Gunnar Liden

List of Publications by Year
in descending order

124 papers	10,339 citations	50566 48 h-index	39744 98 g-index
129 all docs	129 docs citations	129 times ranked	8738 citing authors

#	Article	IF	Citations
1	Rational and evolutionary engineering of Saccharomyces cerevisiae for production of dicarboxylic acids from lignocellulosic biomass and exploring genetic mechanisms of the yeast tolerance to the biomass hydrolysate. , 2022, 15, 22.		8
2	Cyclic <scp>l</scp>â€‘lactide synthesis from lignocellulose biomass by biorefining with complete inhibitor removal and highly simultaneous sugars assimilation. Biotechnology and Bioengineering, 2022, 119, 1903-1915.	1.7	18
3	Mass Transport of Lignin in Confined Pores. Polymers, 2022, 14, 1993.	2.0	5
4	In situ measurements of oxidationâ€“reduction potential and hydrogen peroxide concentration as tools for revealing LPMO inactivation during enzymatic saccharification of cellulose. Biotechnology for Biofuels, 2021, 14, 46.	6.2	20
5	Optically pure lactic acid production from softwood-derived mannose by Pediococcus acidilactici. Journal of Biotechnology, 2021, 335, 1-8.	1.9	11
6	Lifeâ€‘cycle assessment of the production of cationized tannins from Norway spruce bark as flocculants in wastewater treatment. Biofuels, Bioproducts and Biorefining, 2020, 14, 1270-1285.	1.9	11
7	Vanillin Production in <i>Pseudomonas</i> : Whole-Genome Sequencing of <i>Pseudomonas</i> sp. Strain 9.1 and Reannotation of Pseudomonas putida CalA as a Vanillin Reductase. Applied and Environmental Microbiology, 2020, 86, .	1.4	17
8	Demonstrationâ€‘scale enzymatic saccharification of sulfiteâ€‘pulped spruce with addition of hydrogen peroxide for <scp>LPMO</scp> activation. Biofuels, Bioproducts and Biorefining, 2020, 14, 734-745.	1.9	34
9	Oxidation-reduction potential (ORP) as a tool for process monitoring of H2O2/LPMO assisted enzymatic hydrolysis of cellulose. Process Biochemistry, 2019, 86, 89-97.	1.8	17
10	Identification of the two-component guaiacol demethylase system from Rhodococcus rhodochrous and expression in Pseudomonas putida EM42 for guaiacol assimilation. AMB Express, 2019, 9, 34.	1.4	29
11	Identification of modifications procuring growth on xylose in recombinant Saccharomyces cerevisiae strains carrying the Weimberg pathway. Metabolic Engineering, 2019, 55, 1-11.	3.6	27
12	Oxidative Depolymerization of Kraft Lignin for Microbial Conversion. ACS Sustainable Chemistry and Engineering, 2019, 7, 11640-11652.	3.2	51
13	Bacterial conversion of depolymerized Kraft lignin. Biotechnology for Biofuels, 2019, 12, 56.	6.2	36
14	Mapping the diversity of microbial lignin catabolism: experiences from the eLignin database. Applied Microbiology and Biotechnology, 2019, 103, 3979-4002.	1.7	85
15	Physiological characterization and sequence analysis of a syringate-consuming Actinobacterium. Bioresource Technology, 2019, 285, 121327.	4.8	13
16	Viscosity reduction of pretreated softwood by endoglucanases. Journal of Chemical Technology and Biotechnology, 2018, 93, 2440-2446.	1.6	2
17	Exploring d-xylose oxidation in Saccharomyces cerevisiae through the Weimberg pathway. AMB Express, 2018, 8, 33.	1.4	22
18	Removal of Water-Soluble Extractives Improves the Enzymatic Digestibility of Steam-Pretreated Softwood Barks. Applied Biochemistry and Biotechnology, 2018, 184, 599-615.	1.4	25

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19	Characterization of the Weimberg Pathway in Caulobacter crescentus. Fermentation, 2018, 4, 44.	1.4	3
