

Vahe Bandarian

List of Publications by Year in descending order

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69
papers

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citations

212478

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47
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73
all docs

73
docs citations

73
times ranked

2311
citing authors

#	ARTICLE	IF	CITATIONS
1	Pathways of thymidine hypermodification. <i>Nucleic Acids Research</i> , 2022, 50, 3001-3017.	6.5	12
2	Spectroscopic and Computational Investigation of the Epoxyqueuosine Reductase QueG Reveals Intriguing Similarities with the Reductive Dehalogenase PceA. <i>Biochemistry</i> , 2022, 61, 195-205.	1.2	5
3	Site-Specific Profiling of 4-Thiouridine Across Transfer RNA Genes in <i>Escherichia coli</i> . <i>ACS Omega</i> , 2022, 7, 4011-4025.	1.6	5
4	A tRNA modifying enzyme as a tunable regulatory nexus for bacterial stress responses and virulence. <i>Nucleic Acids Research</i> , 2022, 50, 7570-7590.	6.5	8
5	Journey on the Radical SAM Road as an Accidental Pilgrim. <i>ACS Bio & Med Chem Au</i> , 2022, 2, 187-195.	1.7	4
6	New developments in RiPP discovery, enzymology and engineering. <i>Natural Product Reports</i> , 2021, 38, 130-239.	5.2	412
7	Eukaryotic TYW1 Is a Radical SAM Flavoenzyme. <i>Biochemistry</i> , 2021, 60, 2179-2185.	1.2	7
8	New Role for Radical SAM Enzymes in the Biosynthesis of Thio(seleno)oxazole RiPP Natural Products. <i>Biochemistry</i> , 2021, 60, 3347-3361.	1.2	11
9	Redox Mediated Modifications of tRNA Bases. , 2020, , 442-464.		0
10	Radical SAM Enzymes Involved in Modifications of RiPP Natural Products. , 2020, , 489-519.		2
11	Analysis of Electrochemical Properties of <i>S</i> -Adenosyl-methionine and Implications for Its Role in Radical SAM Enzymes. <i>Journal of the American Chemical Society</i> , 2019, 141, 11019-11026.	6.6	10
12	Crystal structure of AdoMet radical enzyme 7-carboxy-7-deazaguanine synthase from <i>Escherichia coli</i> suggests how modifications near [4Fe-4S] cluster engender flavodoxin specificity. <i>Protein Science</i> , 2019, 28, 202-215.	3.1	11
13	A Radical Intermediate in <i>Bacillus subtilis</i> QueE during Turnover with the Substrate Analogue 6-Carboxypterin. <i>Journal of the American Chemical Society</i> , 2018, 140, 1753-1759.	6.6	15
14	Deconvoluting the Reduction Potentials for the Three [4Fe-4S] Clusters in an AdoMet Radical SCIFF Maturase. <i>Biochemistry</i> , 2018, 57, 6050-6053.	1.2	13
15	Structural and spectroscopic analyses of the sporulation killing factor biosynthetic enzyme SkfB, a bacterial AdoMet radical sactisynthase. <i>Journal of Biological Chemistry</i> , 2018, 293, 17349-17361.	1.6	43
16	Biochemical and Structural Characterization of a Schiff Base in the Radical-Mediated Biosynthesis of 4-Demethylwyosine by TYW1. <i>Journal of the American Chemical Society</i> , 2018, 140, 6842-6852.	6.6	13
17	A Radical Clock Probe Uncouples H Atom Abstraction from Thioether Cross-Link Formation by the Radical <i>S</i> -Adenosyl-methionine Enzyme SkfB. <i>Biochemistry</i> , 2018, 57, 4816-4823.	1.2	19
18	Preface. <i>Methods in Enzymology</i> , 2018, 606, xv-xvi.	0.4	0

