Stephen Ragsdale

List of Articles by Year
in descending order

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193 peer-reviewed articles	14,277 peer-reviewed citations	31060 54 peer-reviewed h-index	115320 6.01 score
224 documents	17739 doc citations	23147 63 h-index	19404 citing authors

#	Article	IF	Citations
1	Structural and Mechanistic Advances in the Chemistry of Methyl-Coenzyme M Reductase (MCR). Accounts of Chemical Research, 2025, 58, 824-833.	11.6	13
2	Nature-Inspired Radical Pyridoxal-Mediated C–C Bond Formation. Journal of the American Chemical Society, 2024, 146, 23321-23329.	11.7	16
3	S-adenosyl-L-methionine is the unexpected methyl donor for the methylation of mercury by the membrane-associated HgcAB complex. Proceedings of the National Academy of Sciences of the United States of America, 2024, 121, .	5.2	11
4	Characterization of Methyl- and Acetyl-Ni Intermediates in Acetyl CoA Synthase Formed during Anaerobic CO2 and CO Fixation. Journal of the American Chemical Society, 2023, 145, 13696-13708.	11.7	25
5	Regulation of protein function and degradation by heme, heme responsive motifs, and CO. Critical Reviews in Biochemistry and Molecular Biology, 2022, 57, 16-47.	3.9	21
6	Not a “they” but a “we”: The microbiome helps promote our well-being. Journal of Biological Chemistry, 2022, 298, 101511.	1.3	4
7	Heme oxygenase-2 (HO-2) binds and buffers labile ferric heme in human embryonic kidney cells. Journal of Biological Chemistry, 2022, 298, 101549.	1.3	23
8	XFEL serial crystallography reveals the room temperature structure of methyl-coenzyme M reductase. Journal of Inorganic Biochemistry, 2022, 230, 111768.	2.3	18
9	Efficient, Light-Driven Reduction of CO2 to CO by a Carbon Monoxide Dehydrogenase–CdSe/CdS Nanorod Photosystem. Journal of Physical Chemistry Letters, 2022, 13, 5553-5556.	2.9	10
10	Heme delivery to heme oxygenase-2 involves glyceraldehyde-3-phosphate dehydrogenase. Biological Chemistry, 2022, 403, 1043-1053.	1.2	21
11	Negative-Stain Electron Microscopy Reveals Dramatic Structural Rearrangements in Ni-Fe-S-Dependent Carbon Monoxide Dehydrogenase/Acetyl-CoA Synthase. Structure, 2021, 29, 43-49.e3.	2.4	17
12	Nickel–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.	11.7	21
13	Ferric heme as a CO/NO sensor in the nuclear receptor Rev-Erbß by coupling gas binding to electron transfer. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	5.2	35
14	Crystallographic Characterization of the Carbonylated A-Cluster in Carbon Monoxide Dehydrogenase/Acetyl-CoA Synthase. ACS Catalysis, 2020, 10, 9741-9746.	9.8	43
15	^{13}C Electron Nuclear Double Resonance Spectroscopy Shows Acetyl-CoA Synthase Binds Two Substrate CO in Multiple Binding Modes and Reveals the Importance of a CO-Binding “Alcove”. Journal of the American Chemical Society, 2020, 142, 15362-15370.	11.7	15
16	Heme oxygenase-2 is post-translationally regulated by heme occupancy in the catalytic site. Journal of Biological Chemistry, 2020, 295, 17227-17240.	1.3	31
17	Structure determination of the HgcAB complex using metagenome sequence data: insights into microbial mercury methylation. Communications Biology, 2020, 3, .	3.1	54
18	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.	1.3	23

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19	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.	4.0	26
20	Kinetics of Enzymatic Mercury Methylation at Nanomolar Concentrations Catalyzed by HgcAB. Applied and Environmental Microbiology, 2019, 85, .	2.4	32
21	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.	1.3	26
22	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.	9.8	113
23	Binding site for coenzyme A revealed in the structure of pyruvate:ferredoxin oxidoreductase from Moorella thermoacetica. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 3846-3851.	5.2	34
