Michael R Ladisch

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/2372475/publications.pdf

Version: 2024-02-01

38742 15732 16,220 149 50 125 citations h-index g-index papers 158 158 158 11257 docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	Features of promising technologies for pretreatment of lignocellulosic biomass. Bioresource Technology, 2005, 96, 673-686.	9.6	5,057
2	Coordinated development of leading biomass pretreatment technologies. Bioresource Technology, 2005, 96, 1959-1966.	9.6	1,199
3	Comparative sugar recovery data from laboratory scale application of leading pretreatment technologies to corn stover. Bioresource Technology, 2005, 96, 2026-2032.	9.6	470
4	Optimization of pH controlled liquid hot water pretreatment of corn stover. Bioresource Technology, 2005, 96, 1986-1993.	9.6	462
5	Deactivation of cellulases by phenols. Enzyme and Microbial Technology, 2011, 48, 54-60.	3.2	436
6	Inhibition of cellulases by phenols. Enzyme and Microbial Technology, 2010, 46, 170-176.	3.2	403
7	Soluble inhibitors/deactivators of cellulase enzymes from lignocellulosic biomass. Enzyme and Microbial Technology, 2011, 48, 408-415.	3.2	398
8	Disruption of Mediator rescues the stunted growth of a lignin-deficient Arabidopsis mutant. Nature, 2014, 509, 376-380.	27.8	313
9	Composition of corn dry-grind ethanol by-products: DDGS, wet cake, and thin stillage. Bioresource Technology, 2008, 99, 5165-5176.	9.6	287
10	Effect of liquid hot water pretreatment severity on properties of hardwood lignin and enzymatic hydrolysis of cellulose. Biotechnology and Bioengineering, 2015, 112, 252-262.	3.3	283
11	Comparative sugar recovery and fermentation data following pretreatment of poplar wood by leading technologies. Biotechnology Progress, 2009, 25, 333-339.	2.6	269
12	Characterization of acid catalytic domains for cellulose hydrolysis and glucose degradation. Biotechnology and Bioengineering, 2002, 79, 610-618.	3.3	221
13	Microscopic examination of changes of plant cell structure in corn stover due to hot water pretreatment and enzymatic hydrolysis. Biotechnology and Bioengineering, 2007, 97, 265-278.	3.3	210
14	Adsorption of enzyme onto lignins of liquid hot water pretreated hardwoods. Biotechnology and Bioengineering, 2015, 112, 447-456.	3.3	207
15	Lignin–Enzyme Interactions in the Hydrolysis of Lignocellulosic Biomass. Trends in Biotechnology, 2019, 37, 518-531.	9.3	183
16	Removal of Fermentation Inhibitors Formed during Pretreatment of Biomass by Polymeric Adsorbents. Industrial & Engineering Chemistry Research, 2002, 41, 6132-6138.	3.7	181
17	Lignin monomer composition affects Arabidopsis cell-wall degradability after liquid hot water pretreatment. Biotechnology for Biofuels, 2010, 3, 27.	6.2	178
18	Cellobiase from Trichoderma viride: Purification, properties, kinetics, and mechanism. Biotechnology and Bioengineering, 1977, 19, 959-981.	3.3	172