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19	TYW1: A Radical SAM Enzyme Involved in the Biosynthesis of Wybutosine Bases. <i>Methods in Enzymology</i> , 2018, 606, 119-153.	0.4	15
20	QueE: A Radical SAM Enzyme Involved in the Biosynthesis of 7-Deazapurine Containing Natural Products. <i>Methods in Enzymology</i> , 2018, 606, 95-118.	0.4	6
21	Exploring the biosynthesis of hypermodified bases one step at a time. <i>FASEB Journal</i> , 2018, 32, 381.1.	0.2	0
22	The Creatininase Homolog MftE from <i>Mycobacterium smegmatis</i> Catalyzes a Peptide Cleavage Reaction in the Biosynthesis of a Novel Ribosomally Synthesized Post-translationally Modified Peptide (RiPP). <i>Journal of Biological Chemistry</i> , 2017, 292, 4371-4381.	1.6	14
23	7-Carboxy-7-deazaguanine Synthase: A Radical <i>S</i> -Adenosyl-methionine Enzyme with Polar Tendencies. <i>Journal of the American Chemical Society</i> , 2017, 139, 1912-1920.	6.6	30
24	Human Viperin Causes Radical SAM-Dependent Elongation of <i>Escherichia coli</i> , Hinting at Its Physiological Role. <i>Biochemistry</i> , 2017, 56, 3874-3876.	1.2	12
25	Molecular basis of cobalamin-dependent RNA modification. <i>Nucleic Acids Research</i> , 2016, 44, gkw806.	6.5	29
26	A Protein-derived Oxygen Is the Source of the Amide Oxygen of Nitrile Hydratases. <i>Journal of Biological Chemistry</i> , 2016, 291, 7822-7829.	1.6	6
27	The Radical <i>S</i> -Adenosyl-methionine Enzyme MftC Catalyzes an Oxidative Decarboxylation of the C-Terminus of the MftA Peptide. <i>Biochemistry</i> , 2016, 55, 2813-2816.	1.2	52
28	SkfB Abstracts a Hydrogen Atom from C _{1±} on SkfA To Initiate Thioether Cross-Link Formation. <i>Biochemistry</i> , 2016, 55, 4131-4134.	1.2	31
29	An informatic framework for decoding protein complexes by top-down mass spectrometry. <i>Nature Methods</i> , 2016, 13, 237-240.	9.0	59
30	Biochemical and Spectroscopic Characterization of a Radical <i>S</i> -Adenosyl-methionine Enzyme Involved in the Formation of a Peptide Thioether Cross-Link. <i>Biochemistry</i> , 2016, 55, 2122-2134.	1.2	55
31	Radical-mediated ring contraction in the biosynthesis of 7-deazapurines. <i>Current Opinion in Structural Biology</i> , 2015, 35, 116-124.	2.6	15
32	A Single Enzyme Transforms a Carboxylic Acid into a Nitrile through an Amide Intermediate. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 10627-10629.	7.2	29
33	Variable Substrate Preference among Phospholipase D Toxins from Sicariid Spiders. <i>Journal of Biological Chemistry</i> , 2015, 290, 10994-11007.	1.6	34
34	Refining the Structural Model of a Heterohexameric Protein Complex: Surface Induced Dissociation and Ion Mobility Provide Key Connectivity and Topology Information. <i>ACS Central Science</i> , 2015, 1, 477-487.	5.3	57
35	Mechanistic Studies of the Radical <i>S</i> -Adenosyl-methionine Enzyme 4-Demethylwyosine Synthase Reveal the Site of Hydrogen Atom Abstraction. <i>Biochemistry</i> , 2015, 54, 3569-3572.	1.2	14
36	Biochemical and Spectroscopic Studies of Epoxyqueuosine Reductase: A Novel Iron-Sulfur Cluster- and Cobalamin-Containing Protein Involved in the Biosynthesis of Queuosine. <i>Biochemistry</i> , 2015, 54, 4927-4935.	1.2	27

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37	Chemical and Biological Reduction of the Radical SAM Enzyme CPH ₄ Synthase. <i>Biochemistry</i> , 2015, 54, 2903-2910.	1.2	31
38	Investigation of the Radical SAM Enzyme CDG Synthase. <i>FASEB Journal</i> , 2015, 29, 572.12.	0.2	0
39	B 12 in a New Light: Queuosine tRNA Modification. <i>FASEB Journal</i> , 2015, 29, 573.38.	0.2	0
40	Biochemical and Structural Studies of 6-Carboxy-5,6,7,8-tetrahydropterin Synthase Reveal the Molecular Basis of Catalytic Promiscuity within the Tunnel-fold Superfamily. <i>Journal of Biological Chemistry</i> , 2014, 289, 23641-23652.	1.6	21
41	The Alpha Subunit of Nitrile Hydratase Is Sufficient for Catalytic Activity and Post-Translational Modification. <i>Biochemistry</i> , 2014, 53, 3990-3994.	1.2	24
42	Radical SAM enzyme QueE defines a new minimal core fold and metal-dependent mechanism. <i>Nature Chemical Biology</i> , 2014, 10, 106-112.	3.9	71
43	Radical mediated ring formation in the biosynthesis of the hypermodified tRNA base wybutosine. <i>Current Opinion in Chemical Biology</i> , 2013, 17, 613-618.	2.8	22
44	Spectroscopic, Steady-State Kinetic, and Mechanistic Characterization of the Radical SAM Enzyme QueE, Which Catalyzes a Complex Cyclization Reaction in the Biosynthesis of 7-Deazapurines. <i>Biochemistry</i> , 2013, 52, 188-198.	1.2	67
45	Phospholipase D Toxins of Brown Spider Venom Convert Lysophosphatidylcholine and Sphingomyelin to Cyclic Phosphates. <i>PLoS ONE</i> , 2013, 8, e72372.	1.1	43
46	Novel enzymatic transformations in secondary metabolism and tRNA modification. <i>FASEB Journal</i> , 2013, 27, 337.1.	0.2	0
47	Radical SAM enzymes involved in the biosynthesis of purine-based natural products. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2012, 1824, 1245-1253.	1.1	22
48	Biosynthesis of pyrrolopyrimidines. <i>Bioorganic Chemistry</i> , 2012, 43, 15-25.	2.0	67
49	Comparison of a PreQ1 Riboswitch Aptamer in Metabolite-bound and Free States with Implications for Gene Regulation. <i>Journal of Biological Chemistry</i> , 2011, 286, 24626-24637.	1.6	114
50	Revealing the Quaternary Structure of a Heterogeneous Noncovalent Protein Complex through Surface-Induced Dissociation. <i>Analytical Chemistry</i> , 2011, 83, 2862-2865.	3.2	78
51	Pyruvate Is the Source of the Two Carbons That Are Required for Formation of the Imidazole Ring of 4-Demethylwyosine. <i>Biochemistry</i> , 2011, 50, 10573-10575.	1.2	40
52	Discovery of epoxyqueuosine (oQ) reductase reveals parallels between halorespiration and tRNA modification. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 7368-7372.	3.3	87
53	The Structural Basis for Recognition of the PreQ0 Metabolite by an Unusually Small Riboswitch Aptamer Domain. <i>Journal of Biological Chemistry</i> , 2009, 284, 11012-11016.	1.6	93
54	<i>Escherichia coli</i> QueD Is a 6-Carboxy-5,6,7,8-tetrahydropterin Synthase. <i>Biochemistry</i> , 2009, 48, 2301-2303.	1.2	50

