

Amy C Rosenzweig

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114
papers

9,268
citations

52
h-index

95
g-index

162
ext. papers

10,223
ext. citations

11.3
avg, IF

6.52
L-index

#	Paper	IF	Citations
114	Crystal structure of a bacterial non-haem iron hydroxylase that catalyses the biological oxidation of methane. <i>Nature</i> , 1993 , 366, 537-43	50.4	838
113	Crystal structure of a membrane-bound metalloenzyme that catalyses the biological oxidation of methane. <i>Nature</i> , 2005 , 434, 177-82	50.4	516
112	Oxidation of methane by a biological dicopper centre. <i>Nature</i> , 2010 , 465, 115-9	50.4	411
111	Structural basis for copper transfer by the metallochaperone for the Menkes/Wilson disease proteins. <i>Nature Structural Biology</i> , 2000 , 7, 766-71		323
110	Structural biology of copper trafficking. <i>Chemical Reviews</i> , 2009 , 109, 4760-79	68.1	311
109	Geometry of the soluble methane monooxygenase catalytic diiron center in two oxidation states. <i>Chemistry and Biology</i> , 1995 , 2, 409-418		299
108	The biochemistry of methane oxidation. <i>Annual Review of Biochemistry</i> , 2007 , 76, 223-41	29.1	280
107	Copper delivery by metallochaperone proteins. <i>Accounts of Chemical Research</i> , 2001 , 34, 119-28	24.3	239
106	Heterodimeric structure of superoxide dismutase in complex with its metallochaperone. <i>Nature Structural Biology</i> , 2001 , 8, 751-5		231
105	Crystal structure of the Atx1 metallochaperone protein at 1.02 Å resolution. <i>Structure</i> , 1999 , 7, 605-17	5.2	211
104	X-ray absorption, Moessbauer, and EPR studies of the dinuclear iron center in the hydroxylase component of methane monooxygenase. <i>Journal of the American Chemical Society</i> , 1991 , 113, 9219-9235	16.4	211
103	Enzymatic oxidation of methane. <i>Biochemistry</i> , 2015 , 54, 2283-94	3.2	210
102	Crystal structures of the methane monooxygenase hydroxylase from <i>Methylococcus capsulatus</i> (Bath): Implications for substrate gating and component interactions. <i>Proteins: Structure, Function and Bioinformatics</i> , 1997 , 29, 141-152	4.2	170
101	Metallochaperones: bind and deliver. <i>Chemistry and Biology</i> , 2002 , 9, 673-7		167
100	Structural and mechanistic insights into methane oxidation by particulate methane monooxygenase. <i>Accounts of Chemical Research</i> , 2007 , 40, 573-80	24.3	159
99	Biological methane oxidation: regulation, biochemistry, and active site structure of particulate methane monooxygenase. <i>Critical Reviews in Biochemistry and Molecular Biology</i> , 2004 , 39, 147-64	8.7	159
98	Crystal structure of the copper chaperone for superoxide dismutase. <i>Nature Structural Biology</i> , 1999 , 6, 724-9		155

