

Masaaki Wachi

List of Publications by Year in descending order

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102
papers

4,299
citations

117571

34
h-index

114418

63
g-index

105
all docs

105
docs citations

105
times ranked

4130
citing authors

#	ARTICLE	IF	CITATIONS
1	MreB Actin-Mediated Segregation of a Specific Region of a Bacterial Chromosome. <i>Cell</i> , 2005, 120, 329-341.	13.5	354
2	Evolution of an inducible penicillin-target protein in methicillin-resistant <i>Staphylococcus aureus</i> by gene fusion. <i>FEBS Letters</i> , 1987, 221, 167-171.	1.3	303
3	Synthesis and Antibacterial Activity of a Novel Series of Potent DNA Gyrase Inhibitors. Pyrazole Derivatives. <i>Journal of Medicinal Chemistry</i> , 2004, 47, 3693-3696.	2.9	267
4	Generation of hydrogen peroxide primarily contributes to the induction of Fe(II)-dependent apoptosis in Jurkat cells by (-)-epigallocatechin gallate. <i>Carcinogenesis</i> , 2004, 25, 1567-1574.	1.3	216
5	Mutations of the <i>Corynebacterium glutamicum</i> NCgl1221 Gene, Encoding a Mechanosensitive Channel Homolog, Induce l-Glutamic Acid Production. <i>Applied and Environmental Microbiology</i> , 2007, 73, 4491-4498.	1.4	180
6	Novel S-Benzylisothiourea Compound That Induces Spherical Cells in <i>Escherichia coli</i> Probably by Acting on a Rod-shape-determining Protein(s) Other Than Penicillin-binding Protein 2. <i>Bioscience, Biotechnology and Biochemistry</i> , 2002, 66, 2658-2662.	0.6	175
7	Fenton Reaction Is Primarily Involved in a Mechanism of (âˆ”)-Epigallocatechin-3-gallate to Induce Osteoclastic Cell Death. <i>Biochemical and Biophysical Research Communications</i> , 2002, 292, 94-101.	1.0	149
8	<i>Escherichia coli</i> cafA Gene Encodes a Novel RNase, Designated as RNase G, Involved in Processing of the 5â€² End of 16S rRNA. <i>Biochemical and Biophysical Research Communications</i> , 1999, 259, 483-488.	1.0	138
9	Synthesis and antibacterial activity of novel and potent DNA gyrase inhibitors with azole ring. <i>Bioorganic and Medicinal Chemistry</i> , 2004, 12, 5515-5524.	1.4	125
10	Actin homolog MreB and RNA polymerase interact and are both required for chromosome segregation in <i>Escherichia coli</i> . <i>Genes and Development</i> , 2006, 20, 113-124.	2.7	115
11	Synthesis and antibacterial activity of a novel series of DNA gyrase inhibitors: 5-[(E)-2-arylvinyl]pyrazoles. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2005, 15, 4299-4303.	1.0	95
12	Effects of high hydrostatic pressure on bacterial cytoskeleton FtsZ polymers in vivo and in vitro. <i>Microbiology (United Kingdom)</i> , 2004, 150, 1965-1972.	0.7	86
13	Machinery for cell growth and division: Penicillin-binding proteins and other proteins. <i>Research in Microbiology</i> , 1990, 141, 89-103.	1.0	79
14	ATPase activity of SopA, a protein essential for active partitioning of F plasmid. <i>Molecular Genetics and Genomics</i> , 1992, 234, 346-352.	2.4	79
15	Distinct roles of two anaplerotic pathways in glutamate production induced by biotin limitation in <i>Corynebacterium glutamicum</i> . <i>Journal of Bioscience and Bioengineering</i> , 2008, 106, 51-58.	1.1	73
16	Involvement of RNase G in in vivo mRNA metabolism in <i>Escherichia coli</i> . <i>Genes To Cells</i> , 2001, 6, 403-410.	0.5	72
17	Design, synthesis and structure-activity relationship studies of novel indazole analogues as DNA gyrase inhibitors with Gram-positive antibacterial activity. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2004, 14, 2857-2862.	1.0	68
18	High crude violacein production from glucose by <i>Escherichia coli</i> engineered with interactive control of tryptophan pathway and violacein biosynthetic pathway. <i>Microbial Cell Factories</i> , 2015, 14, 8.	1.9	65

