

Battles with Iron: Manganese in Oxidative Stress Protection

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Nramp. Current Topics in Membranes, 2012, 69, 249-293.	0.5	45
2	Elemental Economy. Advances in Microbial Physiology, 2012, 60, 91-210.	1.0	180
3	Metallation and mismetallation of iron and manganese proteins in vitro and in vivo: the class I ribonucleotide reductases as a case study. Metallomics, 2012, 4, 1020.	1.0	124
4	Metallation state of human manganese superoxide dismutase expressed in Saccharomyces cerevisiae. Archives of Biochemistry and Biophysics, 2012, 523, 191-197.	1.4	13
5	RNA Folding and Catalysis Mediated by Iron (II). PLoS ONE, 2012, 7, e38024.	1.1	79
6	Differential Coordination Demands in Fe versus Mn Water-Soluble Cationic Metalloporphyrins Translate into Remarkably Different Aqueous Redox Chemistry and Biology. Inorganic Chemistry, 2013, 52, 5677-5691.	1.9	60
7	Bacterial killing in macrophages and amoeba: do they all use a brass dagger?. Future Microbiology, 2013, 8, 1257-1264.	1.0	67
8	Iron speciation in the cytosol: an overview. Dalton Transactions, 2013, 42, 3220-3229.	1.6	141
9	SOD1 Integrates Signals from Oxygen and Glucose to Repress Respiration. Cell, 2013, 152, 224-235.	13.5	186
10	Dinuclear Seven-Coordinate Mn(II) Complexes: Effect of Manganese(II)-Hydroxo Species on Water Exchange and Superoxide Dismutase Activity. Inorganic Chemistry, 2013, 52, 222-236.	1.9	39
11	Manganese Complexes: Diverse Metabolic Routes to Oxidative Stress Resistance in Prokaryotes and Yeast. Antioxidants and Redox Signaling, 2013, 19, 933-944.	2.5	124
12	Superoxide Triggers an Acid Burst in Saccharomyces cerevisiae to Condition the Environment of Glucose-starved Cells. Journal of Biological Chemistry, 2013, 288, 4557-4566.	1.6	14
13	RNA with iron(II) as a cofactor catalyses electron transfer. Nature Chemistry, 2013, 5, 525-528.	6.6	68
14	Determinants of Manganese in Prenatal Dentin of Shed Teeth from CHAMACOS Children Living in an Agricultural Community. Environmental Science & Technology, 2013, 47, 11249-11257.	4.6	47
15	Responses of Mn ²⁺ speciation in <i>Deinococcus radiodurans</i> and <i>Escherichia coli</i> to ¹³⁷ Cs-radiation by advanced paramagnetic resonance methods. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 5945-5950.	3.3	63
16	A Manganese-rich Environment Supports Superoxide Dismutase Activity in a Lyme Disease Pathogen, Borrelia burgdorferi. Journal of Biological Chemistry, 2013, 288, 8468-8478.	1.6	65
17	The MAP Kinase Slt2 Is Involved in Vacuolar Function and Actin Remodeling in Saccharomyces cerevisiae Mutants Affected by Endogenous Oxidative Stress. Applied and Environmental Microbiology, 2013, 79, 6459-6471.	1.4	21
18	Manganese (Mn) Oxidation Increases Intracellular Mn in Pseudomonas putida GB-1. PLoS ONE, 2013, 8, e77835.	1.1	55

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19	Manganese acquisition and homeostasis at the host-pathogen interface. <i>Frontiers in Cellular and Infection Microbiology</i> , 2013, 3, 91.	1.8	111
20	Low Molecular Weight Antioxidants (LMWA) and their Orchestration. <i>Orthodontic Journal of Nepal</i> , 2013, 2, 171-180.	0.0	3
21	Extracellular Zinc Competitively Inhibits Manganese Uptake and Compromises Oxidative Stress Management in <i>Streptococcus pneumoniae</i> . <i>PLoS ONE</i> , 2014, 9, e89427.	1.1	127
22	Transition metal ions at the crossroads of mucosal immunity and microbial pathogenesis. <i>Frontiers in Cellular and Infection Microbiology</i> , 2014, 4, 2.	1.8	106
23	Bioinorganic Chemistry of Antimicrobial and Host-Defense Peptides. <i>Comments on Inorganic Chemistry</i> , 2014, 34, 42-58.	3.0	10
24	Mitochondria represent another locale for the divalent metal transporter 1 (DMT1). <i>Channels</i> , 2014, 8, 458-466.	1.5	31
25	Choosing the Right Metal: Case Studies of Class I Ribonucleotide Reductases. <i>Journal of Biological Chemistry</i> , 2014, 289, 28104-28111.	1.6	36
26	Manganese Transport, Trafficking and Function in Invertebrates. <i>Issues in Toxicology</i> , 2014, , 1-33.	0.2	10
27	Large-scale functional analysis of the roles of phosphorylation in yeast metabolic pathways. <i>Science Signaling</i> , 2014, 7, rs6.	1.6	32
28	Fluorescent Sensors for Measuring Metal Ions in Living Systems. <i>Chemical Reviews</i> , 2014, 114, 4564-4601.	23.0	2,006
29	Influence of manganese on apoptosis and glutathione content of cumulus cells during in vitro maturation in bovine oocytes. <i>Cell Biology International</i> , 2014, 38, 246-253.	1.4	10
30	Imperfect coordination chemistry facilitates metal ion release in the Psa permease. <i>Nature Chemical Biology</i> , 2014, 10, 35-41.	3.9	137
