Mats Galbe

List of Publications by Year
in descending order

135 papers	11,577 citations	41627 51 h-index	36203 101 g-index
137 all docs	137 docs citations	137 times ranked	9054 citing authors

#	Article	IF	Citations
1	Fractionation of sugar beet pulp polysaccharides into component sugars and pre-feasibility analysis for further valorisation. Biomass Conversion and Biorefinery, 2024, 14, 3575-3588.	2.9	3
2	An extensive parameter study of hydrotropic extraction of steam-pretreated birch. Biomass Conversion and Biorefinery, 2023, 13, 4001-4009.	2.9	3
3	Towards circular fashion â€“ transforming pulp mills into hubs for textile recycling. RSC Advances, 2021, 11, 12321-12329.	1.7	4
4	Novel sustainable alternatives for the fashion industry: A method of chemically recycling waste textiles via acid hydrolysis. Waste Management, 2021, 121, 248-254.	3.7	31
5	High efficient ethanol production from corn stover by modified mild alkaline pretreatment. Renewable Energy, 2021, 170, 714-723.	4.3	22
6	Steam Pretreatment of Rice Hulls to Release Fermentable Saccharides: An Approach to Improve Recovery of (Hemi)Cellulosic Sugars Through Multivariate Design. Rice Science, 2021, 28, 501-510.	1.7	5
7	Severity factor kinetic model as a strategic parameter of hydrothermal processing (steam explosion) Tj ETQq1 1 0.784314 rgBT /Overlo 2021, 342, 125961.	4.8	83
8	Analysis of Animal Bedding Heterogeneity for Potential Use in Biorefineries Based on Farmyard Manure. Waste and Biomass Valorization, 2020, 11, 2387-2395.	1.8	9
9	The effect of mixed agricultural feedstocks on steam pretreatment, enzymatic hydrolysis, and cofermentation in the lignocellulose-to-ethanol process. Biomass Conversion and Biorefinery, 2020, 10, 253-266.	2.9	21
10	Hemicellulose Recovery from Spent-Sulfite-Liquor: Lignin Removal by Adsorption to Resins for Improvement of the Ultrafiltration Process. Molecules, 2020, 25, 3435.	1.7	3
11	Techno-Economic Evaluation of Biorefineries Based on Low-Value Feedstocks Using the BioSTEAM Software: A Case Study for Animal Bedding. Processes, 2020, 8, 904.	1.3	9
12	A strategy for synergistic ethanol yield and improved production predictability through blending feedstocks. Biotechnology for Biofuels, 2020, 13, 156.	6.2	5
13	From lab-scale to on-site pilot trials for the recovery of hemicellulose by ultrafiltration: Experimental and theoretical evaluations. Separation and Purification Technology, 2020, 250, 117187.	3.9	11
14	Elucidation of Changes in Cellulose Ultrastructure and Accessibility in Hardwood Fractionation Processes with Carbohydrate Binding Modules. ACS Sustainable Chemistry and Engineering, 2020, 8, 6767-6776.	3.2	8
15	Storage and handling of pretreated lignocellulose affects the redox chemistry during subsequent enzymatic saccharification. Bioresources and Bioprocessing, 2020, 7, .	2.0	2
16	Strain-dependent variance in short-term adaptation effects of two xylose-fermenting strains of Saccharomyces cerevisiae. Bioresource Technology, 2019, 292, 121922.	4.8	25
17	Galactoglucomannan Recovery with Hydrophilic and Hydrophobic Membranes: Process Performance and Cost Estimations. Membranes, 2019, 9, 99.	1.4	8
18	Introducing low-quality feedstocks in bioethanol production: efficient conversion of the lignocellulose fraction of animal bedding through steam pretreatment. Biotechnology for Biofuels, 2019, 12, 215.	6.2	9

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19	The effect of blending spruce and poplar on acid-catalyzed steam pretreatment and enzymatic hydrolysis. Bioresource Technology Reports, 2019, 7, 100241.	1.5	5
20	Pretreatment for biorefineries: a review of common methods for efficient utilisation of lignocellulosic materials. Biotechnology for Biofuels, 2019, 12, 294.	6.2	282