97	Particulate methane monooxygenase contains only mononuclear copper centers. <i>Science</i> , 2019 , 364, 566-570	33.3	136
96	A tale of two methane monooxygenases. <i>Journal of Biological Inorganic Chemistry</i> , 2017 , 22, 307-319	3.7	130
95	Purified particulate methane monooxygenase from <i>Methylococcus capsulatus</i> (Bath) is a dimer with both mononuclear copper and a copper-containing cluster. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003 , 100, 3820-5	11.5	123
94	Structure-function analyses of the ATX1 metallochaperone. <i>Journal of Biological Chemistry</i> , 1999 , 274, 15041-5	5.4	121
93	Architecture and active site of particulate methane monooxygenase. <i>Critical Reviews in Biochemistry and Molecular Biology</i> , 2012 , 47, 483-92	8.7	111
92	The metal centers of particulate methane monooxygenase from <i>Methylosinus trichosporium</i> OB3b. <i>Biochemistry</i> , 2008 , 47, 6793-801	3.2	104
91	Crystal structure and characterization of particulate methane monooxygenase from <i>Methylocystis</i> species strain M. <i>Biochemistry</i> , 2011 , 50, 10231-40	3.2	101
90	Structural insights into dioxygen-activating copper enzymes. <i>Current Opinion in Structural Biology</i> , 2006 , 16, 729-35	8.1	99
89	Structure and metal binding properties of ZnuA, a periplasmic zinc transporter from <i>Escherichia coli</i> . <i>Journal of Biological Inorganic Chemistry</i> , 2008 , 13, 271-88	3.7	93
88	Quantum Refinement Does Not Support Dinuclear Copper Sites in Crystal Structures of Particulate Methane Monooxygenase. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 162-166	16.4	93
87	Yeast cox17 solution structure and Copper(I) binding. <i>Journal of Biological Chemistry</i> , 2004 , 279, 53584-92	3.4	91
86	Heterodimer formation between superoxide dismutase and its copper chaperone. <i>Biochemistry</i> , 2000 , 39, 14720-7	3.2	89
85	Structure of the bacteriophage lambda Ser/Thr protein phosphatase with sulfate ion bound in two coordination modes. <i>Biochemistry</i> , 2000 , 39, 15365-74	3.2	87
84	Methane-Oxidizing Enzymes: An Upstream Problem in Biological Gas-to-Liquids Conversion. <i>Journal of the American Chemical Society</i> , 2016 , 138, 9327-40	16.4	87
83	Metal binding domains 3 and 4 of the Wilson disease protein: solution structure and interaction with the copper(I) chaperone HAH1. <i>Biochemistry</i> , 2008 , 47, 7423-9	3.2	85
82	Xenon and halogenated alkanes track putative substrate binding cavities in the soluble methane monooxygenase hydroxylase. <i>Biochemistry</i> , 2001 , 40, 3476-82	3.2	85
81	Crystal structure of the second domain of the human copper chaperone for superoxide dismutase. <i>Biochemistry</i> , 2000 , 39, 1589-95	3.2	84
80	Copper methanobactin: a molecule whose time has come. <i>Current Opinion in Chemical Biology</i> , 2008 , 12, 245-9	9.7	82

79	Characterization of the particulate methane monooxygenase metal centers in multiple redox states by X-ray absorption spectroscopy. <i>Inorganic Chemistry</i> , 2006 , 45, 8372-81	5.1	80
78	Evidence for oxygen binding at the active site of particulate methane monooxygenase. <i>Journal of the American Chemical Society</i> , 2012 , 134, 7640-3	16.4	76
77	Structure of the ATP binding domain from the Archaeoglobus fulgidus Cu ⁺ -ATPase. <i>Journal of Biological Chemistry</i> , 2006 , 281, 11161-6	5.4	76
76	Binding of copper(I) by the Wilson disease protein and its copper chaperone. <i>Journal of Biological Chemistry</i> , 2004 , 279, 12269-76	5.4	75
75	Diversity of the metal-transporting P1B-type ATPases. <i>Journal of Biological Inorganic Chemistry</i> , 2014 , 19, 947-60	3.7	71
74	The biosynthesis of methanobactin. <i>Science</i> , 2018 , 359, 1411-1416	33.3	68
73	A Small Molecule That Switches a Ubiquitin Ligase From a Processive to a Distributive Enzymatic Mechanism. <i>Journal of the American Chemical Society</i> , 2015 , 137, 12442-5	16.4	65
72	Chemistry and biology of the copper chelator methanobactin. <i>ACS Chemical Biology</i> , 2012 , 7, 260-8	4.9	65
71	Dual pathways for copper uptake by methanotrophic bacteria. <i>Journal of Biological Chemistry</i> , 2011 , 286, 37313-9	5.4	65
70	Crystal structure of a novel red copper protein from <i>Nitrosomonas europaea</i> . <i>Biochemistry</i> , 2001 , 40, 5674-81	3.2	65
69	Crystal structure and dimerization equilibria of PcoC, a methionine-rich copper resistance protein from <i>Escherichia coli</i> . <i>Journal of Biological Inorganic Chemistry</i> , 2003 , 8, 185-94	3.7	61
68	Crystal structure of yeast Sco1. <i>Journal of Biological Inorganic Chemistry</i> , 2006 , 11, 459-66	3.7	58
67	Printable enzyme-embedded materials for methane to methanol conversion. <i>Nature Communications</i> , 2016 , 7, 11900	17.4	57
66	Structure of beta-lactam synthetase reveals how to synthesize antibiotics instead of asparagine. <i>Nature Structural Biology</i> , 2001 , 8, 684-9		55
65	Structure of the actuator domain from the Archaeoglobus fulgidus Cu ⁽⁺⁾ -ATPase. <i>Biochemistry</i> , 2006 , 45, 9949-55	3.2	54
64	Crystal structure of a two-domain multicopper oxidase: implications for the evolution of multicopper blue proteins. <i>Journal of Biological Chemistry</i> , 2009 , 284, 10174-80	5.4	53
63	X-ray crystallography and biological metal centers: is seeing believing?. <i>Inorganic Chemistry</i> , 2005 , 44, 770-8	5.1	52
62	The CopC Family: Structural and Bioinformatic Insights into a Diverse Group of Periplasmic Copper Binding Proteins. <i>Biochemistry</i> , 2016 , 55, 2278-90	3.2	51