24	Redox Regulation of Heme Oxygenase-2 and the Transcription Factor, Rev-Erb, Through Heme Regulatory Motifs. Antioxidants and Redox Signaling, 2018, 29, 1841-1857.	4.1	30
25	An unlikely heme chaperone confirmed at last. Journal of Biological Chemistry, 2018, 293, 14569-14570.	1.3	14
26	X-ray Absorption Spectroscopy Reveals an Organometallic Ni–C Bond in the CO-Treated Form of Acetyl-CoA Synthase. Biochemistry, 2017, 56, 1248-1260.	1.5	36
27	Properties of Intermediates in the Catalytic Cycle of Oxalate Oxidoreductase and Its Suicide Inactivation by Pyruvate. Biochemistry, 2017, 56, 2824-2835.	1.5	11
28	The heme-regulatory motif of nuclear receptor Rev-erbβ is a key mediator of heme and redox signaling in circadian rhythm maintenance and metabolism. Journal of Biological Chemistry, 2017, 292, 11280-11299.	1.3	39
29	Exploring Hydrogenotrophic Methanogenesis: a Genome Scale Metabolic Reconstruction of Methanococcus maripaludis. Journal of Bacteriology, 2016, 198, 3379-3390.	2.2	62
30	The radical mechanism of biological methane synthesis by methyl-coenzyme M reductase. Science, 2016, 352, 953-958.	26.1	168
31	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.	1.5	21
32	High Affinity Heme Binding to a Heme Regulatory Motif on the Nuclear Receptor Rev-erbβ Leads to Its Degradation and Indirectly Regulates Its Interaction with Nuclear Receptor Corepressor. Journal of Biological Chemistry, 2016, 291, 2196-2222.	1.3	48
33	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.	5.2	20
34	Comparison of the Mechanisms of Heme Hydroxylation by Heme Oxygenases-1 and -2: Kinetic and Cryoreduction Studies. Biochemistry, 2016, 55, 62-68.	1.5	9
35	Investigations by Protein Film Electrochemistry of Alternative Reactions of Nickel-Containing Carbon Monoxide Dehydrogenase. Journal of Physical Chemistry B, 2015, 119, 13690-13697.	2.0	47
36	The C-Terminal Heme Regulatory Motifs of Heme Oxygenase-2 Are Redox-Regulated Heme Binding Sites. Biochemistry, 2015, 54, 2709-2718.	1.5	33

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37	The Structure of an Oxalate Oxidoreductase Provides Insight into Microbial 2-Oxoacid Metabolism. Biochemistry, 2015, 54, 4112-4120.	1.5	22
38	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.	1.5	19
39	The Reaction Mechanism of Methyl-Coenzyme M Reductase. Journal of Biological Chemistry, 2015, 290, 9322-9334.	1.3	66
40	Dramatic Conformational Flexibility of Carbon Monoxide Dehydrogenase/Acetyl-CoA Synthase Revealed by Electron Microscopy. FASEB Journal, 2015, 29, .	2.3	0
41	Structure, Function, and Mechanism of the Nickel Metalloenzymes, CO Dehydrogenase, and Acetyl-CoA Synthase. Chemical Reviews, 2014, 114, 4149-4174.	42.5	625
42	Protein/Protein Interactions in the Mammalian Heme Degradation Pathway. Journal of Biological Chemistry, 2014, 289, 29836-29858.	1.3	34
43	Selective Visible-Light-Driven CO2 Reduction on a p-Type Dye-Sensitized NiO Photocathode. Journal of the American Chemical Society, 2014, 136, 13518-13521.	11.7	107
44	Modulation of nuclear receptor function by cellular redox poise. Journal of Inorganic Biochemistry, 2014, 133, 92-103.	2.3	23
45	How Light-Harvesting Semiconductors Can Alter the Bias of Reversible Electrocatalysts in Favor of H2Production and CO2Reduction. Journal of the American Chemical Society, 2013, 135, 15026-15032.	11.7	88
46	Frontiers, Opportunities, and Challenges in Biochemical and Chemical Catalysis of CO2 Fixation. Chemical Reviews, 2013, 113, 6621-6658.	42.5	2,170
47	A Unified Electrocatalytic Description of the Action of Inhibitors of Nickel Carbon Monoxide Dehydrogenase. Journal of the American Chemical Society, 2013, 135, 2198-2206.	11.7	74
48	Investigations of Two Bidirectional Carbon Monoxide Dehydrogenases from Carboxydothermus hydrogenoformans by Protein Film Electrochemistry. ChemBioChem, 2013, 14, 1845-1851.	1.9	47
