Satish K Nair

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/8038124/publications.pdf

Version: 2024-02-01

95 papers	5,897 citations	126708 33 h-index	79541 73 g-index
104 all docs	104 docs citations	104 times ranked	5106 citing authors

#	Article	IF	Citations
1	Ribosomally synthesized and post-translationally modified peptide natural products: overview and recommendations for a universal nomenclature. Natural Product Reports, 2013, 30, 108-160.	5.2	1,692
2	New developments in RiPP discovery, enzymology and engineering. Natural Product Reports, 2021, 38, 130-239.	5.2	412
3	Mechanistic Understanding of Lanthipeptide Biosynthetic Enzymes. Chemical Reviews, 2017, 117, 5457-5520.	23.0	375
4	Structure and mechanism of the tRNA-dependent lantibiotic dehydratase NisB. Nature, 2015, 517, 509-512.	13.7	278
5	Structure and Mechanism of the Lantibiotic Cyclase Involved in Nisin Biosynthesis. Science, 2006, 311, 1464-1467.	6.0	275
6	Quorum sensing: How bacteria can coordinate activity and synchronize their response to external signals?. Protein Science, 2012, 21, 1403-1417.	3.1	164
7	Xylan utilization in human gut commensal bacteria is orchestrated by unique modular organization of polysaccharide-degrading enzymes. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E3708-17.	3.3	137
8	Lantibiotics from Geobacillus thermodenitrificans. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 5241-5246.	3.3	129
9	Enzymatic Basis of Ribosomal Peptide Prenylation in Cyanobacteria. Journal of the American Chemical Society, 2011, 133, 13698-13705.	6.6	113
10	An unusual carbonâ€“carbon bond cleavage reaction during phosphinothricin biosynthesis. Nature, 2009, 459, 871-874.	13.7	111
11	Circular Logic: Nonribosomal Peptide-like Macrocyclization with a Ribosomal Peptide Catalyst. Journal of the American Chemical Society, 2010, 132, 15499-15501.	6.6	93
12	Structure of the enzyme-acyl carrier protein (ACP) substrate gatekeeper complex required for biotin synthesis. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 17406-17411.	3.3	87
13	Discovery of a new ATP-binding motif involved in peptidic azoline biosynthesis. Nature Chemical Biology, 2014, 10, 823-829.	3.9	77
14	Enzymatic reconstitution of ribosomal peptide backbone thioamidation. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 3030-3035.	3.3	73
15	The enterococcal cytolysin synthetase has an unanticipated lipid kinase fold. ELife, 2015, 4, .	2.8	73
16	Structural insights into enzymatic [4+2] aza -cycloaddition in thiopeptide antibiotic biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 12928-12933.	3.3	70
17	Structure and tRNA Specificity of MibB, a Lantibiotic Dehydratase from Actinobacteria Involved in NAI-107 Biosynthesis. Cell Chemical Biology, 2016, 23, 370-380.	2.5	64
18	Two Flavoenzymes Catalyze the Post-Translational Generation of 5-Chlorotryptophan and 2-Aminovinyl-Cysteine during NAI-107 Biosynthesis. ACS Chemical Biology, 2017, 12, 548-557.	1.6	64

