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 g-index
162 all docs	162 docs citations	162 times ranked	8084 citing authors

#	Article	IF	Citations
1	The copper-linked Escherichia coli AZY operon: Structure, metal binding, and a possible physiological role in copper delivery. Journal of Biological Chemistry, 2022, 298, 101445.	1.6	1
2	A mixed-valent Fe(II)Fe(III) species converts cysteine to an oxazolone/thioamide pair in methanobactin biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2123566119.	3.3	14
3	Recovery of particulate methane monooxygenase structure and activity in a lipid bilayer. Science, 2022, 375, 1287-1291.	6.0	45
4	Biochemistry of aerobic biological methane oxidation. Chemical Society Reviews, 2021, 50, 3424-3436.	18.7	69
5	Copper binding by a unique family of metalloproteins is dependent on kynurenine formation. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	8
6	Coordination of the Copper Centers in Particulate Methane Monooxygenase: Comparison between Methanotrophs and Characterization of the Cu_CSite by EPR and ENDOR Spectroscopies. Journal of the American Chemical Society, 2021, 143, 15358-15368.	6.6	24
7	Characterization of a Copper-Chelating Natural Product from the Methanotroph Methylosinus sp. LW3. Biochemistry, 2021, 60, 2845-2850.	1.2	5
8	Towards a unified understanding of the copper sites in particulate methane monooxygenase: an X-ray absorption spectroscopic investigation. Chemical Science, 2021, 12, 6194-6209.	3.7	23
9	PCuAC domains from methane-oxidizing bacteria use a histidine brace to bind copper. Journal of Biological Chemistry, 2019, 294, 16351-16363.	1.6	11
10	MbnH is a diheme MauG-like protein associated with microbial copper homeostasis. Journal of Biological Chemistry, 2019, 294, 16141-16151.	1.6	6
11	Native top-down mass spectrometry provides insights into the copper centers of membrane-bound methane monooxygenase. Nature Communications, 2019, 10, 2675.	5.8	74
12	Particulate methane monooxygenase contains only mononuclear copper centers. Science, 2019, 364, 566-570.	6.0	217
13	Formation and Electronic Structure of an Atypical Cu_A Site. Journal of the American Chemical Society, 2019, 141, 4678-4686.	6.6	18
14	Chalkophores. Annual Review of Biochemistry, 2018, 87, 645-676.	5.0	62
15	Repurposed HisC Aminotransferases Complete the Biosynthesis of Some Methanobactins. Biochemistry, 2018, 57, 3515-3523.	1.2	18
16	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
17	Methanobactins: Maintaining copper homeostasis in methanotrophs and beyond. Journal of Biological Chemistry, 2018, 293, 4606-4615.	1.6	52
18	Quantum Refinement Does Not Support Dinuclear Copper Sites in Crystal Structures of Particulate Methane Monooxygenase. Angewandte Chemie, 2018, 130, 168-172.	1.6	18

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19	The biosynthesis of methanobactin. Science, 2018, 359, 1411-1416.	6.0	101
20	Quantum Refinement Does Not Support Dinuclear Copper Sites in Crystal Structures of Particulate Methane Monooxygenase. Angewandte Chemie - International Edition, 2018, 57, 162-166.	7.2	122
21	Characterization of a long overlooked copper protein from methane- and ammonia-oxidizing bacteria. Nature Communications, 2018, 9, 4276.	5.8	46
22	Recent Advances in the Genetic Manipulation of Methylosinus trichosporium OB3b. Methods in Enzymology, 2018, 605, 335-349.	0.4	20
