Mike Merrick

List of Publications by Year
in descending order

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Version: 2024-02-01

58 papers	4,528 citations	76326 40 h-index	149698 56 g-index
58 all docs	58 docs citations	58 times ranked	2300 citing authors

#	Article	IF	Citations
1	P II Signal Transduction Proteins, Pivotal Players in Microbial Nitrogen Control. Microbiology and Molecular Biology Reviews, 2001, 65, 80-105.	6.6	393
2	Membrane sequestration of the signal transduction protein GlnK by the ammonium transporter AmtB. EMBO Journal, 2002, 21, 536-545.	7.8	208
3	Analysis of regulation of Klebsiella pneumoniae nitrogen fixation (nif) gene cluster with gene fusions. Nature, 1980, 286, 128-132.	27.8	207
4	Ammonium Sensing in Escherichia coli. Journal of Biological Chemistry, 2004, 279, 8530-8538.	3.4	191
5	Complementation analysis of Klebsiella pneumoniae mutants defective in nitrogen fixation. Molecular Genetics and Genomics, 1977, 157, 189-198.	2.4	189
6	Positive control and autogenous regulation of the nifLA promoter in Klebsiella pneumoniae. Nature, 1983, 301, 302-307.	27.8	187
7	P_{II}signal transduction proteins: nitrogen regulation and beyond. FEMS Microbiology Reviews, 2013, 37, 251-283.	8.6	178
8	The crystal structure of the Escherichia coli AmtB-GlnK complex reveals how GlnK regulates the ammonia channel. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 1213-1218.	7.1	176
9	Repressor properties of the nifL gene product in Klebsiella pneumoniae. Molecular Genetics and Genomics, 1982, 185, 75-81.	2.4	135
10	Genome-wide analysis of the role of GlnR in Streptomyces venezuelae provides new insights into global nitrogen regulation in actinomycetes. BMC Genomics, 2011, 12, 175.	2.8	127
11	The glnKamtB operon. Trends in Genetics, 2000, 16, 11-14.	6.7	119
12	The 1.3-â„« resolution structure of Nitrosomonas europaea Rh50 and mechanistic implications for NH ₃ transport by Rhesus family proteins. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 19303-19308.	7.1	117
13	Membrane topology of the Mep/Amt family of ammonium transporters. Molecular Microbiology, 2000, 37, 331-344.	2.5	113
14	Polarity of mutations induced by insertion of transposons Tn5, Tn7 and Tn10 into the nif gene cluster of Klebsiella pneumoniae. Molecular Genetics and Genomics, 1978, 165, 103-111.	2.4	106
15	Regulation and function of ammonium carriers in bacteria, fungi, and plants. Topics in Current Genetics, 2004, , 95-120.	0.7	106
16	The Signal Transduction Protein GlnK Is Required for NifL-Dependent Nitrogen Control of nif Gene Expression in Klebsiella pneumoniae. Journal of Bacteriology, 1999, 181, 1156-1162.	2.2	91
17	Cloning of the glnA, ntrB and ntrC genes of Klebsiella pneumoniae and studies of their role in regulation of the nitrogen fixation (nif) gene cluster. Molecular Genetics and Genomics, 1982, 186, 518-524.	2.4	90
18	In vivo functional characterization of the Escherichia coli ammonium channel AmtB: evidence for metabolic coupling of AmtB to glutamine synthetase. Biochemical Journal, 2005, 390, 215-222.	3.7	89

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19	Purification of the Escherichia coli ammonium transporter AmtB reveals a trimeric stoichiometry. Biochemical Journal, 2002, 364, 527-535.	3.7	88
20	Substrate binding, deprotonation, and selectivity at the periplasmic entrance of the Escherichia coli ammonia channel AmtB. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 5040-5045.	7.1	80
21	The nucleotide sequence of the nitrogen regulation genentrBand theglnA-ntrBCintergenic region ofKlebsiella pneumoniae. Nucleic Acids Research, 1985, 13, 7591-7606.	14.5	76
22	An Unusual Twin-His Arrangement in the Pore of Ammonia Channels Is Essential for Substrate Conductance. Journal of Biological Chemistry, 2006, 281, 39492-39498.	3.4	69
23	A New PII Protein Structure Identifies the 2-Oxoglutarate Binding Site. Journal of Molecular Biology, 2010, 400, 531-539.	4.2	69
24	Control of AmtB-GlnK Complex Formation by Intracellular Levels of ATP, ADP, and 2-Oxoglutarate. Journal of Biological Chemistry, 2010, 285, 31037-31045.	3.4	67
25	Identification of the Klebsiella pneumoniae glnB gene: Nucleotide sequence of wild-type and mutant alleles. Molecular Genetics and Genomics, 1988, 215, 134-138.	2.4	64
26	PII signal transduction proteins: pivotal players in post-translational control of nitrogenase activity. Microbiology (United Kingdom), 2012, 158, 176-190.	1.8	64
27	ADP-ribosylation of dinitrogenase reductase in Azospirillum brasilense is regulated by AmtB-dependent membrane sequestration of DraG. Molecular Microbiology, 2006, 59, 326-337.	2.5	59
28	Structural and mechanistic aspects of Amt/Rh proteins. Journal of Structural Biology, 2007, 158, 472-481.	2.8	59
29	The roles of the nifW, nifZ and nifM genes of Klebsiella pneumoniae in nitrogenase biosynthesis. FEBS Journal, 1989, 178, 675-682.	0.2	58
30	Molecular Basis and Regulation of Ammonium Transporter in Rice. Rice Science, 2009, 16, 314-322.	3.9	58
31	Complementation analysis of glnA-linked mutations which affect nitrogen fixation in Klebsiella pneumoniae. Molecular Genetics and Genomics, 1981, 184, 213-217.	2.4	54
32	The Rhizobium etli amtB Gene Coding for an NH4+ Transporter Is Down-Regulated Early During Bacteroid Differentiation. Molecular Plant-Microbe Interactions, 1998, 11, 188-198.	2.6	52
33	Post-translational modification of PII signal transduction proteins. Frontiers in Microbiology, 2014, 5, 763.	3.5	52
34	Why don't plants fix nitrogen?. Trends in Biotechnology, 1984, 2, 162-166.	9.3	51
35	Interaction of purified NtrC protein with nitrogen regulated promoters from Klebsiella pneumoniae. Molecular Genetics and Genomics, 1985, 201, 492-498.	2.4	50
36	Ternary complex formation between AmtB, GlnZ and the nitrogenase regulatory enzyme DraG reveals a novel facet of nitrogen regulation in bacteria. Molecular Microbiology, 2007, 66, 071119190133008-???.	2.5	50

