Michael J Benedik

List of Publications by Year
in descending order

81	4,092	94269 37	118652 62
papers	citations	h-index	g-index

84	84	84	3418
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Arrested Protein Synthesis Increases Persister-Like Cell Formation. Antimicrobial Agents and Chemotherapy, 2013, 57, 1468-1473.	1.4	286
2	Activation of mouse T-helper cells induces abundant preproenkephalin mRNA synthesis. Science, 1986, 232, 772-775.	6.0	284
3	A new type V toxin-antitoxin system where mRNA for toxin GhoT is cleaved by antitoxin GhoS. Nature Chemical Biology, 2012, 8, 855-861.	3.9	268
4	Antitoxin MqsA helps mediate the bacterial general stress response. Nature Chemical Biology, 2011, 7, 359-366.	3.9	201
5	Bacterial persistence increases as environmental fitness decreases. Microbial Biotechnology, 2012, 5, 509-522.	2.0	137
6	Microbial nitrilases: versatile, spiral forming, industrial enzymes. Journal of Applied Microbiology, 2009, 106, 703-727.	1.4	131
7	The extracellular nuclease gene of Serratia marcescens and its secretion from Escherichia coli. Gene, 1987, 57, 183-192.	1.0	106
8	Type <scp>II</scp> toxin/antitoxin <scp>MqsR</scp>/<scp>MqsA</scp> controls type <scp>V</scp> toxin/antitoxin <scp>GhoT</scp>/<scp>GhoS</scp>. Environmental Microbiology, 2013, 15, 1734-1744.	1.8	100
9	RalR (a DNase) and RalA (a small RNA) form a type I toxinâ€“antitoxin system in Escherichia coli. Nucleic Acids Research, 2014, 42, 6448-6462.	6.5	98
10	Induction of phospholipase- and flagellar synthesis in Serratia liquefaciens is controlled by expression of the flagellar master operon flhD. Molecular Microbiology, 1995, 15, 445-454.	1.2	96
11	Cadaverine Inhibition of Porin Plays a Role in Cell Survival at Acidic pH. Journal of Bacteriology, 2003, 185, 13-19.	1.0	95
12	2.1 Ã... structure of Serratia endonuclease suggests a mechanism for binding to double-stranded DNA. Nature Structural and Molecular Biology, 1994, 1, 461-468.	3.6	91
13	Genetic analysis of extracellular proteins of Serratia marcescens. Journal of Bacteriology, 1988, 170, 4141-4146.	1.0	90
14	Characterization of the alanine racemases from two Mycobacteria. FEMS Microbiology Letters, 2001, 196, 93-98.	0.7	88
15	Toxin <scp>YafQ</scp> increases persister cell formation by reducing indole signalling. Environmental Microbiology, 2015, 17, 1275-1285.	1.8	88
16	The 1.9 Ã... Crystal Structure of Alanine Racemase from Mycobacterium tuberculosis Contains a Conserved Entryway into the Active Site,. Biochemistry, 2005, 44, 1471-1481.	1.2	86
17	Serratia marcescensand its extracellular nuclease. FEMS Microbiology Letters, 1998, 165, 1-13.	0.7	85
18	Microbial denitrogenation of fossil fuels. Trends in Biotechnology, 1998, 16, 390-395.	4.9	85

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19	Antimicrobial Behavior of Polyelectrolyteâ^'Surfactant Thin Film Assemblies. Langmuir, 2009, 25, 10322-10328.	1.6	79
20	Toxin <scp>GhoT</scp> of the <scp>GhoT</scp>/<scp>GhoS</scp> toxin/antitoxin system damages the cell membrane to reduce adenosine triphosphate and to reduce growth under stress. Environmental Microbiology, 2014, 16, 1741-1754.	1.8	79
21	Phosphodiesterase DosP increases persistence by reducing cAMP which reduces the signal indole. Biotechnology and Bioengineering, 2015, 112, 588-600.	1.7	75
22	Antitoxin DinJ influences the general stress response through transcript stabilizer CspE. Environmental Microbiology, 2012, 14, 669-679.	1.8	68
23	Low-frequency, low-field dielectric spectroscopy of living cell suspensions. Journal of Applied Physics, 2004, 95, 3754-3756.	1.1	67
24	CynD, the Cyanide Dihydratase from Bacillus pumilus: Gene Cloning and Structural Studies. Applied and Environmental Microbiology, 2003, 69, 4794-4805.	1.4	65
25	Characterization of the Alanine Racemases from Pseudomonas aeruginosa PAO1. Current Microbiology, 2000, 41, 290-294.	1.0	56
26	Persister Cells Resuscitate Using Membrane Sensors that Activate Chemotaxis, Lower cAMP Levels, and Revive Ribosomes. IScience, 2020, 23, 100792.	1.9	56
27	The <scp>MqsR</scp>/<scp>MqsA</scp> toxin/antitoxin system protects <scp>E</scp>scherichia coli during bile acid stress. Environmental Microbiology, 2015, 17, 3168-3181.	1.8	55
28	Cyanide bioremediation: the potential of engineered nitrilases. Applied Microbiology and Biotechnology, 2017, 101, 3029-3042.	1.7	53
29	Characterization of a Cytotoxic Factor in Culture Filtrates of Serratia marcescens. Infection and Immunity, 2002, 70, 1121-1128.	1.0	50
30	The metalloprotease gene ofSerratia marcescens strain SM6. Molecular Genetics and Genomics, 1990, 222, 446-451.	2.4	47
31	The Cyanide Degrading Nitrilase from Pseudomonas stutzeri AK61 Is a Two-Fold Symmetric, 14-Subunit Spiral. Structure, 2003, 11, 1413-1422.	1.6	47
32	DNA sequence of regulatory region for integration gene of bacteriophage Â. Proceedings of the National Academy of Sciences of the United States of America, 1980, 77, 2477-2481.	3.3	45
33	Crystal Structure at 1.45 Ã... Resolution of Alanine Racemase from a Pathogenic Bacterium, Pseudomonas aeruginosa, Contains Both Internal and External Aldimine Forms,. Biochemistry, 2003, 42, 14752-14761.	1.2	44
34	Comparison of cyanide-degrading nitrilases. Applied Microbiology and Biotechnology, 2005, 68, 327-335.	1.7	44
35	Genome mining of cyanide-degrading nitrilases from filamentous fungi. Applied Microbiology and Biotechnology, 2008, 80, 427-35.	1.7	44
36	Nup124p Is a Nuclear Pore Factor of Schizosaccharomyces pombe That Is Important for Nuclear Import and Activity of Retrotransposon Tf1. Molecular and Cellular Biology, 1999, 19, 5768-5784.	1.1	43

