

# Joseph T Jarrett

## List of Publications by Citations

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36  
papers

1,771  
citations

22  
h-index

38  
g-index

38  
ext. papers

1,882  
ext. citations

7.9  
avg, IF

4.67  
L-index

#	Paper	IF	Citations
36	Crystal structure of biotin synthase, an S-adenosylmethionine-dependent radical enzyme. <i>Science</i> , <b>2004</b> , 303, 76-9	33.3	354
35	Biotin synthase contains two distinct iron-sulfur cluster binding sites: chemical and spectroelectrochemical analysis of iron-sulfur cluster interconversions. <i>Biochemistry</i> , <b>2001</b> , 40, 8343-51	3.2	136
34	Spectroscopic changes during a single turnover of biotin synthase: destruction of a [2Fe-2S] cluster accompanies sulfur insertion. <i>Biochemistry</i> , <b>2001</b> , 40, 8352-8	3.2	135
33	Mutations in the B12-binding region of methionine synthase: how the protein controls methylcobalamin reactivity. <i>Biochemistry</i> , <b>1996</b> , 35, 2464-75	3.2	96
32	Iron-sulfur cluster interconversions in biotin synthase: dissociation and reassociation of iron during conversion of [2Fe-2S] to [4Fe-4S] clusters. <i>Biochemistry</i> , <b>2000</b> , 39, 5206-14	3.2	91
31	Time-Resolved Spectroscopic Studies of B12 Coenzymes: The Identification of a Metastable Cob(III)alamin Photoproduct in the Photolysis of Methylcobalamin. <i>Journal of the American Chemical Society</i> , <b>1998</b> , 120, 3597-3603	16.4	84
30	The generation of 5'-deoxyadenosyl radicals by adenosylmethionine-dependent radical enzymes. <i>Current Opinion in Chemical Biology</i> , <b>2003</b> , 7, 174-82	9.7	74
29	Evidence from Mössbauer spectroscopy for distinct [2Fe-2S](2+) and [4Fe-4S](2+) cluster binding sites in biotin synthase from Escherichia coli. <i>Journal of the American Chemical Society</i> , <b>2002</b> , 124, 9050-1	16.4	68
28	The novel structure and chemistry of iron-sulfur clusters in the adenosylmethionine-dependent radical enzyme biotin synthase. <i>Archives of Biochemistry and Biophysics</i> , <b>2005</b> , 433, 312-21	4.1	66
27	Biotin synthase exhibits burst kinetics and multiple turnovers in the absence of inhibition by products and product-related biomolecules. <i>Biochemistry</i> , <b>2010</b> , 49, 9985-96	3.2	62
26	Biotin synthase: insights into radical-mediated carbon-sulfur bond formation. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , <b>2012</b> , 1824, 1213-22	4	51
25	Electron acceptor specificity of ferredoxin (flavodoxin):NADP+ oxidoreductase from Escherichia coli. <i>Archives of Biochemistry and Biophysics</i> , <b>2002</b> , 406, 116-26	4.1	49
24	Control of adenosylmethionine-dependent radical generation in biotin synthase: a kinetic and thermodynamic analysis of substrate binding to active and inactive forms of BioB. <i>Biochemistry</i> , <b>2003</b> , 42, 2708-19	3.2	46
23	A novel solvent system for solid-phase synthesis of protected peptides: the disaggregation of resin-bound antiparallel $\beta$ -sheet. <i>Journal of Organic Chemistry</i> , <b>1990</b> , 55, 4517-4518	4.2	43
22	The mechanism of adenosylmethionine-dependent activation of methionine synthase: a rapid kinetic analysis of intermediates in reductive methylation of Cob(II)alamin enzyme. <i>Biochemistry</i> , <b>1998</b> , 37, 12649-58	3.2	42
21	9-Mercaptodethiobiotin is formed as a competent catalytic intermediate by Escherichia coli biotin synthase. <i>Biochemistry</i> , <b>2008</b> , 47, 9309-17	3.2	41
20	The biosynthesis of thiol- and thioether-containing cofactors and secondary metabolites catalyzed by radical S-adenosylmethionine enzymes. <i>Journal of Biological Chemistry</i> , <b>2015</b> , 290, 3972-9	5.4	40

