Catherine Madzak

List of Publications by Year
in descending order

82	3,977	109321	123424
papers	citations	35 h-index	61 g-index

84	84	84	3118
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Crystal Structure of a Four-Copper Laccase Complexed with an Arylamine:Â Insights into Substrate Recognition and Correlation with Kineticsâ€,â€¡. Biochemistry, 2002, 41, 7325-7333.	2.5	484
2	Heterologous protein expression and secretion in the non-conventional yeast Yarrowia lipolytica: a review. Journal of Biotechnology, 2004, 109, 63-81.	3.8	333
3	Protein expression and secretion in the yeastYarrowia lipolytica. FEMS Yeast Research, 2002, 2, 371-379.	2.3	203
4	Yarrowia lipolytica: recent achievements in heterologous protein expression and pathway engineering. Applied Microbiology and Biotechnology, 2015, 99, 4559-4577.	3.6	180
5	Shifting the optimal pH of activity for a laccase from the fungus Trametes versicolor by structure-based mutagenesis. Protein Engineering, Design and Selection, 2006, 19, 77-84.	2.1	136
6	Protein expression and secretion in the yeast. FEMS Yeast Research, 2002, 2, 371-379.	2.3	118
7	Inulin hydrolysis and citric acid production from inulin using the surface-engineered Yarrowia lipolytica displaying inulinase. Metabolic Engineering, 2010, 12, 469-476.	7.0	109
8	Expression of laccase IIIb from the white-rot fungus Trametes versicolor in the yeast Yarrowia lipolytica for environmental applications. Applied Microbiology and Biotechnology, 2005, 66, 450-456.	3.6	106
9	Heterologous production of a laccase from the basidiomycete in the dimorphic yeast. FEMS Yeast Research, 2005, 5, 635-646.	2.3	85
10	Expression of inulinase gene in the oleaginous yeast Yarrowia lipolytica and single cell oil production from inulin-containingmaterials. Metabolic Engineering, 2010, 12, 510-517.	7.0	85
11	Engineering Yarrowia lipolytica for Use in Biotechnological Applications: A Review of Major Achievements and Recent Innovations. Molecular Biotechnology, 2018, 60, 621-635.	2.4	83
12	Functional analysis of upstream regulating regions from the Yarrowia lipolytica XPR2 promoter. Microbiology (United Kingdom), 1999, 145, 75-87.	1.8	74
13	Enhanced alpha-ketoglutaric acid production in Yarrowia lipolytica WSH-Z06 by regulation of the pyruvate carboxylation pathway. Applied Microbiology and Biotechnology, 2012, 96, 1527-1537.	3.6	70
14	Alkaline Protease Gene Cloning from the Marine Yeast Aureobasidium pullulans HN2-3 and the Protease Surface Display on Yarrowia lipolytica for Bioactive Peptide Production. Marine Biotechnology, 2009, 11, 81-89.	2.4	68
15	Construction of a new plasmid for surface display on cells of Yarrowia lipolytica. Journal of Microbiological Methods, 2008, 72, 116-123.	1.6	65
16	Engineering Yarrowia lipolytica to Simultaneously Produce Lipase and Single Cell Protein from Agro-industrial Wastes for Feed. Scientific Reports, 2018, 8, 758.	3.3	65
17	Mutagenic properties of a unique abasic site in mammalian cells. Biochemical and Biophysical Research Communications, 1990, 173, 704-710.	2.1	60
18	Co-expression of heterologous desaturase genes in Yarrowia lipolytica. New Biotechnology, 2010, 27, 277-282.	4.4	60