49	In vivo activation of methyl-coenzyme M reductase by carbon monoxide. Frontiers in Microbiology, 2013, 4, .	2.9	27
50	Visible light-driven CO2reduction by enzyme coupled CdS nanocrystals. Chemical Communications, 2012, 48, 58-60.	2.4	210
51	Transient B12-Dependent Methyltransferase Complexes Revealed by Small-Angle X-ray Scattering. Journal of the American Chemical Society, 2012, 134, 17945-17954.	11.7	19
52	Radical reactions of thiamin pyrophosphate in 2-oxoacid oxidoreductases. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2012, 1824, 1291-1298.	1.3	24
53	Visualizing molecular juggling within a B12-dependent methyltransferase complex. Nature, 2012, 484, 265-269.	30.7	92
54	Structural Analysis of a Ni-Methyl Species in Methyl-Coenzyme M Reductase from Methanothermobacter marburgensis. Journal of the American Chemical Society, 2011, 133, 5626-5628.	11.7	49

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55	Evidence That Ferredoxin Interfaces with an Internal Redox Shuttle in Acetyl-CoA Synthase during Reductive Activation and Catalysis. Biochemistry, 2011, 50, 276-286.	1.5	31
56	CO2 photoreduction at enzyme-modified metal oxide nanoparticles. Energy and Environmental Science, 2011, 4, 2393.	22.1	171
57	Metal centers in the anaerobic microbial metabolism of CO and CO2. Metallomics, 2011, 3, 797.	1.7	72
58	Thiol-disulfide Redox Dependence of Heme Binding and Heme Ligand Switching in Nuclear Hormone Receptor Rev-erbβ. Journal of Biological Chemistry, 2011, 286, 4392-4403.	1.3	93
59	Thiol/Disulfide Redox Switches in the Regulation of Heme Binding to Proteins. Antioxidants and Redox Signaling, 2011, 14, 1039-1047.	4.1	47
60	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.	1.7	15
61	Expanding the Biological Periodic Table. Chemistry and Biology, 2010, 17, 793-794.	4.7	3
62	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.	1.3	28
63	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.	1.3	85
64	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.	1.5	48
65	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.	11.7	429
66	Structural Insight into Methyl-Coenzyme M Reductase Chemistry Using Coenzyme B Analogues,. Biochemistry, 2010, 49, 7683-7693.	1.5	69
67	Observation of Organometallic and Radical Intermediates Formed during the Reaction of Methyl-Coenzyme M Reductase with Bromoethanesulfonate. Biochemistry, 2010, 49, 6866-6876.	1.5	22
68	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.	1.5	46
69	Pseudo-4D triple resonance experiments to resolve HN overlap in the backbone assignment of unfolded proteins. Journal of Biomolecular NMR, 2010, 49, 69-74.	1.6	12
70	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.	1.3	72
71	Water–Gas Shift Reaction Catalyzed by Redox Enzymes on Conducting Graphite Platelets. Journal of the American Chemical Society, 2009, 131, 14154-14155.	11.7	59
72	Geometric and Electronic Structures of the NiI and Methyl–NiIII Intermediates of Methyl-Coenzyme M Reductase. Biochemistry, 2009, 48, 3146-3156.	1.5	52

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73	Nickel-based Enzyme Systems. Journal of Biological Chemistry, 2009, 284, 18571-18575.	1.3	373
74	Crystallographic Snapshots of Cyanide- and Water-Bound C-Clusters from Bifunctional Carbon Monoxide Dehydrogenase/Acetyl-CoA Synthase,. Biochemistry, 2009, 48, 7432-7440.	1.5	81
75	Acetogenesis and the Wood–Ljungdahl pathway of CO2 fixation. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2008, 1784, 1873-1898.	1.3	1,290
76	Enzymology of the Wood–Ljungdahl Pathway of Acetogenesis. Annals of the New York Academy of Sciences, 2008, 1125, 129-136.	2.6	385
77	The complete genome sequence of Moorella thermoacetica (f. Clostridium thermoaceticum). Environmental Microbiology, 2008, 10, 2550-2573.	2.6	281
