Guido Zacchi

List of Publications by Year
in descending order

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136	11,826	26567	30010
papers	citations	56	103
		h-index	g-index

139	139	139	7228
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The generation of fermentation inhibitors during dilute acid hydrolysis of softwood. Enzyme and Microbial Technology, 1999, 24, 151-159.	1.6	895
2	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
3	Effect of hemicellulose and lignin removal on enzymatic hydrolysis of steam pretreated corn stover. Bioresource Technology, 2007, 98, 2503-2510.	4.8	474
4	Adsorption of Trichoderma reesei CBH I and EG II and their catalytic domains on steam pretreated softwood and isolated lignin. Journal of Biotechnology, 2004, 107, 65-72.	1.9	424
5	Pretreatment of Lignocellulosic Materials for Efficient Bioethanol Production. , 2007, 108, 41-65.		408
6	Techno-economic evaluation of bioethanol production from three different lignocellulosic materials. Biomass and Bioenergy, 2008, 32, 422-430.	2.9	377
7	Pretreatment: The key to efficient utilization of lignocellulosic materials. Biomass and Bioenergy, 2012, 46, 70-78.	2.9	353
8	A comparison between simultaneous saccharification and fermentation and separate hydrolysis and fermentation using steam-pretreated corn stover. Process Biochemistry, 2007, 42, 834-839.	1.8	290
9	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
10	A techno-economical comparison of three processes for the production of ethanol from pine. Bioresource Technology, 1995, 51, 43-52.	4.8	221
11	Isolation and characterization of galactoglucomannan from spruce (Picea abies). Carbohydrate Polymers, 2002, 48, 29-39.	5.1	215
12	Reduced inhibition of enzymatic hydrolysis of steam-pretreated softwood. Enzyme and Microbial Technology, 2001, 28, 835-844.	1.6	214
13	Techno-economic evaluation of 2nd generation bioethanol production from sugar cane bagasse and leaves integrated with the sugar-based ethanol process. Biotechnology for Biofuels, 2012, 5, 22.	6.2	210
14	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
15	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
16	Steam pretreatment of H2SO4-impregnated Salix for the production of bioethanol. Bioresource Technology, 2008, 99, 137-145.	4.8	175
17	Two-step steam pretreatment of softwood by dilute H2SO4 impregnation for ethanol production. Biomass and Bioenergy, 2003, 24, 475-486.	2.9	164
18	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

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19	Cost Analysis of Ethanol Production from Willow Using Recombinant Escherichia coli. Biotechnology Progress, 1994, 10, 555-560.	1.3	156
20	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
21	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
22	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
23	Ethanol production from non-starch carbohydrates of wheat bran. Bioresource Technology, 2005, 96, 843-850.	4.8	142
24	Process Engineering Economics of Bioethanol Production. , 2007, 108, 303-327.		141
25	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
26	Effect of substrate and cellulase concentration on simultaneous saccharification and fermentation of steam-pretreated softwood for ethanol production. , 2000, 68, 204-210.		134
27	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
28	Simultaneous detoxification and enzyme production of hemicellulose hydrolysates obtained after steam pretreatment. Enzyme and Microbial Technology, 1997, 20, 286-293.	1.6	131
29	Ethanol from lignocellulosics: A review of the economy. Bioresource Technology, 1996, 56, 131-140.	4.8	122
30	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
31	Comparative enzymatic hydrolysis of pretreated spruce by supernatants, whole fermentation broths and washed mycelia of Trichoderma reesei and Trichoderma atroviride. Bioresource Technology, 2009, 100, 1350-1357.	4.8	115
32	Ethanol production from mixtures of wheat straw and wheat meal. Biotechnology for Biofuels, 2010, 3, 16.	6.2	115
33	Bioconversion of industrial hemp to ethanol and methane: The benefits of steam pretreatment and co-production. Bioresource Technology, 2011, 102, 3457-3465.	4.8	114
34	Optimization of Steam Pretreatment of SO₂-Impregnated Corn Stover for Fuel Ethanol Production. Applied Biochemistry and Biotechnology, 2005, 124, 1055-1068.	1.4	113
35	Simultaneous saccharification and fermentation of steamâ€pretreated bagasse using Saccharomyces cerevisiae TMB3400 and Pichia stipitis CBS6054. Biotechnology and Bioengineering, 2008, 99, 783-790.	1.7	108
36	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