#	Article	IF	CITATIONS
19	Industrial Scale-Up of pH-Controlled Liquid Hot Water Pretreatment of Corn Fiber for Fuel Ethanol Production. Applied Biochemistry and Biotechnology, 2005, 125, 077-098.	2.9	158
20	Loosening lignin's grip on biofuel production. Nature Biotechnology, 2007, 25, 746-748.	17.5	155
21	Molecular Breeding to Enhance Ethanol Production from Corn and Sorghum Stover. Crop Science, 2007, 47, S-142.	1.8	154
22	Enzymatic digestion of liquid hot water pretreated hybrid poplar. Biotechnology Progress, 2009, 25, 340-348.	2.6	142
23	Manipulation of Guaiacyl and Syringyl Monomer Biosynthesis in an Arabidopsis Cinnamyl Alcohol Dehydrogenase Mutant Results in Atypical Lignin Biosynthesis and Modified Cell Wall Structure. Plant Cell, 2015, 27, 2195-2209.	6.6	136
24	Pretreatment of yellow poplar sawdust by pressure cooking in water. Applied Biochemistry and Biotechnology, 1997, 68, 21-40.	2.9	134
25	Cellulose pretreaments of lignocellulosic substrates. Enzyme and Microbial Technology, 1994, 16, 1002-1004.	3.2	133
26	Fractionation of cellulase and fermentation inhibitors from steam pretreated mixed hardwood. Bioresource Technology, 2013, 135, 30-38.	9.6	132
27	Enzyme hydrolysis and ethanol fermentation of liquid hot water and AFEX pretreated distillers' grains at high-solids loadings. Bioresource Technology, 2008, 99, 5206-5215.	9.6	131
28	Recombinant human insulin. Biotechnology Progress, 1992, 8, 469-478.	2.6	130
29	Characterization of Dicarboxylic Acids for Cellulose Hydrolysis. Biotechnology Progress, 2001, 17, 474-480.	2.6	128
30	Comparative data on effects of leading pretreatments and enzyme loadings and formulations on sugar yields from different switchgrass sources. Bioresource Technology, 2011, 102, 11052-11062.	9.6	121
31	Hydrolysisâ€determining substrate characteristics in liquid hot water pretreated hardwood. Biotechnology and Bioengineering, 2015, 112, 677-687.	3.3	116
32	Pretreatment of corn fiber by pressure cooking in water. Applied Biochemistry and Biotechnology, 1998, 73, 1-17.	2.9	110
33	Assessment of ethanol production options for corn products. Bioresource Technology, 1996, 58, 253-264.	9.6	103
34	Severity factor coefficients for subcritical liquid hot water pretreatment of hardwood chips. Biotechnology and Bioengineering, 2014, 111, 254-263.	3.3	99
35	Summary of findings from the Biomass Refining Consortium for Applied Fundamentals and Innovation (CAFI): corn stover pretreatment. Cellulose, 2009, 16, 649-659.	4.9	98
36	Comparative study on enzymatic digestibility of switchgrass varieties and harvests processed by leading pretreatment technologies. Bioresource Technology, 2011, 102, 11089-11096.	9.6	93

3

#	Article	IF	CITATIONS
37	Theory and practise of rapid liquid chromatography at moderate pressures using water as eluent. Journal of Chromatography A, 1978, 166, 85-100.	3.7	91
38	Effect of phenolic compounds from pretreated sugarcane bagasse on cellulolytic and hemicellulolytic activities. Bioresource Technology, 2016, 199, 275-278.	9.6	87
39	Secretome analysis of Trichoderma reesei and Aspergillus niger cultivated by submerged and sequential fermentation processes: Enzyme production for sugarcane bagasse hydrolysis. Enzyme and Microbial Technology, 2016, 90, 53-60.	3.2	86
40	Severity factor kinetic model as a strategic parameter of hydrothermal processing (steam explosion) Tj ETQq0 0 0 2021, 342, 125961.) rgBT /Ov	erlock 10 Tf 83
41	Composite surface for blocking bacterial adsorption on protein biochips. Biotechnology and Bioengineering, 2003, 81, 618-624.	3.3	81
42	Continuous pH monitoring during pretreatment of yellow poplar wood sawdust by pressure cooking in water. Applied Biochemistry and Biotechnology, 1998, 70-72, 99-111.	2.9	73
43	Liquid Hot Water Pretreatment of Cellulosic Biomass. Methods in Molecular Biology, 2009, 581, 93-102.	0.9	73
44	Biosynthesis, Purification, and Mode of Action of Cellulases of <i>Trichoderma reesei</i> . Advances in Chemistry Series, 1979, , 261-287.	0.6	70
45	Tissueâ€specific biomass recalcitrance in corn stover pretreated with liquid hotâ€water: Enzymatic hydrolysis (part 1). Biotechnology and Bioengineering, 2012, 109, 390-397.	3.3	69
46	Combined product and substrate inhibition equation for cellobiase. Biotechnology and Bioengineering, 1981, 23, 2779-2788.	3.3	65
47	Surface and ultrastructural characterization of raw and pretreated switchgrass. Bioresource Technology, 2011, 102, 11097-11104.	9.6	62
48	Fermentation-derived butanol and scenarios for its uses in energy-related applications. Enzyme and Microbial Technology, 1991, 13, 280-283.	3.2	59
49	Plug-Flow Reactor for Continuous Hydrolysis of Glucans and Xylans from Pretreated Corn Fiber. Energy &	5.1	58
50	Protein chromatography using a continuous stationary phase. Journal of Chromatography A, 1992, 598, 169-180.	3.7	52
51	Process Analytical Technologies and Data Analytics for the Manufacture of Monoclonal Antibodies. Trends in Biotechnology, 2020, 38, 1169-1186.	9.3	52
52	Ethanol production and the cost of fermentable sugars from biomass. Bioresource Technology, 1991, 36, 83-95.	9.6	51
53	Adsorption Phenomena in Hydrophobic Interaction Chromatography. Biotechnology Progress, 1989, 5, 79-88.	2.6	50
54	Biological abatement of cellulase inhibitors. Bioresource Technology, 2013, 146, 604-610.	9.6	49