20	Biological conversion of aromatic monolignol compounds by a Pseudomonas isolate from sediments of the Baltic Sea. AMB Express, 2018, 8, 32.	1.4	23
21	Effect of nitrogen availability on the poly-3-d-hydroxybutyrate accumulation by engineered Saccharomyces cerevisiae. AMB Express, 2017, 7, 35.	1.4	20
22	A rapid method for analysis of fermentatively produced d-xylonate using ultra-high performance liquid chromatography and evaporative light scattering detection. Bioscience, Biotechnology and Biochemistry, 2017, 81, 1078-1080.	0.6	4
23	Conversion of lignin model compounds by Pseudomonas putida KT2440 and isolates from compost. Applied Microbiology and Biotechnology, 2017, 101, 5059-5070.	1.7	103
24	Does sugar inhibition explain mixing effects in enzymatic hydrolysis of lignocellulose?. Journal of Chemical Technology and Biotechnology, 2017, 92, 868-873.	1.6	8
25	Carboxylic Acid Production. Fermentation, 2017, 3, 46.	1.4	11
26	Biological valorization of low molecular weight lignin. Biotechnology Advances, 2016, 34, 1318-1346.	6.0	304
27	Ultraâ€high performance supercritical fluid chromatography of ligninâ€derived phenols from alkaline cupric oxide oxidation. Journal of Separation Science, 2016, 39, 3123-3129.	1.3	20
28	Scale-up of high-solid enzymatic hydrolysis of steam-pretreated softwood: the effects of reactor flow conditions. Biomass Conversion and Biorefinery, 2016, 6, 173-180.	2.9	22
29	Modelling succinic acid fermentation using a xylose based substrate. Biochemical Engineering Journal, 2016, 114, 26-41.	1.8	45
30	Succinic acid production by <i>Actinobacillus succinogenes</i> from batch fermentation of mixed sugars. Journal of Industrial Microbiology and Biotechnology, 2016, 43, 1117-1130.	1.4	42
31	SO₂-catalysed steam pretreatment of quinoa stalks. Journal of Chemical Technology and Biotechnology, 2015, 90, 64-71.	1.6	14
32	Modelling of the oxygen level response to feed rate perturbations in an industrial scale fermentation process. Process Biochemistry, 2015, 50, 507-516.	1.8	7
33	Implications of differences in macromolecular composition of stem fractions for processing of Scots pine. Wood Science and Technology, 2015, 49, 1037-1054.	1.4	7
34	Process engineering for bioflavour production with metabolically active yeasts - a mini-review. Yeast, 2015, 32, 123-43.	0.8	49
35	Modelâ€based estimation of optimal temperature profile during simultaneous saccharification and fermentation of <i>Arundo donax</i>. Biotechnology and Bioengineering, 2014, 111, 866-875.	1.7	23
36	Combining the effects of process design and pH for improved xylose conversion in high solid ethanol production from Arundo donax. AMB Express, 2014, 4, 41.	1.4	12

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37	Saccharomyces cerevisiae: a potential host for carboxylic acid production from lignocellulosic feedstock?. Applied Microbiology and Biotechnology, 2014, 98, 7299-7318.	1.7	20
38	Effects of agitation on particle-size distribution and enzymatic hydrolysis of pretreated spruce and giant reed. Biotechnology for Biofuels, 2014, 7, 77.	6.2	52
39	Development of a D-xylose fermenting and inhibitor tolerant industrial Saccharomyces cerevisiae strain with high performance in lignocellulose hydrolysates using metabolic and evolutionary engineering. Biotechnology for Biofuels, 2013, 6, 89.	6.2	257
40	Feed rate control in fedâ€batch fermentations based on frequency content analysis. Biotechnology Progress, 2013, 29, 817-824.	1.3	12
