Michael J Mcpherson

List of Publications by Year
in descending order

119	5,884	87886 38	76898 74
papers	citations	h-index	g-index

127	127	127	5387
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Novel thioether bond revealed by a 1.7 Ã... crystal structure of galactose oxidase. Nature, 1991, 350, 87-90.	27.8	772
2	Crystal structure of a prokaryotic homologue of the mammalian oligopeptide-proton symporters, PepT1 and PepT2. EMBO Journal, 2011, 30, 417-426.	7.8	269
3	Engineered oryzacystatin-I expressed in transgenic hairy roots confers resistance to Globodera pallida. Plant Journal, 1995, 8, 121-131.	5.7	236
4	Production of self-assembling biomaterials for tissue engineering. Trends in Biotechnology, 2009, 27, 423-433.	9.3	213
5	Resistance to both cyst and root-knot nematodes conferred by transgenic Arabidopsis expressing a modified plant cystatin. Plant Journal, 1997, 12, 455-461.	5.7	181
6	Visualization of Dioxygen Bound to Copper During Enzyme Catalysis. Science, 1999, 286, 1724-1728.	12.6	174
7	Developmental expression and biochemical analysis of theArabidopsis atao1gene encoding an H2O2â€generating diamine oxidase. Plant Journal, 1998, 13, 781-791.	5.7	169
8	Enhanced transgenic plant resistance to nematodes by dual proteinase inhibitor constructs. Planta, 1998, 204, 472-479.	3.2	156
9	Catalytic Mechanism of the Quinoenzyme Amine Oxidase fromEscherichia coli:Â Exploring the Reductive Half-Reactionâ€,â€¡. Biochemistry, 1997, 36, 1608-1620.	2.5	154
10	Affimer proteins are versatile and renewable affinity reagents. ELife, 2017, 6, .	6.0	151
11	Adhiron: a stable and versatile peptide display scaffold for molecular recognition applications. Protein Engineering, Design and Selection, 2014, 27, 145-155.	2.1	136
12	RNA Interference of Dual Oxidase in the Plant Nematode Meloidogyne incognita. Molecular Plant-Microbe Interactions, 2005, 18, 1099-1106.	2.6	117
13	Cloning and Molecular Analysis of the Pea Seedling Copper Amine Oxidase. Journal of Biological Chemistry, 1995, 270, 16939-16946.	3.4	116
14	Label-free electrochemical impedance biosensor to detect human interleukin-8 in serum with sub-pg/ml sensitivity. Biosensors and Bioelectronics, 2016, 80, 607-613.	10.1	111
15	Crystal structure of the precursor of galactose oxidase: An unusual self-processing enzyme. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 12932-12937.	7.1	107
16	ENGINEERINGPLANTS FORNEMATODERESISTANCE. Annual Review of Phytopathology, 2003, 41, 615-639.	7.8	102
17	The glutamate dehydrogenase gene of Clotridium symbiosum. Cloning by polymerase chain reaction, sequence analysis and over-expression in Escherichia coli. FEBS Journal, 1992, 206, 151-159.	0.2	100
18	Complete nucleotide sequence of theEscherichia coli gdhAgene. Nucleic Acids Research, 1983, 11, 5257-5266.	14.5	97

