Venkat Gopalan

List of Publications by Year
in descending order

65 papers	2,033 citations	304743 22 h-index	254184 43 g-index
77 all docs	77 docs citations	77 times ranked	2045 citing authors

#	Article	IF	Citations
1	The amazing potential of fungi: 50 ways we can exploit fungi industrially. Fungal Diversity, 2019, 97, 1-136.	12.3	459
2	Fungal endophytes: an untapped source of biocatalysts. Fungal Diversity, 2012, 54, 19-30.	12.3	122
3	Unexpected diversity of RNase P, an ancient tRNA processing enzyme: Challenges and prospects. FEBS Letters, 2010, 584, 287-296.	2.8	109
4	Archaeal/Eukaryal RNase P: subunits, functions and RNA diversification. Nucleic Acids Research, 2010, 38, 7885-7894.	14.5	106
5	RNase P: Variations and Uses. Journal of Biological Chemistry, 2002, 277, 6759-6762.	3.4	100
6	Functional reconstitution and characterization of Pyrococcus furiosus RNase P. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 16147-16152.	7.1	87
7	Ribosomal protein L7Ae is a subunit of archaeal RNase P. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 14573-14578.	7.1	71
8	Cholesterol and Plants. Journal of Chemical Education, 2005, 82, 1791.	2.3	69
9	A Land Plant-Specific Transcription Factor Directly Enhances Transcription of a Pathogenic Noncoding RNA Template by DNA-Dependent RNA Polymerase II. Plant Cell, 2016, 28, 1094-1107.	6.6	60
10	Computationally reconstructing cotranscriptional RNA folding from experimental data reveals rearrangement of non-native folding intermediates. Molecular Cell, 2021, 81, 870-883.e10.	9.7	60
11	Structure of Mth11/Mth Rpp29, an essential protein subunit of archaeal and eukaryotic RNase P. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 15398-15403.	7.1	47
12	Studies on Methanocaldococcus jannaschii RNase P reveal insights into the roles of RNA and protein cofactors in RNase P catalysis. Nucleic Acids Research, 2008, 36, 4172-4180.	14.5	47
13	Dissecting functional cooperation among protein subunits in archaeal RNase P, a catalytic ribonucleoprotein complex. Nucleic Acids Research, 2010, 38, 8316-8327.	14.5	47
14	Discovery of a minimal form of RNase P in <i>Pyrobaculum</i>. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 22493-22498.	7.1	41
15	Solution Structure of an Archaeal RNase P Binary Protein Complex: Formation of the 30-kDa Complex between Pyrococcus furiosus RPP21 and RPP29 Is Accompanied by Coupled Protein Folding and Highlights Critical Features for Proteinâ€“Protein and Proteinâ€“RNA Interactions. Journal of Molecular Biology, 2009, 393, 1043-1055.	4.2	37
16	Uniformity amid diversity in RNase P. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 2031-2032.	7.1	32
17	Uncovering the Stoichiometry of <i>Pyrococcus furiosus</i> RNaseâ€‰P, a Multiâ€Subunit Catalytic Ribonucleoprotein Complex, by Surfaceâ€Induced Dissociation and Ion Mobility Mass Spectrometry. Angewandte Chemie - International Edition, 2014, 53, 11483-11487.	13.8	32
18	Chance and necessity in the evolution of RNase P. Rna, 2018, 24, 1-5.	3.5	26