41	Effect of Temperature on Simultaneous Saccharification and Fermentation of Pretreated Spruce and Arundo. Industrial & Engineering Chemistry Research, 2013, 52, 1244-1251.	1.8	24
42	Fermentation of the Straw Material Paja Brava by the Yeast <i>Pichia stipitis</i> in a Simultaneous Saccharification and Fermentation Process. Journal of Sustainable Bioenergy Systems, 2013, 03, 99-106.	0.2	3
43	Torque measurements reveal large process differences between materials during high solid enzymatic hydrolysis of pretreated lignocellulose. Biotechnology for Biofuels, 2012, 5, 57.	6.2	49
44	Design of a novel biohythane process with high H2 and CH4 production rates. International Journal of Hydrogen Energy, 2012, 37, 17749-17762.	3.8	40
45	Cellulose accessibility determines the rate of enzymatic hydrolysis of steam-pretreated spruce. Bioresource Technology, 2012, 126, 208-215.	4.8	142
46	Challenges in enzymatic hydrolysis and fermentation of pretreated Arundo donax revealed by a comparison between SHF and SSF. Process Biochemistry, 2012, 47, 1452-1459.	1.8	87
47	Arabinosylated phenolics obtained from SO₂â€steamâ€pretreated sugarcane bagasse. Journal of Chemical Technology and Biotechnology, 2012, 87, 1723-1725.	1.6	5
48	A cellulolytic Hypocrea strain isolated from South American brave straw produces a modular xylanase. Carbohydrate Research, 2012, 356, 215-223.	1.1	7
49	Bioreaction Engineering Principles. , 2011, , .		168
50	A mutated xylose reductase increases bioethanol production more than a glucose/xylose facilitator in simultaneous fermentation and co-fermentation of wheat straw. AMB Express, 2011, 1, 4.	1.4	12
51	Steam pretreatment and fermentation of the straw material â€œPaja Bravaâ€• using simultaneous saccharification and co-fermentation. Journal of Bioscience and Bioengineering, 2011, 111, 167-174.	1.1	30
52	Stressâ€related challenges in pentose fermentation to ethanol by the yeast <i>Saccharomyces cerevisiae</i>. Biotechnology Journal, 2011, 6, 286-299.	1.8	107
53	Effect of mixing on enzymatic hydrolysis of steam-pretreated spruce: a quantitative analysis of conversion and power consumption. Biotechnology for Biofuels, 2011, 4, 10.	6.2	70
54	Rheological characterization of dilute acid pretreated softwood. Biotechnology and Bioengineering, 2011, 108, 1031-1041.	1.7	54

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55	The glucose/xylose facilitator Gxf1 from Candida intermedia expressed in a xylose-fermenting industrial strain of Saccharomyces cerevisiae increases xylose uptake in SSCF of wheat straw. Enzyme and Microbial Technology, 2011, 48, 518-525.	1.6	38
56	Chemicals from Metabolic Pathways. , 2011, , 7-62.		5
57	Controlled feeding of cellulases improves conversion of xylose in simultaneous saccharification and co-fermentation for bioethanol production. Journal of Biotechnology, 2010, 145, 168-175.	1.9	88
58	Enzyme adsorption on SO2 catalyzed steam-pretreated wheat and spruce material. Enzyme and Microbial Technology, 2010, 46, 159-169.	1.6	34
59	SO2-catalyzed steam pretreatment and fermentation of enzymatically hydrolyzed sugarcane bagasse. Enzyme and Microbial Technology, 2010, 46, 64-73.	1.6	120
60	Improving simultaneous saccharification and co-fermentation of pretreated wheat straw using both enzyme and substrate feeding. Biotechnology for Biofuels, 2010, 3, 17.	6.2	71
61	Metabolic effects of furaldehydes and impacts on biotechnological processes. Applied Microbiology and Biotechnology, 2009, 82, 625-638.	1.7	267