21	Evaluation of Sequential Processing for the Extraction of Starch, Lipids, and Proteins From Wheat Bran. Frontiers in Bioengineering and Biotechnology, 2019, 7, 413.	2.0	30
22	Impact of Lignin Content on the Properties of Hemicellulose Hydrogels. Polymers, 2019, 11, 35.	2.0	20
23	High titer ethanol production from rice straw via solid-state simultaneous saccharification and fermentation by Mucor indicus at low enzyme loading. Energy Conversion and Management, 2019, 182, 520-529.	4.4	46
24	Sequential fractionation of the lignocellulosic components in hardwood based on steam explosion and hydrotropic extraction. Biotechnology for Biofuels, 2019, 12, 1.	6.2	320
25	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
26	Antisolvent precipitation of hemicelluloses, lignosulfonates and their complexes from ultrafiltrated spent sulfite liquor (SSL). Holzforschung, 2018, 72, 839-850.	0.9	15
27	Sequential Targeting of Xylose and Glucose Conversion in Fed-Batch Simultaneous Saccharification and Co-fermentation of Steam-Pretreated Wheat Straw for Improved Xylose Conversion to Ethanol. Bioenergy Research, 2017, 10, 800-810.	2.2	24
28	Influence of prefiltration on membrane performance during isolation of lignin-carbohydrate complexes from spent sulfite liquor. Separation and Purification Technology, 2017, 187, 380-388.	3.9	26
29	Techno-Economic Aspects in the Evaluation of Biorefineries for Production of Second-Generation Bioethanol. , 2017, , 401-420.		1
30	Process design of SSCF for ethanol production from steam-pretreated, acetic-acid-impregnated wheat straw. Biotechnology for Biofuels, 2016, 9, 222.	6.2	49
31	Combined ethanol and methane production from switchgrass (Panicum virgatum L.) impregnated with lime prior to steam explosion. Biomass and Bioenergy, 2016, 90, 22-31.	2.9	23
32	Combined production of biogas and ethanol at high solids loading from wheat straw impregnated with acetic acid: experimental study and techno-economic evaluation. Sustainable Chemical Processes, 2016, 4, .	2.3	19
33	Prefermentation improves ethanol yield in separate hydrolysis and cofermentation of steam-pretreated wheat straw. Sustainable Chemical Processes, 2016, 4, .	2.3	8
34	Bioethanol production from forestry residues: A comparative techno-economic analysis. Applied Energy, 2016, 184, 727-736.	5.1	69
35	Techno-economic evaluation of integrated first- and second-generation ethanol production from grain and straw. Biotechnology for Biofuels, 2016, 9, 1.	6.2	467
36	Influence of different SSF conditions on ethanol production from corn stover at high solids loadings. Energy Science and Engineering, 2015, 3, 481-489.	1.9	22

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37	SO₂-catalysed steam pretreatment of quinoa stalks. Journal of Chemical Technology and Biotechnology, 2015, 90, 64-71.	1.6	14
38	Combined ethanol and methane production using steam pretreated sugarcane bagasse. Industrial Crops and Products, 2015, 74, 255-262.	2.5	22
39	Influence of bark on fuel ethanol production from steam-pretreated spruce. Biotechnology for Biofuels, 2015, 8, 15.	6.2	31
40	Optimizing Ethanol and Methane Production from Steam-pretreated, Phosphoric Acid-impregnated Corn Stover. Applied Biochemistry and Biotechnology, 2015, 175, 1371-1388.	1.4	12
41	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
42	Heat integration of combined 1st and 2nd generation ethanol production from wheat kernels and wheat straw. Sustainable Chemical Processes, 2014, 2, .	2.3	6
43	Extraction of water-soluble xylan from wheat bran and utilization of enzymatically produced xylooligosaccharides by Lactobacillus, Bifidobacterium and Weissella spp.. LWT - Food Science and Technology, 2014, 56, 321-327.	2.5	65