23	From micelles to bicelles: Effect of the membrane on particulate methane monooxygenase activity. Journal of Biological Chemistry, 2018, 293, 10457-10465.	1.6	49
24	Structure and function of the lanthanide-dependent methanol dehydrogenase XoxF from the methanotroph Methylomicrobium buryatense 5GB1C. Journal of Biological Inorganic Chemistry, 2018, 23, 1037-1047.	1.1	52
25	Methanobactins: from genome to function. Metallomics, 2017, 9, 7-20.	1.0	49
26	Metal Selectivity of a Cd-, Co-, and Zn-Transporting P_{1B}-type ATPase. Biochemistry, 2017, 56, 85-95.	1.2	20
27	A biochemical sulfur delivery service. Science, 2017, 358, 307-308.	6.0	0
28	A tale of two methane monooxygenases. Journal of Biological Inorganic Chemistry, 2017, 22, 307-319.	1.1	205
29	Methane-Oxidizing Enzymes: An Upstream Problem in Biological Gas-to-Liquids Conversion. Journal of the American Chemical Society, 2016, 138, 9327-9340.	6.6	126
30	Cellâ€free protein synthesis enables high yielding synthesis of an active multicopper oxidase. Biotechnology Journal, 2016, 11, 212-218.	1.8	54
31	Methaneâ€”make it or break it. Science, 2016, 352, 892-893.	6.0	10
32	Copper-responsive gene expression in the methanotroph Methylosinus trichosporium OB3b. Metallomics, 2016, 8, 931-940.	1.0	55
33	Characterization of Methanobactin from Methylosinus sp. LW4. Journal of the American Chemical Society, 2016, 138, 11124-11127.	6.6	34
34	Charge-Disproportionation Symmetry Breaking Creates a Heterodimeric Myoglobin Complex with Enhanced Affinity and Rapid Intracomplex Electron Transfer. Journal of the American Chemical Society, 2016, 138, 12615-12628.	6.6	5
35	Biocatalysts for methane conversion: big progress on breaking a small substrate. Current Opinion in Chemical Biology, 2016, 35, 142-149.	2.8	35
36	Printable enzyme-embedded materials for methane to methanol conversion. Nature Communications, 2016, 7, 11900.	5.8	80

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37	Methanobactin transport machinery. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 13027-13032.	3.3	43
38	The CopC Family: Structural and Bioinformatic Insights into a Diverse Group of Periplasmic Copper Binding Proteins. Biochemistry, 2016, 55, 2278-2290.	1.2	78
39	Editorial overview: Catalysis and regulation. Current Opinion in Structural Biology, 2015, 35, iv-vi.	2.6	0
40	Response from Boal and Rosenzweig toCrystallography and chemistry should always go together: a cautionary tale of protein complexes with cisplatin and carboplatin. Acta Crystallographica Section D: Biological Crystallography, 2015, 71, 1984-1986.	2.5	4
41	Breaking methane. Nature, 2015, 518, 309-310.	13.7	15
42	A new metal binding domain involved in cadmium, cobalt and zinc transport. Nature Chemical Biology, 2015, 11, 678-684.	3.9	31
43	Enzymatic Oxidation of Methane. Biochemistry, 2015, 54, 2283-2294.	1.2	276
44	A Small Molecule That Switches a Ubiquitin Ligase From a Processive to a Distributive Enzymatic Mechanism. Journal of the American Chemical Society, 2015, 137, 12442-12445.	6.6	82
45	Protocols for Structural and Functional Analysis of Particulate Methane Monooxygenase from Methylocystis Species Strain Rockwell (ATCC 49242). Springer Protocols, 2014, , 149-160.	0.1	1
46	Structural conservation of the B subunit in the ammonia monooxygenase/particulate methane monooxygenase superfamily. Proteins: Structure, Function and Bioinformatics, 2014, 82, 2263-2267.	1.5	60
47	Structure and Proteinâ€"Protein Interactions of Methanol Dehydrogenase from Methylococcus capsulatus (Bath). Biochemistry, 2014, 53, 6211-6219.	1.2	52