62	Carbon fluxes of xylose-consuming Saccharomyces cerevisiae strains are affected differently by NADH and NADPH usage in HMF reduction. Applied Microbiology and Biotechnology, 2009, 84, 751-761.	1.7	47
63	Prefermentation improves xylose utilization in simultaneous saccharification and co-fermentation of pretreated spruce. Biotechnology for Biofuels, 2009, 2, 8.	6.2	71
64	Low temperature anaerobic digestion of mixtures of llama, cow and sheep manure for improved methane production. Biomass and Bioenergy, 2009, 33, 527-533.	2.9	92
65	Effect of Substrate Specific Area on Lignocellulose Enzymatic Hydrolysis: An Experimental and Modeling Investigation. Computer Aided Chemical Engineering, 2009, 27, 1701-1706.	0.3	1
66	NADH- vs NADPH-coupled reduction of 5-hydroxymethyl furfural (HMF) and its implications on product distribution in Saccharomyces cerevisiae. Applied Microbiology and Biotechnology, 2008, 78, 939-945.	1.7	122
67	Modeling simultaneous glucose and xylose uptake in Saccharomyces cerevisiae from kinetics and gene expression of sugar transporters. Bioprocess and Biosystems Engineering, 2008, 31, 369-377.	1.7	69
68	Pichia stipitis xylose reductase helps detoxifying lignocellulosic hydrolysate by reducing 5-hydroxymethyl-furfural (HMF). Biotechnology for Biofuels, 2008, 1, 12.	6.2	61
69	A short review on SSF â€“ an interesting process option for ethanol production from lignocellulosic feedstocks. Biotechnology for Biofuels, 2008, 1, 7.	6.2	605
70	Simultaneous saccharification and fermentation of steamâ€pretreated bagasse using <i>Saccharomyces cerevisiae</i> TMB3400 and <i>Pichia stipitis</i> CBS6054. Biotechnology and Bioengineering, 2008, 99, 783-790.	1.7	108
71	Variability of the response of <i>Saccharomyces cerevisiae</i> strains to lignocellulose hydrolysate. Biotechnology and Bioengineering, 2008, 100, 423-429.	1.7	47
72	Semi-continuous co-digestion of solid slaughterhouse waste, manure, and fruit and vegetable waste. Renewable Energy, 2008, 33, 726-734.	4.3	243

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73	The effect of temperature variation on biomethanation at high altitude. Bioresource Technology, 2008, 99, 7278-7284.	4.8	87
74	Anaerobic co-digestion of aquatic flora and quinoa with manures from Bolivian Altiplano. Waste Management, 2008, 28, 1933-1940.	3.7	44
75	Designing simultaneous saccharification and fermentation for improved xylose conversion by a recombinant strain of Saccharomyces cerevisiae. Journal of Biotechnology, 2008, 134, 112-120.	1.9	137
76	Increased tolerance and conversion of inhibitors in lignocellulosic hydrolysates bySaccharomyces cerevisiae. Journal of Chemical Technology and Biotechnology, 2007, 82, 340-349.	1.6	816
77	Identification of a trypsin-like serine protease from Trichoderma reesei QM9414. Enzyme and Microbial Technology, 2007, 40, 1087-1094.	1.6	31
78	Controlled Pilot Development Unit-Scale Fed-Batch Cultivation of Yeast on Spruce Hydrolysates. Biotechnology Progress, 2007, 23, 351-358.	1.3	9
79	Anaerobic glycerol production by Saccharomyces cerevisiae strains under hyperosmotic stress. Applied Microbiology and Biotechnology, 2007, 75, 289-296.	1.7	35
80	Fed-batch cultivation of Saccharomyces cerevisiae on lignocellulosic hydrolyzate. Biotechnology Letters, 2007, 29, 219-225.	1.1	16
81	Transcriptome analysis of a shikimic acid producing strain of Escherichia coli W3110 grown under carbon- and phosphate-limited conditions. Journal of Biotechnology, 2006, 126, 528-545.	1.9	53
