Robert J Maier

List of Publications by Year
in descending order

97 papers	4,113 citations	94433 37 h-index	133252 59 g-index
98 all docs	98 docs citations	98 times ranked	3330 citing authors

#	Article	IF	Citations
1	Molecular Hydrogen as an Energy Source for Helicobacter pylori. Science, 2002, 298, 1788-1790.	12.6	273
2	Requirement of nickel metabolism proteins HypA and HypB for full activity of both hydrogenase and urease in <i>Helicobacter pylori</i>. Molecular Microbiology, 2001, 39, 176-182.	2.5	205
3	The diverse antioxidant systems of Helicobacter pylori. Molecular Microbiology, 2006, 61, 847-860.	2.5	161
4	Superoxide Dismutase-Deficient Mutants ofHelicobacter pylori Are Hypersensitive to Oxidative Stress and Defective in Host Colonization. Infection and Immunity, 2001, 69, 4034-4040.	2.2	144
5	Characterization of Helicobacter pylori Nickel Metabolism Accessory Proteins Needed for Maturation of both Urease and Hydrogenase. Journal of Bacteriology, 2003, 185, 726-734.	2.2	137
6	An NADPH Quinone Reductase of <i>Helicobacter pylori</i> Plays an Important Role in Oxidative Stress Resistance and Host Colonization. Infection and Immunity, 2004, 72, 1391-1396.	2.2	103
7	Oxidative-Stress Resistance Mutants of Helicobacter pylori. Journal of Bacteriology, 2002, 184, 3186-3193.	2.2	94
8	Characterization of the NifU and NifS Feâˆ’S Cluster Formation Proteins Essential for Viability inHelicobacter pyloriâ€. Biochemistry, 2000, 39, 16213-16219.	2.5	93
9	Methionine sulphoxide reductase is an important antioxidant enzyme in the gastric pathogen Helicobacter pylori. Molecular Microbiology, 2004, 53, 1397-1406.	2.5	89
10	Contribution of the Helicobacter pylori Thiol Peroxidase Bacterioferritin Comigratory Protein to Oxidative Stress Resistance and Host Colonization. Infection and Immunity, 2005, 73, 378-384.	2.2	89
11	Dual Roles of Bradyrhizobium japonicum Nickelin Protein in Nickel Storage and GTP-Dependent Ni Mobilization. Journal of Bacteriology, 2000, 182, 1702-1705.	2.2	88
12	The HypB protein from Bradyrhizobium japonicum can store nickel and is required for the nickelâ€dependent transcriptional regulation of hydrogenase. Molecular Microbiology, 1997, 24, 119-128.	2.5	79
13	Dependence of Helicobacter pylori Urease Activity on the Nickel-Sequestering Ability of the UreE Accessory Protein. Journal of Bacteriology, 2003, 185, 4787-4795.	2.2	77
14	Dual Roles of Helicobacter pylori NapA in Inducing and Combating Oxidative Stress. Infection and Immunity, 2006, 74, 6839-6846.	2.2	77
15	Roles of His-Rich Hpn and Hpn-Like Proteins in Helicobacter pylori Nickel Physiology. Journal of Bacteriology, 2007, 189, 4120-4126.	2.2	77
16	Nickel-binding and accessory proteins facilitating Ni-enzyme maturation in Helicobacter pylori. BioMetals, 2007, 20, 655-664.	4.1	77
17	Association of Helicobacter pylori Antioxidant Activities with Host Colonization Proficiency. Infection and Immunity, 2003, 71, 580-583.	2.2	73
18	The Helicobacter pylori MutS protein confers protection from oxidative DNA damage. Molecular Microbiology, 2005, 58, 166-176.	2.5	70

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19	Molecular Hydrogen Metabolism: a Widespread Trait of Pathogenic Bacteria and Protists. Microbiology and Molecular Biology Reviews, 2020, 84, .	6.6	70