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37	Electron and atomic force microscopy of the trimeric ammonium transporter AmtB. EMBO Reports, 2004, 5, 1153-1158.	4.5	47
38	In Vitro Analysis of the Escherichia coli AmtB-GlnK Complex Reveals a Stoichiometric Interaction and Sensitivity to ATP and 2-Oxoglutarate. Journal of Biological Chemistry, 2006, 281, 29558-29567.	3.4	44
39	The role of effector molecules in signal transduction by PII proteins. Biochemical Society Transactions, 2011, 39, 189-194.	3.4	42
40	P _{II} signal transduction proteins are ATPases whose activity is regulated by 2-oxoglutarate. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 12948-12953.	7.1	42
41	Studies on the roles of GlnK and GlnB in regulatingKlebsiella pneumoniaeNifL-dependent nitrogen control. FEMS Microbiology Letters, 1999, 180, 263-270.	1.8	40
42	Interactions between PII proteins and the nitrogenase regulatory enzymes DraT and DraG in Azospirillum brasilense. FEBS Letters, 2006, 580, 5232-5236.	2.8	40
43	Cloning and characterisation of nifLA regulatory mutations from Klebsiella pneumoniae. Molecular Genetics and Genomics, 1983, 191, 485-491.	2.4	39
44	The role of uridylyltransferase in the control ofKlebsiella pneumoniae nif gene regulation. Molecular Genetics and Genomics, 1995, 247, 189-198.	2.4	36
45	Crystal structure of the GlnZ-DraG complex reveals a different form of P_{II}-target interaction. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 18972-18976.	7.1	36
46	In Vitro Interactions between the PII Proteins and the Nitrogenase Regulatory Enzymes Dinitrogenase Reductase ADP-ribosyltransferase (DraT) and Dinitrogenase Reductase-activating Glycohydrolase (DraG) in Azospirillum brasilense. Journal of Biological Chemistry, 2009, 284, 6674-6682.	3.4	30
47	Two Residues in the T-loop of GlnK Determine NifL-dependent Nitrogen Control of nif Gene Expression. Journal of Biological Chemistry, 2000, 275, 38452-38456.	3.4	27
48	The nucleotide sequence of the nifM gene of Klebsiella pneumoniae and identification of a new nif gene: nifZ. FEBS Journal, 1987, 170, 259-265.	0.2	23
49	Evolution and Functional Characterization of the RH50 Gene from the Ammonia-Oxidizing Bacterium Nitrosomonas europaea. Journal of Bacteriology, 2007, 189, 9090-9100.	2.2	23
50	The conserved carboxy-terminal region of the ammonia channel AmtB plays a critical role in channel function. Molecular Membrane Biology, 2007, 24, 161-171.	2.0	22
51	Crystal Structure of Dinitrogenase Reductase-activating Glycohydrolase (DRAG) Reveals Conservation in the ADP-Ribosylhydrolase Fold and Specific Features in the ADP-Ribose-binding Pocket. Journal of Molecular Biology, 2009, 390, 737-746.	4.2	21
52	Ammonium Transport Proteins with Changes in One of the Conserved Pore Histidines Have Different Performance in Ammonia and Methylamine Conduction. PLoS ONE, 2013, 8, e62745.	2.5	20
53	Characterisation of mutations in the Klebsiella pneumoniae nitrogen fixation regulatory gene nifL which impair oxygen regulation. Archives of Microbiology, 1993, 159, 276-281.	2.2	16
54	The ammonia channel protein AmtB from Escherichia coli is a polytopic membrane protein with a cleavable signal peptide. FEMS Microbiology Letters, 2006, 258, 114-120.	1.8	16

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55	Association and dissociation of the GlnKÃ¢â‚¬â„¢AmtB complex in response to cellular nitrogen status can occur in the absence of GlnK post-translational modification. Frontiers in Microbiology, 2014, 5, 731.	3.5	12
56	REGULATION OF TRANSCRIPTION OF THE NITROGEN FIXATION OPERONS. , 1983, , 223-232.		6
57	Mutational analysis of GlnB residues critical for NifA activation in Azospirillum brasilense. Microbiological Research, 2015, 171, 65-72.	5.3	4
58	Membrane topology of the Mep/Amt family of ammonium transport proteins. Biochemical Society Transactions, 2000, 28, A94-A94.	3.4	0