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19	The many faces of RNA-based RNase P, an RNA-world relic. Trends in Biochemical Sciences, 2021, 46, 976-991.	7.5	25
20	Cleavage of model substrates by archaeal RNase P: role of protein cofactors in cleavage-site selection. Nucleic Acids Research, 2011, 39, 1105-1116.	14.5	24
21	Mapping RNAâ˜'Protein Interactions in Ribonuclease P fromEscherichia coliUsing Electron Paramagnetic Resonance Spectroscopyâ€. Biochemistry, 1999, 38, 1705-1714.	2.5	23
22	A novel double kink-turn module in euryarchaeal RNase P RNAs. Nucleic Acids Research, 2017, 45, 7432-7440.	14.5	22
23	A metabolic intermediate of the fructose-asparagine utilization pathway inhibits growth of a Salmonella fraB mutant. Scientific Reports, 2016, 6, 28117.	3.3	21
24	Use of <i>Cupriavidus basilensis</i>-aided bioabatement to enhance fermentation of acid-pretreated biomass hydrolysates by <i>Clostridium beijerinckii</i>. Journal of Industrial Microbiology and Biotechnology, 2016, 43, 1215-1226.	3.0	20
25	Piece by piece: Building a ribozyme. Journal of Biological Chemistry, 2020, 295, 2313-2323.	3.4	20
26	Both kinds of RNase P in all domains of life: surprises galore. Rna, 2019, 25, 286-291.	3.5	19
27	Sugar-Phosphate Toxicities. Microbiology and Molecular Biology Reviews, 2021, 85, e0012321.	6.6	19
28	The L7Ae protein binds to two kink-turns in the Pyrococcus furiosus RNase P RNA. Nucleic Acids Research, 2014, 42, 13328-13338.	14.5	15
29	Several fungi from fire-prone forests of southern India can utilize furaldehydes. Mycological Progress, 2014, 13, 1049.	1.4	15
30	Identification of Bacterial Species That Can Utilize Fructose-Asparagine. Applied and Environmental Microbiology, 2018, 84, .	3.1	15
31	Measurement of Fructoseâ€"Asparagine Concentrations in Human and Animal Foods. Journal of Agricultural and Food Chemistry, 2018, 66, 212-217.	5.2	15
32	Fidelity of tRNA 5â€²-maturation: a possible basis for the functional dependence of archaeal and eukaryal RNase P on multiple protein cofactors. Nucleic Acids Research, 2012, 40, 4666-4680.	14.5	14
33	Use of chemical modification and mass spectrometry to identify substrate-contacting sites in proteinaceous RNase P, a tRNA processing enzyme. Nucleic Acids Research, 2016, 44, 5344-5355.	14.5	14
34	The rice RNase P protein subunit Rpp30 confers broadâ€spectrum resistance to fungal and bacterial pathogens. Plant Biotechnology Journal, 2021, 19, 1988-1999.	8.3	14
35	Salmonella-Mediated Inflammation Eliminates Competitors for Fructose-Asparagine in the Gut. Infection and Immunity, 2018, 86, .	2.2	12
36	Varieties of RNase P: A nomenclature problem?. Rna, 2000, 6, 1689-1694.	3.5	11

