Verena Siewers

List of Publications by Year
in descending order

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		36303	56724
118 papers	7,618 citations	51 h-index	83 g-index
135 all docs	135 docs citations	135 times ranked	6484 citing authors

#	Article	IF	Citations
1	Editorial: Yeast synthetic biology: new tools to unlock cellular function. FEMS Yeast Research, 2015, 15, 1-1.	2.3	374
2	Production of fatty acid-derived oleochemicals and biofuels by synthetic yeast cell factories. Nature Communications, 2016, 7, 11709.	12.8	306
3	Characterization of different promoters for designing a new expression vector in <i>Saccharomyces cerevisiae</i>. Yeast, 2010, 27, 955-964.	1.7	281
4	Establishing a platform cell factory through engineering of yeast acetyl-CoA metabolism. Metabolic Engineering, 2013, 15, 48-54.	7.0	268
5	Microbial acetyl-CoA metabolism and metabolic engineering. Metabolic Engineering, 2015, 28, 28-42.	7.0	237
6	Characterization of chromosomal integration sites for heterologous gene expression in <i>Saccharomyces cerevisiae</i>. Yeast, 2009, 26, 545-551.	1.7	233
7	Dynamic control of gene expression in Saccharomyces cerevisiae engineered for the production of plant sesquitepene Î±-santalene in a fed-batch mode. Metabolic Engineering, 2012, 14, 91-103.	7.0	215
8	Functional analysis of H2O2-generating systems in Botrytis cinerea: the major Cu-Zn-superoxide dismutase (BCSOD1) contributes to virulence on French bean, whereas a glucose oxidase (BCGOD1) is dispensable. Molecular Plant Pathology, 2004, 5, 17-27.	4.2	208
9	Functional Analysis of the Cytochrome P450 Monooxygenase Gene bcbot1 of Botrytis cinerea Indicates That Botrydial Is a Strain-Specific Virulence Factor. Molecular Plant-Microbe Interactions, 2005, 18, 602-612.	2.6	207
10	Improving Production of Malonyl Coenzyme A-Derived Metabolites by Abolishing Snf1-Dependent Regulation of Acc1. MBio, 2014, 5, e01130-14.	4.1	194
11	Advanced biofuel production by the yeast Saccharomyces cerevisiae. Current Opinion in Chemical Biology, 2013, 17, 480-488.	6.1	173
12	Harnessing Yeast Peroxisomes for Biosynthesis of Fatty-Acid-Derived Biofuels and Chemicals with Relieved Side-Pathway Competition. Journal of the American Chemical Society, 2016, 138, 15368-15377.	13.7	157
13	The P450 Monooxygenase BcABA1 Is Essential for Abscisic Acid Biosynthesis in Botrytis cinerea. Applied and Environmental Microbiology, 2004, 70, 3868-3876.	3.1	149
14	Identification of an Abscisic Acid Gene Cluster in the Grey Mold Botrytis cinerea. Applied and Environmental Microbiology, 2006, 72, 4619-4626.	3.1	131
15	Flux Control at the Malonyl-CoA Node through Hierarchical Dynamic Pathway Regulation in <i>Saccharomyces cerevisiae</i>. ACS Synthetic Biology, 2016, 5, 224-233.	3.8	131
16	Combined metabolic engineering of precursor and co-factor supply to increase Î±-santalene production by Saccharomyces cerevisiae. Microbial Cell Factories, 2012, 11, 117.	4.0	130
17	Coupled incremental precursor and co-factor supply improves 3-hydroxypropionic acid production in Saccharomyces cerevisiae. Metabolic Engineering, 2014, 22, 104-109.	7.0	123
18	Improved production of fatty acid ethyl esters in Saccharomyces cerevisiae through up-regulation of the ethanol degradation pathway and expression of the heterologous phosphoketolase pathway. Microbial Cell Factories, 2014, 13, 39.	4.0	115