#	Article	IF	Citations
19	Insights into AMS/PCAT transporters from biochemical and structural characterization of a double Glycine motif protease. ELife, 2019, 8, .	2.8	63
20	Structures of Cyanobactin Maturation Enzymes Define a Family of Transamidating Proteases. Chemistry and Biology, 2012, 19, 1411-1422.	6.2	62
21	Structural Basis for Specificity and Flexibility in a Plant 4-Coumarate:CoA Ligase. Structure, 2015, 23, 2032-2042.	1.6	58
22	Molecular basis for the substrate specificity of quorum signal synthases. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 9092-9097.	3.3	58
23	Microcin C: biosynthesis and mechanisms of bacterial resistance. Future Microbiology, 2012, 7, 281-289.	1.0	51
24	The Biochemistry and Structural Biology of Cyanobactin Pathways: Enabling Combinatorial Biosynthesis. Methods in Enzymology, 2018, 604, 113-163.	0.4	50
25	Characterization of the macrocyclase involved in the biosynthesis of RiPP cyclic peptides in plants. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 6551-6556.	3.3	49
26	Biochemical and Structural Insights into Xylan Utilization by the Thermophilic Bacterium Caldanaerobius polysaccharolyticus. Journal of Biological Chemistry, 2012, 287, 34946-34960.	1.6	47
27	Structure and mechanism of lanthipeptide biosynthetic enzymes. Current Opinion in Structural Biology, 2014, 29, 58-66.	2.6	45
28	Molecular basis for the broad substrate selectivity of a peptide prenyltransferase. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 14037-14042.	3.3	45
29	Enzymatic N- and C-Protection in Cyanobactin RiPP Natural Products. Journal of the American Chemical Society, 2017, 139, 2884-2887.	6.6	43
30	Structural and Biochemical Studies of Non-native Agonists of the LasR Quorum-Sensing Receptor Reveal an L3 Loop â€œOutâ€•Conformation for LasR. Cell Chemical Biology, 2018, 25, 1128-1139.e3.	2.5	43
31	Structural and functional insight into an unexpectedly selective N -methyltransferase involved in plantazolicin biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 12954-12959.	3.3	42
32	Characterization of glutamyl-tRNAâ€“dependent dehydratases using nonreactive substrate mimics. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 17245-17250.	3.3	42
33	Characterization and structure of DhpI, a phosphonate O -methyltransferase involved in dehydrophos biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 17557-17562.	3.3	41
34	Steric complementarity directs sequence promiscuous leader binding in RiPP biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 24049-24055.	3.3	40
35	Mechanistic Basis for Ribosomal Peptide Backbone Modifications. ACS Central Science, 2019, 5, 842-851.	5.3	35
36	Substrate Specificity of the Lanthipeptide Peptidase ElxP and the Oxidoreductase ElxO. ACS Chemical Biology, 2014, 9, 1718-1725.	1.6	34

#	Article	IF	Citations
37	LanCLs add glutathione to dehydroamino acids generated at phosphorylated sites in the proteome. Cell, 2021, 184, 2680-2695.e26.	13.5	34
38	Structural Basis for Microcin C7 Inactivation by the MccE Acetyltransferase. Journal of Biological Chemistry, 2011, 286, 21295-21303.	1.6	32
39	Post-Translational Tyrosine Geranylation in Cyanobactin Biosynthesis. Journal of the American Chemical Society, 2018, 140, 6044-6048.	6.6	31
40	The pimeloyl-CoA synthetase BioW defines a new fold for adenylate-forming enzymes. Nature Chemical Biology, 2017, 13, 668-674.	3.9	30
41	Molecular Basis for Autocatalytic Backbone N-Methylation in RiPP Natural Product Biosynthesis. ACS Chemical Biology, 2018, 13, 2989-2999.	1.6	30
42	Structure of the Lasso Peptide Isopeptidase Identifies a Topology for Processing Threaded Substrates. Journal of the American Chemical Society, 2016, 138, 16452-16458.	6.6	29
43	Functional interactions between posttranslationally modified amino acids of methyl-coenzyme M reductase in Methanosarcina acetivorans. PLoS Biology, 2020, 18, e3000507.	2.6	29
44	Structure and function of a serine carboxypeptidase adapted for degradation of the protein synthesis antibiotic microcin C7. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 4425-4430.	3.3	27
45	Aminoacyl tRNA synthetases as targets for antibiotic development. MedChemComm, 2012, 3, 887.	3.5	26
46	A Single Amino Acid Switch Alters the Isoprene Donor Specificity in Ribosomally Synthesized and Post-Translationally Modified Peptide Prenyltransferases. Journal of the American Chemical Society, 2018, 140, 8124-8127.	6.6	26
47	Molecular basis for resistance against phosphonate antibiotics and herbicides. MedChemComm, 2016, 7, 28-36.	3.5	25
48	Substrate-assisted enzymatic formation of lysinoalanine in duramycin. Nature Chemical Biology, 2018, 14, 928-933.	3.9	25
49	Structure and Function of Phosphonoacetaldehyde Dehydrogenase: The Missing Link in Phosphonoacetate Formation. Chemistry and Biology, 2014, 21, 125-135.	6.2	24
50	Structure, Function and Inhibition of the Phosphoethanolamine Methyltransferases of the Human Malaria Parasites Plasmodium vivax and Plasmodium knowlesi. Scientific Reports, 2015, 5, 9064.	1.6	23
51	Applications of the class II lanthipeptide protease LicP for sequence-specific, traceless peptide bond cleavage. Chemical Science, 2015, 6, 6270-6279.	3.7	22
52	Structure and mechanism of enzymes involved in biosynthesis and breakdown of the phosphonates fosfomycin, dehydrophos, and phosphinothricin. Archives of Biochemistry and Biophysics, 2011, 505, 13-21.	1.4	21
53	Functional elucidation of TfuA in peptide backbone thioamidation. Nature Chemical Biology, 2021, 17, 585-592.	3.9	21
54	Biosynthetic Proteases That Catalyze the Macrocyclization of Ribosomally Synthesized Linear Peptides. Biochemistry, 2018, 57, 3201-3209.	1.2	18

