

Amy C Rosenzweig

List of Publications by Year in descending order

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118
papers

11,180
citations

28190
55
h-index

30010
103
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162
all docs

162
docs citations

162
times ranked

8084
citing authors

#	ARTICLE	IF	CITATIONS
1	Crystal structure of a bacterial non-haem iron hydroxylase that catalyses the biological oxidation of methane. <i>Nature</i> , 1993, 366, 537-543.	13.7	940
2	Crystal structure of a membrane-bound metalloenzyme that catalyses the biological oxidation of methane. <i>Nature</i> , 2005, 434, 177-182.	13.7	613
3	Oxidation of methane by a biological dicopper centre. <i>Nature</i> , 2010, 465, 115-119.	13.7	477
4	Structural Biology of Copper Trafficking. <i>Chemical Reviews</i> , 2009, 109, 4760-4779.	23.0	359
5	Structural basis for copper transfer by the metallochaperone for the Menkes/Wilson disease proteins. <i>Nature Structural Biology</i> , 2000, 7, 766-771.	9.7	352
6	Geometry of the soluble methane monooxygenase catalytic diiron center in two oxidation states. <i>Chemistry and Biology</i> , 1995, 2, 409-418.	6.2	336
7	The Biochemistry of Methane Oxidation. <i>Annual Review of Biochemistry</i> , 2007, 76, 223-241.	5.0	333
8	Enzymatic Oxidation of Methane. <i>Biochemistry</i> , 2015, 54, 2283-2294.	1.2	276
9	Copper Delivery by Metallochaperone Proteins. <i>Accounts of Chemical Research</i> , 2001, 34, 119-128.	7.6	261
10	Heterodimeric structure of superoxide dismutase in complex with its metallochaperone. <i>Nature Structural Biology</i> , 2001, 8, 751-755.	9.7	256
11	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.	6.6	235
12	Crystal structure of the Atx1 metallochaperone protein at 1.02 Å... resolution. <i>Structure</i> , 1999, 7, 605-617.	1.6	229
13	Particulate methane monooxygenase contains only mononuclear copper centers. <i>Science</i> , 2019, 364, 566-570.	6.0	217
14	A tale of two methane monooxygenases. <i>Journal of Biological Inorganic Chemistry</i> , 2017, 22, 307-319.	1.1	205
15	Metallochaperones. <i>Chemistry and Biology</i> , 2002, 9, 673-677.	6.2	195
16	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.	1.5	189
17	Biological Methane Oxidation: Regulation, Biochemistry, and Active Site Structure of Particulate Methane Monooxygenase. <i>Critical Reviews in Biochemistry and Molecular Biology</i> , 2004, 39, 147-164.	2.3	184
18	Structural and Mechanistic Insights into Methane Oxidation by Particulate Methane Monooxygenase. <i>Accounts of Chemical Research</i> , 2007, 40, 573-580.	7.6	180

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19	Crystal structure of the copper chaperone for superoxide dismutase. <i>Nature Structural Biology</i> , 1999, 6, 724-729.	9.7	175
20	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, 3820-3825.	3.3	145
21	Structure-Function Analyses of the ATX1 Metallochaperone. <i>Journal of Biological Chemistry</i> , 1999, 274, 15041-15045.	1.6	137
22	The Metal Centers of Particulate Methane Monooxygenase from <i>Methylosinus trichosporium</i> OB3b. <i>Biochemistry</i> , 2008, 47, 6793-6801.	1.2	130
23	Crystal Structure and Characterization of Particulate Methane Monooxygenase from <i>Methylocystis</i> species Strain M. <i>Biochemistry</i> , 2011, 50, 10231-10240.	1.2	130
24	Architecture and active site of particulate methane monooxygenase. <i>Critical Reviews in Biochemistry and Molecular Biology</i> , 2012, 47, 483-492.	2.3	127
25	Methane-Oxidizing Enzymes: An Upstream Problem in Biological Gas-to-Liquids Conversion. <i>Journal of the American Chemical Society</i> , 2016, 138, 9327-9340.	6.6	126
26	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.	7.2	122
27	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, 271-288.	1.1	116
28	Structural insights into dioxygen-activating copper enzymes. <i>Current Opinion in Structural Biology</i> , 2006, 16, 729-735.	2.6	108
29	The biosynthesis of methanobactin. <i>Science</i> , 2018, 359, 1411-1416.	6.0	101
30	Diversity of the metal-transporting P1B-type ATPases. <i>Journal of Biological Inorganic Chemistry</i> , 2014, 19, 947-960.	1.1	98
31	Yeast Cox17 Solution Structure and Copper(I) Binding. <i>Journal of Biological Chemistry</i> , 2004, 279, 53584-53592.	1.6	96
32	Heterodimer Formation between Superoxide Dismutase and Its Copper Chaperone. <i>Biochemistry</i> , 2000, 39, 14720-14727.	1.2	93
33	Xenon and Halogenated Alkanes Track Putative Substrate Binding Cavities in the Soluble Methane Monooxygenase Hydroxylase. <i>Biochemistry</i> , 2001, 40, 3476-3482.	1.2	93
34	Copper methanobactin: a molecule whose time has come. <i>Current Opinion in Chemical Biology</i> , 2008, 12, 245-249.	2.8	93
35	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, 7423-7429.	1.2	93
36	Structure of the Bacteriophage λ Ser/Thr Protein Phosphatase with Sulfate Ion Bound in Two Coordination Modes. <i>Biochemistry</i> , 2000, 39, 15365-15374.	1.2	92

