Hisaaki Mihara

List of Publications by Year
in descending order

74 papers	2,929 citations	172207 29 h-index	168136 53 g-index
78 all docs	78 docs citations	78 times ranked	2479 citing authors

#	Article	IF	Citations
1	Bacterial cysteine desulfurases: their function and mechanisms. Applied Microbiology and Biotechnology, 2002, 60, 12-23.	1.7	256
2	Cysteine Sulfinate Desulfinase, a NIFS-like Protein ofEscherichia coli with Selenocysteine Lyase and Cysteine Desulfurase Activities. Journal of Biological Chemistry, 1997, 272, 22417-22424.	1.6	159
3	Multiple Proline Substitutions Cumulatively Thermostabilize Bacillus Cereus ATCC7064 Oligo-1,6-Glucosidase. Irrefragable Proof Supporting the Proline Rule. FEBS Journal, 1994, 226, 277-283.	0.2	158
4	Characterization of a NifS-Like Chloroplast Protein from Arabidopsis. Implications for Its Role in Sulfur and Selenium Metabolism. Plant Physiology, 2002, 130, 1309-1318.	2.3	142
5	Kinetic and Mutational Studies of Three NifS Homologs from Escherichia coli: Mechanistic Difference between L-Cysteine Desulfurase and L-Selenocysteine Lyase Reactions. Journal of Biochemistry, 2000, 127, 559-567.	0.9	131
6	Cys-328 of IscS and Cys-63 of IscU are the sites of disulfide bridge formation in a covalently bound IscS/IscU complex: Implications for the mechanism of iron-sulfur cluster assembly. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 5948-5952.	3.3	118
7	Enhanced Selenium Tolerance and Accumulation in Transgenic Arabidopsis Expressing a Mouse Selenocysteine Lyase. Plant Physiology, 2003, 131, 1250-1257.	2.3	111
8	A nifS-like Gene, csdB, Encodes anEscherichia coli Counterpart of Mammalian Selenocysteine Lyase. Journal of Biological Chemistry, 1999, 274, 14768-14772.	1.6	109
9	Network of Protein-Protein Interactions among Iron-Sulfur Cluster Assembly Proteins in Escherichia coli1. Journal of Biochemistry, 2002, 131, 713-719.	0.9	99
10	Structure of a NifS Homologue:Â X-ray Structure Analysis of CsdB, anEscherichia coliCounterpart of Mammalian Selenocysteine Lyaseâ€,â€¡. Biochemistry, 2000, 39, 1263-1273.	1.2	95
11	Bacterial cysteine desulfurases: versatile key players in biosynthetic pathways of sulfur-containing biofactors. Applied Microbiology and Biotechnology, 2011, 91, 47-61.	1.7	95
12	cDNA Cloning, Purification, and Characterization of Mouse Liver Selenocysteine Lyase. Journal of Biological Chemistry, 2000, 275, 6195-6200.	1.6	84
13	Eicosapentaenoic Acid Plays a Beneficial Role in Membrane Organization and Cell Division of a Cold-Adapted Bacterium, Shewanella livingstonensis Ac10. Journal of Bacteriology, 2009, 191, 632-640.	1.0	82
14	Crystal Structure of a Homolog of Mammalian Serine Racemase from Schizosaccharomyces pombe. Journal of Biological Chemistry, 2009, 284, 25944-25952.	1.6	81
15	Escherichia coli NifS-like Proteins Provide Selenium in the Pathway for the Biosynthesis of Selenophosphate. Journal of Biological Chemistry, 2000, 275, 23769-23773.	1.6	78
16	Structure of External Aldimine of Escherichia coli CsdB, an IscS/Nifs Homolog: Implications for Its Specificity toward Selenocysteine. Journal of Biochemistry, 2002, 131, 679-685.	0.9	65
17	The Putative Malate/Lactate Dehydrogenase from Pseudomonas putida Is an NADPH-dependent Î”1-Piperideine-2-carboxylate/Î”1-Pyrroline-2-carboxylate Reductase Involved in the Catabolism of d-Lysine and d-Proline. Journal of Biological Chemistry, 2005, 280, 5329-5335.	1.6	65
18	The iscS gene is essential for the biosynthesis of 2-selenouridine in tRNA and the selenocysteine-containing formate dehydrogenase H. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 6679-6683.	3.3	64