44	Comparison of energy potentials from combined ethanol and methane production using steam-pretreated corn stover impregnated with acetic acid. Biomass and Bioenergy, 2014, 67, 413-424.	2.9	24
45	Effects of production and market factors on ethanol profitability for an integrated first and second generation ethanol plant using the whole sugarcane as feedstock. Biotechnology for Biofuels, 2014, 7, 26.	6.2	71
46	Ethanol and biogas production after steam pretreatment of corn stover with or without the addition of sulphuric acid. Biotechnology for Biofuels, 2013, 6, 11.	6.2	101
47	Glucose and xylose co-fermentation of pretreated wheat straw using mutants of S. cerevisiae TMB3400. Journal of Biotechnology, 2013, 164, 50-58.	1.9	15
48	Influence of fiber degradation and concentration of fermentable sugars on simultaneous saccharification and fermentation of high-solids spruce slurry to ethanol. Biotechnology for Biofuels, 2013, 6, 145.	6.2	18
49	SSF of steam-pretreated wheat straw with the addition of saccharified or fermented wheat meal in integrated bioethanol production. Biotechnology for Biofuels, 2013, 6, 169.	6.2	41
50	Simultaneous saccharification and co-fermentation of whole wheat in integrated ethanol production. Biomass and Bioenergy, 2013, 56, 506-514.	2.9	36
51	The effect of prehydrolysis and improved mixing on high-solids batch simultaneous saccharification and fermentation of spruce to ethanol. Process Biochemistry, 2013, 48, 289-293.	1.8	61
52	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
53	Pretreatment: The key to efficient utilization of lignocellulosic materials. Biomass and Bioenergy, 2012, 46, 70-78.	2.9	353
54	Separate hydrolysis and co-fermentation for improved xylose utilization in integrated ethanol production from wheat meal and wheat straw. Biotechnology for Biofuels, 2012, 5, 12.	6.2	61

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55	Arabinosylated phenolics obtained from SO₂â€steamâ€pretreated sugarcane bagasse. Journal of Chemical Technology and Biotechnology, 2012, 87, 1723-1725.	1.6	5
56	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
57	The influence of ferrous sulfate utilization on the sugar yields from dilute-acid pretreatment of softwood for bioethanol production. Bioresource Technology, 2011, 102, 1103-1108.	4.8	34
58	Evaluation of steamâ€treated giant bamboo for production of fermentable sugars. Biotechnology Progress, 2011, 27, 641-649.	1.3	32
59	Influence of impregnation with lactic acid on sugar yields from steam pretreatment of sugarcane bagasse and spruce, for bioethanol production. Biomass and Bioenergy, 2011, 35, 3115-3122.	2.9	18
60	Improved oneâ€step steam pretreatment of SO₂â€impregnated softwood with timeâ€dependent temperature profile for ethanol production. Biotechnology Progress, 2010, 26, 1054-1060.	1.3	19
61	SO2-catalyzed steam pretreatment and fermentation of enzymatically hydrolyzed sugarcane bagasse. Enzyme and Microbial Technology, 2010, 46, 64-73.	1.6	120
62	Effects of enzyme feeding strategy on ethanol yield in fed-batch simultaneous saccharification and fermentation of spruce at high dry matter. Biotechnology for Biofuels, 2010, 3, 14.	6.2	54
63	Impact of dual temperature profile in dilute acid hydrolysis of spruce for ethanol production. Biotechnology for Biofuels, 2010, 3, 15.	6.2	18
64	Ethanol production from mixtures of wheat straw and wheat meal. Biotechnology for Biofuels, 2010, 3, 16.	6.2	115
65	Production of fuel ethanol from softwood by simultaneous saccharification and fermentation at high dry matter content. Journal of Chemical Technology and Biotechnology, 2009, 84, 570-577.	1.6	75
66	The influence of solid/liquid separation techniques on the sugar yield in two-step dilute acid hydrolysis of softwood followed by enzymatic hydrolysis. Biotechnology for Biofuels, 2009, 2, 6.	6.2	36