31	A binuclear Mn(II) complex as an efficient catalyst for transamidation of carboxamides with amines. <i>RSC Advances</i> , 2014, 4, 1155-1158.	1.7	43
32	Stored red blood cell transfusions: iron, inflammation, immunity, and infection. <i>Transfusion</i> , 2014, 54, 2365-2371.	0.8	42
33	Specificity of Metal Sensing: Iron and Manganese Homeostasis in <i>Bacillus subtilis</i> . <i>Journal of Biological Chemistry</i> , 2014, 289, 28112-28120.	1.6	122
34	The ColRS signal transduction system responds to the excess of external zinc, iron, manganese, and cadmium. <i>BMC Microbiology</i> , 2014, 14, 162.	1.3	31
35	Mysteries of Metals in Metalloenzymes. <i>Accounts of Chemical Research</i> , 2014, 47, 3110-3117.	7.6	114
36	Superoxide Dismutases and Superoxide Reductases. <i>Chemical Reviews</i> , 2014, 114, 3854-3918.	23.0	717

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37	Manganese homeostasis and utilization in pathogenic bacteria. <i>Molecular Microbiology</i> , 2015, 97, 216-228.	1.2	95
38	<i>MntR</i> (<i>MntR</i> v2788): a transcriptional regulator that controls manganese homeostasis in <i>Mycobacterium tuberculosis</i> . <i>Molecular Microbiology</i> , 2015, 98, 1168-1183.	1.2	34
39	Determination of Elemental Composition of Malabar spinach, Lettuce, Spinach, Hyacinth Bean, and Cauliflower Vegetables Using Proton Induced X-Ray Emission Technique at Savar Subdistrict in Bangladesh. <i>BioMed Research International</i> , 2015, 2015, 1-10.	0.9	10
40	Genomic and proteomic evidences unravel the UV-resistome of the poly-extremophile <i>Acinetobacter</i> sp. Ver3. <i>Frontiers in Microbiology</i> , 2015, 06, 328.	1.5	53
41	Metalloregulation of <i>Helicobacter pylori</i> physiology and pathogenesis. <i>Frontiers in Microbiology</i> , 2015, 6, 911.	1.5	31
42	Mineral Metabolism. , 2015, , 661-682.		1
43	Cu/Zn superoxide dismutase and the proton ATPase Pma1p of <i>Saccharomyces cerevisiae</i> . <i>Biochemical and Biophysical Research Communications</i> , 2015, 462, 251-256.	1.0	8
44	The interplay between iron, haem and manganese in <i>Porphyromonas gingivalis</i> . <i>Journal of Oral Biosciences</i> , 2015, 57, 91-101.	0.8	4
45	Complete Genome Sequence and Transcriptomic Analysis of the Novel Pathogen <i>Elizabethkingia anophelis</i> in Response to Oxidative Stress. <i>Genome Biology and Evolution</i> , 2015, 7, 1676-1685.	1.1	34
46	Manganese Homeostasis in Group A <i>Streptococcus</i> Is Critical for Resistance to Oxidative Stress and Virulence. <i>MBio</i> , 2015, 6, .	1.8	62
47	Role of manganese in protection against oxidative stress under iron starvation in cyanobacterium <i>Anabaena</i> 7120. <i>Journal of Basic Microbiology</i> , 2015, 55, 729-740.	1.8	16
48	Nramp1 and Other Transporters Involved in Metal Withholding during Infection. <i>Journal of Biological Chemistry</i> , 2015, 290, 18984-18990.	1.6	106
49	Manganese ions induce H ₂ O ₂ generation at the ubiquinone binding site of mitochondrial complex II. <i>Archives of Biochemistry and Biophysics</i> , 2015, 580, 75-83.	1.4	28
50	Effects of metal ions and hydrogen peroxide on the phenotype of yeast hom6 ^Δ mutant. <i>Letters in Applied Microbiology</i> , 2015, 60, 20-26.	1.0	4
51	Gene-Environment Interactions in Huntington's Disease. , 2015, , 355-383.		0
52	Alternative solutions and new scenarios for translesion DNA synthesis by human PrimPol. <i>DNA Repair</i> , 2015, 29, 127-138.	1.3	59
53	Host-imposed manganese starvation of invading pathogens: two routes to the same destination. <i>BioMetals</i> , 2015, 28, 509-519.	1.8	16
54	Competition for Manganese at the Host-Pathogen Interface. <i>Progress in Molecular Biology and Translational Science</i> , 2016, 142, 1-25.	0.9	23

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55	Manganese ions enhance mitochondrial H ₂ O ₂ emission from Krebs cycle oxidoreductases by inducing permeability transition. <i>Free Radical Biology and Medicine</i> , 2016, 99, 43-53.	1.3	17
56	Maternal and fetal exposure to cadmium, lead, manganese and mercury: The MIREC study. <i>Chemosphere</i> , 2016, 163, 270-282.	4.2	144
57	Mimicking SOD, Why and How: Bio-Inspired Manganese Complexes as SOD Mimic. <i>Oxidative Stress in Applied Basic Research and Clinical Practice</i> , 2016, , 125-164.	0.4	11
58	Salmonella Mitigates Oxidative Stress and Thrives in the Inflamed Gut by Evading Calprotectin-Mediated Manganese Sequestration. <i>Cell Host and Microbe</i> , 2016, 19, 814-825.	5.1	109
59	Aerobic biosynthesis of hydrocinnamic acids in <i>Escherichia coli</i> with a strictly oxygen-sensitive enoate reductase. <i>Metabolic Engineering</i> , 2016, 35, 75-82.	3.6	42