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19	IscS Functions as a Primary Sulfur-donating Enzyme by Interacting Specifically with MoeB and MoaD in the Biosynthesis of Molybdopterin in Escherichia coli. Journal of Biological Chemistry, 2010, 285, 2302-2308.	1.6	57
20	Assembly of ironâ€“sulfur clusters mediated by cysteine desulfurases, IscS, CsdB and CSD, from Escherichia coli. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2003, 1647, 303-309.	1.1	45
21	N-Methyl-l-amino acid dehydrogenase from Pseudomonas putida. FEBS Journal, 2005, 272, 1117-1123.	2.2	44
22	Crystal Structures of Î”1-Piperideine-2-carboxylate/Î”1-Pyrroline-2-carboxylate Reductase Belonging to a New Family of NAD(P)H-dependent Oxidoreductases. Journal of Biological Chemistry, 2005, 280, 40875-40884.	1.6	40
23	Delivery of selenium to selenophosphate synthetase for selenoprotein biosynthesis. Biochimica Et Biophysica Acta - General Subjects, 2018, 1862, 2433-2440.	1.1	40
24	Escherichia coli Dihydropyrimidine Dehydrogenase Is a Novel NAD-Dependent Heterotetramer Essential for the Production of 5,6-Dihydrouracil. Journal of Bacteriology, 2011, 193, 989-993.	1.0	35
25	Enzymatic synthesis of cyclic amino acids by N-methyl-l-amino acid dehydrogenase from Pseudomonas putida. Tetrahedron: Asymmetry, 2006, 17, 1775-1779.	1.8	33
26	X-Ray Crystallographic and Mutational Studies of Fluoroacetate Dehalogenase from Burkholderia sp. Strain FA1. Journal of Bacteriology, 2009, 191, 2630-2637.	1.0	33
27	Reaction Mechanism and Molecular Basis for Selenium/Sulfur Discrimination of Selenocysteine Lyase. Journal of Biological Chemistry, 2010, 285, 12133-12139.	1.6	32
28	Mammalian Selenocysteine Lyase Is Involved in Selenoprotein Biosynthesis. Journal of Nutritional Science and Vitaminology, 2011, 57, 298-305.	0.2	32
29	Favourable effects of eicosapentaenoic acid on the late step of the cell division in a piezophilic bacterium, Shewanella violacea DSS12, at highâ€hydrostatic pressures. Environmental Microbiology, 2011, 13, 2293-2298.	1.8	32
30	Functional expression of l-lysine Î±-oxidase from Scomber japonicus in Escherichia coli for one-pot synthesis of l-pipecolic acid from dl-lysine. Applied Microbiology and Biotechnology, 2015, 99, 5045-5054.	1.7	31
31	Prediction of missing enzyme genes in a bacterial metabolic network. FEBS Journal, 2007, 274, 2262-2273.	2.2	30
32	Serine Racemase with Catalytically Active Lysinoalanyl Residue*. Journal of Biochemistry, 2009, 145, 421-424.	0.9	30
33	Biochemical and Genetic Analysis of the Î³-Resorcylate (2,6-Dihydroxybenzoate) Catabolic Pathway in Rhizobium sp. Strain MTP-10005: Identification and Functional Analysis of Its Gene Cluster. Journal of Bacteriology, 2007, 189, 1573-1581.	1.0	28
34	Enzymatic synthesis of N-methyl-l-phenylalanine by a novel enzyme, N-methyl-l-amino acid dehydrogenase, from Pseudomonas putida. Tetrahedron: Asymmetry, 2004, 15, 2841-2843.	1.8	27
35	Enzymatic Synthesis ofL-Pipecolic Acid by Î”1-Piperideine-2-carboxylate Reductase fromPseudomonas putida. Bioscience, Biotechnology and Biochemistry, 2006, 70, 2296-2298.	0.6	23
36	Gene Cloning, Purification, and Characterization of Two Cyanobacterial NifS Homologs Driving Iron-Sulfur Cluster Formation. Bioscience, Biotechnology and Biochemistry, 2000, 64, 2412-2419.	0.6	22