#	Article	IF	Citations
55	Identification and characterization of andalusicin: N-terminally dimethylated class III lantibiotic from Bacillus thuringiensis sv. andalousiensis. IScience, 2021, 24, 102480.	1.9	18
56	Biochemical Studies of Mycobacterial Fatty Acid Methyltransferase: A Catalyst for the Enzymatic Production of Biodiesel. Chemistry and Biology, 2015, 22, 1480-1490.	6.2	17
57	Characterization of Two Late-Stage Enzymes Involved in Fosfomycin Biosynthesis in Pseudomonads. ACS Chemical Biology, 2017, 12, 456-463.	1.6	17
58	Molecular basis for enantioselective herbicide degradation imparted by aryloxyalkanoate dioxygenases in transgenic plants. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 13299-13304.	3.3	17
59	Characterization of a Dehydratase and Methyltransferase in the Biosynthesis of Ribosomally Synthesized and Postâ€translationally Modified Peptides in Lachnospiraceae. ChemBioChem, 2020, 21, 190-199.	1.3	17
60	Insights into Methyltransferase Specificity and Bioactivity of Derivatives of the Antibiotic Plantazolicin. ACS Chemical Biology, 2015, 10, 1209-1216.	1.6	16
61	Biosynthesis of the RiPP trojan horse nucleotide antibiotic microcin C is directed by the N-formyl of the peptide precursor. Chemical Science, 2019, 10, 2391-2395.	3.7	16
62	Structural and Biochemical Studies of a Biocatalyst for the Enzymatic Production of Wax Esters. ACS Catalysis, 2018, 8, 6334-6344.	5.5	15
63	Loganic Acid Methyltransferase: Insights into the Specificity of Methylation on an Iridoid Glycoside. ChemBioChem, 2018, 19, 784-788.	1.3	14
64	Catalysts for the Enzymatic Lipidation of Peptides. Accounts of Chemical Research, 2022, 55, 1313-1323.	7.6	14
65	Structural and Biochemical Basis for Mannan Utilization by Caldanaerobius polysaccharolyticus Strain ATCC BAA-17. Journal of Biological Chemistry, 2014, 289, 34965-34977.	1.6	13
66	Chemical Rescue and Inhibition Studies to Determine the Role of Arg301 in Phosphite Dehydrogenase. PLoS ONE, 2014, 9, e87134.	1.1	12
67	New N-Acetyltransferase Fold in the Structure and Mechanism of the Phosphonate Biosynthetic Enzyme FrbF. Journal of Biological Chemistry, 2011, 286, 36132-36141.	1.6	11
68	Structural Basis for Enzymatic Off-Loading of Hybrid Polyketides by Dieckmann Condensation. ACS Chemical Biology, 2020, 15, 2783-2791.	1.6	11
69	Interception of the Bycroftâ€“Gowland Intermediate in the Enzymatic Macrocyclization of Thiopeptides. Journal of the American Chemical Society, 2020, 142, 13170-13179.	6.6	10
70	Molecular Basis of Bacillus subtilis ATCC 6633 Self-Resistance to the Phosphono-oligopeptide Antibiotic Rhizocticin. ACS Chemical Biology, 2019, 14, 742-750.	1.6	9
71	Structural and mechanistic investigations of protein S-glycosyltransferases. Cell Chemical Biology, 2021, 28, 1740-1749.e6.	2.5	8
72	Biosynthesis of fosfomycin in pseudomonads reveals an unexpected enzymatic activity in the metallohydrolase superfamily. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	7