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19	Structural and functional characterization of the LldR from <i>Corynebacterium glutamicum</i> : a transcriptional repressor involved in L-lactate and sugar utilization. <i>Nucleic Acids Research</i> , 2008, 36, 7110-7123.	6.5	62
20	A Mutation in the <i>Corynebacterium glutamicum</i> ItsA Gene Causes Susceptibility to Lysozyme, Temperature-Sensitive Growth, and L-Glutamate Production. <i>Journal of Bacteriology</i> , 2000, 182, 2696-2701.	1.0	58
21	TolC-Dependent Exclusion of Porphyrins in <i>Escherichia coli</i> . <i>Journal of Bacteriology</i> , 2008, 190, 6228-6233.	1.0	58
22	Requirement of de novo synthesis of the OdhI protein in penicillin-induced glutamate production by <i>Corynebacterium glutamicum</i> . <i>Applied Microbiology and Biotechnology</i> , 2010, 86, 911-920.	1.7	56
23	Diadenosine 5'-P ₁ ,P ₄ -tetrphosphate (Ap ₄ A) controls the timing of cell division in <i>Escherichia coli</i> . <i>Genes To Cells</i> , 1997, 2, 401-413.	0.5	51
24	SulA-independent filamentation of <i>Escherichia coli</i> during growth after release from high hydrostatic pressure treatment. <i>Applied Microbiology and Biotechnology</i> , 2004, 64, 255-262.	1.7	51
25	Dark-induced mRNA instability involves RNase E/G-type endoribonuclease cleavage at the AU-box and SD sequences in cyanobacteria. <i>Molecular Genetics and Genomics</i> , 2007, 278, 331-346.	1.0	48
26	Double mutation of cell wall proteins CspB and PBP1a increases secretion of the antibody Fab fragment from <i>Corynebacterium glutamicum</i> . <i>Microbial Cell Factories</i> , 2014, 13, 56.	1.9	48
27	RNase G-Dependent Degradation of the <i>nmr</i> mRNA Encoding a Glycolysis Enzyme Enolase in <i>Escherichia coli</i> . <i>Bioscience, Biotechnology and Biochemistry</i> , 2002, 66, 2216-2220.	0.6	46
28	Nucleotide sequence involving <i>murG</i> and <i>murC</i> in the <i>mra</i> gene cluster region of <i>Escherichia coli</i> . <i>Nucleic Acids Research</i> , 1990, 18, 4014-4014.	6.5	45
29	A Requirement of TolC and MDR Efflux Pumps for Acid Adaptation and GadAB Induction in <i>Escherichia coli</i> . <i>PLoS ONE</i> , 2011, 6, e18960.	1.1	45
30	Homology among MurC, MurD, MurE and MurF proteins in <i>Escherichia coli</i> and that between E. coli MurG and a possible MurG protein in <i>Bacillus subtilis</i> .. <i>Journal of General and Applied Microbiology</i> , 1990, 36, 179-187.	0.4	42
31	DNA Binding Properties of the <i>hfq</i> Gene Product of <i>Escherichia coli</i> . <i>Biochemical and Biophysical Research Communications</i> , 1997, 236, 576-579.	1.0	41
32	FtsZ-dependent localization of GroEL protein at possible division sites. <i>Genes To Cells</i> , 2004, 9, 765-771.	0.5	40
33	Nucleotide sequence involving <i>murD</i> and an open reading frame ORF-Y spacing <i>murF</i> and <i>ftsW</i> in <i>Escherichia coli</i> . <i>Nucleic Acids Research</i> , 1990, 18, 1058-1058.	6.5	35
34	Potent DNA gyrase inhibitors; novel 5-vinylpyrazole analogues with Gram-positive antibacterial activity. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2004, 14, 2863-2866.	1.0	35
35	Study on Plasma Agent Effect of a Direct-Current Atmospheric Pressure Oxygen-Plasma Jet on Inactivation of E. coli Using Bacterial Mutants. <i>IEEE Transactions on Plasma Science</i> , 2013, 41, 935-941.	0.6	34
36	The CGL2612 Protein from <i>Corynebacterium glutamicum</i> Is a Drug Resistance-related Transcriptional Repressor. <i>Journal of Biological Chemistry</i> , 2005, 280, 38711-38719.	1.6	33