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37	Steam pretreatment of dry and ensiled industrial hemp for ethanol production. Biomass and Bioenergy, 2010, 34, 1721-1731.	2.9	100
38	Optimization of Steam Pretreatment of Corn Stover to Enhance Enzymatic Digestibility. Applied Biochemistry and Biotechnology, 2004, 114, 509-524.	1.4	98
39	Extraction of Hemicellulosic Oligosaccharides from Spruce Using Microwave Oven or Steam Treatment. Biomacromolecules, 2003, 4, 617-623.	2.6	95
40	Enzymatic hydrolysis of steam-pretreated lignocellulosic materials with Trichoderma atroviride enzymes produced in-house. Biotechnology for Biofuels, 2009, 2, 14.	6.2	94
41	Characterization of galactoglucomannan extracted from spruce (Picea abies) by heat-fractionation at different conditions. Carbohydrate Polymers, 2003, 51, 203-211.	5.1	93
42	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
43	Simultaneous saccharification and co-fermentation for bioethanol production using corncobs at lab, PDU and demo scales. Biotechnology for Biofuels, 2013, 6, 2.	6.2	91
44	Energy considerations for a SSF-based softwood ethanol plant. Bioresource Technology, 2008, 99, 2121-2131.	4.8	90
45	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
46	Effect of substrate and cellulase concentration on simultaneous saccharification and fermentation of steam-pretreated softwood for ethanol production. , 2000, 68, 204.		88
47	Two-Step Steam Pretreatment of Softwood with SO₂ Impregnation for Ethanol Production. Applied Biochemistry and Biotechnology, 2002, 98-100, 5-22.	1.4	87
48	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
49	The influence of SO2 and H2SO4 impregnation of willow prior to steam pretreatment. Bioresource Technology, 1995, 52, 225-229.	4.8	81
50	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
51	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
52	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
53	Extraction of water-soluble hemicelluloses from barley husks. Bioresource Technology, 2009, 100, 763-769.	4.8	68
54	Simultaneous saccharification and fermentation of steam-pretreated willow. Enzyme and Microbial Technology, 1995, 17, 255-259.	1.6	66

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55	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
56	Process Design and Economics of On-Site Cellulase Production on Various Carbon Sources in a Softwood-Based Ethanol Plant. Enzyme Research, 2010, 2010, 1-8.	1.8	63
57	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
58	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
59	Optimization of Steam Pretreatment of Corn Stover to Enhance Enzymatic Digestibility. , 2004, , 509-523.		59
60	Cellulase Production of Trichoderma reesei Rut C 30 Using Steam-Pretreated Spruce. Applied Biochemistry and Biotechnology, 2000, 84-86, 679-692.	1.4	58
61	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
62	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
63	Techno-economic evaluation of stillage treatment with anaerobic digestion in a softwood-to-ethanol process. Biotechnology for Biofuels, 2010, 3, 21.	6.2	56
64	Isolation and characterization of water-soluble hemicelluloses from flax shive. Carbohydrate Research, 2003, 338, 1869-1876.	1.1	55
65	Transmission of BSA during cross-flow microfiltration: influence of pH and salt concentration. Journal of Membrane Science, 2003, 223, 11-21.	4.1	54
66	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
67	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
68	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
69	Recirculation of process water in the production of ethanol from softwood. Bioresource Technology, 1997, 60, 143-151.	4.8	50
70	Separation of lactic acid-producing bacteria from fermentation broth using a ceramic microfiltration membrane with constant permeate flow. Biotechnology and Bioengineering, 2001, 72, 269-277.	1.7	50
71	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
72	Pretreatment of barley husk for bioethanol production. Journal of Chemical Technology and Biotechnology, 2005, 80, 85-91.	1.6	47