48	Effects of Zinc on Particulate Methane Monooxygenase Activity and Structure. Journal of Biological Chemistry, 2014, 289, 21782-21794.	1.6	66
49	Diversity of the metal-transporting P1B-type ATPases. Journal of Biological Inorganic Chemistry, 2014, 19, 947-960.	1.1	98
50	Identification of the Valence and Coordination Environment of the Particulate Methane Monooxygenase Copper Centers by Advanced EPR Characterization. Journal of the American Chemical Society, 2014, 136, 11767-11775.	6.6	49
51	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
52	Put a ring on it. Nature Chemical Biology, 2013, 9, 220-221.	3.9	1
53	Genome mining for methanobactins. BMC Biology, 2013, 11, 17.	1.7	64
54	Characterization of a Nitrite Reductase Involved in Nitrifier Denitrification. Journal of Biological Chemistry, 2013, 288, 25575-25583.	1.6	39

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55	Toward a Molecular Understanding of Metal Transport by P1B-Type ATPases. Current Topics in Membranes, 2012, 69, 113-136.	0.5	55
56	Chemistry and Biology of the Copper Chelator Methanobactin. ACS Chemical Biology, 2012, 7, 260-268.	1.6	74
57	Evidence for Oxygen Binding at the Active Site of Particulate Methane Monooxygenase. Journal of the American Chemical Society, 2012, 134, 7640-7643.	6.6	88
58	Characterization of a Cobalt-Specific P_{1B}-ATPase. Biochemistry, 2012, 51, 7891-7900.	1.2	27
59	Architecture and active site of particulate methane monooxygenase. Critical Reviews in Biochemistry and Molecular Biology, 2012, 47, 483-492.	2.3	127
60	Relating dynamic protein interactions of metallochaperones with metal transfer at the single-molecule level. Faraday Discussions, 2011, 148, 71-82.	1.6	18
61	Crystal Structure and Characterization of Particulate Methane Monooxygenase from Methylocystis species Strain M. Biochemistry, 2011, 50, 10231-10240.	1.2	130
62	Detection and Characterization of a Multicopper Oxidase from Nitrosomonas europaea. Methods in Enzymology, 2011, 496, 423-433.	0.4	5
63	Metal Reconstitution of Particulate Methane Monooxygenase and Heterologous Expression of the pmoB Subunit. Methods in Enzymology, 2011, 495, 195-210.	0.4	27
64	Dual Pathways for Copper Uptake by Methanotrophic Bacteria. Journal of Biological Chemistry, 2011, 286, 37313-37319.	1.6	74
65	Methane oxidation by an integral membrane metalloenzyme. FASEB Journal, 2011, 25, .	0.2	0
66	Structure and interactions of the Câ€terminal metal binding domain of Archaeoglobus fulgidus CopA. Proteins: Structure, Function and Bioinformatics, 2010, 78, 2450-2458.	1.5	18
67	Oxidation of methane by a biological dicopper centre. Nature, 2010, 465, 115-119.	13.7	477
68	Secretion of Flavins by Three Species of Methanotrophic Bacteria. Applied and Environmental Microbiology, 2010, 76, 7356-7358.	1.4	28
69	Identification of a Hemerythrin-like Domain in a P_{1B}-Type Transport ATPase. Biochemistry, 2010, 49, 7060-7068.	1.2	24
70	Crystal Structure of a Two-domain Multicopper Oxidase. Journal of Biological Chemistry, 2009, 284, 10174-10180.	1.6	59
71	Zeroing in on a new copper site. Nature Chemistry, 2009, 1, 684-685.	6.6	11
72	Structure of the Redox Sensor Domain of Methylococcus capsulatus (Bath) MmoS. Biochemistry, 2009, 48, 2207-2215.	1.2	32

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73	Structural Biology of Copper Trafficking. Chemical Reviews, 2009, 109, 4760-4779.	23.0	359