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37	A 4-aminofurazan Derivative A189 Inhibits Assembly of Bacterial Cell Division Protein FtsZ <i>In Vitro</i> and <i>In Vivo</i> . <i>Microbiology and Immunology</i> , 2006, 50, 759-764.	0.7	33
38	Structure-Activity Relationship of S-Benzylisothiourea Derivatives to Induce Spherical Cells in <i>Escherichia coli</i> . <i>Bioscience, Biotechnology and Biochemistry</i> , 2004, 68, 2265-2269.	0.6	31
39	Identification of two biologically crucial hydroxyl groups of (â)-epigallocatechin gallate in osteoclast culture. <i>Biochemical Pharmacology</i> , 2007, 73, 34-43.	2.0	29
40	3- ² Untranslated Region-Dependent Degradation of the <i>aceA</i> mRNA, Encoding the Glyoxylate Cycle Enzyme Isocitrate Lyase, by RNase E/G in <i>Corynebacterium glutamicum</i> . <i>Applied and Environmental Microbiology</i> , 2012, 78, 8753-8761.	1.4	29
41	<i>ScpL</i> -Glutamate Secretion by the N-Terminal Domain of the <i>Corynebacterium glutamicum</i> NCgl1221 Mechanosensitive Channel. <i>Bioscience, Biotechnology and Biochemistry</i> , 2013, 77, 1008-1013.	0.6	28
42	Cell Cycle Control: Prokaryotic Solutions to Eukaryotic Problems?. <i>Journal of Theoretical Biology</i> , 1994, 168, 227-230.	0.8	27
43	Actin Cytoskeleton Is Required for Early Apoptosis Signaling Induced by Anti-Fas Antibody but Not Fas Ligand in Murine B Lymphoma A20 Cells. <i>Biochemical and Biophysical Research Communications</i> , 2002, 290, 268-274.	1.0	27
44	Negative Regulatory Role of the <i>Escherichia coli</i> <i>hfq</i> Gene in Cell Division. <i>Biochemical and Biophysical Research Communications</i> , 1999, 266, 579-583.	1.0	24
45	<i>Corynebacterium glutamicum</i> <i>rnhA recG</i> Double Mutant Showing Lysozyme-sensitivity, Temperature-sensitive Growth, and UV-Sensitivity. <i>Bioscience, Biotechnology and Biochemistry</i> , 2003, 67, 2416-2424.	0.6	24
46	Temperature-sensitive cloning vector for <i>Corynebacterium glutamicum</i> . <i>Plasmid</i> , 2006, 56, 179-186.	0.4	24
47	Isolation of oleaginous yeast (<i>Rhodospiridium toruloides</i>) mutants tolerant of sugarcane bagasse hydrolysate. <i>Bioscience, Biotechnology and Biochemistry</i> , 2014, 78, 336-342.	0.6	23
48	A decreased level of FtsZ is responsible for inviability of RNase E-deficient cells. <i>Genes To Cells</i> , 2005, 10, 733-741.	0.5	22
49	Cloning, Sequencing, and Characterization of the <i>ftsZ</i> Gene from <i>Corynebacterium</i> Bacteria. <i>Biochemical and Biophysical Research Communications</i> , 1997, 236, 383-388.	1.0	21
50	Overproduction of the Outer-Membrane Proteins FepA and FhuE Responsible for Iron Transport in <i>Escherichia coli</i> <i>hfq::cat</i> Mutant. <i>Biochemical and Biophysical Research Communications</i> , 1999, 264, 525-529.	1.0	21
51	A Novel RNase G Mutant That Is Defective in Degradation of <i>adhE</i> mRNA but Proficient in the Processing of 16S rRNA Precursor. <i>Biochemical and Biophysical Research Communications</i> , 2001, 289, 1301-1306.	1.0	21
52	Structure-Activity Relationship Study of the Bacterial Actin-Like Protein MreB Inhibitors: Effects of Substitution of Benzyl Group in S-Benzylisothiourea. <i>Bioscience, Biotechnology and Biochemistry</i> , 2007, 71, 246-248.	0.6	21
53	RNase E Is Required for Induction of the Glutamate-Dependent Acid Resistance System in <i>Escherichia coli</i> . <i>Bioscience, Biotechnology and Biochemistry</i> , 2007, 71, 158-164.	0.6	21
54	Glutamate Fermentation-2: Mechanism of L-Glutamate Overproduction in <i>Corynebacterium glutamicum</i> . <i>Advances in Biochemical Engineering/Biotechnology</i> , 2016, 159, 57-72.	0.6	21