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37	Crystal Structure of the Second Domain of the Human Copper Chaperone for Superoxide Dismutase. <i>Biochemistry</i> , 2000, 39, 1589-1595.	1.2	91
38	Characterization of the Particulate Methane Monooxygenase Metal Centers in Multiple Redox States by X-ray Absorption Spectroscopy. <i>Inorganic Chemistry</i> , 2006, 45, 8372-8381.	1.9	89
39	Evidence for Oxygen Binding at the Active Site of Particulate Methane Monooxygenase. <i>Journal of the American Chemical Society</i> , 2012, 134, 7640-7643.	6.6	88
40	Structure of the ATP Binding Domain from the <i>Archaeoglobus fulgidus</i> Cu ⁺ -ATPase. <i>Journal of Biological Chemistry</i> , 2006, 281, 11161-11166.	1.6	84
41	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, 12442-12445.	6.6	82
42	Printable enzyme-embedded materials for methane to methanol conversion. <i>Nature Communications</i> , 2016, 7, 11900.	5.8	80
43	Crystal Structure of a Novel Red Copper Protein from <i>Nitrosomonas europaea</i> . <i>Biochemistry</i> , 2001, 40, 5674-5681.	1.2	78
44	The CopC Family: Structural and Bioinformatic Insights into a Diverse Group of Periplasmic Copper Binding Proteins. <i>Biochemistry</i> , 2016, 55, 2278-2290.	1.2	78
45	Binding of Copper(I) by the Wilson Disease Protein and Its Copper Chaperone. <i>Journal of Biological Chemistry</i> , 2004, 279, 12269-12276.	1.6	77
46	Dual Pathways for Copper Uptake by Methanotrophic Bacteria. <i>Journal of Biological Chemistry</i> , 2011, 286, 37313-37319.	1.6	74
47	Chemistry and Biology of the Copper Chelator Methanobactin. <i>ACS Chemical Biology</i> , 2012, 7, 260-268.	1.6	74
48	Native top-down mass spectrometry provides insights into the copper centers of membrane-bound methane monooxygenase. <i>Nature Communications</i> , 2019, 10, 2675.	5.8	74
49	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, 185-194.	1.1	69
50	Biochemistry of aerobic biological methane oxidation. <i>Chemical Society Reviews</i> , 2021, 50, 3424-3436.	18.7	69
51	Effects of Zinc on Particulate Methane Monooxygenase Activity and Structure. <i>Journal of Biological Chemistry</i> , 2014, 289, 21782-21794.	1.6	66
52	Genome mining for methanobactins. <i>BMC Biology</i> , 2013, 11, 17.	1.7	64
53	Crystal structure of yeast Sco1. <i>Journal of Biological Inorganic Chemistry</i> , 2006, 11, 459-466.	1.1	63
54	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, 2446-2447.	6.6	63

