Joseph T Jarrett

List of Publications by Year
in descending order

37 papers	1,973 citations	304701 22 h-index	377849 34 g-index
38 all docs	38 docs citations	38 times ranked	1332 citing authors

#	Article	IF	Citations
1	Crystal Structure of Biotin Synthase, an S-Adenosylmethionine-Dependent Radical Enzyme. Science, 2004, 303, 76-79.	12.6	390
2	Spectroscopic Changes during a Single Turnover of Biotin Synthase:Â Destruction of a [2Fe-2S] Cluster Accompanies Sulfur Insertionâ€. Biochemistry, 2001, 40, 8352-8358.	2.5	147
3	Biotin Synthase Contains Two Distinct Ironâ^'Sulfur Cluster Binding Sites:Â Chemical and Spectroelectrochemical Analysis of Ironâ^'Sulfur Cluster Interconversionsâ€. Biochemistry, 2001, 40, 8343-8351.	2.5	145
4	Mutations in the B12-Binding Region of Methionine Synthase:Â How the Protein Controls Methylcobalamin Reactivityâ€. Biochemistry, 1996, 35, 2464-2475.	2.5	103
5	Ironâ^'Sulfur Cluster Interconversions in Biotin Synthase:â€‰ Dissociation and Reassociation of Iron during Conversion of [2Fe-2S] to [4Fe-4S] Clusters. Biochemistry, 2000, 39, 5206-5214.	2.5	98
6	Time-Resolved Spectroscopic Studies of B12Coenzymes:Â The Identification of a Metastable Cob(III)alamin Photoproduct in the Photolysis of Methylcobalamin. Journal of the American Chemical Society, 1998, 120, 3597-3603.	13.7	97
7	The generation of 5â€²-deoxyadenosyl radicals by adenosylmethionine-dependent radical enzymes. Current Opinion in Chemical Biology, 2003, 7, 174-182.	6.1	80
8	Evidence from MÃ¶ssbauer Spectroscopy for Distinct [2Fe-2S]2+and [4Fe-4S]2+Cluster Binding Sites in Biotin Synthase fromEscherichiacoli. Journal of the American Chemical Society, 2002, 124, 9050-9051.	13.7	75
9	The novel structure and chemistry of ironâ€“sulfur clusters in the adenosylmethionine-dependent radical enzyme biotin synthase. Archives of Biochemistry and Biophysics, 2005, 433, 312-321.	3.0	72
10	Biotin Synthase Exhibits Burst Kinetics and Multiple Turnovers in the Absence of Inhibition by Products and Product-Related Biomolecules. Biochemistry, 2010, 49, 9985-9996.	2.5	66
11	Biotin synthase: Insights into radical-mediated carbonâ€“sulfur bond formation. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2012, 1824, 1213-1222.	2.3	65
12	Electron acceptor specificity of ferredoxin (flavodoxin):NADP+ oxidoreductase from Escherichia coli. Archives of Biochemistry and Biophysics, 2002, 406, 116-126.	3.0	55
13	The Mechanism of Adenosylmethionine-Dependent Activation of Methionine Synthase:Â A Rapid Kinetic Analysis of Intermediates in Reductive Methylation of Cob(II)alamin Enzymeâ€. Biochemistry, 1998, 37, 12649-12658.	2.5	54
14	The Biosynthesis of Thiol- and Thioether-containing Cofactors and Secondary Metabolites Catalyzed by Radical S-Adenosylmethionine Enzymes. Journal of Biological Chemistry, 2015, 290, 3972-3979.	3.4	51
15	Control of Adenosylmethionine-Dependent Radical Generation in Biotin Synthase:Â A Kinetic and Thermodynamic Analysis of Substrate Binding to Active and Inactive Forms of BioBâ€. Biochemistry, 2003, 42, 2708-2719.	2.5	49
16	A novel solvent system for solid-phase synthesis of protected peptides: the disaggregation of resin-bound antiparallel .beta.-sheet. Journal of Organic Chemistry, 1990, 55, 4517-4518.	3.2	46
17	9-Mercaptodethiobiotin Is Formed as a Competent Catalytic Intermediate by Escherichia coli Biotin Synthase. Biochemistry, 2008, 47, 9309-9317.	2.5	45
18	9-Mercaptodethiobiotin Is Generated as a Ligand to the [2Feâ€“2S]⁺ Cluster during the Reaction Catalyzed by Biotin Synthase from Escherichia coli. Journal of the American Chemical Society, 2012, 134, 9042-9045.	13.7	36