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55	Irregular nuclear localization and anucleate cell production in <i>Escherichia coli</i> induced by a Ca ²⁺ chelator, EGTA. <i>Biochimie</i> , 1999, 81, 909-913.	1.3	20
56	A Cryptic Plasmid pBL1 from <i>Brevibacterium lactofermentum</i> Causes Growth Inhibition and Filamentation in <i>Escherichia coli</i> . <i>Plasmid</i> , 1996, 36, 62-66.	0.4	19
57	L-glutamate production by lysozyme-sensitive <i>Corynebacterium glutamicum</i> ltsA mutant strains. <i>BMC Biotechnology</i> , 2001, 1, 9.	1.7	17
58	Increased production of pyruvic acid by <i>Escherichia coli</i> RNase G mutants in combination with cra mutations. <i>Applied Microbiology and Biotechnology</i> , 2007, 76, 183-192.	1.7	17
59	A murC gene from coryneform bacteria. <i>Applied Microbiology and Biotechnology</i> , 1999, 51, 223-228.	1.7	16
60	Extensive overproduction of the AdhE protein by rng mutations depends on mutations in the cra gene or in the Cra-box of the adhE promoter. <i>Biochemical and Biophysical Research Communications</i> , 2002, 295, 92-97.	1.0	16
61	Cytoplasmic Acidification May Occur in High-Pressure Carbon Dioxide-Treated <i>Escherichia coli</i> K12. <i>Bioscience, Biotechnology and Biochemistry</i> , 2007, 71, 2522-2526.	0.6	16
62	Anti-infectious Effect of S-Benzylisothiurea Compound A22, Which Inhibits the Actin-Like Protein, MreB, in <i>Shigella flexneri</i> . <i>Biological and Pharmaceutical Bulletin</i> , 2008, 31, 1327-1332.	0.6	16
63	Anucleate Cell Blue Assay: a Useful Tool for Identifying Novel Type II Topoisomerase Inhibitors. <i>Antimicrobial Agents and Chemotherapy</i> , 2006, 50, 348-350.	1.4	15
64	Mining RNA-seq data reveals the massive regulon of GcvB small RNA and its physiological significance in maintaining amino acid homeostasis in <i>Escherichia coli</i> . <i>Molecular Microbiology</i> , 2022, 117, 160-178.	1.2	15
65	Transcriptional Analysis of the <i>Escherichia coli</i> mreBCD Genes Responsible for Morphogenesis and Chromosome Segregation. <i>Bioscience, Biotechnology and Biochemistry</i> , 2006, 70, 2712-2719.	0.6	14
66	Mechanism of Inhibition of DNA Gyrase by ES-1273, a Novel DNA Gyrase Inhibitor. <i>Microbiology and Immunology</i> , 2007, 51, 977-984.	0.7	14
67	Isolation of ftsI and murE genes involved in peptidoglycan synthesis from <i>Corynebacterium glutamicum</i> . <i>Applied Microbiology and Biotechnology</i> , 2001, 55, 466-470.	1.7	13
68	Isolation and Characterization of the dew Cluster from the Piezophilic Deep-Sea Bacterium <i>Shewanella violacea</i> . <i>Journal of Biochemistry</i> , 2002, 132, 183-188.	0.9	12
69	Fluorescent Phospholipid Analogs as Microscopic Probes for Detection of the Mycolic Acid-Containing Layer in <i>Corynebacterium glutamicum</i> : Detecting Alterations in the Mycolic Acid-Containing Layer Following Ethambutol Treatment. <i>Bioscience, Biotechnology and Biochemistry</i> , 2005, 69, 2051-2056.	0.6	12
70	Structure of the Heme Biosynthetic <i>Pseudomonas aeruginosa</i> Porphobilinogen Synthase in Complex with the Antibiotic Alaremycin. <i>Antimicrobial Agents and Chemotherapy</i> , 2010, 54, 267-272.	1.4	11
71	A Role of the <i>cspA</i> Gene Encoding a Mycolyltransferase in the Growth under Alkaline Conditions of <i>Corynebacterium glutamicum</i> . <i>Bioscience, Biotechnology and Biochemistry</i> , 2010, 74, 1617-1623.	0.6	11
72	Degradation of benzotrifluoride via the dioxygenase pathway in <i>Rhodococcus</i> sp. 065240. <i>Bioscience, Biotechnology and Biochemistry</i> , 2015, 79, 496-504.	0.6	11