#	Article	IF	CITATIONS
55	Reaction mechanisms and kinetics of xyloâ€oligosaccharide hydrolysis by dicarboxylic acids. AICHE Journal, 2013, 59, 188-199.	3.6	48
56	Reaction Kinetics, Molecular Action, and Mechanisms of Cellulolytic Proteins. Advances in Biochemical Engineering/Biotechnology, 1999, 65, 23-40.	1.1	46
57	Rapid Sample Processing for Detection of Food-Borne Pathogens via Cross-Flow Microfiltration. Applied and Environmental Microbiology, 2013, 79, 7048-7054.	3.1	46
58	Process simulation of modified dry grind ethanol plant with recycle of pretreated and enzymatically hydrolyzed distillers' grains. Bioresource Technology, 2008, 99, 5177-5192.	9.6	44
59	PCR-based detection in a micro-fabricated platform. Lab on A Chip, 2008, 8, 1130.	6.0	44
60	Bioabatement with hemicellulase supplementation to reduce enzymatic hydrolysis inhibitors. Bioresource Technology, 2015, 190, 412-415.	9.6	44
61	Deactivation and activation of lignocellulose degrading enzymes in the presence of laccase. Enzyme and Microbial Technology, 2018, 109, 25-30.	3.2	44
62	Adsorption of Water from Liquid-Phase Ethanolâ^'Water Mixtures at Room Temperature Using Starch-Based Adsorbents. Industrial & Engineering Chemistry Research, 2001, 40, 2112-2115.	3.7	42
63	Nano/Micro and Spectroscopic Approaches to Food Pathogen Detection. Annual Review of Analytical Chemistry, 2014, 7, 65-88.	5.4	42
64	Enhanced Antimicrobial Efficacy of Bimetallic Porous CuO Microspheres Decorated with Ag Nanoparticles. ACS Applied Materials & Samp; Interfaces, 2017, 9, 39165-39173.	8.0	41
65	Cellobiose hydrolysis by endoglucanase (glucan glucanhydrolase) fromTrichoderma reesie: Kinetics and mechanism. Biotechnology and Bioengineering, 1980, 22, 1107-1126.	3.3	40
66	Water and ethanol sorption phenomena on starch. AICHE Journal, 1991, 37, 1187-1195.	3.6	40
67	Tissueâ€specific biomass recalcitrance in corn stover pretreated with liquid hotâ€water: SEM imaging (part 2). Biotechnology and Bioengineering, 2012, 109, 398-404.	3.3	40
68	Foodborne pathogens in horticultural production systems: Ecology and mitigation. Scientia Horticulturae, 2018, 236, 192-206.	3.6	40
69	Effect of compositional variability of distillers' grains on cellulosic ethanol production. Bioresource Technology, 2010, 101, 5385-5393.	9.6	39
70	Chromatography for Rapid Buffer Exchange and Refolding of Secretory Leukocyte Protease Inhibitor. Biotechnology Progress, 1996, 12, 184-189.	2.6	38
71	Fermentation Substrates from Cellulosic Materials: Production of Fermentable Sugars from Cellulosic Materials. Plant, Cell and Environment, 1978, 2, 1-21.	5.7	38
72	Temperature dependent cellulase adsorption on lignin from sugarcane bagasse. Bioresource Technology, 2018, 252, 143-149.	9.6	37