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55	The Deazapurine Biosynthetic Pathway Revealed: In Vitro Enzymatic Synthesis of PreQ ₀ from Guanosine 5'-Triphosphate in Four Steps. <i>Biochemistry</i> , 2009, 48, 3847-3852.	1.2	96
56	Deciphering Deazapurine Biosynthesis: Pathway for Pyrrolopyrimidine Nucleosides Toyocamycin and Sangivamycin. <i>Chemistry and Biology</i> , 2008, 15, 790-798.	6.2	77
57	Delivery of tailor-made cobalamin to methylmalonyl-CoA mutase. <i>Nature Chemical Biology</i> , 2008, 4, 158-159.	3.9	0
58	The Copper-Inducible cin Operon Encodes an Unusual Methionine-Rich Azurin-Like Protein and a Pre-Q0 Reductase in <i>Pseudomonas putida</i> KT2440. <i>Journal of Bacteriology</i> , 2007, 189, 5361-5371.	1.0	31
59	Probing Nitrogen-Sensitive Steps in the Free-Radical-Mediated Deamination of Amino Alcohols by Ethanamine Ammonia-Lyase. <i>Journal of the American Chemical Society</i> , 2006, 128, 7120-7121.	6.6	12
60	Functions of three GTP cyclohydrolase II proteins of <i>S. coelicolor</i> . <i>FASEB Journal</i> , 2006, 20, LB54.	0.2	0
61	Measurement of Energetics of Conformational Change in Cobalamin-Dependent Methionine Synthase. <i>Methods in Enzymology</i> , 2004, 380, 152-169.	0.4	15
62	Cobalamin-Dependent and Cobalamin-Independent Methionine Synthases: Are There Two Solutions to the Same Chemical Problem?. <i>Helvetica Chimica Acta</i> , 2003, 86, 3939-3954.	1.0	54
63	Factors modulating conformational equilibria in large modular proteins: A case study with cobalamin-dependent methionine synthase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 8156-8163.	3.3	68
64	Inhibition of Lysine 2,3-Aminomutase by the Alternative Substrate 4-Thialysine and Characterization of the 4-Thialysyl Radical Intermediate. <i>Archives of Biochemistry and Biophysics</i> , 2001, 387, 281-288.	1.4	36
65	Characterization of a Unique Coenzyme B6 Radical in the Ascarylose Biosynthetic Pathway. <i>Journal of the American Chemical Society</i> , 2000, 122, 4239-4240.	6.6	23
66	Ethanamine Ammonia-Lyase Has a Base-On Binding Mode for Coenzyme B12. <i>Archives of Biochemistry and Biophysics</i> , 1999, 370, 138-141.	1.4	64
67	Dioldehydratase Binds Coenzyme B12 in the Base-On Mode: ESR Investigations on Cob(II)alamin. <i>Angewandte Chemie - International Edition</i> , 1998, 37, 625-627.	7.2	50
68	Spectroelectrochemical Characterization of the Metal Centers in Carbon Monoxide Dehydrogenase (CODH) and Nickel-deficient CODH from <i>Rhodospirillum rubrum</i> . <i>Journal of Biological Chemistry</i> , 1996, 271, 7973-7977.	1.6	34
69	Metabolite Activation of Crassulacean Acid Metabolism and C4 Phosphoenolpyruvate Carboxylase. <i>Plant Physiology</i> , 1992, 100, 1411-1416.	2.3	19