78	Catalysis of Methyl Group Transfers Involving Tetrahydrofolate and B12. Vitamins and Hormones, 2008, , 293-324.	2.9	61
79	^{13}C NMR Characterization of an Exchange Reaction between CO and CO_2 Catalyzed by Carbon Monoxide Dehydrogenase. Biochemistry, 2008, 47, 6770-6781.	1.5	63
80	Characterization of the Thioether Product Formed from the Thiolytic Cleavage of the Alkyl–Nickel Bond in Methyl-Coenzyme M Reductase. Biochemistry, 2008, 47, 2661-2667.	1.5	27
81	Dual Roles of an Essential Cysteine Residue in Activity of a Redox-regulated Bacterial Transcriptional Activator. Journal of Biological Chemistry, 2008, 283, 28721-28728.	1.3	13
82	Pulse-Chase Studies of the Synthesis of Acetyl-CoA by Carbon Monoxide Dehydrogenase/Acetyl-CoA Synthase. Journal of Biological Chemistry, 2008, 283, 8384-8394.	1.3	61
83	Xenon in and at the End of the Tunnel of Bifunctional Carbon Monoxide Dehydrogenase/Acetyl-CoA Synthase,. Biochemistry, 2008, 47, 3474-3483.	1.5	133
84	Comparison of Apo- and Heme-bound Crystal Structures of a Truncated Human Heme Oxygenase-2. Journal of Biological Chemistry, 2007, 282, 37624-37631.	1.3	61
85	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.	1.3	81
86	Structural and Kinetic Evidence for an Extended Hydrogen-bonding Network in Catalysis of Methyl Group Transfer. Journal of Biological Chemistry, 2007, 282, 6609-6618.	1.3	46
87	Characterization of Alkyl-Nickel Adducts Generated by Reaction of Methyl-Coenzyme M Reductase with Brominated Acids. Biochemistry, 2007, 46, 11969-11978.	1.5	36
88	Biochemical and Spectroscopic Studies of the Electronic Structure and Reactivity of a Methyl–Ni Species Formed on Methyl-Coenzyme M Reductase. Journal of the American Chemical Society, 2007, 129, 11030-11032.	11.7	65
89	Nickel and the carbon cycle. Journal of Inorganic Biochemistry, 2007, 101, 1657-1666.	2.3	161
90	Rapid and Efficient Electrocatalytic CO2/CO Interconversions by Carboxydothermus hydrogenoformans CO Dehydrogenase I on an Electrode. Journal of the American Chemical Society, 2007, 129, 10328-10329.	11.7	214

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91	Metals and Their Scaffolds To Promote Difficult Enzymatic Reactions. Chemical Reviews, 2006, 106, 3317-3337.	42.5	199
92	Reduction and Oxidation of the Active Site Iron in Tyrosine Hydroxylase: Kinetics and Specificity. Biochemistry, 2006, 45, 2372-2379.	1.5	50
93	Spectroscopic Studies of the Corrinoid/Iron–Sulfur Protein fromMoorella thermoacetica. Journal of the American Chemical Society, 2006, 128, 5010-5020.	11.7	53
94	Spectroscopic and Computational Studies of Reduction of the Metal versus the Tetrapyrrole Ring of Coenzyme F430from Methyl-Coenzyme M Reductase†. Biochemistry, 2006, 45, 11915-11933.	1.5	14
95	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.	11.7	38
96	EPR Spectroscopic and Computational Characterization of the Hydroxyethylidene-Thiamine Pyrophosphate Radical Intermediate of Pyruvate:Ferredoxin Oxidoreductase†. Biochemistry, 2006, 45, 7122-7131.	1.5	74
97	CprK Crystal Structures Reveal Mechanism for Transcriptional Control of Halorespiration. Journal of Biological Chemistry, 2006, 281, 28318-28325.	1.3	34
98	Spectroscopic and Kinetic Studies of the Reaction of Bromopropanesulfonate with Methyl-coenzyme M Reductase. Journal of Biological Chemistry, 2006, 281, 34663-34676.	1.3	30
99	Transcriptional Activation of Dehalorespiration. Journal of Biological Chemistry, 2006, 281, 26382-26390.	1.3	28
100	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.	11.7	65
101	Mechanism of 4-(β-D-Ribofuranosyl)aminobenzene 5'-Phosphate Synthase, a Key Enzyme in the Methanopterin Biosynthetic Pathway. Journal of Biological Chemistry, 2004, 279, 39389-39395.	1.3	23
102	Regulation of Anaerobic Dehalorespiration by the Transcriptional Activator CprK. Journal of Biological Chemistry, 2004, 279, 49910-49918.	1.3	42