#	Article	IF	Citations
19	Recombinant self-assembling peptides as biomaterials for tissue engineering. Biomaterials, 2010, 31, 9395-9405.	11.4	96
20	Continual Green-Fluorescent Protein Monitoring of Cauliflower Mosaic Virus 35S Promoter Activity in Nematode-Induced Feeding Cells in Arabidopsis thaliana. Molecular Plant-Microbe Interactions, 1997, 10, 394-400.	2.6	95
21	The Stacking Tryptophan of Galactose Oxidase:â€‰ A Second-Coordination Sphere Residue that Has Profound Effects on Tyrosyl Radical Behavior and Enzyme Catalysis,. Biochemistry, 2007, 46, 4606-4618.	2.5	95
22	The Active Site Base Controls Cofactor Reactivity inEscherichia coliAmine Oxidase:Â X-ray Crystallographic Studies with Mutational Variantsâ€,â€¡. Biochemistry, 1999, 38, 8217-8227.	2.5	92
23	RNA interference and plant parasitic nematodes. Trends in Plant Science, 2005, 10, 362-367.	8.8	86
24	Galactose Oxidase Pro-Sequence Cleavage and Cofactor Assembly Are Self-Processing Reactions. Journal of the American Chemical Society, 2000, 122, 990-991.	13.7	85
25	Designs for engineered resistance to root-parasitic nematodes. Trends in Biotechnology, 1995, 13, 369-374.	9.3	68
26	Combinatorial microfluidic droplet engineering for biomimetic material synthesis. Science Advances, 2016, 2, e1600567.	10.3	67
27	Title is missing!. Molecular Breeding, 2000, 6, 257-264.	2.1	57
28	Exploiting orientation-selective DEER: determining molecular structure in systems containing Cu(<scp>ii</scp>) centres. Physical Chemistry Chemical Physics, 2016, 18, 5981-5994.	2.8	48
29	Cross-Link Formation of the Cysteine 228â^'Tyrosine 272 Catalytic Cofactor of Galactose Oxidase Does Not Require Dioxygen. Biochemistry, 2008, 47, 10428-10439.	2.5	47
30	Additive effects of plant expressed double-stranded RNAs on root-knot nematode development. International Journal for Parasitology, 2010, 40, 855-864.	3.1	47
31	Rational Molecular Design of Complementary Selfâ€Assembling Peptide Hydrogels. Advanced Healthcare Materials, 2012, 1, 640-645.	7.6	47
32	Analysis of the distribution of copper amine oxidase in cell walls of legume seedlings. Planta, 2001, 214, 37-45.	3.2	45
33	Gene expression in nematode-infected plant roots. Molecular Genetics and Genomics, 1991, 226, 361-6.	2.4	44
34	Generation of specific inhibitors of SUMO-1â€“ and SUMO-2/3â€“mediated protein-protein interactions using Affimer (Adhiron) technology. Science Signaling, 2017, 10, .	3.6	44
35	Cellulose-triggered sporulation in the galactose oxidase-producing fungus Cladobotryum (Dactylium) dendroides NRRL 2903 and its re-identification as a species of Fusarium. Mycological Research, 1994, 98, 474-480.	2.5	43
36	Purification, characterization, and identification of a novel bifunctional catalase-phenol oxidase from Scytalidium thermophilum. Applied Microbiology and Biotechnology, 2008, 79, 407-415.	3.6	43

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37	Kinetic Studies on the Redox Interconversion of GOasesemiand GOaseoxForms of Galactose Oxidase with Inorganic Complexes as Redox Partners. Inorganic Chemistry, 1997, 36, 4520-4525.	4.0	41
38	Three-dimensional structure of galactose oxidase: an enzyme with a built-in secondary cofactor. Faraday Discussions, 1992, 93, 75.	3.2	40
39	Structure and mechanism of galactose oxidase: catalytic role of tyrosine 495. Journal of Biological Inorganic Chemistry, 1997, 2, 327-335.	2.6	40
40	Bioproduction and characterization of a pH responsive selfâ€assembling peptide. Biotechnology and Bioengineering, 2009, 103, 241-251.	3.3	40
41	Respiratory nitrate reductase ofEscherichia coli. FEBS Letters, 1984, 177, 260-264.	2.8	39
42	Localisation of a strongly conserved section of coding sequence in glutamate dehydrogenase genes. FEBS Letters, 1982, 147, 21-25.	2.8	38
43	A peptide inhibitor of vascular adhesion protein-1 (VAP-1) blocks leukocyte-endothelium interactions under shear stress. European Journal of Immunology, 2004, 34, 2276-2285.	2.9	38
44	Enhanced Fructose Oxidase Activity in a Galactose Oxidase Variant. ChemBioChem, 2004, 5, 972-979.	2.6	38
45	Affimer proteins inhibit immune complex binding to FcÎ³RIIIa with high specificity through competitive and allosteric modes of action. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E72-E81.	7.1	36
46	Characterization of cDNAs encoding serine proteinases from the soybean cyst nematode Heterodera glycines1Note: Nucleotide sequence data reported in this paper are available in the EMBL, GenBankâ„¢ and DDJB data bases under the accession numbers Y13908, Y13907 and Y13906.1. Molecular and Biochemical Parasitology, 1997, 89, 195-207.	1.1	35
47	Role of the Interactions between the Active Site Base and the Substrate Schiff Base in Amine Oxidase Catalysis. Evidence from Structural and Spectroscopic Studies of the 2-Hydrazinopyridine Adduct of Escherichia coli Amine Oxidase. Biochemistry, 2005, 44, 1568-1582.	2.5	34
48	Ultraefficient Cap-Exchange Protocol To Compact Biofunctional Quantum Dots for Sensitive Ratiometric Biosensing and Cell Imaging. ACS Applied Materials & Interfaces, 2017, 9, 15232-15244.	8.0	34
49	Phage display selected magnetite interacting Adhirons for shape controlled nanoparticle synthesis. Chemical Science, 2015, 6, 5586-5594.	7.4	32
50	Exploring the Roles of the Metal Ions in Escherichia coli Copper Amine Oxidase[,]. Biochemistry, 2010, 49, 1268-1280.	2.5	30
51	Structural and kinetic studies of a series of mutants of galactose oxidase identified by directed evolution. Protein Engineering, Design and Selection, 2004, 17, 141-148.	2.1	29
52	Recombinant production of the therapeutic peptide lunasin. Microbial Cell Factories, 2012, 11, 28.	4.0	29
53	Passive Picoinjection Enables Controlled Crystallization in a Droplet Microfluidic Device. Small, 2017, 13, 1702154.	10.0	29
54	Galactose oxidase: Molecular analysis and mutagenesis studies. Biochemical Society Transactions, 1993, 21, 752-756.	3.4	28

