Brigitte Gasser

List of Publications by Year
in descending order

95 papers	6,437 citations	57631 44 h-index	69108 77 g-index
99 all docs	99 docs citations	99 times ranked	3971 citing authors

#	Article	IF	Citations
1	Protein folding and conformational stress in microbial cells producing recombinant proteins: a host comparative overview. Microbial Cell Factories, 2008, 7, 11.	1.9	269
2	Recombinant Protein Production in Yeasts. Methods in Molecular Biology, 2012, 824, 329-358.	0.4	245
3	Effects of gene dosage, promoters, and substrates on unfolded protein stress of recombinantPichia pastoris. Biotechnology and Bioengineering, 2004, 85, 367-375.	1.7	243
4	Stress in recombinant protein producing yeasts. Journal of Biotechnology, 2004, 113, 121-135.	1.9	209
5	The industrial yeast Pichia pastoris is converted from a heterotroph into an autotroph capable of growth on CO2. Nature Biotechnology, 2020, 38, 210-216.	9.4	200
6	<i>Pichia pastoris</i>: protein production host and model organism for biomedical research. Future Microbiology, 2013, 8, 191-208.	1.0	198
7	Genome, secretome and glucose transport highlight unique features of the protein production host Pichia pastoris. Microbial Cell Factories, 2009, 8, 29.	1.9	189
8	Engineering ofPichia pastoris for improved production of antibody fragments. Biotechnology and Bioengineering, 2006, 94, 353-361.	1.7	177
9	The secretory pathway: exploring yeast diversity. FEMS Microbiology Reviews, 2013, 37, 872-914.	3.9	176
10	The Effect of Temperature on the Proteome of Recombinant <i>Pichia pastoris</i>. Journal of Proteome Research, 2009, 8, 1380-1392.	1.8	170
11	Metabolic engineering of Pichia pastoris. Metabolic Engineering, 2018, 50, 2-15.	3.6	163
12	Transcriptomics-Based Identification of Novel Factors Enhancing Heterologous Protein Secretion in Yeasts. Applied and Environmental Microbiology, 2007, 73, 6499-6507.	1.4	148
13	A multi-level study of recombinant Pichia pastoris in different oxygen conditions. BMC Systems Biology, 2010, 4, 141.	3.0	136
14	Quo vadis? The challenges of recombinant protein folding and secretion in Pichia pastoris. Applied Microbiology and Biotechnology, 2015, 99, 2925-2938.	1.7	134
15	Model based engineering of Pichia pastoris central metabolism enhances recombinant protein production. Metabolic Engineering, 2014, 24, 129-138.	3.6	130
16	Systems-level organization of yeast methylotrophic lifestyle. BMC Biology, 2015, 13, 80.	1.7	118
17	Unconventional microbial systems for the cost-efficient production of high-quality protein therapeutics. Biotechnology Advances, 2013, 31, 140-153.	6.0	116
18	Induction without methanol: novel regulated promoters enable high-level expression in Pichia pastoris. Microbial Cell Factories, 2013, 12, 5.	1.9	114