74	Structure and metal binding properties of ZnuA, a periplasmic zinc transporter from Escherichia coli. Journal of Biological Inorganic Chemistry, 2008, 13, 271-288.	1.1	116
75	Copper methanobactin: a molecule whose time has come. Current Opinion in Chemical Biology, 2008, 12, 245-249.	2.8	93
76	Metal Binding Domains 3 and 4 of the Wilson Disease Protein: Solution Structure and Interaction with the Copper(I) Chaperone HAH1. Biochemistry, 2008, 47, 7423-7429.	1.2	93
77	Probing Transient Copper Chaperoneâ^'Wilson Disease Protein Interactions at the Single-Molecule Level with Nanovesicle Trapping. Journal of the American Chemical Society, 2008, 130, 2446-2447.	6.6	63
78	The Metal Centers of Particulate Methane Monooxygenase from Methylosinus trichosporium OB3b. Biochemistry, 2008, 47, 6793-6801.	1.2	130
79	The metal centres of particulate methane mono-oxygenase. Biochemical Society Transactions, 2008, 36, 1134-1137.	1.6	36
80	Characterization and Structure of a Zn2+ and [2Fe-2S]-containing Copper Chaperone from Archaeoglobus fulgidus. Journal of Biological Chemistry, 2007, 282, 25950-25959.	1.6	32
81	Solution Structure of the COMMD1 N-terminal Domain. Journal of Molecular Biology, 2007, 365, 715-721.	2.0	23
82	The Biochemistry of Methane Oxidation. Annual Review of Biochemistry, 2007, 76, 223-241.	5.0	333
83	Structural and Mechanistic Insights into Methane Oxidation by Particulate Methane Monooxygenase. Accounts of Chemical Research, 2007, 40, 573-580.	7.6	180
84	Structure of the ATP Binding Domain from the Archaeoglobus fulgidus Cu+-ATPase. Journal of Biological Chemistry, 2006, 281, 11161-11166.	1.6	84
85	Structure of the Actuator Domain from theArchaeoglobus fulgidusCu+-ATPaseâ€,â€¡. Biochemistry, 2006, 45, 9949-9955.	1.2	56
86	Characterization of the Particulate Methane Monooxygenase Metal Centers in Multiple Redox States by X-ray Absorption Spectroscopy. Inorganic Chemistry, 2006, 45, 8372-8381.	1.9	89
87	Biochemical Characterization of MmoS, a Sensor Protein Involved in Copper-Dependent Regulation of Soluble Methane Monooxygenaseâ€. Biochemistry, 2006, 45, 10191-10198.	1.2	24
88	Crystal structure of yeast Sco1. Journal of Biological Inorganic Chemistry, 2006, 11, 459-466.	1.1	63
89	Structural insights into dioxygen-activating copper enzymes. Current Opinion in Structural Biology, 2006, 16, 729-735.	2.6	108
90	Crystal structure of a membrane-bound metalloenzyme that catalyses the biological oxidation of methane. Nature, 2005, 434, 177-182.	13.7	613

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91	X-ray Crystallography and Biological Metal Centers:Â Is Seeing Believing?. Inorganic Chemistry, 2005, 44, 770-778.	1.9	59
92	The Copper Chelator Methanobactin fromMethylosinustrichosporiumOB3b Binds Copper(I). Journal of the American Chemical Society, 2005, 127, 17142-17143.	6.6	49
93	The quest for the particulate methane monooxygenase active site. Dalton Transactions, 2005, , 3390.	1.6	48
94	Biological Methane Oxidation: Regulation, Biochemistry, and Active Site Structure of Particulate Methane Monooxygenase. Critical Reviews in Biochemistry and Molecular Biology, 2004, 39, 147-164.	2.3	184
95	Binding of Copper(I) by the Wilson Disease Protein and Its Copper Chaperone. Journal of Biological Chemistry, 2004, 279, 12269-12276.	1.6	77
96	Yeast Cox17 Solution Structure and Copper(I) Binding. Journal of Biological Chemistry, 2004, 279, 53584-53592.	1.6	96