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37	Cooperative RNP Assembly: Complementary Rescue of Structural Defects by Protein and RNA Subunits of Archaeal RNase P. Journal of Molecular Biology, 2011, 411, 368-383.	4.2	11
38	Analysis of Tagged Proteins Using Tandem Affinity-Buffer Exchange Chromatography Online with Native Mass Spectrometry. Biochemistry, 2021, 60, 1876-1884.	2.5	11
39	Salmonella FraE, an Asparaginase Homolog, Contributes to Fructose-Asparagine but Not Asparagine Utilization. Journal of Bacteriology, 2017, 199, .	2.2	10
40	Kinetics of Coupling Reactions That Generate Monothiophosphate Disulfides:â€‰ Implications for Modification of RNAs. Bioconjugate Chemistry, 2001, 12, 842-844.	3.6	9
41	Cleavage of Bipartite Substrates by Rice and Maize Ribonuclease P. Application to Degradation of Target mRNAs in Plants. Plant Physiology, 2001, 125, 1187-1190.	4.8	9
42	Sequence Analysis and Comparative Study of the Protein Subunits of Archaeal RNase P. Biomolecules, 2016, 6, 22.	4.0	9
43	Development of a high-throughput assay for rapid screening of butanologenic strains. Scientific Reports, 2018, 8, 3379.	3.3	9
44	A T7 RNA Polymerase Mutant Enhances the Yield of 5â€²â€Thienoguanosineâ€Initiated RNAs. ChemBioChem, 2018, 19, 142-146.	2.6	9
45	Integrated Use of Biochemical, Native Mass Spectrometry, Computational, and Genome-Editing Methods to Elucidate the Mechanism of a deglycase. Journal of Molecular Biology, 2019, 431, 4497-4513.	4.2	9
46	Cleavage of Model Substrates by Arabidopsis thaliana PRORP1 Reveals New Insights into Its Substrate Requirements. PLoS ONE, 2016, 11, e0160246.	2.5	7
47	Characterization of a <i>Salmonella</i> sugar kinase essential for the utilization of fructose-asparagine. Biochemistry and Cell Biology, 2017, 95, 304-309.	2.0	7
48	Characterization of an ionic liquid-tolerant Î²-xylosidase from a marine-derived fungal endophyte. Biochemistry and Cell Biology, 2017, 95, 585-591.	2.0	6
49	Ramping Recombinant Protein Expression in Bacteria. Biochemistry, 2020, 59, 2122-2124.	2.5	6
50	Ribozyme-Mediated Downregulation Uncovers DNA Integrity Scanning Protein A (DisA) as a Solventogenesis Determinant in Clostridium beijerinckii. Frontiers in Bioengineering and Biotechnology, 2021, 9, 669462.	4.1	6
51	Protein cofactors and substrate influence Mg2+-dependent structural changes in the catalytic RNA of archaeal RNase P. Nucleic Acids Research, 2021, 49, 9444-9458.	14.5	6
52	Transcriptional Control of an Essential Ribozyme in Drosophila Reveals an Ancient Evolutionary Divide in Animals. PLoS Genetics, 2015, 11, e1004893.	3.5	5
53	Alternative Protein Topology-Mediated Evolution of a Catalytic Ribonucleoprotein. Trends in Biochemical Sciences, 2020, 45, 825-828.	7.5	5
54	Use of tandem affinityâ€“buffer exchange chromatography online with native mass spectrometry for optimizing overexpression and purification of recombinant proteins. Methods in Enzymology, 2021, 659, 37-70.	1.0	5

#	ARTICLE	IF	CITATIONS
55	Structural basis for impaired 5â€² processing of a mutant tRNA associated with defects in neuronal homeostasis. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2119529119.	7.1	5
56	Elucidation of structureâ€"function relationships in <i>Methanocaldococcus jannaschii</i> RNase P, a multi-subunit catalytic ribonucleoprotein. Nucleic Acids Research, 2022, 50, 8154-8167.	14.5	5
57	Biochemical Studies Provide Insights into the Necessity for Multiple Arabidopsis thaliana Protein-Only RNase P Isoenzymes. Journal of Molecular Biology, 2019, 431, 615-624.	4.2	4
58	Characterization of a Salmonella Transcription Factor-DNA Complex and Identification of the Inducer by Native Mass Spectrometry. Journal of Molecular Biology, 2022, 434, 167480.	4.2	4
59	Biogenesis of RNase P RNA from an intron requires co-assembly with cognate protein subunits. Nucleic Acids Research, 2019, 47, 8746-8754.	14.5	3
60	The Anomeric Specificity of Enzymes Which Act on Sugars. Journal of Chemical Education, 2007, 84, 1608.	2.3	1
61	Purification, reconstitution, and mass analysis of archaeal RNase P, a multisubunit ribonucleoprotein enzyme. Methods in Enzymology, 2021, 659, 71-103.	1.0	1
62	RNA: yesterday, today and tomorrow. Rna, 2015, 21, 541-543.	3.5	0
63	An RNaseâ€…Pâ€Based Assay for Accurate Determination of the 5â€²â€Deoxyâ€5â€²â€azidoguanosineâ€Modified Fraction of in Vitroâ€Transcribed RNAs. ChemBioChem, 2018, 19, 2353-2359.	2.6	0
64	Characterization of Transcription Factorâ€DNA Complexes Using Online Buffer Exchange Coupled to Native Mass Spectrometry. FASEB Journal, 2021, 35, .	0.5	0
65	Using an L7Ae-Tethered, Hydroxyl Radical-Mediated Footprinting Strategy to Identify and Validate Kink-Turns in RNAs. Methods in Molecular Biology, 2021, 2167, 147-169.	0.9	0