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19	Engineering microbial fatty acid metabolism for biofuels and biochemicals. Current Opinion in Biotechnology, 2018, 50, 39-46.	6.6	114
20	Production of farnesene and santalene by <i>Saccharomyces cerevisiae</i> using fedâ€batch cultivations with <i>RQ</i>â€controlled feed. Biotechnology and Bioengineering, 2016, 113, 72-81.	3.3	102
21	Opportunities for yeast metabolic engineering: Lessons from synthetic biology. Biotechnology Journal, 2011, 6, 262-276.	3.5	101
22	Longâ€chain alkane production by the yeast <i>Saccharomyces cerevisiae</i>. Biotechnology and Bioengineering, 2015, 112, 1275-1279.	3.3	101
23	Profiling of Cytosolic and Peroxisomal Acetyl-CoA Metabolism in Saccharomyces cerevisiae. PLoS ONE, 2012, 7, e42475.	2.5	100
24	Metabolic engineering of Saccharomyces cerevisiae for production of fatty acid ethyl esters, an advanced biofuel, by eliminating non-essential fatty acid utilization pathways. Applied Energy, 2014, 115, 226-232.	10.1	99
25	Ethylene Sensing and Gene Activation in Botrytis cinerea: A Missing Link in Ethylene Regulation of Fungus-Plant Interactions?. Molecular Plant-Microbe Interactions, 2006, 19, 33-42.	2.6	97
26	Modular pathway rewiring of Saccharomyces cerevisiae enables high-level production of L-ornithine. Nature Communications, 2015, 6, 8224.	12.8	97
27	Improving biobutanol production in engineered <i>Saccharomyces cerevisiae</i> by manipulation of acetyl-CoA metabolism. Journal of Industrial Microbiology and Biotechnology, 2013, 40, 1051-1056.	3.0	96
28	Functional expression and characterization of five wax ester synthases in Saccharomyces cerevisiae and their utility for biodiesel production. Biotechnology for Biofuels, 2012, 5, 7.	6.2	93
29	From flavors and pharmaceuticals to advanced biofuels: Production of isoprenoids in <i>Saccharomyces cerevisiae</i>. Biotechnology Journal, 2013, 8, 1435-1444.	3.5	91
30	A systems-level approach for metabolic engineering of yeast cell factories. FEMS Yeast Research, 2012, 12, 228-248.	2.3	90
31	Improved polyhydroxybutyrate production by <i>Saccharomyces cerevisiae</i> through the use of the phosphoketolase pathway. Biotechnology and Bioengineering, 2013, 110, 2216-2224.	3.3	86
32	Engineering of acetyl-CoA metabolism for the improved production of polyhydroxybutyrate in Saccharomyces cerevisiae. AMB Express, 2012, 2, 52.	3.0	83
33	Systems biology of yeast: enabling technology for development of cell factories for production of advanced biofuels. Current Opinion in Biotechnology, 2012, 23, 624-630.	6.6	83
34	Deep learning suggests that gene expression is encoded in all parts of a co-evolving interacting gene regulatory structure. Nature Communications, 2020, 11, 6141.	12.8	83
35	Metabolic engineering of Saccharomyces cerevisiae for production of very long chain fatty acid-derived chemicals. Nature Communications, 2017, 8, 15587.	12.8	82
36	Evolutionary engineering reveals divergent paths when yeast is adapted to different acidic environments. Metabolic Engineering, 2017, 39, 19-28.	7.0	80

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37	Multidimensional engineering of Saccharomyces cerevisiae for efficient synthesis of medium-chain fatty acids. Nature Catalysis, 2020, 3, 64-74.	34.4	80
38	Global rewiring of cellular metabolism renders Saccharomyces cerevisiae Crabtree negative. Nature Communications, 2018, 9, 3059.	12.8	79
39	Engineering of chromosomal wax ester synthase integrated <i>Saccharomyces cerevisiae</i> mutants for improved biosynthesis of fatty acid ethyl esters. Biotechnology and Bioengineering, 2014, 111, 1740-1747.	3.3	72
40	Functional expression and characterization of five wax ester synthases in Saccharomyces cerevisiae and their utility for biodiesel production. Biotechnology for Biofuels, 2012, 5, 7.	6.2	71
41	Production of Î²-ionone by combined expression of carotenogenic and plant CCD1 genes in Saccharomyces cerevisiae. Microbial Cell Factories, 2015, 14, 84.	4.0	71
42	Prospects for microbial biodiesel production. Biotechnology Journal, 2011, 6, 277-285.	3.5	70
43	Enhancing the copy number of episomal plasmids in Saccharomyces cerevisiae for improved protein production. FEMS Yeast Research, 2012, 12, 598-607.	2.3	66
44	Affibody Scaffolds Improve Sesquiterpene Production in <i>Saccharomyces cerevisiae</i>. ACS Synthetic Biology, 2017, 6, 19-28.	3.8	66
45	Fatty Acid-Derived Biofuels and Chemicals Production in Saccharomyces cerevisiae. Frontiers in Bioengineering and Biotechnology, 2014, 2, 32.	4.1	65
46	Metabolic engineering of Saccharomyces cerevisiae for overproduction of triacylglycerols. Metabolic Engineering Communications, 2018, 6, 22-27.	3.6	63
47	Molecular Mechanism of Flocculation Self-Recognition in Yeast and Its Role in Mating and Survival. MBio, 2015, 6, .	4.1	62
48	Cocoa butter-like lipid production ability of non-oleaginous and oleaginous yeasts under nitrogen-limited culture conditions. Applied Microbiology and Biotechnology, 2017, 101, 3577-3585.	3.6	60
49	Engineering 1-Alkene Biosynthesis and Secretion by Dynamic Regulation in Yeast. ACS Synthetic Biology, 2018, 7, 584-590.	3.8	59
50	Heterologous transporter expression for improved fatty alcohol secretion in yeast. Metabolic Engineering, 2018, 45, 51-58.	7.0	57
51	Engineering <i>Saccharomyces cerevisiae</i> cells for production of fatty acid-derived biofuels and chemicals. Open Biology, 2019, 9, 190049.	3.6	56
52	Reconstruction and Evaluation of the Synthetic Bacterial MEP Pathway in Saccharomyces cerevisiae. PLoS ONE, 2012, 7, e52498.	2.5	54
53	Redirection of lipid flux toward phospholipids in yeast increases fatty acid turnover and secretion. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 1262-1267.	7.1	51
54	Expanding the Dynamic Range of a Transcription Factor-Based Biosensor in <i>Saccharomyces cerevisiae</i>. ACS Synthetic Biology, 2019, 8, 1968-1975.	3.8	44