60	Genetic and biochemical effects induced by iron ore, Fe and Mn exposure in tadpoles of the bullfrog <i>Lithobates catesbeianus</i> . <i>Aquatic Toxicology</i> , 2016, 174, 101-108.	1.9	38
61	2D-DIGE as a proteomic biomarker discovery tool in environmental studies with <i>Procambarus clarkii</i> . <i>Science of the Total Environment</i> , 2017, 584-585, 813-827.	3.9	17
62	Manganese scavenging and oxidative stress response mediated by type VI secretion system in <i>Burkholderia thailandensis</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E2233-E2242.	3.3	185
63	Transition Metal Homeostasis in <i>Streptococcus pyogenes</i> and <i>Streptococcus pneumoniae</i> . <i>Advances in Microbial Physiology</i> , 2017, 70, 123-191.	1.0	32
64	Molecular Insights into Hydrogen Peroxide-sensing Mechanism of the Metalloregulator MntR in Controlling Bacterial Resistance to Oxidative Stresses. <i>Journal of Biological Chemistry</i> , 2017, 292, 5519-5531.	1.6	16
65	Iron mediates catalysis of nucleic acid processing enzymes: support for Fe(II) as a cofactor before the great oxidation event. <i>Nucleic Acids Research</i> , 2017, 45, 3634-3642.	6.5	25
66	Biological and Chemical Adaptation to Endogenous Hydrogen Peroxide Production in <i>Streptococcus pneumoniae</i> D39. <i>MSphere</i> , 2017, 2, .	1.3	58
67	Mitochondria and Iron: current questions. <i>Expert Review of Hematology</i> , 2017, 10, 65-79.	1.0	272
68	The manganese efflux system MntE contributes to the virulence of <i>Streptococcus suis</i> serotype 2. <i>Microbial Pathogenesis</i> , 2017, 110, 23-30.	1.3	19
69	Microcalorimetric study of the effect of manganese on the growth and metabolism in a heterogeneously expressing manganese-dependent superoxide dismutase (Mn-SOD) strain. <i>Journal of Thermal Analysis and Calorimetry</i> , 2017, 130, 1407-1416.	2.0	4
70	BacMam Delivery of a Protective Gene to Reduce Renal Ischemia-Induced Reperfusion Injury. <i>Human Gene Therapy</i> , 2017, 28, 747-756.	1.4	10
71	Influence of high inorganic selenium and manganese diets for fattening pigs on oxidative stability and pork quality parameters. <i>Animal</i> , 2017, 11, 345-353.	1.3	26
72	Occupational Exposure to Manganese and Fine Motor Skills in Elderly Men: Results from the Heinz Nixdorf Recall Study. <i>Annals of Work Exposures and Health</i> , 2017, 61, 1118-1131.	0.6	10

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73	The human vaginal microbial community. <i>Research in Microbiology</i> , 2017, 168, 811-825.	1.0	51
74	Diverse molecular resistance mechanisms of <i>Bacillus megaterium</i> during metal removal present in a spent catalyst. <i>Biotechnology and Bioprocess Engineering</i> , 2017, 22, 296-307.	1.4	15
75	Keto-Enol Tautomerization Triggers an Electrophilic Aldehyde Deformylation Reaction by a Nonheme Manganese(III)-Peroxo Complex. <i>Journal of the American Chemical Society</i> , 2017, 139, 18328-18338.	6.6	66
76	<i>Bacillus subtilis</i> MntR coordinates the transcriptional regulation of manganese uptake and efflux systems. <i>Molecular Microbiology</i> , 2017, 103, 253-268.	1.2	65
77	Associations between former exposure to manganese and olfaction in an elderly population: Results from the Heinz Nixdorf Recall Study. <i>NeuroToxicology</i> , 2017, 58, 58-65.	1.4	13
78	Six-transmembrane epithelial antigens of the prostate comprise a novel inflammatory nexus in patients with pustular skin disorders. <i>Journal of Allergy and Clinical Immunology</i> , 2017, 139, 1217-1227.	1.5	38
79	Insights into the Dichotomous Regulation of SOD2 in Cancer. <i>Antioxidants</i> , 2017, 6, 86.	2.2	100
80	Manganese and Nutritional Immunity. , 2017, , 377-387.		4
81	Association between urinary manganese and blood pressure: Results from National Health and Nutrition Examination Survey (NHANES), 2011-2014. <i>PLoS ONE</i> , 2017, 12, e0188145.	1.1	33
82	Periodontal disease severity is associated with micronutrient intake. <i>Australian Dental Journal</i> , 2018, 63, 193-201.	0.6	25
83	Switch of Mitochondrial Superoxide Dismutase into a Prooxidant Peroxidase in Manganese-Deficient Cells and Mice. <i>Cell Chemical Biology</i> , 2018, 25, 413-425.e6.	2.5	36
84	Salivary metals, age, and gender correlate with cultivable oral <i>Candida</i> carriage levels. <i>Journal of Oral Microbiology</i> , 2018, 10, 1447216.	1.2	21
85	Triple-mixture of Zn, Mn, and Fe increases bioaccumulation and causes oxidative stress in freshwater neotropical fish. <i>Environmental Toxicology and Chemistry</i> , 2018, 37, 1749-1756.	2.2	17