#	Article	IF	Citations
73	Preparation of cellodextrins: An engineering approach. Biotechnology and Bioengineering, 1978, 20, 1669-1677.	3.3	31
74	Rolled Stationary Phases:Â Dimensionally Structured Textile Adsorbents for Rapid Liquid Chromatography of Proteins. Industrial & Engineering Chemistry Research, 1999, 38, 865-872.	3.7	31
75	Production of ethanol from wood hemicellulose hydrolyzates by a xylose-fermenting yeast mutant, Candida sp. XF 217. Biotechnology Letters, 1981, 3, 657-662.	2.2	30
76	Addressing academic researcher priorities through science and technology entrepreneurship education. Journal of Technology Transfer, 2021, 46, 288-318.	4.3	30
77	Cellulose conversion of corn pericarp without pretreatment. Bioresource Technology, 2017, 245, 511-517.	9.6	29
78	Transport Properties of Rolled, Continuous Stationary Phase Columns. Biotechnology Progress, 1998, 14, 21-30.	2.6	27
79	Cassava Starch Pearls as a Desiccant for Drying Ethanol. Industrial & Engineering Chemistry Research, 2011, 50, 8678-8685.	3.7	25
80	Maleic acid treatment of biologically detoxified corn stover liquor. Bioresource Technology, 2016, 216, 437-445.	9.6	25
81	Ethanol Production from Maize. Biotechnology in Agriculture and Forestry, 2009, , 347-364.	0.2	25
82	Engineering and economics of cellulose saccharification systems. Enzyme and Microbial Technology, 1986, 8, 66-69.	3.2	24
83	Adaptive laboratory evolution of nanocelluloseâ€producing bacterium. Biotechnology and Bioengineering, 2019, 116, 1923-1933.	3.3	24
84	New approach to aqueous gel permeation chromatography of nonderivatized cellulose. Journal of Applied Polymer Science, 1980, 25, 263-275.	2.6	23
85	Optimal Packing Characteristics of Rolled, Continuous Stationary-Phase Columns. Biotechnology Progress, 2002, 18, 309-316.	2.6	22
86	Mechanistic study of membrane concentration and recovery of Listeria monocytogenes. Biotechnology and Bioengineering, 2005, 89, 263-273.	3.3	22
87	Mechanism and potential applications of bio-ligninolytic systems in a CELSS. Applied Biochemistry and Biotechnology, 1997, 62, 131-149.	2.9	21
88	Accelerating sample preparation through enzymeâ€assisted microfiltration of <i>Salmonella</i> in chicken extract. Biotechnology Progress, 2015, 31, 1551-1562.	2.6	21
89	Simulation of diauxic production of cephalosporin C by Cephalosporium acremonium: lag model for fed-batch fermentation. Biotechnology Progress, 1995, 11, 626-631.	2.6	20
90	Acetic acid removal from corn stover hydrolysate using ethyl acetate and the impact on <i>Saccharomyces cerevisiae</i> bioethanol fermentation. Biotechnology Progress, 2016, 32, 929-937.	2.6	20