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55	FadR-Based Biosensor-Assisted Screening for Genes Enhancing Fatty Acyl-CoA Pools in <i>Saccharomyces cerevisiae</i>. ACS Synthetic Biology, 2019, 8, 1788-1800.	3.8	44
56	Establishing very longâ€chain fatty alcohol and wax ester biosynthesis in <i>Saccharomyces cerevisiae</i>. Biotechnology and Bioengineering, 2017, 114, 1025-1035.	3.3	43
57	Functional expression and evaluation of heterologous phosphoketolases in Saccharomyces cerevisiae. AMB Express, 2016, 6, 115.	3.0	39
58	Model-Assisted Fine-Tuning of Central Carbon Metabolism in Yeast through dCas9-Based Regulation. ACS Synthetic Biology, 2019, 8, 2457-2463.	3.8	39
59	Reconstruction of a catalogue of genome-scale metabolic models with enzymatic constraints using GECKO 2.0. Nature Communications, 2022, 13, .	12.8	39
60	Heterologous production of non-ribosomal peptide LLD-ACV in Saccharomyces cerevisiae. Metabolic Engineering, 2009, 11, 391-397.	7.0	38
61	Dynamic regulation of fatty acid pools for improved production of fatty alcohols in Saccharomyces cerevisiae. Microbial Cell Factories, 2017, 16, 45.	4.0	38
62	Metabolic pathway engineering for fatty acid ethyl ester production in <i>Saccharomyces cerevisiae</i> using stable chromosomal integration. Journal of Industrial Microbiology and Biotechnology, 2015, 42, 477-486.	3.0	37
63	Adaptive Laboratory Evolution of Ale and Lager Yeasts for Improved Brewing Efficiency and Beer Quality. Annual Review of Food Science and Technology, 2020, 11, 23-44.	9.9	33
64	The Influence of Microgravity on Invasive Growth in<i>Saccharomyces cerevisiae</i>. Astrobiology, 2011, 11, 45-55.	3.0	32
65	Physiological characterization of recombinant Saccharomyces cerevisiae expressing the Aspergillus nidulans phosphoketolase pathway: validation of activity through 13C-based metabolic flux analysis. Applied Microbiology and Biotechnology, 2012, 95, 1001-1010.	3.6	32
66	Effects of acetoacetyl-CoA synthase expression on production of farnesene in <i>Saccharomyces cerevisiae</i>. Journal of Industrial Microbiology and Biotechnology, 2017, 44, 911-922.	3.0	30
67	Promiscuous phosphoketolase and metabolic rewiring enables novel non-oxidative glycolysis in yeast for high-yield production of acetyl-CoA derived products. Metabolic Engineering, 2020, 62, 150-160.	7.0	30
68	Ach1 is involved in shuttling mitochondrial acetyl units for cytosolic C2 provision in Saccharomyces cerevisiae lacking pyruvate decarboxylase. FEMS Yeast Research, 2015, 15, .	2.3	28
69	Strategies and challenges for metabolic rewiring. Current Opinion in Systems Biology, 2019, 15, 30-38.	2.6	27
70	Heterologous phosphoketolase expression redirects flux towards acetate, perturbs sugar phosphate pools and increases respiratory demand in Saccharomyces cerevisiae. Microbial Cell Factories, 2019, 18, 25.	4.0	27
71	Engineering carboxylic acid reductase for selective synthesis of medium-chain fatty alcohols in yeast. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 22974-22983.	7.1	27
72	Advances in yeast genome engineering. FEMS Yeast Research, 2014, 15, n/a-n/a.	2.3	26

