

Matti Leisola

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/10397478/publications.pdf>

Version: 2024-02-01

53
papers

2,205
citations

186265

28
h-index

223800

46
g-index

53
all docs

53
docs citations

53
times ranked

1973
citing authors

#	ARTICLE	IF	CITATIONS
1	Three-dimensional structures of thermophilic beta-1,4-xylanases from <i>Chaetomium thermophilum</i> and <i>Nonomuraea flexuosa</i> . Comparison of twelve xylanases in relation to their thermal stability. <i>FEBS Journal</i> , 2003, 270, 1399-1412.	0.2	188
2	A rare sugar xylitol. Part II: biotechnological production and future applications of xylitol. <i>Applied Microbiology and Biotechnology</i> , 2007, 74, 273-276.	3.6	177
3	Engineering of multiple arginines into the Ser/Thr surface of <i>Trichoderma reesei</i> endo-1,4- β -xylanase II increases the thermotolerance and shifts the pH optimum towards alkaline pH. <i>Protein Engineering, Design and Selection</i> , 2002, 15, 141-145.	2.1	131
4	Metabolic Engineering of <i>Lactobacillus helveticus</i> CNRZ32 for Production of Pure L-(+)-Lactic Acid. <i>Applied and Environmental Microbiology</i> , 2000, 66, 3835-3841.	3.1	112
5	A combination of weakly stabilizing mutations with a disulfide bridge in the β -helix region of <i>Trichoderma reesei</i> endo-1,4- β -xylanase II increases the thermal stability through synergism. <i>Journal of Biotechnology</i> , 2001, 88, 37-46.	3.8	109
6	Production of d-mannitol by heterofermentative lactic acid bacteria. <i>Process Biochemistry</i> , 2002, 37, 1207-1213.	3.7	96
7	A de novo designed N-terminal disulphide bridge stabilizes the <i>Trichoderma reesei</i> endo-1,4- β -xylanase II. <i>Journal of Biotechnology</i> , 2004, 108, 137-143.	3.8	84
8	Production of xylitol from d-xylose by recombinant <i>Lactococcus lactis</i> . <i>Journal of Biotechnology</i> , 2005, 118, 55-66.	3.8	65
9	Influence of pH on the production of xylanases by <i>Trichoderma reesei</i> Rut C-30. <i>Process Biochemistry</i> , 2004, 39, 731-736.	3.7	61
10	Engineering the thermostability of <i>Trichoderma reesei</i> endo-1,4- β -xylanase II by combination of disulphide bridges. <i>Extremophiles</i> , 2004, 8, 393-400.	2.3	57
11	Exopolysaccharide-Producing Bacteria from Sugar Beets. <i>Applied and Environmental Microbiology</i> , 1999, 65, 862-864.	3.1	56
12	Protein engineering: opportunities and challenges. <i>Applied Microbiology and Biotechnology</i> , 2007, 75, 1225-1232.	3.6	56
13	Metabolic engineering of <i>Lactobacillus fermentum</i> for production of mannitol and pure L-lactic acid or pyruvate. <i>Biotechnology and Bioengineering</i> , 2003, 82, 653-663.	3.3	55
14	Characterization of Glycine Sarcosine N-Methyltransferase and Sarcosine Dimethylglycine N-Methyltransferase. <i>Applied and Environmental Microbiology</i> , 2001, 67, 2044-2050.	3.1	50
15	<i>Actinopolyspora halophila</i> has two separate pathways for betaine synthesis. <i>Archives of Microbiology</i> , 2001, 176, 294-300.	2.2	49
16	Xylanase production by <i>Trichoderma reesei</i> Rut C-30 grown on L-arabinose-rich plant hydrolysates. <i>Bioresource Technology</i> , 2005, 96, 753-759.	9.6	47
17	Production and identification of extracellular oxidases of <i>Phanerochaete chrysosporium</i> . <i>Journal of Biotechnology</i> , 1985, 2, 379-382.	3.8	46
18	Isomerization of pentose and hexose sugars by an enzyme reactor packed with cross-linked xylose isomerase crystals. <i>Enzyme and Microbial Technology</i> , 2002, 31, 67-76.	3.2	46