#	Article	IF	CITATIONS
91	Lysozyme for capture of microorganisms on protein biochips. Enzyme and Microbial Technology, 2003, 33, 958-966.	3.2	18
92	Surface engineering of microchannel walls for protein separation and directed microfluidic flow. Journal of Separation Science, 2006, 29, 1733-1742.	2.5	18
93	Enzyme production by industrially relevant fungi cultured on coproduct from corn dry grind ethanol plants. Applied Biochemistry and Biotechnology, 2007, 137-140, 171-183.	2.9	18
94	Human pathogens in plant biofilms: Formation, physiology, and detection. Biotechnology and Bioengineering, 2017, 114, 1403-1418.	3.3	18
95	New system for preparative electrochromatography of proteins. Biotechnology and Bioengineering, 2000, 70, 72-81.	3.3	17
96	lon exchange and affinity chromatography in the scaleup of the purification of ?-galactosidase from soybean seeds. Biotechnology and Bioengineering, 1991, 37, 356-363.	3.3	16
97	Micro-assembly of functionalized particulate monolayer on C18-derivatized SiO2 surfaces. Biotechnology and Bioengineering, 2003, 83, 416-427.	3.3	16
98	Impact of protein blocking on enzymatic saccharification of bagasse from sugarcane clones. Biotechnology and Bioengineering, 2019, 116, 1584-1593.	3.3	16
99	An unstructured mathematical model for growth ofPleurotus ostreatus on lignocellulosic material in solid-state fermentation systems. Applied Biochemistry and Biotechnology, 1997, 62, 71-85.	2.9	15
100	Cellulose conversion in dry grind ethanol plants. Bioresource Technology, 2008, 99, 5157-5159.	9.6	15
101	Secretome data from Trichoderma reesei and Aspergillus niger cultivated in submerged and sequential fermentation methods. Data in Brief, 2016, 8, 588-598.	1.0	15
102	Cellulase Kinetics. , 1981, 18, 55-83.		14
103	Rapid chromatography for evaluating adsorption characteristics of cellulase binding domain mimetics. Biotechnology and Bioengineering, 2004, 86, 756-764.	3.3	13
104	Microfiber-Directed Boundary Flow in Press-Fit Microdevices Fabricated from Self-Adhesive Hydrophobic Surfaces. Analytical Chemistry, 2005, 77, 3671-3675.	6.5	12
105	Surface-Directed Boundary Flow in Microfluidic Channels. Langmuir, 2006, 22, 6429-6437.	3.5	12
106	Hydrothermal Pretreatment of Lignocellulosic Biomass for Bioethanol Production., 2017, , 181-205.		12
107	Lattice: A Vision for Machine Learning, Data Engineering, and Policy Considerations for Digital Agriculture at Scale. IEEE Open Journal of the Computer Society, 2021, 2, 227-240.	7.8	12
108	Moving from residual lignocellulosic biomass into highâ€value products: Outcomes from a longâ€term international cooperation. Biofuels, Bioproducts and Biorefining, 2021, 15, 563-573.	3.7	12

#	Article	IF	Citations
109	Measurement of Cellulolytic Activity by Low Pressure Liquid Chromatography. Journal of Liquid Chromatography and Related Technologies, 1979, 2, 745-760.	1.0	11
110	Symposium on fuels and chemicals from biomass. Biotechnology and Bioengineering, 1983, 25, 1-2.	3.3	11
111	Effect of modulator sorption in gradient elution chromatography: gradient deformation. Chemical Engineering Science, 1992, 47, 233-239.	3.8	11
112	Title is missing!. Adsorption, 1998, 4, 321-335.	3.0	11
113	Fiber-based monolithic columns for liquid chromatography. Analytical and Bioanalytical Chemistry, 2016, 408, 6871-6883.	3.7	11
114	Effect of using a nitrogen atmosphere on enzyme hydrolysis at high corn stover loadings in an agitated reactor. Biotechnology Progress, 2020, 36, e3059.	2.6	11
115	New strategy for liquefying corn stover pellets. Bioresource Technology, 2021, 341, 125773.	9.6	11
116	Sorptive recovery of dilute ethanol from distillation column bottoms stream. Applied Biochemistry and Biotechnology, 1996, 57-58, 103-119.	2.9	10
117	Microfiltration of enzyme treated egg whites for accelerated detection of viable <i>Salmonella</i> Biotechnology Progress, 2016, 32, 1464-1471.	2.6	10
118	Protein particulate retention and microorganism recovery for rapid detection of <i>Salmonella</i> Biotechnology Progress, 2017, 33, 687-695.	2.6	10
119	Economic Implications of Purfication of Glucose Isomerase prior to Immobilization. Industrial & Engineering Chemistry Process Design and Development, 1977, 16, 309-313.	0.6	9
120	Microbial enrichment and multiplexed microfiltration for accelerated detection of <i>Salmonella</i> in spinach. Biotechnology Progress, 2019, 35, e2874.	2.6	9
121	lon-exchange and affinity chromatography costs in ?-galactosidase purification. Biotechnology and Bioengineering, 1992, 39, 717-724.	3.3	8
122	Characterization of buffers for electrokinetic separations. Applied Biochemistry and Biotechnology, 1994, 44, 243-261.	2.9	8
123	Simultaneous concentration and purification through gradient deformation chromatography. AICHE Journal, 1995, 41, 1184-1193.	3.6	8
124	Rheology of enzyme liquefied corn stover slurries: The effect of solids concentration on yielding and flow behavior. Biotechnology Progress, 2021, 37, e3216.	2.6	8
125	Microfabricated Device for Impedance-Based Detection of Bacterial Metabolism. Materials Research Society Symposia Proceedings, 2002, 729, 461.	0.1	7
126	Distillers grains: On the pathway to cellulose conversion. Bioresource Technology, 2008, 99, 5155-5156.	9.6	7