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37	Mutant Analysis Shows that Alanine Racemases from Pseudomonas aeruginosa and Escherichia coli Are Dimeric. Journal of Bacteriology, 2002, 184, 4321-4325.	1.0	42
38	Interactions of the TnaC nascent peptide with rRNA in the exit tunnel enable the ribosome to respond to free tryptophan. Nucleic Acids Research, 2014, 42, 1245-1256.	6.5	41
39	Disulfide bonds are required forSerratia marcescensnuclease activity. Nucleic Acids Research, 1992, 20, 4971-4974.	6.5	36
40	Recombinant carbazole-degrading strains for enhanced petroleum processing. Journal of Industrial Microbiology and Biotechnology, 2003, 30, 6-12.	1.4	32
41	A New Member of the Sin3 Family of Corepressors Is Essential for Cell Viability and Required for Retroelement Propagation in Fission Yeast. Molecular and Cellular Biology, 1999, 19, 2351-2365.	1.1	31
42	Regulatory mutants and transcriptional control of the Serratia marcescens extracellular nuclease gene. Molecular Microbiology, 1992, 6, 643-651.	1.2	30
43	Regulation of theSerratia marcescensExtracellular Nuclease: Positive Control by a Homolog of P2 Ogr Encoded by a Cryptic Prophage. Journal of Molecular Biology, 1996, 256, 264-278.	2.0	29
44	Bacteriophage Surface Display of an Immunoglobulinâ€“binding Domain of Staphylococcus aureus Protein A. Nature Biotechnology, 1994, 12, 169-172.	9.4	24
45	N(2)-Substituted D,L-Cycloserine Derivatives: Synthesis and Evaluation as Alanine Racemase Inhibitors.. Journal of Antibiotics, 2003, 56, 160-168.	1.0	24
46	Crystallization and preliminary crystallographic analysis of a novel nuclease from Serratia marcescens. Journal of Molecular Biology, 1991, 222, 27-30.	2.0	23
47	Orphan Toxin OrtT (YdcX) of Escherichia coli Reduces Growth during the Stringent Response. Toxins, 2015, 7, 299-321.	1.5	23
48	Oligomeric Structure of Nitrilases: Effect of Mutating Interfacial Residues on Activity. Annals of the New York Academy of Sciences, 2005, 1056, 153-159.	1.8	21
49	Purification and preliminary crystallization of alanine racemase from Streptococcus pneumoniae. BMC Microbiology, 2007, 7, 40.	1.3	21
50	Helical structure of unidirectionally shadowed metal replicas of cyanide hydratase from Gloeocercospora sorghi. Journal of Structural Biology, 2008, 161, 111-119.	1.3	20
51	Disruption of polyamine modulation by a single amino acid substitution on the L3 loop of the OmpC porin channel. Biochimica Et Biophysica Acta - Biomembranes, 1997, 1326, 201-212.	1.4	18
52	Nonlinear dielectric spectroscopy of live cells using superconducting quantum interference devices. Applied Physics Letters, 2005, 86, 023902.	1.5	18
53	The cyanide hydratase from Neurospora crassa forms a helix which has a dimeric repeat. Applied Microbiology and Biotechnology, 2009, 82, 271-278.	1.7	18
54	Crucial elements that maintain the interactions between the regulatory TnaC peptide and the ribosome exit tunnel responsible for Trp inhibition of ribosome function. Nucleic Acids Research, 2012, 40, 2247-2257.	6.5	17