103	Life with Carbon Monoxide. Critical Reviews in Biochemistry and Molecular Biology, 2004, 39, 165-195.	3.9	399
104	CO-Induced Structural Rearrangement of the C Cluster inCarboxydothermus hydrogenoformansCO DehydrogenaseEvidence from Ni K-Edge X-ray Absorption Spectroscopy†. Biochemistry, 2004, 43, 9029-9035.	1.5	36
105	Evidence That NiNi Acetyl-CoA Synthase Is Active and That the CuNi Enzyme Is Not†. Biochemistry, 2004, 43, 3944-3955.	1.5	86
106	Nickel Oxidation States of F430Cofactor in Methyl-Coenzyme M Reductase. Journal of the American Chemical Society, 2004, 126, 4068-4069.	11.7	56
107	Pyruvate Ferredoxin Oxidoreductase and Its Radical Intermediate. Chemical Reviews, 2003, 103, 2333-2346.	42.5	255
108	Rapid Ligand Exchange in the MCRred1 Form of Methyl-coenzyme M Reductase. Journal of the American Chemical Society, 2003, 125, 2436-2443.	11.7	18

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109	The Many Faces of Vitamin B12: Catalysis by Cobalamin-Dependent Enzymes. Annual Review of Biochemistry, 2003, 72, 209-247.	14.0	783
110	Infrared Studies of Carbon Monoxide Binding to Carbon Monoxide Dehydrogenase/Acetyl-CoA Synthase from Moorella thermoacetica. Biochemistry, 2003, 42, 14822-14830.	1.5	62
111	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.	5.2	71
112	Targeting Methanopterin Biosynthesis ToInhibitMethanogenesis. Applied and Environmental Microbiology, 2003, 69, 7236-7241.	2.4	35
113	Spectroscopic and computational characterization of the nickel-containing F430 cofactor of methyl-coenzyme M reductase. Journal of Biological Inorganic Chemistry, 2003, 9, 77-89.	1.7	27
114	Rapid Kinetic Studies of Acetyl-CoA Synthesis: Evidence Supporting the Catalytic Intermediacy of a Paramagnetic NiFeC Species in the Autotrophic Wood–Ljungdahl Pathway†. Biochemistry, 2002, 41, 1807-1819.	1.5	95
115	A Ni-Fe-Cu Center in a Bifunctional Carbon Monoxide Dehydrogenase/ Acetyl-CoA Synthase. Science, 2002, 298, 567-572.	26.1	552
116	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†. Biochemistry, 2002, 41, 9921-9937.	1.5	57
117	X-ray Absorption and Resonance Raman Studies of Methyl-Coenzyme M Reductase Indicating That Ligand Exchange and Macrocycle Reduction Accompany Reductive Activation†. Journal of the American Chemical Society, 2002, 124, 13242-13256.	11.7	48
118	Acetyl Coenzyme A Synthesis from Unnatural Methylated Corrinoids: Requirement for “Base-Off” Coordination at Cobalt. Journal of the American Chemical Society, 2001, 123, 1786-1787.	11.7	33
119	Cryoreduction of Methyl-Coenzyme M Reductase: EPR Characterization of Forms, MCRox1and MCRred1. Journal of the American Chemical Society, 2001, 123, 5853-5860.	11.7	62
120	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†. Biochemistry, 2001, 40, 12875-12885.	1.5	67
121	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.	1.3	45
122	Characterization of the Intramolecular Electron Transfer Pathway from 2-Hydroxyphenazine to the Heterodisulfide Reductase fromMethanosarcina thermophila. Journal of Biological Chemistry, 2001, 276, 2432-2439.	1.3	33
123	Characterization of the B12- and Iron-Sulfur-containing Reductive Dehalogenase fromDesulfitobacterium chlororespirans. Journal of Biological Chemistry, 2001, 276, 40991-40997.	1.3	81
124	Characterization of a Three-Component Vanillate O -Demethylase from Moorella thermoacetica. Journal of Bacteriology, 2001, 183, 3276-3281.	2.2	103
125	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.	1.3	26
126	Crystal structure of a methyltetrahydrofolate- and corrinoid-dependent methyltransferase. Structure, 2000, 8, 817-830.	2.4	81

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127	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.	1.3	199