#	Article	IF	CITATIONS
127	Model for temperature profiles in large diameter electrochromatography columns. AICHE Journal, 2003, 49, 402-410.	3.6	6
128	Doppler imaging detects bacterial infection of living tissue. Communications Biology, 2021, 4, 178.	4.4	6
129	Accelerated Sample Preparation for Fast Salmonella Detection in Poultry Products. Methods in Molecular Biology, 2019, 1918, 3-20.	0.9	6
130	Separation ofmeso andracemic 2,3-butanediol by aqueous liquid chromatography. Biotechnology and Bioengineering, 1981, 23, 1289-1296.	3.3	5
131	Industrial Challenges of Recombinant Proteins. Advances in Biochemical Engineering/Biotechnology, 2019, 171, 1-22.	1.1	5
132	Cellulolytic enzymes production guided by morphology engineering. Enzyme and Microbial Technology, 2021, 149, 109833.	3.2	5
133	Combined Sugarcane Pretreatment for the Generation of Ethanol and Value-Added Products. Frontiers in Energy Research, 2022, 10, .	2.3	5
134	Large-Scale Protein Purification. ACS Symposium Series, 1990, , 1-13.	0.5	4
135	Proteins at heterogeneous (lignocellulose) interfaces. Current Opinion in Chemical Engineering, 2017, 18, 45-54.	7.8	4
136	Analysis, Impacts, and Solutions to Biomass Variability for Production of Fuels and Value-Added Products. ACS Sustainable Chemistry and Engineering, 2020, 8, 15375-15377.	6.7	4
137	Phase-Sensitive Intracellular Doppler Fluctuation Spectroscopy. Physical Review Applied, 2021, 15, .	3.8	4
138	Multi-Electrode Array of Sensory Neurons as an In Vitro Platform to Identify the Nociceptive Response to Pharmaceutical Buffer Systems of Injectable Biologics. Pharmaceutical Research, 2021, 38, 1179-1186.	3.5	4
139	Protein determination in the presence of cellulose. Biotechnology and Bioengineering, 1978, 20, 461-462.	3.3	3
140	Scale-Up of Bioseparations for Microbial and Biochemical Technology. ACS Symposium Series, 1988, , 72-101.	0.5	3
141	Mechanisms of Protein Retention in Hydrophobic Interaction Chromatography. ACS Symposium Series, 1990, , 80-92.	0.5	3
142	Characterization of the swelling of a size-exclusion gel. Biotechnology Progress, 1990, 6, 376-382.	2.6	2
143	Construction and operation of a multiplexed microfiltration device to facilitate rapid pathogen detection. Biotechnology Progress, 2019, 35, e2889.	2.6	2
144	Biotextiles â€" Monoliths with Rolled Geometrics. Journal of Chromatography Library, 2003, 67, 235-253.	0.1	1

#	Article	IF	CITATIONS
145	Ligninâ€derived Phenols: A New Frontier. Biofuels, Bioproducts and Biorefining, 2017, 11, 769-770.	3.7	1
146	Enzyme interactions on lignocellulosic biomass structure. , 2020, , 33-59.		1
147	Protective effects of nonâ€eatalytic proteins on endoglucanase activity at air and lignin interfaces. Biotechnology Progress, 2021, 37, e3134.	2.6	1
148	Cause and correction of baseline interruptions observed for small-bore liquid chromatography columns packed with cation exchange resin in the H+ form. Biotechnology and Bioengineering, 1987, 30, 331-333.	3.3	0
149	Introduction to Session 6. Applied Biochemistry and Biotechnology, 2006, 132, 909-910.	2.9	0