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37	Selenite Assimilation into Formate Dehydrogenase H Depends on Thioredoxin Reductase in Escherichia coli. Journal of Biochemistry, 2007, 143, 467-473.	0.9	21
38	Identification of Proteins Interacting with Selenocysteine Lyase. Bioscience, Biotechnology and Biochemistry, 2009, 73, 1230-1232.	0.6	21
39	Removal of soluble selenium by a selenateâ€reducing bacterium Bacillus sp. SFâ€1. BioFactors, 2001, 14, 261-265.	2.6	19
40	A new family of NAD(P)H-dependent oxidoreductases distinct from conventional Rossmann-fold proteins. Journal of Bioscience and Bioengineering, 2005, 99, 541-547.	1.1	18
41	Mining prokaryotic genomes for unknown amino acids: a stop-codon-based approach. BMC Bioinformatics, 2007, 8, 225.	1.2	17
42	Apolipoprotein E-mediated regulation of selenoprotein P transportation via exosomes. Cellular and Molecular Life Sciences, 2020, 77, 2367-2386.	2.4	17
43	Selenite Reduction by the Thioredoxin System: Kinetics and Identification of Protein-Bound Selenide. Bioscience, Biotechnology and Biochemistry, 2011, 75, 1184-1187.	0.6	16
44	Large expert-curated database for benchmarking document similarity detection in biomedical literature search. Database: the Journal of Biological Databases and Curation, 2019, 2019, .	1.4	15
45	Medicinal plant extracts protect epithelial cells from infection and DNA damage caused by colibactinâ€producing Escherichia coli , and inhibit the growth of bacteria. Journal of Applied Microbiology, 2021, 130, 769-785.	1.4	15
46	The iscS gene deficiency affects the expression of pyrimidine metabolism genes. Biochemical and Biophysical Research Communications, 2008, 372, 407-411.	1.0	14
47	Characterization of a Novel Porin-Like Protein, ExtI, from Geobacter sulfurreducens and Its Implication in the Reduction of Selenite and Tellurite. International Journal of Molecular Sciences, 2018, 19, 809.	1.8	14
48	Global Identification of Genes Affecting Iron-Sulfur Cluster Biogenesis and Iron Homeostasis. Journal of Bacteriology, 2014, 196, 1238-1249.	1.0	11
49	Heterologous expression of L-lysine Â-oxidase from Scomber japonicus in Pichia pastoris and functional characterization of the recombinant enzyme. Journal of Biochemistry, 2015, 157, 201-210.	0.9	11
50	Selenocysteine Is Selectively Taken Up by Red Blood Cells. Bioscience, Biotechnology and Biochemistry, 2009, 73, 2746-2748.	0.6	9
51	Occurrence of phosphatidyl-d-serine in the rat cerebrum. Biochemical and Biophysical Research Communications, 2009, 382, 415-418.	1.0	9
52	Initial Step of Selenite Reduction via Thioredoxin for Bacterial Selenoprotein Biosynthesis. International Journal of Molecular Sciences, 2021, 22, 10965.	1.8	9
53	Microbial fuel cell performance improvement based on FliC-deficient E. coli strain. Energy Reports, 2020, 6, 763-767.	2.5	9
54	Selenite uptake by outer membrane porin ExtI and its involvement in the subcellular localization of rhodanese-like lipoprotein ExtH in Geobacter sulfurreducens. Biochemical and Biophysical Research Communications, 2019, 516, 474-479.	1.0	8