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73	Increasing cocoa butter-like lipid production of Saccharomyces cerevisiae by expression of selected cocoa genes. AMB Express, 2017, 7, 34.	3.0	24
74	Modulation of saturation and chain length of fatty acids in <i>Saccharomyces cerevisiae</i> for production of cocoa butterâ€like lipids. Biotechnology and Bioengineering, 2018, 115, 932-942.	3.3	24
75	Stress-induced expression is enriched for evolutionarily young genes in diverse budding yeasts. Nature Communications, 2020, 11, 2144.	12.8	24
76	Enhanced ethanol production and reduced glycerol formation in fps1â^† mutants of Saccharomyces cerevisiae engineered for improved redox balancing. AMB Express, 2014, 4, 86.	3.0	23
77	Integration of a multi-step heterologous pathway in Saccharomyces cerevisiae for the production of abscisic acid. Microbial Cell Factories, 2019, 18, 205.	4.0	22
78	Expansion of the Yeast Modular Cloning Toolkit for CRISPR-Based Applications, Genomic Integrations and Combinatorial Libraries. ACS Synthetic Biology, 2021, 10, 3461-3474.	3.8	22
79	Improved production of fatty acids by<i>Saccharomyces cerevisiae</i>through screening a cDNA library from the oleaginous yeast<i>Yarrowia lipolytica</i>. FEMS Yeast Research, 2016, 16, fov108.	2.3	21
80	Expression of cocoa genes in Saccharomyces cerevisiae improves cocoa butter production. Microbial Cell Factories, 2018, 17, 11.	4.0	21
81	Expression of antibody fragments in Saccharomyces cerevisiae strains evolved for enhanced protein secretion. Microbial Cell Factories, 2021, 20, 134.	4.0	21
82	RNA-seq analysis of Pichia anomala reveals important mechanisms required for survival at low pH. Microbial Cell Factories, 2015, 14, 143.	4.0	20
83	Increasing jojoba-like wax ester production in Saccharomyces cerevisiae by enhancing very long-chain, monounsaturated fatty acid synthesis. Microbial Cell Factories, 2019, 18, 49.	4.0	20
84	A universal fixation method based on quaternary ammonium salts (RNAlater) for omics-technologies: Saccharomyces cerevisiae as a case study. Biotechnology Letters, 2013, 35, 891-900.	2.2	19
85	An Overview on Selection Marker Genes for Transformation of Saccharomyces cerevisiae. Methods in Molecular Biology, 2014, 1152, 3-15.	0.9	19
86	Adaptive mutations in sugar metabolism restore growth on glucose in a pyruvate decarboxylase negative yeast strain. Microbial Cell Factories, 2015, 14, 116.	4.0	19
87	Identification of genes involved in shea butter biosynthesis from Vitellaria paradoxa fruits through transcriptomics and functional heterologous expression. Applied Microbiology and Biotechnology, 2019, 103, 3727-3736.	3.6	19
88	Implementation of communicationâ€mediating domains for nonâ€ribosomal peptide production in <i>Saccharomyces cerevisiae</i>. Biotechnology and Bioengineering, 2010, 106, 841-844.	3.3	17
89	Functional pyruvate formate lyase pathway expressed with two different electron donors in Saccharomyces cerevisiae at aerobic growth. FEMS Yeast Research, 2015, 15, fov024.	2.3	17
90	Engineering lipid droplet assembly mechanisms for improved triacylglycerol accumulation in Saccharomyces cerevisiae. FEMS Yeast Research, 2018, 18, .	2.3	16