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55	Chalkophores. <i>Annual Review of Biochemistry</i> , 2018, 87, 645-676.	5.0	62
56	Structural conservation of the B subunit in the ammonia monooxygenase/particulate methane monooxygenase superfamily. <i>Proteins: Structure, Function and Bioinformatics</i> , 2014, 82, 2263-2267.	1.5	60
57	Structure of beta-lactam synthetase reveals how to synthesize antibiotics instead of asparagine. <i>Nature Structural Biology</i> , 2001, 8, 684-689.	9.7	59
58	X-ray Crystallography and Biological Metal Centers: Is Seeing Believing?. <i>Inorganic Chemistry</i> , 2005, 44, 770-778.	1.9	59
59	Crystal Structure of a Two-domain Multicopper Oxidase. <i>Journal of Biological Chemistry</i> , 2009, 284, 10174-10180.	1.6	59
60	Structure of the Actuator Domain from the <i>Archaeoglobus fulgidus</i> Cu ⁺ -ATPase. <i>Biochemistry</i> , 2006, 45, 9949-9955.	1.2	56
61	Toward a Molecular Understanding of Metal Transport by P1B-Type ATPases. <i>Current Topics in Membranes</i> , 2012, 69, 113-136.	0.5	55
62	Copper-responsive gene expression in the methanotroph <i>Methylosinus trichosporium</i> OB3b. <i>Metallomics</i> , 2016, 8, 931-940.	1.0	55
63	Variable Coordination Geometries at the Diiron(II) Active Site of Ribonucleotide Reductase R2. <i>Journal of the American Chemical Society</i> , 2003, 125, 15822-15830.	6.6	54
64	Cell-free protein synthesis enables high yielding synthesis of an active multicopper oxidase. <i>Biotechnology Journal</i> , 2016, 11, 212-218.	1.8	54
65	Structure and Protein-Protein Interactions of Methanol Dehydrogenase from <i>Methylococcus capsulatus</i> (Bath). <i>Biochemistry</i> , 2014, 53, 6211-6219.	1.2	52
66	Methanobactins: Maintaining copper homeostasis in methanotrophs and beyond. <i>Journal of Biological Chemistry</i> , 2018, 293, 4606-4615.	1.6	52
67	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.	1.1	52
68	Sequencing and analysis of the <i>Methylococcus capsulatus</i> (Bath) soluble methane monooxygenase genes. <i>FEBS Journal</i> , 2000, 267, 2174-2185.	0.2	50
69	The Copper Chelator Methanobactin from <i>Methylosinus trichosporium</i> OB3b Binds Copper(I). <i>Journal of the American Chemical Society</i> , 2005, 127, 17142-17143.	6.6	49
70	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, 11767-11775.	6.6	49
71	Methanobactins: from genome to function. <i>Metallomics</i> , 2017, 9, 7-20.	1.0	49
72	From micelles to bicelles: Effect of the membrane on particulate methane monooxygenase activity. <i>Journal of Biological Chemistry</i> , 2018, 293, 10457-10465.	1.6	49

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73	The quest for the particulate methane monooxygenase active site. Dalton Transactions, 2005, , 3390.	1.6	48
74	Characterization of a long overlooked copper protein from methane- and ammonia-oxidizing bacteria. Nature Communications, 2018, 9, 4276.	5.8	46
75	Recovery of particulate methane monooxygenase structure and activity in a lipid bilayer. Science, 2022, 375, 1287-1291.	6.0	45
76	Methanobactin transport machinery. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 13027-13032.	3.3	43
77	Sinorhizobium meliloti Nia is a P1B-5-ATPase expressed in the nodule during plant symbiosis and is involved in Ni and Fe transport. Metallomics, 2013, 5, 1614.	1.0	39
78	Characterization of a Nitrite Reductase Involved in Nitrifier Denitrification. Journal of Biological Chemistry, 2013, 288, 25575-25583.	1.6	39
79	The metal centres of particulate methane mono-oxygenase. Biochemical Society Transactions, 2008, 36, 1134-1137.	1.6	36
80	Biocatalysts for methane conversion: big progress on breaking a small substrate. Current Opinion in Chemical Biology, 2016, 35, 142-149.	2.8	35
81	Characterization of Methanobactin from <i>Methylosinus</i> sp. LW4. Journal of the American Chemical Society, 2016, 138, 11124-11127.	6.6	34
82	Characterization and Structure of a Zn ²⁺ and [2Fe-2S]-containing Copper Chaperone from Archaeoglobus fulgidus. Journal of Biological Chemistry, 2007, 282, 25950-25959.	1.6	32
83	Structure of the Redox Sensor Domain of <i>Methylococcus capsulatus</i> (Bath) MmoS. Biochemistry, 2009, 48, 2207-2215.	1.2	32
84	A new metal binding domain involved in cadmium, cobalt and zinc transport. Nature Chemical Biology, 2015, 11, 678-684.	3.9	31
85	Cu ⁺ -specific CopB transporter: Revising P _{1B} -type ATPase classification. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 2108-2113.	3.3	31
86	Secretion of Flavins by Three Species of Methanotrophic Bacteria. Applied and Environmental Microbiology, 2010, 76, 7356-7358.	1.4	28
87	Metal Reconstitution of Particulate Methane Monooxygenase and Heterologous Expression of the pmoB Subunit. Methods in Enzymology, 2011, 495, 195-210.	0.4	27
88	Characterization of a Cobalt-Specific P _{1B} -ATPase. Biochemistry, 2012, 51, 7891-7900.	1.2	27
89	Biochemical Characterization of MmoS, a Sensor Protein Involved in Copper-Dependent Regulation of Soluble Methane Monooxygenase. Biochemistry, 2006, 45, 10191-10198.	1.2	24
90	Identification of a Hemerythrin-like Domain in a P _{1B} -Type Transport ATPase. Biochemistry, 2010, 49, 7060-7068.	1.2	24