20	Modification of <i>Helicobacter pylori</i> Peptidoglycan Enhances NOD1 Activation and Promotes Cancer of the Stomach. Cancer Research, 2015, 75, 1749-1759.	0.9	69
21	Methionine Sulfoxide Reductase in Helicobacter pylori : Interaction with Methionine-Rich Proteins and Stress-Induced Expression. Journal of Bacteriology, 2006, 188, 5839-5850.	2.2	62
22	Roles of conserved nucleotide-binding domains in accessory proteins, HypB and UreG, in the maturation of nickel-enzymes required for efficient Helicobacter pylori colonization. Microbial Pathogenesis, 2003, 35, 229-234.	2.9	61
23	Synergistic Roles of Helicobacter pylori Methionine Sulfoxide Reductase and GroEL in Repairing Oxidant-damaged Catalase. Journal of Biological Chemistry, 2011, 286, 19159-19169.	3.4	58
24	Helicobacter pylori Peptidoglycan Modifications Confer Lysozyme Resistance and Contribute to Survival in the Host. MBio, 2012, 3, e00409-12.	4.1	54
25	Oxidative Stress-induced Peptidoglycan Deacetylase in Helicobacter pylori. Journal of Biological Chemistry, 2009, 284, 6790-6800.	3.4	52
26	Peptidoglycan Deacetylation in <i>Helicobacter pylori</i> Contributes to Bacterial Survival by Mitigating Host Immune Responses. Infection and Immunity, 2010, 78, 4660-4666.	2.2	50
27	Click, Release, and Fluoresce: A Chemical Strategy for a Cascade Prodrug System for Codelivery of Carbon Monoxide, a Drug Payload, and a Fluorescent Reporter. Organic Letters, 2018, 20, 897-900.	4.6	50
28	Interaction between the Helicobacter pylori accessory proteins HypA and UreE is needed for urease maturation. Microbiology (United Kingdom), 2007, 153, 1474-1482.	1.8	47
29	Role of the Hya Hydrogenase in Recycling of Anaerobically Produced H ₂ in <i>Salmonella enterica</i> Serovar Typhimurium. Applied and Environmental Microbiology, 2009, 75, 1456-1459.	3.1	46
30	Role of a Bacterial Organic Hydroperoxide Detoxification System in Preventing Catalase Inactivation. Journal of Biological Chemistry, 2004, 279, 51908-51914.	3.4	44
31	Oxidative stress defense mechanisms to counter iron-promoted DNA damage in<i>Helicobacter pylori</i>. Free Radical Research, 2005, 39, 1183-1191.	3.3	42
32	Crystal Structures of Apo and Metal-Bound Forms of the UreE Protein from <i>Helicobacter pylori</i>: Role of Multiple Metal Binding Sites,. Biochemistry, 2010, 49, 7080-7088.	2.5	42
33	Ammonium Metabolism Enzymes Aid Helicobacter pylori Acid Resistance. Journal of Bacteriology, 2014, 196, 3074-3081.	2.2	41
34	Role of Nickel in Microbial Pathogenesis. Inorganics, 2019, 7, 80.	2.7	41
35	Helicobacter pylori Stores Nickel To Aid Its Host Colonization. Infection and Immunity, 2013, 81, 580-584.	2.2	39
36	Lipid peroxidation as a source of oxidative damage in Helicobacter pylori: Protective roles of peroxiredoxins. Biochimica Et Biophysica Acta - General Subjects, 2006, 1760, 1596-1603.	2.4	38

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37	Critical Role of RecN in Recombinational DNA Repair and Survival of <i>Helicobacter pylori</i>. Infection and Immunity, 2008, 76, 153-160.	2.2	38
38	Differential expression of NiFe uptake-type hydrogenase genes in Salmonella enterica serovar Typhimurium. Microbiology (United Kingdom), 2007, 153, 3508-3516.	1.8	37