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19	Genomeâ€scale metabolic model of methylotrophic yeast <i>Pichia pastoris</i> and its use for <i>in silico</i> analysis of heterologous protein production. Biotechnology Journal, 2010, 5, 705-715.	1.8	111
20	Identification and characterisation of novel Pichia pastoris promoters for heterologous protein production. Journal of Biotechnology, 2010, 150, 519-529.	1.9	110
21	Monitoring of transcriptional regulation in Pichia pastoris under protein production conditions. BMC Genomics, 2007, 8, 179.	1.2	105
22	GoldenPiCS: a Golden Gate-derived modular cloning system for applied synthetic biology in the yeast Pichia pastoris. BMC Systems Biology, 2017, 11, 123.	3.0	105
23	Directed gene copy number amplification in<i>Pichia pastoris</i>by vector integration into the ribosomal DNA locus. FEMS Yeast Research, 2009, 9, 1260-1270.	1.1	104
24	Novel insights into the unfolded protein response using Pichia pastoris specific DNA microarrays. BMC Genomics, 2008, 9, 390.	1.2	103
25	Versatile modeling and optimization of fed batch processes for the production of secreted heterologous proteins with Pichia pastoris. Microbial Cell Factories, 2006, 5, 37.	1.9	97
26	A Gene Optimization Strategy that Enhances Production of Fully Functional P-Glycoprotein in Pichia pastoris. PLoS ONE, 2011, 6, e22577.	1.1	92
27	Yeast biotechnology: teaching the old dog new tricks. Microbial Cell Factories, 2014, 13, 34.	1.9	91
28	Systems biotechnology for protein production in Pichia pastoris. FEMS Yeast Research, 2017, 17, .	1.1	91
29	Production of recombinant proteins and metabolites in yeasts. Applied Microbiology and Biotechnology, 2011, 89, 939-948.	1.7	90
30	In <i>Pichia pastoris</i>, growth rate regulates protein synthesis and secretion, mating and stress response. Biotechnology Journal, 2014, 9, 511-525.	1.8	86
31	Oxidative protein folding and unfolded protein response elicit differing redox regulation in endoplasmic reticulum and cytosol of yeast. Free Radical Biology and Medicine, 2012, 52, 2000-2012.	1.3	81
32	Engineering of Protein Folding and Secretionâ€"Strategies to Overcome Bottlenecks for Efficient Production of Recombinant Proteins. Antioxidants and Redox Signaling, 2014, 21, 414-437.	2.5	78
33	Pichia pastoris regulates its gene-specific response to different carbon sources at the transcriptional, rather than the translational, level. BMC Genomics, 2015, 16, 167.	1.2	77
34	The response to unfolded protein is involved in osmotolerance of Pichia pastoris. BMC Genomics, 2010, 11, 207.	1.2	74
35	Yeast systems biotechnology for the production of heterologous proteins. FEMS Yeast Research, 2009, 9, 335-348.	1.1	69
36	Curation of the genome annotation of<i>Pichia pastoris</i>(<i>Komagataella phaffii</i>) CBS7435 from gene level to protein function. FEMS Yeast Research, 2016, 16, fow051.	1.1	69

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37	Antibody production with yeasts and filamentous fungi: on the road to large scale?. Biotechnology Letters, 2007, 29, 201-212.	1.1	68
38	<scp>U</scp>¹³<scp>C</scp> cell extract of <scp>P</scp>ichia pastoris â€“ a powerful tool for evaluation of sample preparation in metabolomics. Journal of Separation Science, 2012, 35, 3091-3105.	1.3	66
39	Differential gene expression in recombinant Pichia pastoris analysed by heterologous DNA microarray hybridisation. Microbial Cell Factories, 2004, 3, 17.	1.9	55
40	Open access to sequence: Browsing the Pichia pastoris genome. Microbial Cell Factories, 2009, 8, 53.	1.9	55
41	<i>Pichia pastoris</i> secretes recombinant proteins less efficiently than Chinese hamster ovary cells but allows higher spaceâ€time yields for less complex proteins. Biotechnology Journal, 2014, 9, 526-537.	1.8	55
42	Increased dosage of AOX1 promoter-regulated expression cassettes leads to transcription attenuation of the methanol metabolism in Pichia pastoris. Scientific Reports, 2017, 7, 44302.	1.6	55
43	Increasing pentose phosphate pathway flux enhances recombinant protein production in Pichia pastoris. Applied Microbiology and Biotechnology, 2016, 100, 5955-5963.	1.7	54
44	Transcriptional engineering of the glyceraldehydeâ€3â€phosphate dehydrogenase promoter for improved heterologous protein production in <i>Pichia pastoris</i>. Biotechnology and Bioengineering, 2017, 114, 2319-2327.	1.7	51
45	Monitoring intracellular redox conditions in the endoplasmic reticulum of living yeasts. FEMS Microbiology Letters, 2010, 306, 61-66.	0.7	47
46	Engineering of bottlenecks in Rhizopus oryzae lipase production in Pichia pastoris using the nitrogen source-regulated FLD1 promoter. New Biotechnology, 2009, 25, 396-403.	2.4	46
47	Influence of growth temperature on the production of antibody Fab fragments in different microbes: A host comparative analysis. Biotechnology Progress, 2011, 27, 38-46.	1.3	46
48	CRISPR/Cas9-Mediated Homology-Directed Genome Editing in Pichia pastoris. Methods in Molecular Biology, 2019, 1923, 211-225.	0.4	45
49	High level expression of a promising anti-idiotypic antibody fragment vaccine against HIV-1 in Pichia pastoris. Journal of Biotechnology, 2007, 128, 735-746.	1.9	41
50	A yeast for all seasons â€“ Is Pichia pastoris a suitable chassis organism for future bioproduction?. FEMS Microbiology Letters, 2018, 365, .	0.7	40
51	Repressible promoters â€“ A novel tool to generate conditional mutants in Pichia pastoris. Microbial Cell Factories, 2013, 12, 6.	1.9	39
52	Disruption of genes involved in CORVET complex leads to enhanced secretion of heterologous carboxylesterase only in protease deficient <i>Pichia pastoris</i>. Biotechnology Journal, 2017, 12, 1600584.	1.8	37
53	Methanol regulated yeast promoters: production vehicles and toolbox for synthetic biology. Microbial Cell Factories, 2015, 14, 196.	1.9	35
54	Genomeâ€scale analysis of library sorting (GALibSo): Isolation of secretion enhancing factors for recombinant protein production in <i>Pichia pastoris</i>. Biotechnology and Bioengineering, 2010, 105, 543-555.	1.7	34