#	ARTICLE	IF	CITATIONS
19	Improved mannitol production by a random mutant of <i>Leuconostoc pseudomesenteroides</i> . <i>Journal of Biotechnology</i> , 2005, 116, 283-294.	3.8	46
20	Effect of Glycosylation and Additional Domains on the Thermostability of a Family 10 Xylanase Produced by <i>Thermopolyspora flexuosa</i> . <i>Applied and Environmental Microbiology</i> , 2010, 76, 356-360.	3.1	41
21	Structure of the exopolysaccharide produced by <i>Enterobacter amnigenus</i> . <i>Carbohydrate Research</i> , 2005, 340, 439-447.	2.3	40
22	Continuous production of lignin peroxidase by <i>Phanerochaete chrysosporium</i> . <i>Journal of Biotechnology</i> , 1986, 4, 283-291.	3.8	38
23	Characterization of the xylanase produced by submerged cultivation of <i>Thermomyces lanuginosus</i> DSM 10635. <i>Enzyme and Microbial Technology</i> , 2004, 35, 93-99.	3.2	38
24	Engineering the substrate specificity of xylose isomerase. <i>Protein Engineering, Design and Selection</i> , 2005, 17, 861-869.	2.1	35
25	Metabolic Flux Analysis of <i>Candida tropicalis</i> Growing on Xylose in an Oxygen-Limited Chemostat. <i>Metabolic Engineering</i> , 2002, 4, 248-256.	7.0	31
26	d-Tagatose production in the presence of borate by resting <i>Lactococcus lactis</i> cells harboring <i>Bifidobacterium longum</i> l-arabinose isomerase. <i>Bioprocess and Biosystems Engineering</i> , 2013, 36, 489-497.	3.4	31
27	Novel reactions of xylose isomerase from <i>Streptomyces rubiginosus</i> . <i>Enzyme and Microbial Technology</i> , 1999, 25, 695-700.	3.2	29
28	Cross-linked glucose isomerase crystals as a liquid chromatographic separation material. <i>Enzyme and Microbial Technology</i> , 2000, 26, 550-558.	3.2	29
29	Thermostability of endo-1,4- β -xylanase II from <i>Trichoderma reesei</i> studied by electrospray ionization Fourier-transform ion cyclotron resonance MS, hydrogen/deuterium-exchange reactions and dynamic light scattering. <i>Biochemical Journal</i> , 2001, 356, 453-460.	3.7	29
30	l-Xylose and l-xylose production from xylitol using <i>Alcaligenes 701B</i> strain and immobilized l-rhamnose isomerase enzyme. <i>Enzyme and Microbial Technology</i> , 2005, 36, 976-981.	3.2	27
31	Growth characteristics and metabolic flux analysis of <i>Candida milleri</i> . <i>Biotechnology and Bioengineering</i> , 2000, 70, 197-207.	3.3	24
32	Phytase production by high cell density culture of recombinant <i>Bacillus subtilis</i> . <i>Biotechnology Letters</i> , 2001, 23, 761-766.	2.2	24
33	Characterization of Mutant Xylanases Using Fourier Transform Ion Cyclotron Resonance Mass Spectrometry: Stabilizing Contributions of Disulfide Bridges and N-Terminal Extensions. <i>Biochemistry</i> , 2004, 43, 9556-9566.	2.5	24
34	Simultaneous catalysis and product separation by cross-linked enzyme crystals. <i>Biotechnology and Bioengineering</i> , 2001, 72, 501-505.	3.3	23
35	Stability of native and cross-linked crystalline glucose isomerase. , 1999, 64, 377-380.		21
36	Thermostability of endo-1,4- β -xylanase II from <i>Trichoderma reesei</i> studied by electrospray ionization Fourier-transform ion cyclotron resonance MS, hydrogen/deuterium-exchange reactions and dynamic light scattering. <i>Biochemical Journal</i> , 2001, 356, 453.	3.7	20

#	ARTICLE	IF	CITATIONS
37	Xylitol purification by cross-linked glucose isomerase crystals. <i>Biotechnology Letters</i> , 1998, 12, 557-560.	0.5	19
38	C-2 Epimer Formation of Tetrose, Pentose and Hexose Sugars by Xylose Isomerase. <i>Biocatalysis and Biotransformation</i> , 2002, 20, 235-240.	2.0	17
39	Xylose Isomerase Catalysed Novel Hexose Epimerization. <i>Biocatalysis and Biotransformation</i> , 1999, 17, 393-400.	2.0	16
40	Stochastic boundary molecular dynamics simulation of l-ribose in the active site of <i>Actinoplanes missouriensis</i> xylose isomerase and its Val135Asn mutant with improved reaction rate. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2005, 1749, 65-73.	2.3	15
41	Characterization of genes involved in fructose utilization by <i>Lactobacillus fermentum</i> . <i>Archives of Microbiology</i> , 2006, 186, 51-59.	2.2	14
42	Factors affecting the production of l-xylulose by resting cells of recombinant <i>Escherichia coli</i> . <i>Journal of Industrial Microbiology and Biotechnology</i> , 2009, 36, 1323-1330.	3.0	14
43	Production of l-xylose from l-xylulose using <i>Escherichia coli</i> l-fucose isomerase. <i>Enzyme and Microbial Technology</i> , 2012, 50, 71-76.	3.2	14
44	Engineering the Thermotolerance and pH Optimum of Family 11 Xylanases by Site-Directed Mutagenesis. <i>Methods in Enzymology</i> , 2004, 388, 156-167.	1.0	12
45	A new and efficient phosphate starvation inducible expression system for <i>Lactococcus lactis</i> . <i>Applied Microbiology and Biotechnology</i> , 2008, 79, 803-810.	3.6	12
46	Development of Cross-Linked Antibody Fab Fragment Crystals for Enantioselective Separation of a Drug Enantiomer. <i>Crystal Growth and Design</i> , 2003, 3, 777-782.	3.0	11
47	<i>Candida guilliermondii</i> grows on rare pentoses – implications for production of pure xylitol. <i>Biotechnology Letters</i> , 2002, 24, 507-510.	2.2	9
48	Total Hydrolysis of Xylotetraose and Xylobiose by Soluble and Cross-linked Crystalline Xylanase II from <i>Trichoderma reesei</i> . <i>Biocatalysis and Biotransformation</i> , 2002, 20, 281-290.	2.0	6
49	Enantioselective Affinity Chromatography of a Chiral Drug by Crystalline and Carrier-Bound Antibody Fab Fragment. <i>Biotechnology Progress</i> , 2004, 20, 771-776.	2.6	6
50	Effect of active site mutation on pH activity and transglycosylation of <i>Sulfolobus acidocaldarius</i> β -2-glycosidase. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2015, 118, 62-69.	1.8	3
51	Chromatographic separation of nucleosides using a cross-linked xylose isomerase crystal stationary phase. <i>Journal of Separation Science</i> , 2004, 27, 1491-1497.	2.5	2
52	<i>Bioscience, Bioinnovations, and Bioethics.</i> , 2007, 107, 41-56.		0
53	<i>Protein Engineering of Industrial Enzymes.</i> , 2006, , 579-601.		0