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55	Reagentless Affimer- and antibody-based impedimetric biosensors for CEA-detection using a novel non-conducting polymer. Biosensors and Bioelectronics, 2021, 178, 113013.	10.1	28
56	Multiple interactions of lysine-128 of Escherichia coli glutamate dehydrogenase revealed by site-directed mutagenesis studies. Protein Engineering, Design and Selection, 1988, 2, 147-152.	2.1	27
57	Probing the catalytic mechanism of Escherichia coli amine oxidase using mutational variants and a reversible inhibitor as a substrate analogue. Biochemical Journal, 2002, 365, 809-816.	3.7	27
58	Isolation of isoform-specific binding proteins (Affimers) by phage display using negative selection. Science Signaling, 2017, 10, .	3.6	26
59	Conserved Tyrosine-369 in the Active Site ofEscherichia coliCopper Amine Oxidase Is Not Essentialâ€,â€¡. Biochemistry, 2001, 40, 12808-12818.	2.5	25
60	Enhanced Expression and Purification of Fungal Galactose Oxidase in Escherichia coli and Use for Analysis of a Saturation Mutagenesis Library. ChemBioChem, 2011, 12, 593-601.	2.6	24
61	Rapid preparation of highly reliable PDMS double emulsion microfluidic devices. RSC Advances, 2016, 6, 25927-25933.	3.6	24
62	Development of an Affimer-antibody combined immunological diagnosis kit for glypican-3. Scientific Reports, 2017, 7, 9608.	3.3	24
63	Active Site Rearrangement of the 2-Hydrazinopyridine Adduct in Escherichia coli Amine Oxidase to an Azo Copper(II) Chelate Form:â€‰ A Key Role for Tyrosine 369 in Controlling the Mobility of the TPQâ^'2HP Adduct. Biochemistry, 2005, 44, 1583-1594.	2.5	22
64	A high-throughput assay of membrane protein stability. Molecular Membrane Biology, 2008, 25, 617-624.	2.0	22
65	Properties of the Trp290His variant of Fusarium NRRL 2903 galactose oxidase: interactions of the GOasesemi state with different buffers, its redox activity and ability to bind azide. Journal of Biological Inorganic Chemistry, 1997, 2, 702-709.	2.6	21
66	Reliable scale-up of membrane protein over-expression by bacterial auto-induction: From microwell plates to pilot scale fermentations. Molecular Membrane Biology, 2008, 25, 588-598.	2.0	21
67	Affimerâ€“Enzymeâ€“Inhibitor Switch Sensor for Rapid Wash-free Assays of Multimeric Proteins. ACS Sensors, 2019, 4, 3014-3022.	7.8	21
68	Investigation of the structure and function of aShewanella oneidensisarsenical-resistance family transporter. Molecular Membrane Biology, 2008, 25, 691-701.	2.0	20
69	Non-immunoglobulin scaffold proteins: Precision tools for studying protein-protein interactions in cancer. New Biotechnology, 2018, 45, 28-35.	4.4	20
70	The Klebsiella aerogenes glutamate dehydrogenase (gdhA) gene: cloning, high-level expression and hybrid enzyme formation in Escherichia coli. Molecular Genetics and Genomics, 1985, 199, 141-145.	2.4	19
71	Medical implications from the crystal structure of a copper-containing amine oxidase complexed with the antidepressant drug tranylcypromine. FEBS Letters, 2004, 576, 301-305.	2.8	19
72	RAS-inhibiting biologics identify and probe druggable pockets including an SII-Î±3 allosteric site. Nature Communications, 2021, 12, 4045.	12.8	19