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19	Reduction of the [2Feâ€“2S] Cluster Accompanies Formation of the Intermediate 9-Mercaptodethiobiotin in Escherichia coli Biotin Synthase. Biochemistry, 2011, 50, 7953-7963.	2.5	34
20	A protein radical cage slows photolysis of methylcobalamin in methionine synthase from Escherichia coli. Bioorganic and Medicinal Chemistry, 1996, 4, 1237-1246.	3.0	33
21	Models of the .beta. Protein C-Terminus: Differences in Amyloid Structure May Lead to Segregation of "Long" and "Short" Fibrils. Journal of the American Chemical Society, 1994, 116, 9741-9742.	13.7	30
22	A Complex between Biotin Synthase and the Ironâ˜Sulfur Cluster Assembly Chaperone HscA That Enhances in Vivo Cluster Assembly. Biochemistry, 2009, 48, 10782-10792.	2.5	30
23	Biotin Synthase. Chemistry and Biology, 2005, 12, 409-410.	6.0	23
24	Peptide Models of a Hydrophobic Cluster at the C-Terminus of the .beta.-Amyloid Protein. Journal of the American Chemical Society, 1994, 116, 10835-10836.	13.7	22
25	Loss of ironâ€“sulfur clusters from biotin synthase as a result of catalysis promotes unfolding and degradation. Archives of Biochemistry and Biophysics, 2008, 471, 32-41.	3.0	22
26	Investigation of (S)-(â˜)-Acidomycin: A Selective Antimycobacterial Natural Product That Inhibits Biotin Synthase. ACS Infectious Diseases, 2019, 5, 598-617.	3.8	22
27	Protein Residues That Control the Reaction Trajectory in S-Adenosylmethionine Radical Enzymes: Mutagenesis of Asparagine 153 and Aspartate 155 in Escherichia coli Biotin Synthase. Biochemistry, 2009, 48, 2448-2458.	2.5	21
28	Studies related to a convergent fragment-coupling approach to peptide synthesis using the Kaiser oxime resin. Journal of Organic Chemistry, 1992, 57, 3414-3420.	3.2	18
29	EPR-Derived Structure of a Paramagnetic Intermediate Generated by Biotin Synthase BioB. Journal of the American Chemical Society, 2018, 140, 12947-12963.	13.7	13
30	Improved coupling of protected peptides on the kaiser oxime resin using bop activation. Tetrahedron Letters, 1990, 31, 4561-4564.	1.4	8
31	Thermal inactivation of reduced ferredoxin (flavodoxin):NADP+oxidoreductase fromEscherichia coli. FEBS Letters, 2002, 529, 237-242.	2.8	6
32	Radicals by reduction. Nature, 2008, 452, 163-164.	27.8	5
33	Purification, Characterization, and Biochemical Assays of Biotin Synthase From Escherichia coli. Methods in Enzymology, 2018, 606, 363-388.	1.0	5
34	Surprise! A hidden B12 cofactor catalyzes a radical methylation. Journal of Biological Chemistry, 2019, 294, 11726-11727.	3.4	4
35	7. Biotin synthase: a role for iron-sulfur clusters in the radical-mediated generation of carbon-sulfur bonds. , 2014, , 107-132.		2
36	9. Biotin synthase: a role for iron-sulfur clusters in the radical-mediated generation of carbon-sulfur bonds. , 2017, , 223-248.		1

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37	Biotin Synthase: A role for the FeS cluster assembly chaperone HscA in regenerating the [2Feâ€2S] cluster substrate. FASEB Journal, 2008, 22, 610.3.	0.5	0