67	Impact of impregnation time and chip size on sugar yield in pretreatment of softwood for ethanol production. Bioresource Technology, 2009, 100, 6312-6316.	4.8	88
68	Steam pretreatment of H2SO4-impregnated Salix for the production of bioethanol. Bioresource Technology, 2008, 99, 137-145.	4.8	175
69	Energy considerations for a SSF-based softwood ethanol plant. Bioresource Technology, 2008, 99, 2121-2131.	4.8	90
70	Steam pretreatment of dilute H2SO4-impregnated wheat straw and SSF with low yeast and enzyme loadings for bioethanol production. Biomass and Bioenergy, 2008, 32, 326-332.	2.9	178
71	Techno-economic evaluation of bioethanol production from three different lignocellulosic materials. Biomass and Bioenergy, 2008, 32, 422-430.	2.9	377
72	Trichoderma atroviride mutants with enhanced production of cellulase and Î²-glucosidase on pretreated willow. Enzyme and Microbial Technology, 2008, 43, 48-55.	1.6	78

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73	Techno-Economic Evaluation of Producing Ethanol from Softwood: Comparison of SSF and SHF and Identification of Bottlenecks. Biotechnology Progress, 2008, 19, 1109-1117.	1.3	532
74	Hydrolysis of Nonstarch Carbohydrates of Wheat-Starch Effluent for Ethanol Production. Biotechnology Progress, 2008, 20, 474-479.	1.3	15
75	Pretreatment of Lignocellulosic Materials for Efficient Bioethanol Production. , 2007, 108, 41-65.		408
76	High temperature enzymatic prehydrolysis prior to simultaneous saccharification and fermentation of steam pretreated corn stover for ethanol production. Enzyme and Microbial Technology, 2007, 40, 607-613.	1.6	134
77	Simultaneous saccharification and fermentation of steam-pretreated barley straw at low enzyme loadings and low yeast concentration. Enzyme and Microbial Technology, 2007, 40, 1100-1107.	1.6	110
78	Process Engineering Economics of Bioethanol Production. , 2007, 108, 303-327.		141
79	Simultaneous saccharification and co-fermentation of glucose and xylose in steam-pretreated corn stover at high fiber content with Saccharomyces cerevisiae TMB3400. Journal of Biotechnology, 2006, 126, 488-498.	1.9	245
80	Fuel ethanol production from steam-pretreated corn stover using SSF at higher dry matter content. Biomass and Bioenergy, 2006, 30, 863-869.	2.9	192
81	Bioethanol production based on simultaneous saccharification and fermentation of steam-pretreated Salix at high dry-matter content. Enzyme and Microbial Technology, 2006, 39, 756-762.	1.6	121
82	Steam Pretreatment of Acid-Sprayed and Acid-Soaked Barley Straw for Production of Ethanol. Applied Biochemistry and Biotechnology, 2006, 130, 546-562.	1.4	49
83	Bio-ethanol â€“ the fuel of tomorrow from the residues of today. Trends in Biotechnology, 2006, 24, 549-556.	4.9	1,240
84	Steam Pretreatment of Acid-Sprayed and Acid-Soaked Barley Straw for Production of Ethanol. , 2006, , 546-562.		2
85	Ethanol production from non-starch carbohydrates of wheat bran. Bioresource Technology, 2005, 96, 843-850.	4.8	142
86	Effect of Reduction in Yeast and Enzyme Concentrations in a Simultaneous-Saccharification-and-Fermentationâ€“Based Bioethanol Process: Technical and Economic Evaluation. Applied Biochemistry and Biotechnology, 2005, 122, 0485-0500.	1.4	52
87	Optimization of Steam Pretreatment of SO₂-Impregnated Corn Stover for Fuel Ethanol Production. Applied Biochemistry and Biotechnology, 2005, 124, 1055-1068.	1.4	113
88	Steam Pretreatment of <I>Salix </I>with and without SO₂ Impregnation for Production of Bioethanol. Applied Biochemistry and Biotechnology, 2005, 124, 1101-1118.	1.4	70
89	Pretreatment of barley husk for bioethanol production. Journal of Chemical Technology and Biotechnology, 2005, 80, 85-91.	1.6	47