19	9-Mercaptodethiobiotin is generated as a ligand to the [2Fe-2S] <sup>+</sup> cluster during the reaction catalyzed by biotin synthase from <i>Escherichia coli</i> . <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 9042-5	16.4	35
18	Reduction of the [2Fe-2S] cluster accompanies formation of the intermediate 9-mercaptodethiobiotin in <i>Escherichia coli</i> biotin synthase. <i>Biochemistry</i> , <b>2011</b> , 50, 7953-63	3.2	31
17	Models of the .beta. Protein C-Terminus: Differences in Amyloid Structure May Lead to Segregation of "Long" and "Short" Fibrils. <i>Journal of the American Chemical Society</i> , <b>1994</b> , 116, 9741-9742	16.4	29
16	A complex between biotin synthase and the iron-sulfur cluster assembly chaperone HscA that enhances in vivo cluster assembly. <i>Biochemistry</i> , <b>2009</b> , 48, 10782-92	3.2	28
15	A protein radical cage slows photolysis of methylcobalamin in methionine synthase from <i>Escherichia coli</i> . <i>Bioorganic and Medicinal Chemistry</i> , <b>1996</b> , 4, 1237-46	3.4	28
14	Loss of iron-sulfur clusters from biotin synthase as a result of catalysis promotes unfolding and degradation. <i>Archives of Biochemistry and Biophysics</i> , <b>2008</b> , 471, 32-41	4.1	22
13	Protein residues that control the reaction trajectory in S-adenosylmethionine radical enzymes: mutagenesis of asparagine 153 and aspartate 155 in <i>Escherichia coli</i> biotin synthase. <i>Biochemistry</i> , <b>2009</b> , 48, 2448-58	3.2	20
12	Biotin synthase: enzyme or reactant?. <i>Chemistry and Biology</i> , <b>2005</b> , 12, 409-10		20
11	Peptide Models of a Hydrophobic Cluster at the C-Terminus of the .beta.-Amyloid Protein. <i>Journal of the American Chemical Society</i> , <b>1994</b> , 116, 10835-10836	16.4	20
10	Studies related to a convergent fragment-coupling approach to peptide synthesis using the Kaiser oxime resin. <i>Journal of Organic Chemistry</i> , <b>1992</b> , 57, 3414-3420	4.2	15
9	Investigation of (S)-(-)-Acidomycin: A Selective Antimycobacterial Natural Product That Inhibits Biotin Synthase. <i>ACS Infectious Diseases</i> , <b>2019</b> , 5, 598-617	5.5	12
8	EPR-Derived Structure of a Paramagnetic Intermediate Generated by Biotin Synthase BioB. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 12947-12963	16.4	9
7	Thermal inactivation of reduced ferredoxin (flavodoxin):NADP <sup>+</sup> oxidoreductase from <i>Escherichia coli</i> . <i>FEBS Letters</i> , <b>2002</b> , 529, 237-42	3.8	6
6	Improved coupling of protected peptides on the kaiser oxime resin using bop activation. <i>Tetrahedron Letters</i> , <b>1990</b> , 31, 4561-4564	2	6
5	Purification, Characterization, and Biochemical Assays of Biotin Synthase From <i>Escherichia coli</i> . <i>Methods in Enzymology</i> , <b>2018</b> , 606, 363-388	1.7	4
4	7. Biotin synthase: a role for iron-sulfur clusters in the radical-mediated generation of carbon-sulfur bonds		2
3	9. Biotin synthase: a role for iron-sulfur clusters in the radical-mediated generation of carbon-sulfur bonds <b>2017</b> ,		1
2	Surprise! A hidden B cofactor catalyzes a radical methylation. <i>Journal of Biological Chemistry</i> , <b>2019</b> , 294, 11726-11727	5.4	0

- 1 Biotin Synthase: A role for the FeS cluster assembly chaperone HscA in regenerating the [2Fe-2S] cluster substrate. *FASEB Journal*, **2008**, 22, 610.3

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