61	Effects of zinc on particulate methane monooxygenase activity and structure. <i>Journal of Biological Chemistry</i> , 2014 , 289, 21782-94	5.4	49
60	Genome mining for methanobactins. <i>BMC Biology</i> , 2013 , 11, 17	7.3	49
59	Probing transient copper chaperone-Wilson disease protein interactions at the single-molecule level with nanovesicle trapping. <i>Journal of the American Chemical Society</i> , 2008 , 130, 2446-7	16.4	49
58	Variable coordination geometries at the diiron(II) active site of ribonucleotide reductase R2. <i>Journal of the American Chemical Society</i> , 2003 , 125, 15822-30	16.4	48
57	Toward a molecular understanding of metal transport by P(1B)-type ATPases. <i>Current Topics in Membranes</i> , 2012 , 69, 113-36	2.2	46
56	The copper chelator methanobactin from <i>Methylosinus trichosporium</i> OB3b binds copper(I). <i>Journal of the American Chemical Society</i> , 2005 , 127, 17142-3	16.4	46
55	Native top-down mass spectrometry provides insights into the copper centers of membrane-bound methane monooxygenase. <i>Nature Communications</i> , 2019 , 10, 2675	17.4	45
54	Sequencing and analysis of the <i>Methylococcus capsulatus</i> (Bath) soluble methane monooxygenase genes. <i>FEBS Journal</i> , 2000 , 267, 2174-85		44
53	Structural conservation of the B subunit in the ammonia monooxygenase/particulate methane monooxygenase superfamily. <i>Proteins: Structure, Function and Bioinformatics</i> , 2014 , 82, 2263-7	4.2	43
52	Identification of the valence and coordination environment of the particulate methane monooxygenase copper centers by advanced EPR characterization. <i>Journal of the American Chemical Society</i> , 2014 , 136, 11767-75	16.4	42
51	Copper-responsive gene expression in the methanotroph <i>Methylosinus trichosporium</i> OB3b. <i>Metallomics</i> , 2016 , 8, 931-40	4.5	42
50	Cell-free protein synthesis enables high yielding synthesis of an active multicopper oxidase. <i>Biotechnology Journal</i> , 2016 , 11, 212-8	5.6	41
49	The quest for the particulate methane monooxygenase active site. <i>Dalton Transactions</i> , 2005 , 3390-6	4.3	40
48	Structure and function of the lanthanide-dependent methanol dehydrogenase XoxF from the methanotroph <i>Methylomicrobium buryatense</i> 5GB1C. <i>Journal of Biological Inorganic Chemistry</i> , 2018 , 23, 1037-1047	3.7	38
47	Structure and protein-protein interactions of methanol dehydrogenase from <i>Methylococcus capsulatus</i> (Bath). <i>Biochemistry</i> , 2014 , 53, 6211-9	3.2	38
46	Chalkophores. <i>Annual Review of Biochemistry</i> , 2018 , 87, 645-676	29.1	36
45	Methanobactins: from genome to function. <i>Metallomics</i> , 2017 , 9, 7-20	4.5	34
44	Methanobactin transport machinery. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 13027-13032	11.5	34