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91	Coordination of the Copper Centers in Particulate Methane Monooxygenase: Comparison between Methanotrophs and Characterization of the Cu _C Site by EPR and ENDOR Spectroscopies. <i>Journal of the American Chemical Society</i> , 2021, 143, 15358-15368.	6.6	24
92	Solution Structure of the COMMD1 N-terminal Domain. <i>Journal of Molecular Biology</i> , 2007, 365, 715-721.	2.0	23
93	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.	3.7	23
94	Metal Selectivity of a Cd-, Co-, and Zn-Transporting P _{1B} -type ATPase. <i>Biochemistry</i> , 2017, 56, 85-95.	1.2	20
95	Recent Advances in the Genetic Manipulation of <i>Methylosinus trichosporium</i> OB3b. <i>Methods in Enzymology</i> , 2018, 605, 335-349.	0.4	20
96	Structure and interactions of the C-terminal metal binding domain of <i>Archaeoglobus fulgidus</i> CopA. <i>Proteins: Structure, Function and Bioinformatics</i> , 2010, 78, 2450-2458.	1.5	18
97	Relating dynamic protein interactions of metallochaperones with metal transfer at the single-molecule level. <i>Faraday Discussions</i> , 2011, 148, 71-82.	1.6	18
98	Repurposed HisC Aminotransferases Complete the Biosynthesis of Some Methanobactins. <i>Biochemistry</i> , 2018, 57, 3515-3523.	1.2	18
99	Quantum Refinement Does Not Support Dinuclear Copper Sites in Crystal Structures of Particulate Methane Monooxygenase. <i>Angewandte Chemie</i> , 2018, 130, 168-172.	1.6	18
100	Formation and Electronic Structure of an Atypical Cu _A Site. <i>Journal of the American Chemical Society</i> , 2019, 141, 4678-4686.	6.6	18
101	Breaking methane. <i>Nature</i> , 2015, 518, 309-310.	13.7	15
102	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.	3.3	14
103	Zeroing in on a new copper site. <i>Nature Chemistry</i> , 2009, 1, 684-685.	6.6	11
104	PCuAC domains from methane-oxidizing bacteria use a histidine brace to bind copper. <i>Journal of Biological Chemistry</i> , 2019, 294, 16351-16363.	1.6	11
105	Methane "make it or break it. <i>Science</i> , 2016, 352, 892-893.	6.0	10
106	Copper binding by a unique family of metalloproteins is dependent on kynurenine formation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	8
107	MbnH is a diheme MauG-like protein associated with microbial copper homeostasis. <i>Journal of Biological Chemistry</i> , 2019, 294, 16141-16151.	1.6	6
108	Detection and Characterization of a Multicopper Oxidase from <i>Nitrosomonas europaea</i> . <i>Methods in Enzymology</i> , 2011, 496, 423-433.	0.4	5

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109	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, 12615-12628.	6.6	5
110	Characterization of a Copper-Chelating Natural Product from the Methanotroph <i>Methylosinus</i> sp. LW3. <i>Biochemistry</i> , 2021, 60, 2845-2850.	1.2	5
111	Response from Boal and Rosenzweig to <i>Crystallography and chemistry should always go together: a cautionary tale of protein complexes with cisplatin and carboplatin</i> . <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2015, 71, 1984-1986.	2.5	4
112	Crystal structures of the methane monooxygenase hydroxylase from <i>Methylococcus capsulatus</i> (Bath): Implications for substrate gating and component interactions. , 1997, 29, 141.		2
113	Put a ring on it. <i>Nature Chemical Biology</i> , 2013, 9, 220-221.	3.9	1
114	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.	0.1	1
115	The copper-linked <i>Escherichia coli</i> AZY operon: Structure, metal binding, and a possible physiological role in copper delivery. <i>Journal of Biological Chemistry</i> , 2022, 298, 101445.	1.6	1
116	Editorial overview: Catalysis and regulation. <i>Current Opinion in Structural Biology</i> , 2015, 35, iv-vi.	2.6	0
117	A biochemical sulfur delivery service. <i>Science</i> , 2017, 358, 307-308.	6.0	0
118	Methane oxidation by an integral membrane metalloenzyme. <i>FASEB Journal</i> , 2011, 25, .	0.2	0