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73	Tyrosine 495 is a key residue in the active site of Galactose oxidase. Biochemical Society Transactions, 1995, 23, 510S-510S.	3.4	18
74	Involvement of the NH2-terminal region of oryzacystatin-I in cysteine proteinase inhibition. Protein Engineering, Design and Selection, 1995, 8, 1303-1307.	2.1	18
75	Primary Amine Oxidase of Escherichia coli Is a Metabolic Enzyme that Can Use a Human Leukocyte Molecule as a Substrate. PLoS ONE, 2015, 10, e0142367.	2.5	18
76	Affimer proteins as a tool to modulate fibrinolysis, stabilize the blood clot, and reduce bleeding complications. Blood, 2019, 133, 1233-1244.	1.4	17
77	Structure of a xenon derivative ofEscherichia colicopper amine oxidase: confirmation of the proposed oxygen-entry pathway. Acta Crystallographica Section F: Structural Biology Communications, 2008, 64, 1105-1109.	0.7	15
78	Probing metal ion substrate-binding to theE. coliZitB exporter in native membranes by solid state NMR. Molecular Membrane Biology, 2008, 25, 683-690.	2.0	15
79	Investigation into the mechanism of Î»max shifts and their dependence on pH for the 2-hydrazinopyridine derivatives of two copper amine oxidases. Journal of Molecular Catalysis B: Enzymatic, 2000, 8, 17-25.	1.8	14
80	Crystallization of the NADP+-dependent Glutamate Dehydrogenase from Escherichia coli. Journal of Molecular Biology, 1993, 234, 1270-1273.	4.2	11
81	Recombinant production of self-assembling Î²-structured peptides using SUMO as a fusion partner. Microbial Cell Factories, 2012, 11, 92.	4.0	11
82	Selection and characterisation of Affimers specific for CEA recognition. Scientific Reports, 2021, 11, 744.	3.3	11
83	Efficient deletion mutagenesis by PCR. Protein Engineering, Design and Selection, 1992, 5, 467-468.	2.1	10
84	Structure, recombinant expression and mutagenesis studies of the catalase with oxidase activity fromScytalidium thermophilum. Acta Crystallographica Section D: Biological Crystallography, 2013, 69, 398-408.	2.5	10
85	Affimers as anti-idiotypic affinity reagents for pharmacokinetic analysis of biotherapeutics. BioTechniques, 2019, 67, 261-269.	1.8	10
86	Affimer reagents as tools in diagnosing plant virus diseases. Scientific Reports, 2019, 9, 7524.	3.3	10
87	Affimer-based impedimetric biosensors for fibroblast growth factor receptor 3 (FGFR3): a novel tool for detection and surveillance of recurrent bladder cancer. Sensors and Actuators B: Chemical, 2021, 326, 128829.	7.8	10
88	Fibrinogen interaction with complement C3: a potential therapeutic target to reduce thrombosis risk. Haematologica, 2021, 106, 1616-1623.	3.5	9
89	The gdhA1 point mutation in Escherichia coli K12 CLR207 alters a key lysine residue of glutamate dehydrogenase. Molecular Genetics and Genomics, 1993, 240, 286-289.	2.4	8
90	A urea channel from Bacillus cereus reveals a novel hexameric structure. Biochemical Journal, 2012, 445, 157-166.	3.7	8