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73	Simulation of chromatographic processes applied to separation of proteins. Journal of Chromatography A, 1999, 846, 1-12.	1.8	46
74	Integration options for high energy efficiency and improved economics in a wood-to-ethanol process. Biotechnology for Biofuels, 2008, 1, 4.	6.2	46
75	Economic evaluation of enzymatic hydrolysis of phenol-pretreated wheat straw. Biotechnology and Bioengineering, 1988, 32, 460-466.	1.7	43
76	A heterologous reductase affects the redox balance of recombinant Saccharomyces cerevisiae. Microbiology (United Kingdom), 1996, 142, 165-172.	0.7	42
77	Effect of Acetic Acid and Furfural on Cellulase Production of Trichoderma reesei RUT C30. Applied Biochemistry and Biotechnology, 2000, 89, 31-42.	1.4	42
78	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
79	Electronic Speckle Pattern Interferometry: A Tool for Determining Diffusion and Partition Coefficients for Proteins in Gels. Biotechnology Progress, 2002, 18, 1423-1430.	1.3	39
80	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
81	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
82	Simultaneous saccharification and co-fermentation of whole wheat in integrated ethanol production. Biomass and Bioenergy, 2013, 56, 506-514.	2.9	36
83	A kinetic model for enzymatic wheat starch saccharification. Journal of Chemical Technology and Biotechnology, 2000, 75, 306-314.	1.6	34
84	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
85	Measurement of diffusion coefficients in gels using holographic laser interferometry. Biotechnology Progress, 1993, 9, 436-441.	1.3	33
86	Use of holographic laser interferometry to study the diffusion of polymers in gels. Biotechnology and Bioengineering, 2000, 69, 654-663.	1.7	33
87	Enzymatic hydrolysis and simultaneous saccharification and fermentation of steam-pretreated spruce using crude Trichoderma reesei and Trichoderma atroviride enzymes. Process Biochemistry, 2009, 44, 1323-1329.	1.8	33
88	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
89	Evaluation of steamâ€treated giant bamboo for production of fermentable sugars. Biotechnology Progress, 2011, 27, 641-649.	1.3	32
90	Economic evaluation of isolation of hemicelluloses from process streams from thermomechanical pulping of spruce. Applied Biochemistry and Biotechnology, 2007, 137-140, 741-752.	1.4	30

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91	Simultaneous Saccharification and Fermentation of Steam-Pretreated Spruce to Ethanol. Applied Biochemistry and Biotechnology, 2000, 84-86, 69-80.	1.4	28
92	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
93	Cellulose production based on hemicellulose hydrolysate from steam-pretreated willow. Applied Biochemistry and Biotechnology, 1997, 63-65, 351-362.	1.4	26
94	Separation of Cells and Proteins from Fermentation Broth in a Shear-Enhanced Cross-Flow Ultrafiltration Module as the First Step in the Refinement of Lactic Acid. Applied Biochemistry and Biotechnology, 1999, 76, 143-158.	1.4	25
95	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
96	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
97	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
98	Diffusivity measurements using holographic laser interferometry in a cubic lipid-water phase. Chemistry and Physics of Lipids, 1996, 84, 1-12.	1.5	22
99	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
100	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
101	Two-Stage Steam Pretreatment of Willow for Increased Pentose Yield. Journal of Wood Chemistry and Technology, 1988, 8, 379-392.	0.9	20
102	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
103	Combined Steam Pretreatment and Enzymatic Hydrolysis of Starch-Free Wheat Fibers. Applied Biochemistry and Biotechnology, 2004, 115, 0989-1002.	1.4	18
104	Performance of batch and continuous reactors with coimmobilized yeast and Î²â€galactosidase. Journal of Chemical Technology and Biotechnology, 1991, 52, 227-241.	1.6	18
105	Impact of dual temperature profile in dilute acid hydrolysis of spruce for ethanol production. Biotechnology for Biofuels, 2010, 3, 15.	6.2	18
106	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
107	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
108	Modeling Simultaneous Saccharification and Fermentation of Softwood. Applied Biochemistry and Biotechnology, 2002, 98-100, 733-746.	1.4	16