86	Selenium-Chromium(VI) Interaction Regulates the Contents and Correlations of Trace Elements in Chicken Brain and Serum. <i>Biological Trace Element Research</i> , 2018, 181, 154-163.	1.9	9
87	The Inflammatory Potential of Dietary Manganese in a Cohort of Elderly Men. <i>Biological Trace Element Research</i> , 2018, 183, 49-57.	1.9	19
88	Serum and whole blood Zn, Cu and Mn profiles and their relation to redox status in lung cancer patients. <i>Journal of Trace Elements in Medicine and Biology</i> , 2018, 45, 78-84.	1.5	60
89	Association of exposure to manganese and iron with striatal and thalamic GABA and other neurometabolites - Neuroimaging results from the WELDOX II study. <i>NeuroToxicology</i> , 2018, 64, 60-67.	1.4	23
90	Metabolomic alterations and oxidative stress are associated with environmental pollution in <i>Procambarus clarkii</i> . <i>Aquatic Toxicology</i> , 2018, 205, 76-88.	1.9	31

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91	Albumin, copper, manganese and cobalt levels in children suffering from sickle cell anemia at Kasumbalesa, in Democratic Republic of Congo. <i>BMC Hematology</i> , 2018, 18, 23.	2.6	3
92	Trace Element Status in Type 2 Diabetes: A Meta-Analysis. <i>Journal of Clinical and Diagnostic Research JCDR</i> , 2018, 12, OE01-OE08.	0.8	22
93	Folding and Catalysis Near Life's Origin: Support for Fe ²⁺ as a Dominant Divalent Cation. <i>Nucleic Acids and Molecular Biology</i> , 2018, , 227-243.	0.2	5
94	Iron-dependent cleavage of ribosomal RNA during oxidative stress in the yeast <i>Saccharomyces cerevisiae</i> . <i>Journal of Biological Chemistry</i> , 2018, 293, 14237-14248.	1.6	28
95	Metal dyshomeostasis based biomarkers of lung cancer using human biofluids. <i>Metallomics</i> , 2018, 10, 1444-1451.	1.0	28
96	Carboxylic acid production from ensiled crops in anaerobic solid-state fermentation – trace elements as pH controlling agents support microbial chain elongation with lactic acid. <i>Engineering in Life Sciences</i> , 2018, 18, 447-458.	2.0	23
97	Consequences of trace metal variability and supplementation on Chinese hamster ovary (CHO) cell culture performance: A review of key mechanisms and considerations. <i>Biotechnology and Bioengineering</i> , 2019, 116, 3446-3456.	1.7	36
98	Transcriptome Analysis Reveals Distinct Responses to Physiologic versus Toxic Manganese Exposure in Human Neuroblastoma Cells. <i>Frontiers in Genetics</i> , 2019, 10, 676.	1.1	21
99	SOD1 deficiency: a novel syndrome distinct from amyotrophic lateral sclerosis. <i>Brain</i> , 2019, 142, 2230-2237.	3.7	59
100	Oxidative Stress as the Main Target in Diabetic Retinopathy Pathophysiology. <i>Journal of Diabetes Research</i> , 2019, 2019, 1-21.	1.0	102
101	Neuroprotective effects of docosahexaenoic acid against sub-acute manganese intoxication induced dopaminergic and motor disorders in mice. <i>Journal of Chemical Neuroanatomy</i> , 2019, 102, 101686.	1.0	10
102	Impact of transition metal ions on the structure and bioactivity of alkali-free bioactive glasses. <i>Journal of Non-Crystalline Solids</i> , 2019, 506, 98-108.	1.5	19
103	A novel contact-independent T6SS that maintains redox homeostasis via Zn ²⁺ and Mn ²⁺ acquisition is conserved in the <i>Burkholderia pseudomallei</i> complex. <i>Microbiological Research</i> , 2019, 226, 48-54.	2.5	28
104	Analysis of manganese oxidase and its encoding gene in <i>Lysinibacillus</i> strain MK-1. <i>Chemical Engineering Research and Design</i> , 2019, 127, 299-305.	2.7	14
105	Live-Cell Imaging of Physiologically Relevant Metal Ions Using Genetically Encoded FRET-Based Probes. <i>Cells</i> , 2019, 8, 492.	1.8	71
106	Association between serum zinc levels and lung cancer: a meta-analysis of observational studies. <i>World Journal of Surgical Oncology</i> , 2019, 17, 78.	0.8	32
107	The invariant glutamate of human PrimPol DxE motif is critical for its Mn ²⁺ -dependent distinctive activities. <i>DNA Repair</i> , 2019, 77, 65-75.	1.3	25
108	Prenatal manganese and cord blood mitochondrial DNA copy number: Effect modification by maternal anemic status. <i>Environment International</i> , 2019, 126, 484-493.	4.8	28

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109	Manganese Detoxification by MntE Is Critical for Resistance to Oxidative Stress and Virulence of <i>Staphylococcus aureus</i> . <i>MBio</i> , 2019, 10, .	1.8	38
110	Effects of manganese on maturation of porcine oocytes &in vitro& and their subsequent embryo development after parthenogenetic activation and somatic cell nuclear transfer. <i>Journal of Reproduction and Development</i> , 2019, 65, 259-265.	0.5	5