90	Optimization of Steam Pretreatment of SO2-Impregnated Corn Stover for Fuel Ethanol Production. , 2005, , 1055-1067.		2

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91	Separate versus Simultaneous Saccharification and Fermentation of Twoâ€Step Steam Pretreated Softwood for Ethanol Production. Journal of Wood Chemistry and Technology, 2005, 25, 187-202.	0.9	86
92	Effect of Reduction in Yeast and Enzyme Concentrations in a Simultaneous-Saccharification-and-Fermentation-Based Bioethanol Process. , 2005, , 485-499.		8
93	Steam Pretreatment of Salix with and without SO2 Impregnation for Production of Bioethanol. , 2005, , 1101-1117.		0
94	Steam pretreatment of Salix with and without SO2 impregnation for production of bioethanol. Applied Biochemistry and Biotechnology, 2005, 121-124, 1101-17.	1.4	7
95	Effect of Washing on Yield in One- and Two-Step Steam Pretreatment of Softwood for Production of Ethanol. Biotechnology Progress, 2004, 20, 744-749.	1.3	58
96	Process Considerations and Economic Evaluation of Two-Step Steam Pretreatment for Production of Fuel Ethanol from Softwood. Biotechnology Progress, 2004, 20, 1421-1429.	1.3	54
97	Controlled Fed-Batch Fermentations of Dilute-Acid Hydrolysate in Pilot Development Unit Scale. Applied Biochemistry and Biotechnology, 2004, 114, 601-618.	1.4	21
98	Combined Steam Pretreatment and Enzymatic Hydrolysis of Starch-Free Wheat Fibers. Applied Biochemistry and Biotechnology, 2004, 115, 0989-1002.	1.4	18
99	Processing of wheat bran to sugar solution. Journal of Food Engineering, 2004, 61, 561-565.	2.7	41
100	Dilute-acid hydrolysis for fermentation of the Bolivian straw material Paja Brava. Bioresource Technology, 2004, 93, 249-256.	4.8	84
101	Combined Steam Pretreatment and Enzymatic Hydrolysis of Starch-Free Wheat Fibers. , 2004, , 989-1002.		2
102	Combined Use of H₂SO₄ and SO₂ Impregnation for Steam Pretreatment of Spruce in Ethanol Production. Applied Biochemistry and Biotechnology, 2003, 105, 127-140.	1.4	36
103	The effect of Tween-20 on simultaneous saccharification and fermentation of softwood to ethanol. Enzyme and Microbial Technology, 2003, 33, 71-78.	1.6	157
104	Two-step steam pretreatment of softwood by dilute H2SO4 impregnation for ethanol production. Biomass and Bioenergy, 2003, 24, 475-486.	2.9	164
105	A review of the production of ethanol from softwood. Applied Microbiology and Biotechnology, 2002, 59, 618-628.	1.7	886
106	Ethanol production from enzymatic hydrolysates of sugarcane bagasse using recombinant xylose-utilising Saccharomyces cerevisiae. Enzyme and Microbial Technology, 2002, 31, 274-282.	1.6	252
107	Title is missing!. World Journal of Microbiology and Biotechnology, 2002, 18, 857-862.	1.7	16
108	Two-Step Steam Pretreatment of Softwood with SO₂ Impregnation for Ethanol Production. Applied Biochemistry and Biotechnology, 2002, 98-100, 5-22.	1.4	87

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109	Comparison of the Fermentability of Enzymatic Hydrolyzates of Sugarcane Bagasse Pretreated by Steam Explosion Using Different Impregnating Agents. Applied Biochemistry and Biotechnology, 2002, 98-100, 699-716.	1.4	134
110	Recirculation of Process Streams in Fuel Ethanol Production from Softwood Based on Simultaneous Saccharification and Fermentation. Applied Biochemistry and Biotechnology, 2002, 98-100, 849-862.	1.4	25
111	Two-Step Steam Pretreatment of Softwood with SO2 Impregnation for Ethanol Production. , 2002, , 5-21.		3
112	Comparison of the Fermentability of Enzymatic Hydrolyzates of Sugarcane Bagasse Pretreated by Steam Explosion Using Different Impregnating Agents. , 2002, , 699-716.		6
113	Recirculation of Process Streams in Fuel Ethanol Production from Softwood Based on Simultaneous Saccharification and Fermentation. , 2002, , 849-861.		2