39	Regulation of the Helicobacter pylori Fe-S Cluster Synthesis Protein NifS by Iron, Oxidative Stress Conditions, and Fur. Journal of Bacteriology, 2006, 188, 5325-5330.	2.2	35
40	Peptide Transport in Helicobacter pylori : Roles of Dpp and Opp Systems and Evidence for Additional Peptide Transporters. Journal of Bacteriology, 2007, 189, 3392-3402.	2.2	35
41	A histone-like protein of Helicobacter pylori protects DNA from stress damage and aids host colonization. DNA Repair, 2012, 11, 733-740.	2.8	35
42	Helicobacter hepaticus Hydrogenase Mutants Are Deficient in Hydrogen-Supported Amino Acid Uptake and in Causing Liver Lesions in A/J Mice. Infection and Immunity, 2005, 73, 5311-5318.	2.2	34
43	Role of a MutY DNA glycosylase in combating oxidative DNA damage in Helicobacter pylori. DNA Repair, 2007, 6, 19-26.	2.8	34
44	Helicobacter Catalase Devoid of Catalytic Activity Protects the Bacterium against Oxidative Stress. Journal of Biological Chemistry, 2016, 291, 23366-23373.	3.4	34
45	Up-expression of NapA and other oxidative stress proteins is a compensatory response to loss of majorHelicobacter pyloristress resistance factors. Free Radical Research, 2005, 39, 1173-1182.	3.3	33
46	<i>Salmonella enterica</i> Serovar Typhimurium NiFe Uptake-Type Hydrogenases Are Differentially Expressed In Vivo. Infection and Immunity, 2008, 76, 4445-4454.	2.2	32
47	Hydrogen-Oxidizing Capabilities of Helicobacter hepaticus and In Vivo Availability of the Substrate. Journal of Bacteriology, 2003, 185, 2680-2682.	2.2	31
48	The RecRO pathway of DNA recombinational repair in Helicobacter pylori and its role in bacterial survival in the host. DNA Repair, 2011, 10, 373-379.	2.8	31
49	Nickel enzyme maturation in Helicobacter hepaticus: roles of accessory proteins in hydrogenase and urease activities. Microbiology (United Kingdom), 2007, 153, 3748-3756.	1.8	29
50	Requirement of hydD, hydE, hypC and hypE genes for hydrogenase activity in Helicobacter pylori. Microbial Pathogenesis, 2004, 36, 153-157.	2.9	28
51	The Hyb Hydrogenase Permits Hydrogen-Dependent Respiratory Growth of Salmonella enterica Serovar Typhimurium. MBio, 2010, 1, .	4.1	28
52	Availability and use of molecular hydrogen as an energy substrate for Helicobacter species. Microbes and Infection, 2003, 5, 1159-1163.	1.9	27
53	The NADPH quinone reductase MdaB confers oxidative stress resistance to Helicobacter hepaticus. Microbial Pathogenesis, 2008, 44, 169-174.	2.9	27
54	A RecB-Like Helicase in <i>Helicobacter pylori</i> Is Important for DNA Repair and Host Colonization. Infection and Immunity, 2009, 77, 286-291.	2.2	27

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55	Hydrogen Metabolism in Helicobacter pylori Plays a Role in Gastric Carcinogenesis through Facilitating CagA Translocation. MBio, 2016, 7, .	4.1	27
56	Noncatalytic Antioxidant Role for Helicobacter pylori Urease. Journal of Bacteriology, 2018, 200, .	2.2	27
57	Helicobacter hepaticusDps protein plays an important role in protecting DNA from oxidative damage. Free Radical Research, 2006, 40, 597-605.	3.3	25
58	<i>Hydrogen and Nickel Metabolism in</i><scp>Helicobacter</scp><i>Species</i>. Annals of the New York Academy of Sciences, 2008, 1125, 242-251.	3.8	25