128	Channeling of Carbon Monoxide during Anaerobic Carbon Dioxide Fixation†. Biochemistry, 2000, 39, 1274-1277.	1.5	95
129	On the Assignment of Nickel Oxidation States of the Ox1, Ox2 Forms of Methyl−Coenzyme M Reductase. Journal of the American Chemical Society, 2000, 122, 182-183.	11.7	65
130	Characterization of Heterogeneous Nickel Sites in CO Dehydrogenases fromClostridium thermoaceticumandRhodospirillum rubrumby Nickel L-Edge X-ray Spectroscopy. Journal of the American Chemical Society, 2000, 122, 10553-10560.	11.7	66
131	The Role of an Iron-Sulfur Cluster in an Enzymatic Methylation Reaction. Journal of Biological Chemistry, 1999, 274, 11513-11518.	1.3	70
132	ENDOR Studies of Pyruvate:Ferredoxin Oxidoreductase Reaction Intermediates. Journal of the American Chemical Society, 1999, 121, 3724-3729.	11.7	10
133	Binding of (6R,S)-Methyltetrahydrofolate to Methyltransferase fromClostridium thermoaceticum: Role of Protonation of Methyltetrahydrofolate in the Mechanism of Methyl Transfer†. Biochemistry, 1999, 38, 5736-5745.	1.5	22
134	Mechanism of Transfer of the Methyl Group from (6S)-Methyltetrahydrofolate to the Corrinoid/Iron−Sulfur Protein Catalyzed by the Methyltransferase fromClostridium thermoaceticum: A Key Step in the Wood−Ljungdahl Pathway of Acetyl-CoA Synthesis†. Biochemistry, 1999, 38, 5728-5735.	1.5	37
135	Nitrate-Dependent Regulation of Acetate Biosynthesis and Nitrate Respiration by Clostridium thermoaceticum. Journal of Bacteriology, 1999, 181, 1489-1495.	2.2	34
136	Nickel biochemistry. Current Opinion in Chemical Biology, 1998, 2, 208-215.	4.6	118
137	The F420H2:heterodisulfide oxidoreductase system fromMethanosarcinaspecies. FEBS Letters, 1998, 428, 295-298.	1.8	44
138	Activation of Methyl-SCoM Reductase to High Specific Activity after Treatment of Whole Cells with Sodium Sulfide†. Biochemistry, 1998, 37, 2639-2647.	1.5	68
139	Role of the [4Fe-4S] Cluster in Reductive Activation of the Cobalt Center of the Corrinoid Iron−Sulfur Protein from Clostridium thermoaceticum during Acetate Biosynthesis. Biochemistry, 1998, 37, 5689-5698.	1.5	71
140	Purification and Properties of the Heme- and Iron−Sulfur-Containing Heterodisulfide Reductase from Methanosarcina thermophila. Biochemistry, 1998, 37, 10027-10039.	1.5	64
141	Electrochemical and Spectroscopic Properties of the Iron-Sulfur Flavoprotein from Methanosarcina thermophila. Journal of Biological Chemistry, 1998, 273, 26462-26469.	1.3	18
142	Nucleotide Excision Repair in the Third Kingdom. Journal of Bacteriology, 1998, 180, 5796-5798.	2.2	47
143	Mechanism of Carbon Monoxide Oxidation by the Carbon Monoxide Dehydrogenase/Acetyl-CoA Synthase from Clostridium thermoaceticum: Kinetic Characterization of the Intermediates. Biochemistry, 1997, 36, 11241-11251.	1.5	65
144	Mechanism of the Clostridium thermoaceticum Pyruvate:Ferredoxin Oxidoreductase: Evidence for the Common Catalytic Intermediacy of the Hydroxyethylthiamine Pyropyrosphate Radical. Biochemistry, 1997, 36, 8484-8494.	1.5	77

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145	The Eastern and Western branches of the Wood/Ljungdahl pathway: how the East and West were won. BioFactors, 1997, 6, 3-11.	3.1	94
146	Nickel-Containing Carbon Monoxide Dehydrogenase/Acetyl-CoA Synthase ,. Chemical Reviews, 1996, 96, 2515-2540.	42.5	355
147	A Conformational Change in the Methyltransferase fromClostridium thermoaceticumFacilitates the Methyl Transfer from (6S)-Methyltetrahydrofolate to the Corrinoid/Iron−Sulfur Protein in the Acetyl-CoA Pathway†. Biochemistry, 1996, 35, 2476-2481.	1.5	17
148	Raman and Infrared Spectroscopy of Cyanide-Inhibited CO Dehydrogenase/Acetyl-CoA Synthase fromClostridium thermoaceticum: Evidence for Bimetallic Enzymatic CO Oxidation. Journal of the American Chemical Society, 1996, 118, 10429-10435.	11.7	24