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19	Enhanced Î±-ketoglutarate production in Yarrowia lipolytica WSH-Z06 by alteration of the acetyl-CoA metabolism. Journal of Biotechnology, 2012, 161, 257-264.	3.8	60
20	Both Decrease in ACL1 Gene Expression and Increase in ICL1 Gene Expression in Marine-Derived Yeast Yarrowia lipolytica Expressing INU1 Gene Enhance Citric Acid Production from Inulin. Marine Biotechnology, 2013, 15, 26-36.	2.4	60
21	How is the reactivity of laccase affected by single-point mutations? Engineering laccase for improved activity towards sterically demanding substrates. Applied Microbiology and Biotechnology, 2011, 91, 123-131.	3.6	57
22	Direct conversion of inulin into single cell protein by the engineered Yarrowia lipolytica carrying inulinase gene. Process Biochemistry, 2011, 46, 1442-1448.	3.7	55
23	Maize cytokinin oxidase genes: differential expression and cloning of two new cDNAs. Journal of Experimental Botany, 2004, 55, 2549-2557.	4.8	54
24	Yarrowia lipolytica Strains and Their Biotechnological Applications: How Natural Biodiversity and Metabolic Engineering Could Contribute to Cell Factories Improvement. Journal of Fungi (Basel,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 5	3.3	54
25	Phenyl- and benzylurea cytokinins as competitive inhibitors of cytokinin oxidase/dehydrogenase: A structural study. Biochimie, 2010, 92, 1052-1062.	2.6	53
26	Subcellular engineering of lipase dependent pathways directed towards lipid related organelles for highly effectively compartmentalized biosynthesis of triacylglycerol derived products in Yarrowia lipolytica. Metabolic Engineering, 2019, 55, 231-238.	7.0	52
27	Engineering Yarrowia lipolytica for arachidonic acid production through rapid assembly of metabolic pathway. Biochemical Engineering Journal, 2017, 119, 52-58.	3.6	49
28	Fungal laccases: from structure-activity studies to environmental applications. Environmental Chemistry Letters, 2003, 1, 145-148.	16.2	46
29	Engineering Yarrowia lipolytica for efficient Î³-linolenic acid production. Biochemical Engineering Journal, 2017, 117, 172-180.	3.6	44
30	Effects of pyruvate dehydrogenase subunits overexpression on the Î±-ketoglutarate production in Yarrowia lipolytica WSH-Z06. Applied Microbiology and Biotechnology, 2014, 98, 7003-7012.	3.6	43
31	Exploring medium-chain-length polyhydroxyalkanoates production in the engineered yeast Yarrowia lipolytica. Journal of Industrial Microbiology and Biotechnology, 2015, 42, 1255-1262.	3.0	42
32	SINGLET OXYGEN INDUCED DNA DAMAGE AND MUTAGENICITY IN A SINGLE-STRANDED SV40-BASED SHUTTLE VECTOR. Photochemistry and Photobiology, 1992, 55, 39-45.	2.5	40
33	High-level expression and characterization of Zea mays cytokinin oxidase/dehydrogenase in Yarrowia lipolytica. Biochimie, 2005, 87, 1011-1022.	2.6	40
34	Concerted Electron/Proton Transfer Mechanism in the Oxidation of Phenols by Laccase. ChemBioChem, 2013, 14, 2500-2505.	2.6	39
35	Harnessing biodiesel-producing microbes: from genetic engineering of lipase to metabolic engineering of fatty acid biosynthetic pathway. Critical Reviews in Biotechnology, 2017, 37, 26-36.	9.0	38
36	Genetic modification of the marineâ€derived yeast Yarrowia lipolytica with highâ€protein content using a GPIâ€anchorâ€fusion expression system. Biotechnology Progress, 2009, 25, 1297-1303.	2.6	32