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55	Engineering pH-tolerant mutants of a cyanide dihydratase. Applied Microbiology and Biotechnology, 2012, 94, 131-140.	1.7	15
56	Probing C-terminal interactions of the Pseudomonas stutzeri cyanide-degrading CynD protein. Applied Microbiology and Biotechnology, 2015, 99, 3093-3102.	1.7	14
57	C-terminal hybrid mutant of Bacillus pumilus cyanide dihydratase dramatically enhances thermal stability and pH tolerance by reinforcing oligomerization. Journal of Applied Microbiology, 2015, 118, 881-889.	1.4	14
58	Bacillus pumilus Cyanide Dihydratase Mutants with Higher Catalytic Activity. Frontiers in Microbiology, 2016, 7, 1264.	1.5	14
59	Purification and properties of 2-hydroxy-6-oxo-6-(2â€²-aminophenyl)hexa-2,4-dienoic acid hydrolase involved in microbial degradation of carbazole. Protein Expression and Purification, 2003, 28, 182-189.	0.6	13
60	Rapid generation of random mutant libraries. Bioengineered Bugs, 2010, 1, 337-340.	2.0	13
61	Xenogeneic silencing relies on temperature-dependent phosphorylation of the host H-NS protein in Shewanella. Nucleic Acids Research, 2021, 49, 3427-3440.	6.5	11
62	Draft Genome Sequence of the Cyanide-Utilizing Bacterium Pseudomonas fluorescens Strain NCIMB 11764. Journal of Bacteriology, 2012, 194, 6618-6619.	1.0	9
63	Cyanide-degrading nitrilases in nature. Journal of General and Applied Microbiology, 2018, 64, 90-93.	0.4	9
64	Escherichia coli cryptic prophages sense nutrients to influence persister cell resuscitation. Environmental Microbiology, 2021, 23, 7245-7254.	1.8	9
65	Probing an Interfacial Surface in the Cyanide Dihydratase from Bacillus pumilus, A Spiral Forming Nitrilase. Frontiers in Microbiology, 2015, 6, 1479.	1.5	8
66	Rapid Detection of Mutagens by Induction of Luciferase-Bearing Prophage inEscherichia coli. Environmental Science & Technology, 1996, 30, 2478-2483.	4.6	6
67	Purification and characterization of 2â€²aminobiphenyl-2,3-diol 1,2-dioxygenase from Pseudomonas sp. LD2. Protein Expression and Purification, 2003, 32, 35-43.	0.6	6
68	Nuclease Overexpression Mutants of Serratia marcescens. Journal of Bacteriology, 1998, 180, 2262-2264.	1.0	6
69	Study of the mechanism of action of p-chloromercuribenzoate on endonuclease from the bacterium Serratia marcescens. Biochemistry (Moscow), 2001, 66, 323-327.	0.7	5
70	Catabolic plasmid specifying polychlorinated biphenyl degradation in Cupriavidus sp. strain SKâ€4: Mobilization and expression in a pseudomonad. Journal of Basic Microbiology, 2015, 55, 338-345.	1.8	5
71	Inhibition of Serratia marcescens nuclease secretion by a truncated nuclease peptide. Gene, 1996, 172, 9-16.	1.0	4
72	Crystallization and preliminary X-ray study of alkaline alanine racemase fromBacillus pseudofirmusOF4. Acta Crystallographica Section F: Structural Biology Communications, 2009, 65, 166-168.	0.7	4

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73	The NucE and NucD lysis proteins are not essential for secretion of the Serratia marcescens extracellular nuclease. Microbiology (United Kingdom), 1999, 145, 1209-1216.	0.7	3
74	Temperature- and solvent-tolerant mutants of filamentous bacteriophage helper M13 KO7. Biotechnology Letters, 1999, 21, 87-90.	1.1	3
75	Multi-Copy Repression of Serratia marcescens Nuclease Expression by dinI. Current Microbiology, 2002, 44, 44-48.	1.0	3
76	Draft Genome Sequence of Cupriavidus sp. Strain SK-4, a di- ortho -Substituted Biphenyl-Utilizing Bacterium Isolated from Polychlorinated Biphenyl-Contaminated Sludge. Genome Announcements, 2014, 2, .	0.8	3
77	Residue Y70 of the Nitrilase Cyanide Dihydratase from Bacillus pumilus Is Critical for Formation and Activity of the Spiral Oligomer. Journal of Microbiology and Biotechnology, 2016, 26, 2179-2183.	0.9	3
78	High efficiency transduction of single strand plasmid DNA into enteric bacteria. Molecular Genetics and Genomics, 1989, 218, 353-354.	2.4	2
79	Sequences of the Serratia marcescens rplS and trmD genes. Gene, 1994, 145, 147-148.	1.0	2
80	Draft Genome Sequence of Cupriavidus sp. Strain SK-3, a 4-Chlorobiphenyl- and 4-Clorobenzoic Acid-Degrading Bacterium. Genome Announcements, 2014, 2, .	0.8	2
81	Serratia marcescens and its extracellular nuclease. , 0, .		2