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109	Light deflection and convection in diffusion experiments using holographic interferometry. Journal Physics D: Applied Physics, 2001, 34, 3088-3096.	1.3	15
110	Comparison of diafiltration and size-exclusion chromatography to recover hemicelluloses from process water from thermomechanical pulping of spruce. Applied Biochemistry and Biotechnology, 2007, 137-140, 971-983.	1.4	15
111	Hydrolysis of Nonstarch Carbohydrates of Wheat-Starch Effluent for Ethanol Production. Biotechnology Progress, 2008, 20, 474-479.	1.3	15
112	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
113	Influence of experimental errors on the determination of flux control coefficients from transient metabolite concentrations. Biochemical Journal, 1996, 313, 721-727.	1.7	14
114	Enhancement of the enzymatic digestibility of sugarcane bagasse by steam pretreatment impregnated with hydrogen peroxide. Biotechnology Progress, 2012, 28, 1207-1217.	1.3	14
115	Optimizing Ethanol and Methane Production from Steam-pretreated, Phosphoric Acid-impregnated Corn Stover. Applied Biochemistry and Biotechnology, 2015, 175, 1371-1388.	1.4	12
116	Adsorption of cellulases on steam-pretreated willow. Applied Biochemistry and Biotechnology, 1990, 24-25, 87-101.	1.4	10
117	Conversion of Sodium Lactate to Lactic Acid with Water-Splitting Electrodialysis. Applied Biochemistry and Biotechnology, 2001, 94, 197-212.	1.4	10
118	Recovery of cellulases after hydrolysis by adsorption on steam-pretreated willow. Applied Biochemistry and Biotechnology, 1992, 34-35, 105-113.	1.4	9
119	Use of Microfiltration as First Step in Recovery of Protein A From Fermentation Broth. Applied Biochemistry and Biotechnology, 2004, 112, 151-162.	1.4	8
120	Effect of Reduction in Yeast and Enzyme Concentrations in a Simultaneous-Saccharification-and-Fermentation-Based Bioethanol Process. , 2005, , 485-499.		8
121	Cellulase Production of Trichoderma reesei Rut C 30 Using Steam-Pretreated Spruce. , 2000, , 679-691.		6
122	Determination of diffusion coefficients of proteins in stationary phases by frontal chromatography. Biotechnology and Bioengineering, 2006, 93, 656-664.	1.7	5
123	Economic Evaluation of Isolation of Hemicelluloses From Process Streams From Thermomechanical Pulping of Spruce. , 2007, , 741-752.		4
124	Simulation of batch and continuous reactors with coâ€immobilized yeast and Î²â€galactosidase. Journal of Chemical Technology and Biotechnology, 1991, 52, 481-497.	1.6	3
125	Two-Step Steam Pretreatment of Softwood with SO2 Impregnation for Ethanol Production. , 2002, , 5-21.		3
126	Optimization of Steam Pretreatment of SO2-Impregnated Corn Stover for Fuel Ethanol Production. , 2005, , 1055-1067.		2

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127	Effect of substrate and cellulase concentration on simultaneous saccharification and fermentation of steam-pretreated softwood for ethanol production. , 2000, 68, 204.		2
128	Modeling Simultaneous Saccharification and Fermentation of Softwood. , 2002, , 733-746.		2
129	Recirculation of Process Streams in Fuel Ethanol Production from Softwood Based on Simultaneous Saccharification and Fermentation. , 2002, , 849-861.		2
130	Combined Steam Pretreatment and Enzymatic Hydrolysis of Starch-Free Wheat Fibers. , 2004, , 989-1002.		2
131	Steam Pretreatment of Acid-Sprayed and Acid-Soaked Barley Straw for Production of Ethanol. , 2006, , 546-562.		2
132	Comparison of Diafiltration and Size-Exclusion Chromatography to Recover Hemicelluloses From Process Water From Thermomechanical Pulping of Spruce. , 2007, , 971-983.		1
133	Simultaneous Saccharification and Fermentation of Steam-Pretreated Spruce to Ethanol. , 2000, , 69-80.		0
134	Vapour-liquid partition of volatile organic compounds in kraft black liquors. Nordic Pulp and Paper Research Journal, 2000, 15, 266-274.	0.3	0
135	Recycling of Process Streams in Ethanol Production from Softwoods Based on Enzymatic Hydrolysis. , 1998, , 697-708.		0
136	Steam Pretreatment of Salix with and without SO2 Impregnation for Production of Bioethanol. , 2005, , 1101-1117.		0