82	A 5-hydroxymethyl furfural reducing enzyme encoded by theSaccharomyces cerevisiae ADH6 gene conveys HMF tolerance. Yeast, 2006, 23, 455-464.	0.8	245
83	MFA for Overdetermined Systems Reviewed and Compared with RNA Expression Data to Elucidate the Difference in Shikimate Yield between Carbon- and Phosphate-Limited Continuous Cultures of E. coli W3110.shik1. Biotechnology Progress, 2006, 22, 1056-1070.	1.3	8
84	A Study of Long-Term Effects on Plasmid-Containing Escherichia coli in Carbon-Limited Chemostat Using 2D-Fluorescence Spectrofluorimetry. Biotechnology Progress, 2006, 22, 1132-1139.	1.3	19
85	Biogas production from llama and cow manure at high altitude. Biomass and Bioenergy, 2006, 30, 66-75.	2.9	92
86	Influence of strain and cultivation procedure on the performance of simultaneous saccharification and fermentation of steam pretreated spruce. Enzyme and Microbial Technology, 2006, 38, 279-286.	1.6	93
87	Bio-ethanol â€“ the fuel of tomorrow from the residues of today. Trends in Biotechnology, 2006, 24, 549-556.	4.9	1,240
88	A comparison between batch and fed-batch simultaneous saccharification and fermentation of steam pretreated spruce. Enzyme and Microbial Technology, 2005, 37, 195-204.	1.6	145
89	Shikimic acid production by a modified strain ofE. coli (W3110.shik1) under phosphate-limited and carbon-limited conditions. Biotechnology and Bioengineering, 2005, 92, 541-552.	1.7	79
90	TheYIG1 (YPL201c) encoded protein is involved in regulating anaerobic glycerol metabolism inSaccharomyces cerevisiae. Yeast, 2005, 22, 1257-1268.	0.8	3

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91	Cofactor Dependence in Furan Reduction by Saccharomyces cerevisiae in Fermentation of Acid-Hydrolyzed Lignocellulose. Applied and Environmental Microbiology, 2005, 71, 7866-7871.	1.4	88
92	Dynamics of Cellulase Production by Glucose Grown Cultures of <I>Trichoderma reesei</I> Rut-C30 as a Response to Addition of Cellulose. Applied Biochemistry and Biotechnology, 2004, 113, 115-124.	1.4	26
93	Controlled Fed-Batch Fermentations of Dilute-Acid Hydrolysate in Pilot Development Unit Scale. Applied Biochemistry and Biotechnology, 2004, 114, 601-618.	1.4	21
94	Dilute-acid hydrolysis for fermentation of the Bolivian straw material Paja Brava. Bioresource Technology, 2004, 93, 249-256.	4.8	84
95	Control of xylose consumption by xylose transport in recombinant Saccharomyces cerevisiae. Biotechnology and Bioengineering, 2003, 82, 818-824.	1.7	80
96	Engineering of the metabolism of Saccharomyces cerevisiae for anaerobic production of mannitol. FEMS Yeast Research, 2003, 3, 17-25.	1.1	10
97	Effects of Furfural on the Respiratory Metabolism of Saccharomyces cerevisiae in Glucose-Limited Chemostats. Applied and Environmental Microbiology, 2003, 69, 4076-4086.	1.4	151
98	Bioreaction Engineering Principles. , 2003, , .		132
99	Inhibition effects of furfural on alcohol dehydrogenase, aldehyde dehydrogenase and pyruvate dehydrogenase. Biochemical Journal, 2002, 363, 769-776.	1.7	330
100	Inhibition effects of furfural on alcohol dehydrogenase, aldehyde dehydrogenase and pyruvate dehydrogenase. Biochemical Journal, 2002, 363, 769.	1.7	192
101	Understanding the bioreactor. Bioprocess and Biosystems Engineering, 2002, 24, 273-279.	1.7	61
102	Continuous estimation of product concentration with calorimetry and gas analysis during anaerobic fermentations of Saccharomyces cerevisiae. Thermochimica Acta, 2002, 394, 185-190.	1.2	6