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73	fcsA29 Mutation is an Allele of polA Gene of Escherichia coli. Bioscience, Biotechnology and Biochemistry, 1999, 63, 427-429.	0.6	10
74	Transcriptional Analysis of the <i>ostA/imp</i> Gene Involved in Organic Solvent Sensitivity in Escherichia coli. Bioscience, Biotechnology and Biochemistry, 2004, 68, 458-461.	0.6	10
75	Isolation of a New Antibiotic, Alaremycin, Structurally Related to 5-Aminolevulinic Acid from <i>Streptomyces</i> sp. A012304. Bioscience, Biotechnology and Biochemistry, 2005, 69, 1721-1725.	0.6	9
76	RNase E-dependent degradation of <i>tnaA</i> mRNA encoding tryptophanase is prerequisite for the induction of acid resistance in Escherichia coli. Scientific Reports, 2020, 10, 7128.	1.6	9
77	The <i>murG</i> gene of the Escherichia coli chromosome encoding UDP-N-acetylglucosamine: undecaprenyl-pyrophosphoryl-N-acetylmuramoyl-pentapeptide N-acetylglucosaminyl transferase. Journal of General and Applied Microbiology, 1992, 38, 53-62.	0.4	9
78	Isolation of the <i>murI</i> gene from <i>Brevibacterium lactofermentum</i> ATCC 13869 encoding d-glutamate racemase. FEMS Microbiology Letters, 1999, 175, 193-196.	0.7	8
79	<i>Corynebacterium glutamicum</i> RNase E/G-type endoribonuclease encoded by NCgl2281 is involved in the 5' maturation of 5S rRNA. Archives of Microbiology, 2012, 194, 65-73.	1.0	8
80	A Secondary Structure in the 5' Untranslated Region of <i>adhE</i> mRNA Required for RNase G-Dependent Regulation. Bioscience, Biotechnology and Biochemistry, 2013, 77, 2473-2479.	0.6	7
81	Amino Acid Exporters in <i>Corynebacterium glutamicum</i> . Microbiology Monographs, 2013, , 335-349.	0.3	6
82	Polynucleotide Phosphorylase, RNase E/G, and YbeY Are Involved in the Maturation of 4.5S RNA in <i>Corynebacterium glutamicum</i> . Journal of Bacteriology, 2017, 199, .	1.0	6
83	RNase ES of <i>Streptomyces coelicolor</i> A3(2) Can Complement the <i>rne</i> Mutations in Escherichia coli. Bioscience, Biotechnology and Biochemistry, 2003, 67, 1767-1771.	0.6	5
84	The <i>Corynebacterium glutamicum</i> NCgl2281 Gene Encoding an RNase E/G Family Endoribonuclease Can Complement the <i>Escherichia coli</i> <i>rng::cat</i> Mutation but Not the <i>rne-1</i> Mutation. Bioscience, Biotechnology and Biochemistry, 2009, 73, 2281-2286.	0.6	5
85	Effects of EGTA on cell surface structures of <i>Corynebacterium glutamicum</i> . Archives of Microbiology, 2018, 200, 281-289.	1.0	5
86	Only <i>oriC</i> and its flanking region are recovered from the complex formed at the time of initiation of chromosome replication in Escherichia coli. Research in Microbiology, 1991, 142, 155-159.	1.0	4
87	Fully Methylated <i>oriC</i> with Negative Superhelicity Forms an <i>oriC</i> -Membrane Complex before Initiation of Chromosome Replication. Biochemical and Biophysical Research Communications, 1993, 194, 1420-1426.	1.0	4
88	Escherichia coli Ribonuclease G. Methods in Enzymology, 2001, 342, 55-63.	0.4	4
89	Characterization of the <i>Porphyromonas gingivalis</i> FtsZ Containing a Novel GTPase Activity. Current Microbiology, 2002, 44, 267-272.	1.0	2
90	Amino Acid Exporters in <i>Corynebacterium glutamicum</i> . Microbiology Monographs, 2020, , 267-284.	0.3	2