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91	Oxygen Activation Switch in the Copper Amine Oxidase of Escherichia coli. Biochemistry, 2018, 57, 5301-5314.	2.5	8
92	Protease inhibitors and directed evolution: enhancing plant resistance to nematodes. Biochemical Society Symposia, 2001, 68, 125-142.	2.7	8
93	PIMS sequencing extension: a laboratory information management system for DNA sequencing facilities. BMC Research Notes, 2011, 4, 48.	1.4	7
94	Isolation of Artificial Binding Proteins (Affimer Reagents) for Use in Molecular and Cellular Biology. Methods in Molecular Biology, 2021, 2247, 105-121.	0.9	7
95	Cofactor processing in galactose oxidase. Biochemical Society Transactions, 2003, 31, 506-9.	3.4	7
96	Structural analysis of galactose oxidase. Biochemical Society Transactions, 1990, 18, 931-932.	3.4	6
97	Tyrosine 381 in E. coli copper amine oxidase influences substrate specificity. Journal of Neural Transmission, 2011, 118, 1043-1053.	2.8	6
98	C-Terminal Domain of the Human Zinc Transporter hZnT8 Is Structurally Indistinguishable from Its Disease Risk Variant (R325W). International Journal of Molecular Sciences, 2020, 21, 926.	4.1	6
99	Rapid Quantification of C. difficile Glutamate Dehydrogenase and Toxin B (TcdB) with a NanoBiT Split-Luciferase Assay. Analytical Chemistry, 2022, 94, 8156-8163.	6.5	6
100	Preliminary studies of two active site mutants of galactose oxidase. Biochemical Society Transactions, 1993, 21, 319S-319S.	3.4	5
101	Hydrazine and amphetamine binding to amine oxidases: old drugs with new prospects. Journal of Neural Transmission, 2007, 114, 743-746.	2.8	5
102	Probing the Molecular Mechanisms in Copper Amine Oxidases by Generating Heterodimers. ChemBioChem, 2015, 16, 559-564.	2.6	5
103	Identification of the site of oxidase substrate binding inScytalidium thermophilumcatalase. Acta Crystallographica Section D: Structural Biology, 2018, 74, 979-985.	2.3	5
104	Novel Plant Defences Against Nematodes. , 1994, , 197-210.		4
105	Engineering Plant Nematode Resistance by Anti-Feedants. Developments in Plant Pathology, 1997, , 237-249.	0.1	4
106	One-step gold nanoparticle size-shift assay using synthetic binding proteins and dynamic light scattering. Sensors and Actuators B: Chemical, 2022, 361, 131709.	7.8	4
107	Large-scale preparation of bacterial cell membranes by tangential flow filtration. Molecular Membrane Biology, 2008, 25, 609-616.	2.0	3
108	Crystallization and preliminary X-ray analysis of a bifunctional catalase-phenol oxidase fromScytalidium thermophilum. Acta Crystallographica Section F: Structural Biology Communications, 2009, 65, 486-488.	0.7	3

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109	Investigating the active centre of theScytalidium thermophilumcatalase. Acta Crystallographica Section F: Structural Biology Communications, 2013, 69, 369-375.	0.7	3
110	Molecular and functional studies of copper amine oxidase from Arabidopsis thaliana. Biochemical Society Transactions, 1995, 23, 630S-630S.	3.4	2
111	Recombinant Production of Self-Assembling Peptides. Advances in Chemical Engineering, 2009, , 79-117.	0.9	2
112	Dissecting the mechanism of oxygen trafficking in a metalloenzyme. Faraday Discussions, 2011, 148, 269-282.	3.2	2
113	Molecular events at nematode-induced feeding sites. European Journal of Plant Pathology, 1992, 98, 175-181.	0.5	1
114	CRYSTAL STRUCTURE OF THE PRECURSOR OF GALACTOSE OXIDASE. Biochemical Society Transactions, 2000, 28, A77-A77.	3.4	1
115	Multimolecular organization of the bacterial enzyme pullulanase. Biochemical Society Transactions, 1988, 16, 722-723.	3.4	0
116	Functional analysis of the starch debranching enzyme pullulanase. Biochemical Society Transactions, 1988, 16, 723-724.	3.4	0
117	Site-directed mutagenesis studies of Escherichia coli glutamate dehydrogenase. Biochemical Society Transactions, 1988, 16, 874-875.	3.4	0
118	Peptideâ€Based Biomaterials: Rational Molecular Design of Complementary Selfâ€Assembling Peptide Hydrogels (Adv. Healthcare Mater. 5/2012). Advanced Healthcare Materials, 2012, 1, 679-679.	7.6	0
119	Affinity purification of fibrinogen using an Affimer column. Biochimica Et Biophysica Acta - General Subjects, 2022, 1866, 130115.	2.4	0