103	Strategies for enhancing fermentative production of glycerolâ€"a review. Enzyme and Microbial Technology, 2002, 31, 53-66.	1.6	98
104	Use of dynamic step response for control of fed-batch conversion of lignocellulosic hydrolyzates to ethanol. Journal of Biotechnology, 2001, 89, 41-53.	1.9	47
105	Effects of furfural on anaerobic continuous cultivation ofSaccharomyces cerevisiae. Biotechnology and Bioengineering, 2001, 75, 540-549.	1.7	70
106	On-line control of fed-batch fermentation of dilute-acid hydrolyzates. Biotechnology and Bioengineering, 2000, 69, 330-338.	1.7	58
107	Inhibition effects of furfural on aerobic batch cultivation of Saccharomyces cerevisiae growing on ethanol and/or acetic acid. Journal of Bioscience and Bioengineering, 2000, 90, 374-380.	1.1	85
108	Physiological effects of 5-hydroxymethylfurfural on Saccharomyces cerevisiae. Applied Microbiology and Biotechnology, 2000, 53, 701-708.	1.7	310

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109	Inhibition Effects of Furfural on Aerobic Batch Cultivation of Saccharomyces cerevisiae Growing on Ethanol and/or Acetic Acid.. Journal of Bioscience and Bioengineering, 2000, 90, 374-380.	1.1	8
110	Conversion of dilute-acid hydrolyzates of spruce and birch to ethanol by fed-batch fermentation. Bioresource Technology, 1999, 69, 59-66.	4.8	96
111	Predicting Fermentability of Wood Hydrolyzates with Responses from Electronic Noses. Biotechnology Progress, 1999, 15, 617-621.	1.3	15
112	Conversion of furfural in aerobic and anaerobic batch fermentation of glucose by Saccharomyces cerevisiae. Journal of Bioscience and Bioengineering, 1999, 87, 169-174.	1.1	220
113	Distribution of 14C-labelleed carbon from glucose and glutamate during anaerobic growth of Saccharomyces cerevisiae. Microbiology (United Kingdom), 1998, 144, 1683-1690.	0.7	22
114	Characterization and Fermentation of Dilute-Acid Hydrolyzates from Wood. Industrial & Engineering Chemistry Research, 1997, 36, 4659-4665.	1.8	272
115	Acetic acidâ€"friend or foe in anaerobic batch conversion of glucose to ethanol by Saccharomyces cerevisiae?. Chemical Engineering Science, 1997, 52, 2653-2659.	1.9	235
116	Dynamics of ammonia uptake in nitrogen limited anaerobic cultures of Saccharomyces cerevisiae. Journal of Biotechnology, 1996, 46, 33-42.	1.9	9
117	A new method for studying microaerobic fermentations. I. A theoretical analysis of oxygen programmed fermentation. Biotechnology and Bioengineering, 1994, 44, 419-427.	1.7	11
118	A new method for studying microaerobic fermentations. II. An experimental investigation of xylose fermentation. Biotechnology and Bioengineering, 1994, 44, 429-435.	1.7	5
119	An extended model for open-ended fluorosensor probes. Biotechnology Progress, 1993, 9, 179-185.	1.3	5
120	The effect of carbon dioxide on xylose fermentation byPichia stipitis. Applied Biochemistry and Biotechnology, 1993, 38, 27-40.	1.4	9
121	Anaerobic fermentation of xylose by pichia stipitis: The effect of forced cycling of ph. Canadian Journal of Chemical Engineering, 1993, 71, 911-916.	0.9	7
122	In situ fluorescence measurements-clarifying or blurring the picture?. Pure and Applied Chemistry, 1993, 65, 1927-1932.	0.9	20
123	Periodic operation of a tubular reactor: A simulation study of consecutive reactions in a chromatographic reactor. The Chemical Engineering Journal, 1989, 40, 31-37.	0.4	10
124	A calorimetric and fluorescence study of batch cultures of Saccharomyces cerevisiae. Applied Microbiology and Biotechnology, 1989, 31, 355.	1.7	11