97	Crystal structure and dimerization equilibria of PcoC, a methionine-rich copper resistance protein from Escherichia coli. Journal of Biological Inorganic Chemistry, 2003, 8, 185-194.	1.1	69
98	Variable Coordination Geometries at the Diiron(II) Active Site of Ribonucleotide Reductase R2. Journal of the American Chemical Society, 2003, 125, 15822-15830.	6.6	54
99	Purified particulate methane monooxygenase from Methylococcus capsulatus (Bath) is a dimer with both mononuclear copper and a copper-containing cluster. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 3820-3825.	3.3	145
100	Metallochaperones. Chemistry and Biology, 2002, 9, 673-677.	6.2	195
101	Xenon and Halogenated Alkanes Track Putative Substrate Binding Cavities in the Soluble Methane Monooxygenase Hydroxylaseâ€,â€¡. Biochemistry, 2001, 40, 3476-3482.	1.2	93
102	Copper Delivery by Metallochaperone Proteins. Accounts of Chemical Research, 2001, 34, 119-128.	7.6	261
103	Crystal Structure of a Novel Red Copper Protein from Nitrosomonas europaea,. Biochemistry, 2001, 40, 5674-5681.	1.2	78
104	Structure of beta-lactam synthetase reveals how to synthesize antibiotics instead of asparagine. Nature Structural Biology, 2001, 8, 684-689.	9.7	59
105	Heterodimeric structure of superoxide dismutase in complex with its metallochaperone. Nature Structural Biology, 2001, 8, 751-755.	9.7	256
106	Sequencing and analysis of the Methylococcus capsulatus (Bath) soluble methane monooxygenase genes. FEBS Journal, 2000, 267, 2174-2185.	0.2	50
107	Structural basis for copper transfer by the metallochaperone for the Menkes/Wilson disease proteins. Nature Structural Biology, 2000, 7, 766-771.	9.7	352
108	Crystal Structure of the Second Domain of the Human Copper Chaperone for Superoxide Dismutaseâ€,â€¡. Biochemistry, 2000, 39, 1589-1595.	1.2	91

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109	Structure of the Bacteriophage Î» Ser/Thr Protein Phosphatase with Sulfate Ion Bound in Two Coordination Modesâ€‚â€¡. Biochemistry, 2000, 39, 15365-15374.	1.2	92
110	Heterodimer Formation between Superoxide Dismutase and Its Copper Chaperone. Biochemistry, 2000, 39, 14720-14727.	1.2	93
111	Crystal structure of the copper chaperone for superoxide dismutase. Nature Structural Biology, 1999, 6, 724-729.	9.7	175
112	Crystal structure of the Atx1 metallochaperone protein at 1.02 Ã... resolution. Structure, 1999, 7, 605-617.	1.6	229
113	Structure-Function Analyses of the ATX1 Metallochaperone. Journal of Biological Chemistry, 1999, 274, 15041-15045.	1.6	137
114	Crystal structures of the methane monooxygenase hydroxylase fromMethylococcus capsulatus (Bath): Implications for substrate gating and component interactions. Proteins: Structure, Function and Bioinformatics, 1997, 29, 141-152.	1.5	189
115	Crystal structures of the methane monooxygenase hydroxylase from Methylococcus capsulatus (Bath): Implications for substrate gating and component interactions. , 1997, 29, 141.		2
116	Geometry of the soluble methane monooxygenase catalytic diiron center in two oxidation states. Chemistry and Biology, 1995, 2, 409-418.	6.2	336
117	Crystal structure of a bacterial non-haem iron hydroxylase that catalyses the biological oxidation of methane. Nature, 1993, 366, 537-543.	13.7	940
118	X-ray absorption, Moessbauer, and EPR studies of the dinuclear iron center in the hydroxylase component of methane monooxygenase. Journal of the American Chemical Society, 1991, 113, 9219-9235.	6.6	235