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37	Overexpression of the endo-inulinase gene from Arthrobacter sp. S37 in Yarrowia lipolytica and characterization of the recombinant endo-inulinase. Journal of Molecular Catalysis B: Enzymatic, 2012, 74, 109-115.	1.8	31
38	The Surface Display of the Alginate Lyase on the Cells of Yarrowia lipolytica for Hydrolysis of Alginate. Marine Biotechnology, 2009, 11, 619-626.	2.4	30
39	Flux Balance Analysis Inspired Bioprocess Upgrading for Lycopene Production by a Metabolically Engineered Strain of Yarrowia lipolytica. Metabolites, 2015, 5, 794-813.	2.9	30
40	Laccase production from sucrose by recombinant Yarrowia lipolytica and its application to decolorization of environmental pollutant dyes. Ecotoxicology and Environmental Safety, 2018, 165, 278-283.	6.0	30
41	Identification and application of keto acids transporters in Yarrowia lipolytica. Scientific Reports, 2015, 5, 8138.	3.3	28
42	Production of Laccase by Recombinant Yarrowia lipolytica from Molasses: Bioprocess Development Using Statistical Modeling and Increase Productivity in Shake-Flask and Bioreactor Cultures. Applied Biochemistry and Biotechnology, 2017, 181, 1228-1239.	2.9	26
43	UV-induced mutations in a shuttle vector replicated in repair deficient trichothiodystrophy cells differ with those in genetically-related cancer prone xeroderma pigmentosum. Carcinogenesis, 1993, 14, 1255-1260.	2.8	25
44	Analysis of single-stranded DNA stability and damage-induced strand loss in mammalian cells using SV40-based shuttle vectors. Journal of Molecular Biology, 1989, 205, 501-509.	4.2	24
45	Construction of a whole-cell catalyst displaying a fungal lipase for effective treatment of oily wastewaters. Journal of Molecular Catalysis B: Enzymatic, 2011, 71, 166-170.	1.8	24
46	Metabolic engineering of Yarrowia lipolytica for the biosynthesis of crotonic acid. Bioresource Technology, 2019, 287, 121484.	9.6	24
47	Heterologous Protein Expression and Secretion in Yarrowia lipolytica. Microbiology Monographs, 2013, , 1-76.	0.6	23
48	A Yarrowia lipolytica strain engineered for arachidonic acid production counteracts metabolic burden by redirecting carbon flux towards intracellular fatty acid accumulation at the expense of organic acids secretion. Biochemical Engineering Journal, 2017, 128, 201-209.	3.6	22
49	Design of a New Multienzyme Complex Synthesis System Based on Yarrowia lipolytica Simultaneously Secreted and Surface Displayed Fusion Proteins for Sustainable Production of Fatty Acid-Derived Hydrocarbons. ACS Sustainable Chemistry and Engineering, 2018, 6, 17035-17043.	6.7	22
50	Overproduction of pro-transglutaminase from Streptomyces hygroscopicus in Yarrowia lipolytica and its biochemical characterization. BMC Biotechnology, 2015, 15, 75.	3.3	21
51	Cloning, Characterization, and Expression of the Gene Encoding Alkaline Protease in the Marine Yeast Aureobasidium pullulans 10. Marine Biotechnology, 2008, 10, 319-327.	2.4	20
52	Cell-surface display of the active mannanase inYarrowia lipolyticawith a novel surface-display system. Biotechnology and Applied Biochemistry, 2009, 54, 171-176.	3.1	20
53	Expression and Characterization of Glucose Oxidase from Aspergillus niger in Yarrowia lipolytica. Molecular Biotechnology, 2017, 59, 307-314.	2.4	20
54	Combinatorial Engineering of Yarrowia lipolytica as a Promising Cell Biorefinery Platform for the de novo Production of Multi-Purpose Long Chain Dicarboxylic Acids. Fermentation, 2017, 3, 40.	3.0	19

