Acetyl-CoA Synthase from <i>Clostridium thermoaceticum</i> : Evidence for Bimetallic Enzymatic CO Oxidation. <i>Journal of the American Chemical Society</i> , 1996 , 118, 10429-10435	16.4	13
46	The Structure of an Oxalate Oxidoreductase Provides Insight into Microbial 2-Oxoacid Metabolism. <i>Biochemistry</i> , 2015 , 54, 4112-20	3.2	12
45	Pseudo-4D triple resonance experiments to resolve HN overlap in the backbone assignment of unfolded proteins. <i>Journal of Biomolecular NMR</i> , 2011 , 49, 69-74	3	12
44	Spectroscopic insights into axial ligation and active-site H-bonding in substrate-bound human heme oxygenase-2. <i>Journal of Biological Inorganic Chemistry</i> , 2010 , 15, 1117-27	3.7	12
43	Dual roles of an essential cysteine residue in activity of a redox-regulated bacterial transcriptional activator. <i>Journal of Biological Chemistry</i> , 2008 , 283, 28721-8	5.4	12
42	Binding site for coenzyme A revealed in the structure of pyruvate:ferredoxin oxidoreductase from. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, 3846-3851	11.5	11
41	One-carbon chemistry of oxalate oxidoreductase captured by X-ray crystallography. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 320-5	11.5	11
40	Rapid ligand exchange in the MCRred1 form of methyl-coenzyme M reductase. <i>Journal of the American Chemical Society</i> , 2003 , 125, 2436-43	16.4	11
39	Investigations of the efficient electrocatalytic interconversions of carbon dioxide and carbon monoxide by nickel-containing carbon monoxide dehydrogenases. <i>Metal Ions in Life Sciences</i> , 2014 , 14, 71-97	2.6	10
38	Redox, haem and CO in enzymatic catalysis and regulation. <i>Biochemical Society Transactions</i> , 2012 , 40, 501-7	5.1	10
37	Spectroscopic and computational studies of reduction of the metal versus the tetrapyrrole ring of coenzyme F430 from methyl-coenzyme M reductase. <i>Biochemistry</i> , 2006 , 45, 11915-33	3.2	10
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