149	Evidence That Carbon Monoxide Is an Obligatory Intermediate in Anaerobic Acetyl-CoA Synthesis†. Biochemistry, 1996, 35, 12119-12125.	1.5	59
150	Unleashing Hydrogenase Activity in Carbon Monoxide Dehydrogenase/Acetyl-CoA Synthase and Pyruvate:Ferredoxin Oxidoreductase†. Biochemistry, 1996, 35, 15814-15821.	1.5	81
151	The role of nickel in acetyl-CoA synthesis by the bifunctional enzyme CO dehydrogenase/acetyl-CoA synthase: enzymology and model chemistry. Journal of Biological Inorganic Chemistry, 1996, 1, 489-493.	1.7	20
152	Preliminary X-ray crystallographic study of methyltetrahydrofolate: corrinoid/iron sulfur protein methyltransferase fromClostridium thermoaceticum. Acta Crystallographica Section D: Biological Crystallography, 1995, 51, 1092-1093.	3.1	3
153	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.	1.5	50
154	Mechanism of CO oxidation by carbon monoxide dehydrogenase from Clostridium thermoaceticum and its inhibition by anions. Biochemistry, 1995, 34, 7879-7888.	1.5	65
155	Azide Binding to Carbon Monoxide Dehydrogenase from Clostridium thermoaceticum. Journal of the American Chemical Society, 1995, 117, 2939-2940.	11.7	16
156	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.	11.7	19
157	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.	11.7	30
158	Structural and Electronic Factors in Heterolytic Cleavage: Formation of the Co(I) Intermediate in the Corrinoid/Iron-Sulfur Protein from Clostridium thermoaceticum. Biochemistry, 1995, 34, 5269-5273.	1.5	26
159	Hydroxybenzoyl-CoA reductase: coupling kinetics and electrochemistry to derive enzyme mechanisms. Biochemistry, 1995, 34, 11668-11677.	1.5	18
160	Characterization of the iron-sulfur clusters in ferredoxin from acetate-grown Methanosarcina thermophila. Journal of Bacteriology, 1994, 176, 2689-2693.	2.2	18
161	The reductive acetyl coenzyme A pathway: sequence and heterologous expression of active methyltetrahydrofolate:corrinoid/iron-sulfur protein methyltransferase from Clostridium thermoaceticum. Journal of Bacteriology, 1994, 176, 6127-6130.	2.2	64
162	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.	1.5	52

#	Article	IF	Citations
163	Anaerobic Pathway for Conversion of the Methyl Group of Aromatic Methyl Ethers to Acetic Acid by Clostridium thermoaceticum. Biochemistry, 1994, 33, 11217-11224.	1.5	50
164	Characterization of the carbonylation and methylation sites in carbon monoxide dehydrogenase from clostridium thermoaceticum.. Journal of Inorganic Biochemistry, 1993, 51, 233.	2.3	1
165	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.	11.7	78
166	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.	11.7	35
167	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.	11.7	75
168	Acetyl-coenzyme A synthesis from methyltetrahydrofolate, CO, and coenzyme A by enzymes purified from Clostridium thermoaceticum: attainment of in vivo rates and identification of rate-limiting steps. Journal of Bacteriology, 1992, 174, 4667-4676.	2.2	44
169	Enzymology of the Acetyl-CoA Pathway of CO2Fixation. Critical Reviews in Biochemistry and Molecular Biology, 1991, 26, 261-300.	3.9	264
170	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.	1.5	104
171	Reductive activation of the coenzyme A/acetyl-CoA isotopic exchange reaction catalyzed by carbon monoxide dehydrogenase from Clostridium thermoaceticum and its inhibition by nitrous oxide and carbon monoxide. Journal of Biological Chemistry, 1991, 266, 3554-3564.	1.3	66
172	The acetyl-CoA synthase fromClostridium thermoaceticum: from gene cluster to achive-site metal clusters. FEMS Microbiology Letters, 1990, 87, 397-402.	1.1	11
173	Mechanism of reductive activation of cobalamin-dependent methionine synthase: an electron paramagnetic resonance spectroelectrochemical study. Biochemistry, 1990, 29, 1129-1135.	1.5	161