43	Characterization of a nitrite reductase involved in nitrifier denitrification. <i>Journal of Biological Chemistry</i> , 2013 , 288, 25575-25583	5.4	33
42	Methanobactins: Maintaining copper homeostasis in methanotrophs and beyond. <i>Journal of Biological Chemistry</i> , 2018 , 293, 4606-4615	5.4	32
41	From micelles to bicelles: Effect of the membrane on particulate methane monooxygenase activity. <i>Journal of Biological Chemistry</i> , 2018 , 293, 10457-10465	5.4	32
40	Sinorhizobium meliloti Nia is a P(1B-5)-ATPase expressed in the nodule during plant symbiosis and is involved in Ni and Fe transport. <i>Metallomics</i> , 2013 , 5, 1614-1623	4.5	30
39	The metal centres of particulate methane mono-oxygenase. <i>Biochemical Society Transactions</i> , 2008 , 36, 1134-7	5.1	30
38	Characterization and structure of a Zn ²⁺ and [2Fe-2S]-containing copper chaperone from <i>Archaeoglobus fulgidus</i> . <i>Journal of Biological Chemistry</i> , 2007 , 282, 25950-9	5.4	30
37	Characterization of a long overlooked copper protein from methane- and ammonia-oxidizing bacteria. <i>Nature Communications</i> , 2018 , 9, 4276	17.4	30
36	Characterization of Methanobactin from <i>Methylosinus</i> sp. LW4. <i>Journal of the American Chemical Society</i> , 2016 , 138, 11124-7	16.4	27
35	Biocatalysts for methane conversion: big progress on breaking a small substrate. <i>Current Opinion in Chemical Biology</i> , 2016 , 35, 142-149	9.7	27
34	Structure of the redox sensor domain of <i>Methylococcus capsulatus</i> (Bath) MmoS. <i>Biochemistry</i> , 2009 , 48, 2207-15	3.2	26
33	Characterization of a cobalt-specific P(1B)-ATPase. <i>Biochemistry</i> , 2012 , 51, 7891-900	3.2	24
32	A new metal binding domain involved in cadmium, cobalt and zinc transport. <i>Nature Chemical Biology</i> , 2015 , 11, 678-84	11.7	23
31	Metal reconstitution of particulate methane monooxygenase and heterologous expression of the pmoB subunit. <i>Methods in Enzymology</i> , 2011 , 495, 195-210	1.7	23
30	Biochemistry of aerobic biological methane oxidation. <i>Chemical Society Reviews</i> , 2021 , 50, 3424-3436	58.5	23
29	Cu-specific CopB transporter: Revising P-type ATPase classification. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, 2108-2113	11.5	22
28	Identification of a hemerythrin-like domain in a P1B-type transport ATPase. <i>Biochemistry</i> , 2010 , 49, 7060-8	3.8	22
27	Secretion of flavins by three species of methanotrophic bacteria. <i>Applied and Environmental Microbiology</i> , 2010 , 76, 7356-8	4.8	20
26	Biochemical characterization of MmoS, a sensor protein involved in copper-dependent regulation of soluble methane monooxygenase. <i>Biochemistry</i> , 2006 , 45, 10191-8	3.2	20