59	Hydrogen Metabolism in Rhizobium: Energetics, Regulation, Enzymology and Genetics. Advances in Microbial Physiology, 1988, 29, 1-52.	2.4	23
60	Carbon Fixation Driven by Molecular Hydrogen Results in Chemolithoautotrophically Enhanced Growth of Helicobacter pylori. Journal of Bacteriology, 2016, 198, 1423-1428.	2.2	23
61	Helicobacter hepaticus NikR controls urease and hydrogenase activities via the NikABDE and HH0418 putative nickel import proteins. Microbiology (United Kingdom), 2013, 159, 136-146.	1.8	22
62	A Novel DNA-Binding Protein Plays an Important Role in Helicobacter pylori Stress Tolerance and Survival in the Host. Journal of Bacteriology, 2015, 197, 973-982.	2.2	22
63	Salmonella Typhimurium Strain ATCC14028 Requires H2-Hydrogenases for Growth in the Gut, but Not at Systemic Sites. PLoS ONE, 2014, 9, e110187.	2.5	20
64	Alkyl Hydroperoxide Reductase Repair by Helicobacter pylori Methionine Sulfoxide Reductase. Journal of Bacteriology, 2013, 195, 5396-5401.	2.2	19
65	Aconitase-Mediated Posttranscriptional Regulation of Helicobacter pylori Peptidoglycan Deacetylase. Journal of Bacteriology, 2013, 195, 5316-5322.	2.2	19
66	A link between gut community metabolism and pathogenesis: molecular hydrogen-stimulated glucarate catabolism aids <i>Salmonella</i> virulence. Open Biology, 2013, 3, 130146.	3.6	19
67	Twin-Arginine Translocation System in Helicobacter pylori: TatC, but Not TatB, Is Essential for Viability. MBio, 2014, 5, e01016-13.	4.1	19
68	Host Hydrogen Rather than That Produced by the Pathogen Is Important for Salmonella enterica Serovar Typhimurium Virulence. Infection and Immunity, 2015, 83, 311-316.	2.2	19
69	Comparative Roles of the Two Helicobacter pylori Thioredoxins in Preventing Macromolecule Damage. Infection and Immunity, 2015, 83, 2935-2943.	2.2	19
70	Aconitase Functions as a Pleiotropic Posttranscriptional Regulator in Helicobacter pylori. Journal of Bacteriology, 2015, 197, 3076-3086.	2.2	19
71	Site-directed mutagenesis of Campylobacter concisus respiratory genes provides insight into the pathogenâ€™s growth requirements. Scientific Reports, 2018, 8, 14203.	3.3	19
72	Bacterial histone-like proteins: roles in stress resistance. Current Genetics, 2015, 61, 489-492.	1.7	16

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73	Ironâ€“sulfur protein maturation in <i>Helicobacter pylori</i>: identifying a Nfuâ€type cluster carrier protein and its ironâ€“sulfur protein targets. Molecular Microbiology, 2018, 108, 379-396.	2.5	16
74	Structure-function analyses of metal-binding sites of HypA reveal residues important for hydrogenase maturation in Helicobacter pylori. PLoS ONE, 2017, 12, e0183260.	2.5	16
75	Bradhyrhizobium japonicum hydrogen-ubiquinone oxidoreductase activity: quinone specificity, inhibition by quinone analogs, and evidence for separate sites of electron acceptor reactivity. Biochimica Et Biophysica Acta - Bioenergetics, 1995, 1229, 334-346.	1.0	15
76	A Helicobacter hepaticus catalase mutant is hypersensitive to oxidative stress and suffers increased DNA damage. Journal of Medical Microbiology, 2007, 56, 557-562.	1.8	15
77	Roles of H2 uptake hydrogenases in Shigella flexneri acid tolerance. Microbiology (United Kingdom), 2012, 158, 2204-2212.	1.8	15