174	CO dehydrogenase from Clostridium thermoaceticum. EPR and electrochemical studies in CO2 and argon atmospheres.. Journal of Biological Chemistry, 1990, 265, 3873-3879.	1.3	131
175	Mössbauer study of CO dehydrogenase from Clostridium thermoaceticum.. Journal of Biological Chemistry, 1990, 265, 3880-3888.	1.3	105
176	Controlled potential enzymology of methyl transfer reactions involved in acetyl-CoA synthesis by CO dehydrogenase and the corrinoid/iron-sulfur protein from Clostridium thermoaceticum.. Journal of Biological Chemistry, 1990, 265, 3124-3133.	1.3	82
177	The acetyl-CoA synthase from Clostridium thermoaceticum: from gene cluster to achive-site metal clusters. FEMS Microbiology Letters, 1990, 87, 397-402.	1.1	0
178	A spectroelectrochemical cell designed for low temperature electron paramagnetic resonance titration of oxygen-sensitive proteins. Analytical Biochemistry, 1989, 181, 283-287.	2.0	36
179	Spectroelectrochemical studies of the corrinoid/iron-sulfur protein involved in acetyl coenzyme A synthesis by Clostridium thermoaceticum. Biochemistry, 1989, 28, 9080-9087.	1.5	100
180	Cloning and expression of the gene cluster encoding key proteins involved in acetyl-CoA synthesis in Clostridium thermoaceticum: CO dehydrogenase, the corrinoid/Fe-S protein, and methyltransferase.. Proceedings of the National Academy of Sciences of the United States of America, 1989, 86, 32-36.	5.2	67

#	Article	IF	Citations
181	Mössbauer, EPR, and optical studies of the corrinoid/iron-sulfur protein involved in the synthesis of acetyl coenzyme A by Clostridium thermoaceticum.. Journal of Biological Chemistry, 1987, 262, 14289-14297.	1.3	153
182	Evidence that an iron-nickel-carbon complex is formed by reaction of CO with the CO dehydrogenase from Clostridium thermoaceticum.. Proceedings of the National Academy of Sciences of the United States of America, 1985, 82, 6811-6814.	5.2	177
183	Acetate biosynthesis by acetogenic bacteria. Evidence that carbon monoxide dehydrogenase is the condensing enzyme that catalyzes the final steps of the synthesis.. Journal of Biological Chemistry, 1985, 260, 3970-3977.	1.3	238
184	Hydrogenase from Acetobacterium woodii. Archives of Microbiology, 1984, 139, 361-365.	2.1	59
185	Purification and properties of NAD-dependent 5,10-methylenetetrahydrofolate dehydrogenase from Acetobacterium woodii.. Journal of Biological Chemistry, 1984, 259, 3499-3503.	1.3	61
186	Characterization of ferredoxin, flavodoxin, and rubredoxin from Clostridium formicoaceticum grown in media with high and low iron contents. Journal of Bacteriology, 1984, 157, 1-6.	2.2	53
187	13C and 61Ni isotope substitutions confirm the presence of a nickel(III)-carbon species in acetogenic CO dehydrogenases. Biochemical and Biophysical Research Communications, 1983, 115, 658-665.	1.5	103
188	Properties of purified carbon monoxide dehydrogenase from Clostridium thermoaceticum, a nickel, iron-sulfur protein.. Journal of Biological Chemistry, 1983, 258, 2364-2369.	1.3	228
189	Isolation of carbon monoxide dehydrogenase from Acetobacterium woodii and comparison of its properties with those of the Clostridium thermoaceticum enzyme. Journal of Bacteriology, 1983, 155, 1224-1237.	2.2	148
190	EPR evidence for nickel-substrate interaction in carbon monoxide dehydrogenase from Clostridium thermoaceticum. Biochemical and Biophysical Research Communications, 1982, 108, 658-663.	1.5	104
191	Levels of enzymes involved in the synthesis of acetate from CO2 in Clostridium thermoautotrophicum. Journal of Bacteriology, 1982, 151, 507-509.	2.2	56
192	Heme and CO metabolism by the canonical human heme oxygenases. Journal of Inorganic Biochemistry, 0, 275, 113111.	2.3	0
193	Investigating weak axial ligation in corrinoids by X-ray absorption spectroscopy: Implications for corrinoid iron-sulfur protein. Journal of Inorganic Biochemistry, 0, 281, 113323.	2.3	1