111	Manganese suppresses oxidative stress, inflammation and caspase-3 activation in rats exposed to chlorpyrifos. <i>Toxicology Reports</i> , 2019, 6, 202-209.	1.6	81
112	Proteomic Analysis of the <i>Pseudomonas aeruginosa</i> Iron Starvation Response Reveals PrrF Small Regulatory RNA-Dependent Iron Regulation of Twitching Motility, Amino Acid Metabolism, and Zinc Homeostasis Proteins. <i>Journal of Bacteriology</i> , 2019, 201, .	1.0	54
113	MoMCP1, a Cytochrome P450 Gene, Is Required for Alleviating Manganese Toxin Revealed by Transcriptomics Analysis in <i>Magnaporthe oryzae</i> . <i>International Journal of Molecular Sciences</i> , 2019, 20, 1590.	1.8	4
114	The Metallome of Lung Cancer and its Potential Use as Biomarker. <i>International Journal of Molecular Sciences</i> , 2019, 20, 778.	1.8	18
115	Co-deprivation of photosynthetic electron transport mineral pairs significantly enhanced antioxidant contents in a local isolate of <i>Arthrospira (Spirulina) platensis</i> . <i>South African Journal of Botany</i> , 2019, 121, 1-6.	1.2	3
116	The crosstalk between trace elements with DNA damage response, repair, and oxidative stress in cancer. <i>Journal of Cellular Biochemistry</i> , 2019, 120, 1080-1105.	1.2	42
117	Conservation and diversity of radiation and oxidative stress resistance mechanisms in <i>Deinococcus</i> species. <i>FEMS Microbiology Reviews</i> , 2019, 43, 19-52.	3.9	141
118	Harnessing biocompatible chemistry for developing improved and novel microbial cell factories. <i>Microbial Biotechnology</i> , 2020, 13, 54-66.	2.0	8
119	Rational De Novo Design of a Cu Metalloenzyme for Superoxide Dismutation. <i>Chemistry - A European Journal</i> , 2020, 26, 249-258.	1.7	16
120	Manganese Chloride Exposure Causes Disorder of Energy Metabolism and Induces Oxidative Stress and Autophagy in Chicken Liver. <i>Biological Trace Element Research</i> , 2020, 197, 254-261.	1.9	15
121	Human biomonitoring to evaluate exposure to toxic and essential trace elements during pregnancy. Part B: Predictors of exposure. <i>Environmental Research</i> , 2020, 182, 109108.	3.7	36
122	Manganese import protects <i>Salmonella enterica</i> serovar Typhimurium against nitrosative stress. <i>Metallomics</i> , 2020, 12, 1791-1801.	1.0	11
123	Genome-Wide Assessment of <i>Streptococcus agalactiae</i> Genes Required for Survival in Human Whole Blood and Plasma. <i>Infection and Immunity</i> , 2020, 88, .	1.0	9
124	Levels of Pb, Ni, As, and Cd in habitat soils of Chinese Cordyceps in the Shergyla Mountain, Tibet. <i>Toxicological and Environmental Chemistry</i> , 2020, 102, 543-555.	0.6	1
125	Serum Copper Level and the Copper-to-Zinc Ratio Could Be Useful in the Prediction of Lung Cancer and Its Prognosis: A Case-Control Study in Northeast China. <i>Nutrition and Cancer</i> , 2021, 73, 1908-1915.	0.9	39
127	From Waste to Taste—Efficient Production of the Butter Aroma Compound Acetoin from Low-Value Dairy Side Streams Using a Natural (Nonengineered) <i>Lactococcus lactis</i> Dairy Isolate. <i>Journal of Agricultural and Food Chemistry</i> , 2020, 68, 5891-5899.	2.4	22

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128	Mitochondria and microbiota dysfunction in COVID-19 pathogenesis. <i>Mitochondrion</i> , 2020, 54, 1-7.	1.6	245
129	Multiple Bactericidal Mechanisms of the Zinc Ionophore PBT2. <i>MSphere</i> , 2020, 5, .	1.3	24
130	Synthesis and antibacterial activity of iron manganite (FeMnO ₃) particles against the environmental bacterium <i>Bacillus subtilis</i> . <i>RSC Advances</i> , 2020, 10, 13879-13888.	1.7	18
131	Adjuvant Therapies in Diabetic Retinopathy as an Early Approach to Delay Its Progression: The Importance of Oxidative Stress and Inflammation. <i>Oxidative Medicine and Cellular Longevity</i> , 2020, 2020, 1-23.	1.9	34
132	Comparing Nonbonded Metal Ion Models in the Divalent Cation Binding Protein PsaA. <i>Journal of Chemical Theory and Computation</i> , 2020, 16, 1913-1923.	2.3	15
133	<i>Bacillus subtilis</i> Regulators MntR and Zur Participate in Redox Cycling, Antibiotic Sensitivity, and Cell Wall Plasticity. <i>Journal of Bacteriology</i> , 2020, 202, .	1.0	5
134	The effects of manganese overexposure on brain health. <i>Neurochemistry International</i> , 2020, 135, 104688.	1.9	65
135	Intracellular Metal Speciation in <i>Streptococcus sanguinis</i> Establishes SsaACB as Critical for Redox Maintenance. <i>ACS Infectious Diseases</i> , 2020, 6, 1906-1921.	1.8	17
136	The Relevance of Oxidative Stress in the Pathogenesis and Therapy of Retinal Dystrophies. <i>Antioxidants</i> , 2020, 9, 347.	2.2	103