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55	Accurate quantification of the redox-sensitive GSH/GSSG ratios in the yeast Pichia pastoris by HILICâ€“MS/MS. Analytical and Bioanalytical Chemistry, 2013, 405, 2031-2039.	1.9	34
56	The lipidome and proteome of microsomes from the methylotrophic yeast Pichia pastoris. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2014, 1841, 215-226.	1.2	34
57	Molecular optimization of rabies virus glycoprotein expression in <i>Pichia pastoris</i>. Microbial Biotechnology, 2016, 9, 355-368.	2.0	34
58	Pichia pastoris Aft1 - a novel transcription factor, enhancing recombinant protein secretion. Microbial Cell Factories, 2014, 13, 120.	1.9	33
59	The vitaminâ€sensitive promoter P_{<i>THI11</i>} enables preâ€defined autonomous induction of recombinant protein production in <i>Pichia pastoris</i>. Biotechnology and Bioengineering, 2016, 113, 2633-2643.	1.7	33
60	Superior protein titers in half the fermentation time: Promoter and process engineering for the glucoseâ€regulated <i>GTH1</i> promoter of <i>Pichia pastoris</i>. Biotechnology and Bioengineering, 2018, 115, 2479-2488.	1.7	33
61	Engineering of <i>alcohol dehydrogenase 2</i> hybridâ€promoter architectures in <i>Pichia pastoris</i> to enhance recombinant protein expression on ethanol. Biotechnology and Bioengineering, 2019, 116, 2674-2686.	1.7	33
62	Identification and deletion of the major secreted protein of Pichia pastoris. Applied Microbiology and Biotechnology, 2013, 97, 1241-1249.	1.7	32
63	Functional inclusion bodies produced in the yeast Pichia pastoris. Microbial Cell Factories, 2016, 15, 166.	1.9	32
64	Detection and Elimination of Cellular Bottlenecks in Protein-Producing Yeasts. Methods in Molecular Biology, 2019, 1923, 75-95.	0.4	29
65	Engineering of biotin-prototrophy in Pichia pastoris for robust production processes. Metabolic Engineering, 2010, 12, 573-580.	3.6	27
66	Overexpression of the transcription factor Yap1 modifies intracellular redox conditions and enhances recombinant protein secretion. Microbial Cell, 2014, 1, 376-386.	1.4	27
67	Microbial protein cell factories fight back?. Trends in Biotechnology, 2022, 40, 576-590.	4.9	27
68	Reverse engineering of protein secretion by uncoupling of cell cycle phases from growth. Biotechnology and Bioengineering, 2011, 108, 2403-2412.	1.7	26
69	The impact of ERAD on recombinant protein secretion in Pichia pastoris (syn Komagataella spp.). Microbiology (United Kingdom), 2018, 164, 453-463.	0.7	25
70	Disruption of vacuolar protein sorting components of the HOPS complex leads to enhanced secretion of recombinant proteins in Pichia pastoris. Microbial Cell Factories, 2019, 18, 119.	1.9	24
71	Multistep processing of the secretion leader of the extracellular protein Epx1 in Pichia pastoris and implications for protein localization. Microbiology (United Kingdom), 2015, 161, 1356-1368.	0.7	20
72	Creation of Stable Heterothallic Strains of <i>Komagataella phaffii</i> Enables Dissection of Mating Gene Regulation. Molecular and Cellular Biology, 2018, 38, .	1.1	20