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91	Change of the quantity of penicillin-binding proteins and other cytoplasmic and membrane proteins by mutations of the cell shape-determination genes mreB, mreC, and mreD of <i>Escherichia coli</i> . <i>Journal of General and Applied Microbiology</i> , 1992, 38, 157-163.	0.4	2
92	Synthesis of Alaremycin. <i>Synlett</i> , 2006, 2006, 0481-0483.	1.0	1
93	A role of the transcriptional regulator LldR (NCgl2814) in glutamate metabolism under biotin-limited conditions in <i>Corynebacterium glutamicum</i> . <i>Journal of General and Applied Microbiology</i> , 2013, 59, 207-214.	0.4	1
94	RNase E/G-dependent degradation of <i>metE</i> mRNA, encoding methionine synthase, in <i>Corynebacterium glutamicum</i> . <i>Journal of General and Applied Microbiology</i> , 2019, 65, 47-52.	0.4	1
95	Study on Inactivation Mechanism of an Atmospheric DBD Plasma Jet using <i>Escherichia coli</i> Mutants. <i>IEEJ Transactions on Fundamentals and Materials</i> , 2013, 133, 192-197.	0.2	1
96	â€œNase G. <i>Nippon Nogeikagaku Kaishi</i> , 2001, 75, 121-127.	0.0	0
97	Design, Synthesis and Structure-Activity Relationship Studies of Novel Indazole Analogues as DNA Gyrase Inhibitors with Gram-Positive Antibacterial Activity.. <i>ChemInform</i> , 2004, 35, no.	0.1	0
98	Potent DNA Gyrase Inhibitors. Novel 5-Vinylpyrazole Analogues with Gram-Positive Antibacterial Activity.. <i>ChemInform</i> , 2004, 35, no.	0.1	0
99	Synthesis and Antibacterial Activity of a Novel Series of DNA Gyrase Inhibitors: 5-[(E)-2-Arylvinyl]pyrazoles.. <i>ChemInform</i> , 2005, 36, no.	0.1	0
100	Characterization of a <i>Corynebacterium glutamicum</i> dnaB mutant that shows temperature-sensitive growth and mini-cell formation. <i>Archives of Microbiology</i> , 2014, 196, 871-879.	1.0	0
101	Growth promotion in <i>Corynebacterium glutamicum</i> by overexpression of the NCgl2986 gene encoding a protein homologous to peptidoglycan amidases. <i>Journal of General and Applied Microbiology</i> , 2020, 66, 1-7.	0.4	0
102	Requirement of the LtsA Protein for Formation of the Mycolic Acid-Containing Layer on the Cell Surface of <i>Corynebacterium glutamicum</i> . <i>Microorganisms</i> , 2021, 9, 409.	1.6	0