137	Dysregulation of Magnesium Transport Protects <i>Bacillus subtilis</i> against Manganese and Cobalt Intoxication. <i>Journal of Bacteriology</i> , 2020, 202, .	1.0	18
138	Redox-Regulated Adaptation of <i>Streptococcus oligofermentans</i> to Hydrogen Peroxide Stress. <i>MSystems</i> , 2020, 5, .	1.7	7
139	Culinary medicinal mushrooms: a review of organic compounds and bioelements with antioxidant activity. <i>European Food Research and Technology</i> , 2021, 247, 513-533.	1.6	34
140	T6SS Mediated Stress Responses for Bacterial Environmental Survival and Host Adaptation. <i>International Journal of Molecular Sciences</i> , 2021, 22, 478.	1.8	33
141	Impact of COVID-19 on Mitochondrial-Based Immunity in Aging and Age-Related Diseases. <i>Frontiers in Aging Neuroscience</i> , 2020, 12, 614650.	1.7	71
142	A Nonlinear Relation Between Maternal Red Blood Cell Manganese Concentrations and Child Blood Pressure at Age 6-12 y: A Prospective Birth Cohort Study. <i>Journal of Nutrition</i> , 2021, 151, 570-578.	1.3	3
143	Removal of Mn(II) by a nitrifying bacterium <i>Acinetobacter</i> sp. AL-6: efficiency and mechanisms. <i>Environmental Science and Pollution Research</i> , 2021, 28, 31218-31229.	2.7	17
144	Deletion of a Golgi protein in <i>Trypanosoma cruzi</i> reveals a critical role for Mn ²⁺ in protein glycosylation needed for host cell invasion and intracellular replication. <i>PLoS Pathogens</i> , 2021, 17, e1009399.	2.1	5
145	Molecular Targets of Manganese-Induced Neurotoxicity: A Five-Year Update. <i>International Journal of Molecular Sciences</i> , 2021, 22, 4646.	1.8	68

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146	Microbial helpers allow cyanobacteria to thrive in ferruginous waters. <i>Geobiology</i> , 2021, 19, 510-520.	1.1	3
147	Genome-Wide Identification and Bioinformatics Characterization of Superoxide Dismutases in the Desiccation-Tolerant Cyanobacterium <i>Chroococcidiopsis</i> sp. CCME029. <i>Frontiers in Microbiology</i> , 2021, 12, 660050.	1.5	7
148	Effect of manganese supplementation on the carcass traits, meat quality, intramuscular fat, and tissue manganese accumulation of Pekin duck. <i>Poultry Science</i> , 2021, 100, 101064.	1.5	11
149	Impact of iron raw materials and their impurities on CHO metabolism and recombinant protein product quality. <i>Biotechnology Progress</i> , 2021, 37, e3148.	1.3	6
150	Zinc supplementation modulates intracellular metal uptake and oxidative stress defense mechanisms in CHO cell cultures. <i>Biochemical Engineering Journal</i> , 2021, 169, 107928.	1.8	5
151	Use of human teardrop fluid for the determination of trace elements in healthy individuals and diabetic patients. <i>Journal of Trace Elements in Medicine and Biology</i> , 2021, 65, 126733.	1.5	9
152	Trace elements exposure and risk in age-related eye diseases: a systematic review of epidemiological evidence. <i>Journal of Environmental Science and Health, Part C: Toxicology and Carcinogenesis</i> , 2021, , 1-47.	0.4	3
153	Manganese Benefits Heat-Stressed Corals at the Cellular Level. <i>Frontiers in Marine Science</i> , 2021, 8, .	1.2	10
154	UV disinfection studies on chlorine tolerant bacteria recovered from treated sewage. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 105253.	3.3	14
155	The association between PTX3 and serum manganese levels of welders in comparison with controls: An application of anti-inflammatory biomarker. <i>Journal of Health Sciences and Medicine</i> , 2021, 4, 511-515.	0.0	0
156	Manganese privation induced transcriptional upregulation of the class IIa bacteriocin plantaricin 423 in <i>Lactobacillus plantarum</i> 423. <i>Applied and Environmental Microbiology</i> , 2021, 87, e0097621.	1.4	4
157	Simultaneous Quantification and Speciation of Trace Metals in Paired Serum and CSF Samples by Size Exclusion Chromatography-Inductively Coupled Plasma-Dynamic Reaction Cell-Mass Spectrometry (SEC-DRC-ICP-MS). <i>International Journal of Molecular Sciences</i> , 2021, 22, 8892.	1.8	10
158	Bio-immobilization of soluble Mn(II) in aqueous solution with co-occurred Mn(II)-oxidizing bacteria: Facilitation or inhibition?. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 106448.	3.3	3
159	Redox-Inactive Metalloproteins and Metalloenzymes. , 2021, , 878-899.		0
160	Iron-mediated degradation of ribosomes under oxidative stress is attenuated by manganese. <i>Journal of Biological Chemistry</i> , 2020, 295, 17200-17214.	1.6	13
161	Organophosphate pesticide exposure among farm women and children: Status of micronutrients, acetylcholinesterase activity, and oxidative stress. <i>Archives of Environmental and Occupational Health</i> , 2022, 77, 109-124.	0.7	10