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73	What makes <i>Komagataella phaffii</i> non-conventional?. FEMS Yeast Research, 2021, 21, .	1.1	20
74	Sample preparation workflow for the liquid chromatography tandem mass spectrometry based analysis of nicotinamide adenine dinucleotide phosphate cofactors in yeast^{â€}. Journal of Separation Science, 2014, 37, 2185-2191.	1.3	19
75	Characterization of methanol utilization negative <i>Pichia pastoris</i> for secreted protein production: New cultivation strategies for current and future applications. Biotechnology and Bioengineering, 2020, 117, 1394-1405.	1.7	19
76	Microbe Profile: Komagataella phaffii: a methanol devouring biotech yeast formerly known as Pichia pastoris. Microbiology (United Kingdom), 2020, 166, 614-616.	0.7	19
77	Engineered Deregulation of Expression in Yeast with Designed Hybridâ€Promoter Architectures in Coordination with Discovered Master Regulator Transcription Factor. Advanced Biology, 2020, 4, e1900172.	3.0	18
78	Biomarkers allow detection of nutrient limitations and respective supplementation for elimination in Pichia pastoris fed-batch cultures. Microbial Cell Factories, 2017, 16, 117.	1.9	17
79	A subcellular proteome atlas of the yeast<i>Komagataella phaffii</i>. FEMS Yeast Research, 2020, 20, .	1.1	16
80	Established tools and emerging trends for the production of recombinant proteins and metabolites in <i>Pichia pastoris</i>. Essays in Biochemistry, 2021, 65, 293-307.	2.1	16
81	The secretome of <i>Pichia pastoris</i> in fedâ€batch cultivations is largely independent of the carbon source but changes quantitatively over cultivation time. Microbial Biotechnology, 2020, 13, 479-494.	2.0	15
82	Metabolomics sampling ofPichia pastorisrevisited: rapid filtration prevents metabolite loss during quenching. FEMS Yeast Research, 2015, 15, fov049.	1.1	14
83	Beyond alcohol oxidase: the methylotrophic yeast <i>Komagataella phaffii</i> utilizes methanol also with its native alcohol dehydrogenase Adh2. FEMS Yeast Research, 2021, 21, .	1.1	14
84	Identification and characterization of the Komagataella phaffii mating pheromone genes. FEMS Yeast Research, 2018, 18, .	1.1	13
85	Induction and Measurement of UPR and Osmotic Stress in the Yeast Pichia pastoris. Methods in Enzymology, 2011, 489, 165-188.	0.4	12
86	Going beyond the limit: Increasing global translation activity leads to increased productivity of recombinant secreted proteins in Pichia pastoris. Metabolic Engineering, 2022, 70, 181-195.	3.6	11
87	The bud tip is the cellular hot spot of protein secretion in yeasts. Applied Microbiology and Biotechnology, 2016, 100, 8159-8168.	1.7	10
88	The Degree and Length of <i>O</i>â€Glycosylation of Recombinant Proteins Produced in <i>Pichia pastoris</i> Depends on the Nature of the Protein and the Process Type. Biotechnology Journal, 2021, 16, e2000266.	1.8	9
89	Two homologs of the Cat8 transcription factor are involved in the regulation of ethanol utilization in Komagataella phaffii. Current Genetics, 2021, 67, 641-661.	0.8	9
90	Pseudohyphal differentiation in Komagataella phaffii: investigating the FLO gene family. FEMS Yeast Research, 2020, 20, .	1.1	5

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91	Treatment with surfactants enables quantification of translational activity by O-propargyl-puromycin labelling in yeast. BMC Microbiology, 2021, 21, 120.	1.3	5
92	Komagataella phaffii YPS1-5 encodes the alpha-factor degrading protease Bar1. FEMS Yeast Research, 2020, 20, .	1.1	1
93	Title is missing!. Microbial Cell Factories, 2006, 5, P53.	1.9	0
94	Monitoring intracellular redox conditions in the endoplasmic reticulum of living yeasts. FEMS Microbiology Letters, 2010, , no-no.	0.7	0
95	13 YeastÂCellÂFactories. , 2020, , 319-337.		0