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91	Production of 10-methyl branched fatty acids in yeast. Biotechnology for Biofuels, 2021, 14, 12.	6.2	14
92	Different Routes of Protein Folding Contribute to Improved Protein Production in Saccharomyces cerevisiae. MBio, 2020, 11, .	4.1	12
93	Phosphoglycerate mutase knockâ€out mutant <i>Saccharomyces cerevisiae</i>: Physiological investigation and transcriptome analysis. Biotechnology Journal, 2010, 5, 1016-1027.	3.5	11
94	Enabling Technologies to Advance Microbial Isoprenoid Production. Advances in Biochemical Engineering/Biotechnology, 2014, 148, 143-160.	1.1	10
95	Physiological and transcriptional characterization of<i>Saccharomyces cerevisiae</i>engineered for production of fatty acid ethyl esters. FEMS Yeast Research, 2016, 16, fov105.	2.3	10
96	<i>Saccharomyces cerevisiae</i> displays a stable transcription start site landscape in multiple conditions. FEMS Yeast Research, 2019, 19, .	2.3	10
97	GTR 2.0: gRNA-tRNA Array and Cas9-NG Based Genome Disruption and Single-Nucleotide Conversion in <i>Saccharomyces cerevisiae</i>. ACS Synthetic Biology, 2021, 10, 1328-1337.	3.8	10
98	Engineering Saccharomyces cerevisiae for the production and secretion of Affibody molecules. Microbial Cell Factories, 2022, 21, 36.	4.0	10
99	Development of an Haa1-based biosensor for acetic acid sensing in <i>Saccharomyces cerevisiae</i>. FEMS Yeast Research, 2021, 21, .	2.3	9
100	Suppressors of amyloid-Î² toxicity improve recombinant protein production in yeast by reducing oxidative stress and tuning cellular metabolism. Metabolic Engineering, 2022, 72, 311-324.	7.0	9
101	Approaches to Molecular Genetics and Genomics of Botrytis. , 2007, , 53-66.		8
102	Effects of overexpression of <i>STB5</i> in <i>Saccharomyces cerevisiae</i> on fatty acid biosynthesis, physiology and transcriptome. FEMS Yeast Research, 2019, 19, .	2.3	8
103	The Yeast eIF2 Kinase Gcn2 Facilitates H ₂ O ₂ -Mediated Feedback Inhibition of Both Protein Synthesis and Endoplasmic Reticulum Oxidative Folding during Recombinant Protein Production. Applied and Environmental Microbiology, 2021, 87, e0030121.	3.1	8
104	Evaluating accessibility, usability and interoperability of genome-scale metabolic models for diverse yeasts species. FEMS Yeast Research, 2021, 21, .	2.3	6
105	CRISPR/Cas9-mediated point mutations improve Î±-amylase secretion in <i>Saccharomyces cerevisiae</i>. FEMS Yeast Research, 2022, 22, .	2.3	6
106	Identification of a novel gene required for competitive growth at high temperature in the thermotolerant yeast Kluyveromyces marxianus. Microbiology (United Kingdom), 2022, 168, .	1.8	5
107	Transcriptomic response of <i>Saccharomyces cerevisiae</i> to octanoic acid production. FEMS Yeast Research, 2021, 21, .	2.3	4
108	Saccharomyces cerevisiae as a Heterologous Host for Natural Products. Methods in Molecular Biology, 2022, 2489, 333-367.	0.9	3

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109	An Overview on Selection Marker Genes for Transformation of Saccharomyces cerevisiae. Methods in Molecular Biology, 2022, , 1-13.	0.9	3
110	Genetic Engineering Tools for Saccharomyces cerevisiae. , 2014, , 287-301.		2
111	A single chromosome strain of S. cerevisiae exhibits diminished ethanol metabolism and tolerance. BMC Genomics, 2021, 22, 688.	2.8	2
112	Meeting report: Gothenburg Life Science Conference XI - Industrial Systems Biology. Biotechnology Journal, 2011, 6, 259-261.	3.5	1
113	The transcription factor Leu3 shows differential binding behavior in response to changing leucine availability. FEMS Microbiology Letters, 2020, 367, .	1.8	1
114	Metabolic Engineering of Saccharomyces cerevisiae for Isoprenoid Production. New Biotechnology, 2014, 31, S165.	4.4	0
115	Biosynthesis of very long-chain fatty alcohols and wax esters in metabolically engineered strains of Saccharomyces cerevisiae. New Biotechnology, 2016, 33, S54.	4.4	0
116	Rational gRNA design based on transcription factor binding data. Synthetic Biology, 2021, 6, ysab014.	2.2	0
117	Does co-expression of Yarrowia lipolytica genes encoding Yas1p, Yas2p and Yas3p make a potential alkane-responsive biosensor in Saccharomyces cerevisiae?. PLoS ONE, 2020, 15, e0239882.	2.5	0
118	A Hypersensitive Genetically Encoded Fluorescent Indicator (roGFP2-Prx1) Enables Continuous Measurement of Intracellular H2O2 during Cell Micro-cultivation. Bio-protocol, 2022, 12, e4317.	0.4	0