163	Influence of Adding Manganese to Tris Extender on some Post-Cryopreservation Semen Attributes of Holstein Bulls. <i>International Journal of Applied Agricultural Sciences</i> , 2015, 1, 26.	0.2	5
164	The DUF59 Containing Protein SufT Is Involved in the Maturation of Iron-Sulfur (FeS) Proteins during Conditions of High FeS Cofactor Demand in <i>Staphylococcus aureus</i> . <i>PLoS Genetics</i> , 2016, 12, e1006233.	1.5	37

#	ARTICLE	IF	CITATIONS
165	Stable Radical Content and Anti-Radical Activity of Roasted Arabica Coffee: From In-Tact Bean to Coffee Brew. PLoS ONE, 2015, 10, e0122834.	1.1	14
166	The Beneficial Effects of Antioxidants in Health and Diseases. Chronic Obstructive Pulmonary Diseases (Miami, Fla), 2020, 7, 182-202.	0.5	29
167	Fecal calprotectin in the differential diagnosis of acute intestinal infections. Jurnal Infektologii, 2018, 10, 117-122.	0.1	4
168	T6SS translocates a micropeptide to suppress STING-mediated innate immunity by sequestering manganese. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	27
169	An overview of selected antioxidants in the aspect of safety their application. Prace Naukowe Akademii Im Jana DĄ,ugosza W CzĄ™stochowie Technika Informatyka inĄ¼ynieria BezpieczeĄ„stwa, 2015, 3, 93-112.	0.1	1
170	Differential Regulation of Proteins and a Possible Role for Manganese Superoxide Dismutase in Bioluminescence of <i>Panellus stipticus</i> Revealed by Suppression Subtractive Hybridization. Advances in Microbiology, 2016, 06, 613-626.	0.3	1
173	Nutrigenomics and Antioxidants. , 2019, , 33-70.		0
174	Tissue and Serum Trace Elements Concentration among Colorectal Patients: A Systematic Review of Case-Control Studies. Iranian Journal of Public Health, 0, , .	0.3	3
176	Interchangeable utilization of metals: New perspectives on the impacts of metal ions employed in ancient and extant biomolecules. Journal of Biological Chemistry, 2021, 297, 101374.	1.6	26
177	Roles of Type VI Secretion System in Transport of Metal Ions. Frontiers in Microbiology, 2021, 12, 756136.	1.5	23
178	Tissue and Serum Trace Elements Concentration among Colorectal Patients: A Systematic Review of Case-Control Studies. Iranian Journal of Public Health, 2019, 48, 632-643.	0.3	8
179	Differential Effects of Transition Metals on Growth and Metal Uptake for Two Distinct <i>Lactobacillus</i> Species. Microbiology Spectrum, 2022, 10, e0100621.	1.2	10
180	Geographical, Sex, Age, and Seasonal Differences in Serum Manganese Status Among Chinese Adults with Hypertension. Biological Trace Element Research, 2023, 201, 41-50.	1.9	6
181	SOD2, a Potential Transcriptional Target Underpinning CD44-Promoted Breast Cancer Progression. Molecules, 2022, 27, 811.	1.7	11
182	Impacts of Mn, Fe, and Oxidative Stressors on MnSOD Activation by AtMTM1 and AtMTM2 in Arabidopsis. Plants, 2022, 11, 619.	1.6	9
183	Manganese Superoxide Dismutase Acetylation and Regulation of Protein Structure in Breast Cancer Biology and Therapy. Antioxidants, 2022, 11, 635.	2.2	1
184	Phytoplankton antioxidant systems and their contributions to cellular elemental stoichiometry. Limnology and Oceanography Letters, 2022, 7, 96-111.	1.6	3
186	Potential Associations Between Microbiome and COVID-19. Frontiers in Medicine, 2021, 8, 785496.	1.2	23

#	ARTICLE	IF	CITATIONS
187	Redox-responsive nanoparticles enhance radiation therapy by altering multifaceted radio-resistance mechanisms in human castration-resistant prostate cancer cells and xenografts. <i>Radiotherapy and Oncology</i> , 2022, 170, 213-223.	0.3	8
194	Effect of Endosymbiotic Bacteria on Fungal Resistance Toward Heavy Metals. <i>Frontiers in Microbiology</i> , 2022, 13, 822541.	1.5	3
195	Mn ²⁺ modulates the production of mycophenolic acid in <i>Penicillium brevicompactum</i> NRRL864 via reactive oxygen species signaling and the investigation of pb-pho. <i>Fungal Biology</i> , 2022, 126, 461-470.	1.1	3
197	In-utero co-exposure to toxic metals and micronutrients on childhood risk of overweight or obesity: new insight on micronutrients counteracting toxic metals. <i>International Journal of Obesity</i> , 2022, 46, 1435-1445.	1.6	7
198	Association between serum manganese levels and diabetes in Chinese adults with hypertension. <i>Journal of Clinical Hypertension</i> , 2022, 24, 918-927.	1.0	9
199	Impact of Micronutrient Supplementation on Pesticide Residual, Acetylcholinesterase Activity, and Oxidative Stress Among Farm Children Exposed to Pesticides. <i>Frontiers in Public Health</i> , 0, 10, .	1.3	4
200	Deciphering the Metal Speciation in Low-Molecular-Weight Complexes by IMS-MS: Application to the Detection of Manganese Superoxide Dismutase Mimics in Cell Lysates. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	2