25	Quantum Refinement Does Not Support Dinuclear Copper Sites in Crystal Structures of Particulate Methane Monooxygenase. <i>Angewandte Chemie</i> , 2018 , 130, 168-172	3.6	18
24	Solution structure of the COMMD1 N-terminal domain. <i>Journal of Molecular Biology</i> , 2007 , 365, 715-21	6.5	18
23	Relating dynamic protein interactions of metallochaperones with metal transfer at the single-molecule level. <i>Faraday Discussions</i> , 2011 , 148, 71-82; discussion 97-108	3.6	17
22	Structure and interactions of the C-terminal metal binding domain of Archaeoglobus fulgidus CopA. <i>Proteins: Structure, Function and Bioinformatics</i> , 2010 , 78, 2450-8	4.2	17
21	Metal Selectivity of a Cd-, Co-, and Zn-Transporting P-type ATPase. <i>Biochemistry</i> , 2017 , 56, 85-95	3.2	13
20	Formation and Electronic Structure of an Atypical Cu Site. <i>Journal of the American Chemical Society</i> , 2019 , 141, 4678-4686	16.4	12
19	Biochemistry: Breaking methane. <i>Nature</i> , 2015 , 518, 309-10	50.4	11
18	Repurposed HisC Aminotransferases Complete the Biosynthesis of Some Methanobactins. <i>Biochemistry</i> , 2018 , 57, 3515-3523	3.2	11
17	Recent Advances in the Genetic Manipulation of Methylosinus trichosporium OB3b. <i>Methods in Enzymology</i> , 2018 , 605, 335-349	1.7	11
16	Towards a unified understanding of the copper sites in particulate methane monooxygenase: an X-ray absorption spectroscopic investigation. <i>Chemical Science</i> , 2021 , 12, 6194-6209	9.4	11
15	BIOCHEMISTRY. Methane--make it or break it. <i>Science</i> , 2016 , 352, 892-3	33.3	8
14	Coordination of the Copper Centers in Particulate Methane Monooxygenase: Comparison between Methanotrophs and Characterization of the Cu Site by EPR and ENDOR Spectroscopies. <i>Journal of the American Chemical Society</i> , 2021 , 143, 15358-15368	16.4	6
13	Charge-Disproportionation Symmetry Breaking Creates a Heterodimeric Myoglobin Complex with Enhanced Affinity and Rapid Intracomplex Electron Transfer. <i>Journal of the American Chemical Society</i> , 2016 , 138, 12615-28	16.4	5
12	Response from Boal and Rosenzweig to Crystallography and chemistry should always go together: a cautionary tale of protein complexes with cisplatin and carboplatin. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2015 , 71, 1984-6		4
11	Detection and characterization of a multicopper oxidase from Nitrosomonas europaea. <i>Methods in Enzymology</i> , 2011 , 496, 423-33	1.7	4
10	Recovery of particulate methane monooxygenase structure and activity in a lipid bilayer.. <i>Science</i> , 2022 , 375, 1287-1291	33.3	4
9	Particulate Methane Monooxygenase and the PmoD Protein 2020 , 1-8		3
8	MbnH is a diheme MauG-like protein associated with microbial copper homeostasis. <i>Journal of Biological Chemistry</i> , 2019 , 294, 16141-16151	5.4	2

7	PCuC domains from methane-oxidizing bacteria use a histidine brace to bind copper. <i>Journal of Biological Chemistry</i> , 2019 , 294, 16351-16363	5.4	2
6	Crystal structures of the methane monooxygenase hydroxylase from <i>Methylococcus capsulatus</i> (Bath): Implications for substrate gating and component interactions 1997 , 29, 141		2
5	Characterization of a Copper-Chelating Natural Product from the Methanotroph sp. LW3. <i>Biochemistry</i> , 2021 , 60, 2845-2850	3.2	1
4	A mixed-valent Fe(II)Fe(III) species converts cysteine to an oxazolone/thioamide pair in methanobactin biosynthesis.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022 , 119, e2123566119	11.5	1
3	The copper-linked E. coli AZY operon: Structure, metal binding, and a possible physiological role in copper delivery. <i>Journal of Biological Chemistry</i> , 2021 , 101445	5.4	0
2	A biochemical sulfur delivery service. <i>Science</i> , 2017 , 358, 307-308	33.3	
1	Protocols for Structural and Functional Analysis of Particulate Methane Monooxygenase from <i>Methylocystis</i> Species Strain Rockwell (ATCC 49242). <i>Springer Protocols</i> , 2014 , 149-160	0.3	