78	Mua (HP0868) Is a Nickel-Binding Protein That Modulates Urease Activity in Helicobacter pylori. MBio, 2011, 2, e00039-11.	4.1	14
79	Helicobacter pylori nickel storage proteins: recognition and modulation of diverse metabolic targets. Microbiology (United Kingdom), 2018, 164, 1059-1068.	1.8	14
80	In vitro and in vivo characterization of alkyl hydroperoxide reductase mutant strains of Helicobacter hepaticus. Biochimica Et Biophysica Acta - General Subjects, 2007, 1770, 257-265.	2.4	13
81	Nickel chelation therapy as an approach to combat multi-drug resistant enteric pathogens. Scientific Reports, 2019, 9, 13851.	3.3	13
82	Role of <i>Helicobacter pylori</i> methionine sulfoxide reductase in urease maturation. Biochemical Journal, 2013, 450, 141-148.	3.7	12
83	The nickel-chelator dimethylglyoxime inhibits human amyloid beta peptide in vitro aggregation. Scientific Reports, 2021, 11, 6622.	3.3	11
84	Molecular basis for the functions of a bacterial MutS2 in DNA repair and recombination. DNA Repair, 2017, 57, 161-170.	2.8	10
85	Mutant Strain of <i>Bradyrhizobium japonicum</i> with Increased Symbiotic N ₂ Fixation Rates and Altered Mo Metabolism Properties. Applied and Environmental Microbiology, 1990, 56, 2341-2346.	3.1	10
86	Restoring and Enhancing the Potency of Existing Antibiotics against Drug-Resistant Gram-Negative Bacteria through the Development of Potent Small-Molecule Adjuvants. ACS Infectious Diseases, 2022, 8, 1491-1508.	3.8	10
87	Efficiency of Purine Utilization by Helicobacter pylori: Roles for Adenosine Deaminase and a NupC Homolog. PLoS ONE, 2012, 7, e38727.	2.5	9
88	Mua (HP0868) Is a Nickel-Binding Protein That Modulates Urease Activity in Helicobacter pylori. MBio, 2011, 2, .	4.1	8
89	Identification of a Locus Upstream from the Hydrogenase Structural Genes That Is Involved in Hydrogenase Expression in <i>Bradyrhizobium japonicum</i>. Applied and Environmental Microbiology, 1989, 55, 3051-3057.	3.1	8
90	Hydrogen-ubiquinone oxidoreductase activity by theBradyrhizobium japonicummembrane-bound hydrogenase. FEMS Microbiology Letters, 1993, 110, 257-264.	1.8	7

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91	Influence of Protein Glycosylation on Campylobacter fetus Physiology. Frontiers in Microbiology, 2020, 11, 1191.	3.5	7
92	Highly Efficient Antimicrobial Activity of CuxFeyOz Nanoparticles against Important Human Pathogens. Nanomaterials, 2020, 10, 2294.	4.1	6
93	A two-hybrid system reveals previously uncharacterized proteinâ€“protein interactions within the Helicobacter pylori NIF ironâ€“sulfur maturation system. Scientific Reports, 2021, 11, 10794.	3.3	6
94	In Vitro and In Vivo Inhibition of Helicobacter pylori by Ethanolic Extracts of Lion's Mane Medicinal Mushroom, Hericium erinaceus (Agaricomycetes). International Journal of Medicinal Mushrooms, 2019, 21, 1-11.	1.5	6
95	Atmospheric <scp>H₂</scp> fuels plantâ€“microbe interactions. Environmental Microbiology, 2016, 18, 2289-2291.	3.8	2
96	Methionine sulphoxide reductase is an important antioxidant enzyme in the gastric pathogen Helicobacter pylori. Molecular Microbiology, 2004, 55, 653-653.	2.5	1
97	Copper toxicity towards <i>Campylobacter jejuni</i> is enhanced by the nickel chelator dimethylglyoxime. Metallomics, 2022, 14, .	2.4	0