201	Managing Manganese: The Role of Manganese Homeostasis in Streptococcal Pathogenesis. <i>Frontiers in Cell and Developmental Biology</i> , 0, 10, .	1.8	8
202	Genomic Analyses Identify Manganese Homeostasis as a Driver of Group B Streptococcal Vaginal Colonization. <i>MBio</i> , 2022, 13, .	1.8	9
203	Catalysis and Electron Transfer in <i>De Novo</i> Designed Metalloproteins. <i>Chemical Reviews</i> , 2022, 122, 12046-12109.	23.0	25
204	Divalent Metal Uptake and the Role of ZIP8 in Host Defense Against Pathogens. <i>Frontiers in Cell and Developmental Biology</i> , 0, 10, .	1.8	6
205	Deciphering the Metal Speciation in Low-Molecular-Weight Complexes by IMS-MS: Application to the Detection of Manganese Superoxide Dismutase Mimics in Cell Lysates. <i>Angewandte Chemie</i> , 0, .	1.6	0
206	Micronutrient seed priming: new insights in ameliorating heavy metal stress. <i>Environmental Science and Pollution Research</i> , 2022, 29, 58590-58606.	2.7	5
207	Manganese Utilization in <i>Salmonella</i> Pathogenesis: Beyond the Canonical Antioxidant Response. <i>Frontiers in Cell and Developmental Biology</i> , 0, 10, .	1.8	3
208	Environmental Mn(II) enhances the activity of dissimilatory arsenate-respiring prokaryotes from arsenic-contaminated soils. <i>Journal of Environmental Sciences</i> , 2023, 125, 582-592.	3.2	4
209	Immunopathology of COVID-19 and its implications in the development of rhino-orbital-cerebral mucormycosis: a major review. <i>Orbit</i> , 2022, 41, 670-679.	0.5	0
210	Influence of Manganese Oxide on the Esthetic Efficacy and Toxicity Caused by Conventional In-office Tooth Bleaching Therapy. <i>Operative Dentistry</i> , 2022, 47, 425-436.	0.6	5
211	Manganese is a physiologically relevant TORC1 activator in yeast and mammals. <i>ELife</i> , 0, 11, .	2.8	14

#	ARTICLE	IF	CITATIONS
212	Emerging Roles of the Iron Chelators in Inflammation. International Journal of Molecular Sciences, 2022, 23, 7977.	1.8	28
213	The Role of Manganese in Very Low Birth Weight Infants. Journal of Pediatric Gastroenterology and Nutrition, 2022, 75, .	0.9	0
214	Metalation calculators for <i>E. coli</i> strain JM109 (DE3): aerobic, anaerobic, and hydrogen peroxide exposed cells cultured in LB media. Metallomics, 2022, 14, .	1.0	11
215	Manganese Schiff Base Complexes, Crystallographic Studies, Anticancer Activities, and Molecular Docking. Journal of Chemistry, 2022, 2022, 1-19.	0.9	5
216	Mn uptake system affects the virulence of Streptococcus suis by mediating oxidative stress. Veterinary Microbiology, 2022, 272, 109518.	0.8	2
217	Mineral metabolism. , 2023, , 753-775.		0
218	Therapeutic Effect of Gypenosides on Antioxidant Stress Injury in Orbital Fibroblasts of Graves' Orbitopathy. Journal of Immunology Research, 2022, 2022, 1-20.	0.9	2
219	The Response of Soil Microbial Communities to Hydration and Desiccation Cycles in Hot Desert Ecosystems. Ecological Studies, 2022, , 319-339.	0.4	2
220	State of metabolic processes in cattle under the influence of biotic contaminants of feed. Journal for Veterinary Medicine Biotechnology and Biosafety, 2022, 8, 34-40.	0.1	0
222	Single and Combined Associations of Plasma and Urine Essential Trace Elements (Zn, Cu, Se, and Mn) with Cardiovascular Risk Factors in a Mediterranean Population. Antioxidants, 2022, 11, 1991.	2.2	7
223	Metallobiology of Lactobacillaceae in the gut microbiome. Journal of Inorganic Biochemistry, 2023, 238, 112023.	1.5	17
224	Metal-organic frameworks: A promising option for the diagnosis and treatment of Alzheimer's disease. Journal of Controlled Release, 2023, 353, 1-29.	4.8	13
225	Insights into Manganese Superoxide Dismutase and Human Diseases. International Journal of Molecular Sciences, 2022, 23, 15893.	1.8	23
226	Magnesium Modulates Bacillus subtilis Cell Division Frequency. Journal of Bacteriology, 2023, 205, .	1.0	4
227	A Fur-regulated type VI secretion system contributes to oxidative stress resistance and virulence in Yersinia pseudotuberculosis. Stress Biology, 2023, 3, .	1.5	0
228	A genetically encoded fluorescent sensor for manganese(II), engineered from lanmodulin. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	10
229	Chemiluminescent oxidation of 2-methylindol catalyzed by cobalt(II). Journal of Luminescence, 2023, 258, 119817.	1.5	1
230	Why is manganese so valuable to bacterial pathogens?. Frontiers in Cellular and Infection Microbiology, 0, 13, .	1.8	1

#	ARTICLE	IF	CITATIONS
231	NLRP3 inflammasome activation in response to metals. <i>Frontiers in Immunology</i> , 0, 14, .	2.2	1