#	Article	IF	Citations
73	Reiterative Synthesis by the Ribosome and Recognition of the N-Terminal Formyl Group by Biosynthetic Machinery Contribute to Evolutionary Conservation of the Length of Antibiotic Microcin C Peptide Precursor. MBio, 2019, 10, .	1.8	6
74	Natural product biosynthesis: What's next? An introduction to the JBC Reviews Thematic Series. Journal of Biological Chemistry, 2020, 295, 335-336.	1.6	6
75	Structure-Guided Biochemical Analysis of Quorum Signal Synthase Specificities. ACS Chemical Biology, 2020, 15, 1497-1504.	1.6	6
76	Characterization of a Glyphosate-Tolerant Enzyme from Streptomyces svecius: A Distinct Class of 5-Enolpyruvylshikimate-3-phosphate Synthases. Journal of Agricultural and Food Chemistry, 2021, 69, 5096-5104.	2.4	6
77	Structure-Guided Analyses of a Key Enzyme Involved in the Biosynthesis of an Antivitamin. Biochemistry, 2018, 57, 5282-5288.	1.2	5
78	Characterization of the flavin monooxygenase involved in biosynthesis of the antimalarial FR-900098. Organic and Biomolecular Chemistry, 2019, 17, 1506-1518.	1.5	4
79	Structure and mechanism for iterative amide N -methylation in the biosynthesis of channel-forming peptide cytotoxins. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2116578119.	3.3	4
80	Exploring the substrate promiscuity of an antibiotic inactivating enzyme. MedChemComm, 2014, 5, 1567-1570.	3.5	3
81	Biochemical basis for the regulation of biosynthesis of antiparasitics by bacterial hormones. ELife, 2020, 9, .	2.8	3
82	Control of Nucleophile Chemoselectivity in Cyanobactin YcaO Heterocyclases PatD and TruD. ACS Chemical Biology, 2022, 17, 1215-1225.	1.6	3
83	Metal ion mediated reduction in surface entropy and a putative phosphorylation site of the IRAKâ€4 death domain. FASEB Journal, 2006, 20, A498.	0.2	0
84	Biochemical Studies of Nisin Biosynthesis and Autoimmunity. FASEB Journal, 2006, 20, A477.	0.2	0
85	Crystal Structure of an Archaeal Replication Protein A Homolog. FASEB Journal, 2006, 20, LB56.	0.2	0
86	Self immunity and resistance mechanisms against trojan horse antibiotic â€•Microcin C7. FASEB Journal, 2010, 24, lb201.	0.2	0
87	Structural studies in the biosynthesis of the glycopeptide antibiotic teicoplanin. FASEB Journal, 2010, 24, lb211.	0.2	0
88	Structural description of enzyme catalysing unusual modification in lantibiotic biosynthesis. FASEB Journal, 2010, 24, lb205.	0.2	0
89	Structural Biology of RiPP Natural Products Biosynthesis. , 2020, , 17-48.		0
90	Title is missing!. , 2020, 18, e3000507.		0

#	Article	IF	Citations
91	Title is missing!. , 2020, 18, e3000507.		0
92	Title is missing!. , 2020, 18, e3000507.		0
93	Title is missing!. , 2020, 18, e3000507.		0
94	Title is missing!. , 2020, 18, e3000507.		0
95	Title is missing!. , 2020, 18, e3000507.		0