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55	Pseudomonas putida PydR, a RutR-like transcriptional regulator, represses the dihydropyrimidine dehydrogenase gene in the pyrimidine reductive catabolic pathway. Journal of Biochemistry, 2012, 152, 341-346.	0.9	7
56	Glutathione contributes to the efflux of selenium from hepatoma cells. Bioscience, Biotechnology and Biochemistry, 2014, 78, 1376-1380.	0.6	7
57	Novel Neogala-Series Glycosphingolipids with a Terminal Glucose Residue from the Fungus Mariannaea elegans. Bioscience, Biotechnology and Biochemistry, 2013, 77, 754-759.	0.6	6
58	Purification and Properties of Glycine Oxidase from <i>Pseudomonas putida</i> KT2440. Journal of Nutritional Science and Vitaminology, 2015, 61, 506-510.	0.2	6
59	Genetic analysis of tellurate reduction reveals the selenate/tellurate reductase genes ynfEF and the transcriptional regulation of moeA by NsrR in Escherichia coli. Journal of Biochemistry, 2021, 169, 477-484.	0.9	6
60	A novel regulatory function of selenocysteine lyase, a unique catalyst to modulate major urinary protein. Journal of Molecular Catalysis B: Enzymatic, 2003, 23, 367-372.	1.8	5
61	Purification and properties of 4-methyl-5-hydroxyethylthiazole kinase from Escherichia coli. Bioscience, Biotechnology and Biochemistry, 2016, 80, 514-517.	0.6	5
62	Selective fluorescence detection method for selenide and selenol using monochlorobimane. Analytical Biochemistry, 2017, 532, 1-8.	1.1	5
63	The Distribution of Phosphatidyl-D-serine in the Rat. Bioscience, Biotechnology and Biochemistry, 2010, 74, 1953-1955.	0.6	4
64	Identification of novel mammalian phospholipids containing threonine, aspartate, and glutamate as the base moiety. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2011, 879, 3296-3302.	1.2	4
65	Characterization of a thermostable 2,4-diaminopentanoate dehydrogenase from Fervidobacterium nodosum Rt17-B1. Journal of Bioscience and Bioengineering, 2014, 117, 551-556.	1.1	4
66	Bacteria Versus Selenium: A View from the Inside Out. Plant Ecophysiology, 2017, , 79-108.	1.5	3
67	Characterization of a novel class of glyoxylate reductase belonging to the Î²-hydroxyacid dehydrogenase family in Acetobacter aceti. Bioscience, Biotechnology and Biochemistry, 2020, 84, 2303-2310.	0.6	2
68	Overexpression and characterization of Escherichia coli dihydropyrimidine dehydrogenase: a four iron-sulphur cluster containing flavoprotein. Journal of Biochemistry, 2021, 170, 511-520.	0.9	2
69	Selenocysteine Lyase from Mouse Liver. Methods in Enzymology, 2002, 347, 198-203.	0.4	1
70	Complete Genome Sequence of Pseudomonas stutzeri Strain F2a, Isolated from Seleniferous Soil. Microbiology Resource Announcements, 2021, 10, e0063121.	0.3	1
71	Kenji Soda--researching enzymes with the spirit of an alpinist. Journal of Biochemistry, 2010, 148, 371-379.	0.9	0
72	A non-radioactive assay for selenophosphate synthetase activity using recombinant pyruvate pyrophosphate dikinase from Thermus thermophilus HB8. Bioscience, Biotechnology and Biochemistry, 2016, 80, 1970-1972.	0.6	0

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73	Complete Genome Sequence of an Acetic Acid Bacterium, Acetobacter aceti JCM20276. Microbiology Resource Announcements, 2020, 9, .	0.3	0
74	Physiological Functions and Metabolisms of Essential Trace Element Selenium: Function of Selenoproteins and Selenium Metabolisms. Kagaku To Seibutsu, 2019, 57, 366-372.	0.0	0