114	Reduced inhibition of enzymatic hydrolysis of steam-pretreated softwood. Enzyme and Microbial Technology, 2001, 28, 835-844.	1.6	214
115	Influence of Enzyme Loading and Physical Parameters on the Enzymatic Hydrolysis of Steam-Pretreated Softwood. Biotechnology Progress, 2001, 17, 110-117.	1.3	180
116	Effect of substrate and cellulase concentration on simultaneous saccharification and fermentation of steam-pretreated softwood for ethanol production. , 2000, 68, 204-210.		134
117	The influence of lactic acid formation on the simultaneous saccharification and fermentation (SSF) of softwood to ethanol. Enzyme and Microbial Technology, 2000, 26, 71-79.	1.6	57
118	Effect of substrate and cellulase concentration on simultaneous saccharification and fermentation of steam-pretreated softwood for ethanol production. , 2000, 68, 204.		2
119	Effect of substrate and cellulase concentration on simultaneous saccharification and fermentation of steam-pretreated softwood for ethanol production. , 2000, 68, 204.		88
120	Optimisation of steam pretreatment of SO2-impregnated mixed softwoods for ethanol production. Journal of Chemical Technology and Biotechnology, 1998, 71, 299-308.	1.6	142
121	Comparison of SO2 and H2SO4 impregnation of softwood prior to steam pretreatment on ethanol production. Applied Biochemistry and Biotechnology, 1998, 70-72, 3-15.	1.4	144
122	Recycling of process streams in ethanol production from softwoods based on enzymatic hydrolysis. Applied Biochemistry and Biotechnology, 1998, 70-72, 697-708.	1.4	32
123	Evaluation of cell recycling in continuous fermentation of enzymatic hydrolysates of spruce with Saccharomyces cerevisiae and on-line monitoring of glucose and ethanol. Applied Microbiology and Biotechnology, 1998, 50, 545-551.	1.7	32
124	Recycling of Process Streams in Ethanol Production from Softwoods Based on Enzymatic Hydrolysis. , 1998, , 697-708.		0
125	Recirculation of process water in the production of ethanol from softwood. Bioresource Technology, 1997, 60, 143-151.	4.8	50
126	Design and operation of a bench-scale process development unit for the production of ethanol from lignocellulosics. Bioresource Technology, 1996, 58, 171-179.	4.8	136

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127	The effect of water-soluble inhibitors from steam-pretreated willow on enzymatic hydrolysis and ethanol fermentation. Enzyme and Microbial Technology, 1996, 19, 470-476.	1.6	181
128	The influence of SO2 and H2SO4 impregnation of willow prior to steam pretreatment. Bioresource Technology, 1995, 52, 225-229.	4.8	81
129	Simulation of ethanol production processes based on enzymatic hydrolysis of woody biomass. Computers and Chemical Engineering, 1994, 18, S687-S691.	2.0	9
130	Simulation of ethanol production processes based on enzymatic hydrolysis of lignocellulosic materials using aspen plus. Applied Biochemistry and Biotechnology, 1992, 34-35, 93-104.	1.4	27
131	Recovery of cellulases after hydrolysis by adsorption on steam-pretreated willow. Applied Biochemistry and Biotechnology, 1992, 34-35, 105-113.	1.4	9
132	Adsorption of cellulases on steam-pretreated willow. Applied Biochemistry and Biotechnology, 1990, 24-25, 87-101.	1.4	10
133	Optimization of temperature and enzyme concentration in the enzymatic saccharification of steam-pretreated willow. Enzyme and Microbial Technology, 1990, 12, 225-228.	1.6	65
134	Two-Stage Steam Pretreatment of Willow for Increased Pentose Yield. Journal of Wood Chemistry and Technology, 1988, 8, 379-392.	0.9	20
135	Mitigation of pretreatment-derived inhibitors during lignocellulosic ethanol fermentation using spent grain as a nitrogen source. Biomass Conversion and Biorefinery, 0, , 1.	2.9	2