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55	Surface display of acid protease on the cells of Yarrowia lipolytica for milk clotting. Applied Microbiology and Biotechnology, 2010, 87, 669-677.	3.6	18
56	Tunable nanoâ€oleosomes derived from engineered Yarrowia lipolytica. Biotechnology and Bioengineering, 2013, 110, 702-710.	3.3	18
57	Biosynthesis of homoeriodictyol from eriodictyol by flavone 3â€²-O-methyltransferase from recombinant Yarrowia lioplytica: Heterologous expression, biochemical characterization, and optimal transformation. Journal of Biotechnology, 2013, 167, 472-478.	3.8	18
58	Applying pathway engineering to enhance production of alpha-ketoglutarate in Yarrowia lipolytica. Applied Microbiology and Biotechnology, 2016, 100, 9875-9884.	3.6	18
59	Yarrowia lipolytica. , 2005, , 163-189.		17
60	Engineering Yarrowia lipolytica for Sustainable Production of Fatty Acid Methyl Esters Using in Situ Self-Cycled Glycerol as a Carbon Source. ACS Sustainable Chemistry and Engineering, 2018, 6, 7645-7651.	6.7	17
61	Over-expression of a bacterial chitosanase gene in Yarrowia lipolytica and chitosan hydrolysis by the recombinant chitosanase. Journal of Molecular Catalysis B: Enzymatic, 2012, 83, 100-107.	1.8	16
62	SV40-based shuttle viruses. Mutation Research - Reviews in Genetic Toxicology, 1989, 220, 101-106.	2.9	14
63	Mechanism-Based Inhibitors of Cytokinin Oxidase/Dehydrogenase Attack FAD Cofactor. Journal of Molecular Biology, 2008, 380, 886-899.	4.2	14
64	Analysis of N-glycosylation in maize cytokinin oxidase/dehydrogenase 1 using a manual microgradient chromatographic separation coupled offline to MALDI-TOF/TOF mass spectrometry. Journal of Proteomics, 2012, 75, 4027-4037.	2.4	14
65	The simultaneous production of single-cell protein and a recombinant antibacterial peptide by expression of an antibacterial peptide gene in Yarrowia lipolytica. Process Biochemistry, 2013, 48, 212-217.	3.7	13
66	Mutagenesis of conserved active site residues of dihydrolipoamide succinyltransferase enhances the accumulation of Î±-ketoglutarate in Yarrowia lipolytica. Applied Microbiology and Biotechnology, 2016, 100, 649-659.	3.6	12
67	Genetical Surface Display of Silicatein on Yarrowia lipolytica Confers Living and Renewable Biosilicaâ€“Yeast Hybrid Materials. ACS Omega, 2020, 5, 7555-7566.	3.5	12
68	Spontaneous and ultraviolet-induced mutations on a single-stranded shuttle vector transfected into monkey cells. Mutation Research DNA Repair, 1992, 274, 135-145.	3.7	11
69	Using planktonic microorganisms to supply the unpurified multi-copper oxidases laccase and copper efflux oxidases at a biofuel cell cathode. Bioresource Technology, 2014, 158, 231-238.	9.6	10
70	Construction of arming Yarrowia lipolytica surface-displaying soybean seed coat peroxidase for use as whole-cell biocatalyst. Enzyme and Microbial Technology, 2020, 135, 109498.	3.2	9
71	Mutation spectrum of 4-nitroquinoline 1-oxide-damaged single-stranded shuttle vector DNA transfected into monkey cells. Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 1994, 308, 117-125.	1.0	8
72	In silico and in vivo analysis of signal peptides effect on recombinant glucose oxidase production in nonconventional yeast Yarrowia lipolytica. World Journal of Microbiology and Biotechnology, 2018, 34, 128.	3.6	7

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73	Expression of the Acid Protease Gene from Saccharomycopsis fibuligera in the Marine-Derived Yarrowia lipolytica for Both Milk Clotting and Single Cell Protein Production. Applied Biochemistry and Biotechnology, 2013, 169, 1993-2003.	2.9	6
74	Genetic engineering of nonconventional yeasts for the production of valuable compounds. , 2014, , 63-112.		6
75	Enzymatic Fuel Cells Solely Supplied with Unpurified Cellobiose Dehydrogenase and Laccase in Microorganismâ€™s Culture Supernatants. ChemElectroChem, 2014, 1, 1886-1894.	3.4	5
76	Purification, crystallization and preliminary X-ray diffraction study of a recombinant cytokinin oxidase fromZea mays. Acta Crystallographica Section D: Biological Crystallography, 2004, 60, 1500-1501.	2.5	4
77	Heterologous Expression of Histidine Acid Phytase from Pantoea sp. 3.5.1 in Yarrowia lipolytica. BioNanoScience, 2019, 9, 44-47.	3.5	3
78	Yarrowia lipolytica engineering as a source of microbial cell factories. , 2021, , 345-380.		3
79	Mechanisms and Consequences of Mutation Induction in Mammalian Cells. International Journal of Radiation Biology, 1990, 57, 665-676.	1.8	2
80	Effect of Bulk MoS2 on the Metabolic Profile of Yeast. Journal of Nanoscience and Nanotechnology, 2018, 18, 3901-3907.	0.9	2
81	Use of an infectious Simian virus 40-based shuttle vector to analyse UV-induced mutagenesis in monkey cells. Mutation Research DNA Repair, 1996, 364, 235-243.	3.7	1
82	Production of Functional gamma-Linolenic Acid (GLA) by Expression of Fungal Delta12- and Delta6-Desaturase Genes in the Oleaginous Yeast. , 2009, , 163-180.		1