Mirjam A Kabel

List of Publications by Year
in descending order

109 papers	4,445 citations	101496 36 h-index	118793 62 g-index
109 all docs	109 docs citations	109 times ranked	4033 citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of pretreatment severity on xylan solubility and enzymatic breakdown of the remaining cellulose from wheat straw. Bioresource Technology, 2007, 98, 2034-2042.	4.8	405
2	Hydrothermally treated xylan rich by-products yield different classes of xylo-oligosaccharides. Carbohydrate Polymers, 2002, 50, 47-56.	5.1	205
3	Structural differences of xylans affect their interaction with cellulose. Carbohydrate Polymers, 2007, 69, 94-105.	5.1	190
4	Discovery of the combined oxidative cleavage of plant xylan and cellulose by a new fungal polysaccharide monooxygenase. Biotechnology for Biofuels, 2015, 8, 101.	6.2	187
5	In Vitro Fermentability of Differently Substituted Xylo-oligosaccharides. Journal of Agricultural and Food Chemistry, 2002, 50, 6205-6210.	2.4	146
6	Lytic polysaccharide monooxygenases from Myceliophthora thermophila C1 differ in substrate preference and reducing agent specificity. Biotechnology for Biofuels, 2016, 9, 186.	6.2	132
7	Laccase/Mediator Systems: Their Reactivity toward Phenolic Lignin Structures. ACS Sustainable Chemistry and Engineering, 2018, 6, 2037-2046.	3.2	126
8	Standard assays do not predict the efficiency of commercial cellulase preparations towards plant materials. Biotechnology and Bioengineering, 2006, 93, 56-63.	1.7	106
9	Preparation of arabinoxylobiose from rye xylan using family 10 Aspergillus aculeatus endo-1,4-Î^{2}-d-xylanase. Carbohydrate Polymers, 2007, 68, 350-359.	5.1	105
10	Characterization of Oligomeric Xylan Structures from Corn Fiber Resistant to Pretreatment and Simultaneous Saccharification and Fermentation. Journal of Agricultural and Food Chemistry, 2010, 58, 11294-11301.	2.4	100
11	Complex xylo-oligosaccharides identified from hydrothermally treated Eucalyptus wood and brewery's spent grain. Carbohydrate Polymers, 2002, 50, 191-200.	5.1	96
12	Distinct Substrate Specificities and Electron-Donating Systems of Fungal Lytic Polysaccharide Monooxygenases. Frontiers in Microbiology, 2018, 9, 1080.	1.5	92
13	Boosting LPMO-driven lignocellulose degradation by polyphenol oxidase-activated lignin building blocks. Biotechnology for Biofuels, 2017, 10, 121.	6.2	86
14	A Brief and Informationally Rich Naming System for Oligosaccharide Motifs of Heteroxylans Found in Plant Cell Walls. Australian Journal of Chemistry, 2009, 62, 533.	0.5	84
15	Corn fiber, cobs and stover: Enzyme-aided saccharification and co-fermentation after dilute acid pretreatment. Bioresource Technology, 2011, 102, 5995-6004.	4.8	83
16	Biochemical Characterization and Relative Expression Levels of Multiple Carbohydrate Esterases of the Xylanolytic Rumen Bacterium Prevotella ruminicola 23 Grown on an Ester-Enriched Substrate. Applied and Environmental Microbiology, 2011, 77, 5671-5681.	1.4	76
17	Location of O-acetyl substituents in xylo-oligosaccharides obtained from hydrothermally treated Eucalyptus wood. Carbohydrate Research, 2003, 338, 69-77.	1.1	74
18	Fate of Carbohydrates and Lignin during Composting and Mycelium Growth of Agaricus bisporus on Wheat Straw Based Compost. PLoS ONE, 2015, 10, e0138909.	1.1	71

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19	Quantification of Lignin and Its Structural Features in Plant Biomass Using ¹³C Lignin as Internal Standard for Pyrolysis-GC-SIM-MS. Analytical Chemistry, 2017, 89, 10907-10916.	3.2	71
20	Hydrothermal processing of rice husks: effects of severity on product distribution. Journal of Chemical Technology and Biotechnology, 2008, 83, 965-972.	1.6	65
21	Effects ofEucalyptus globulusWood Autohydrolysis Conditions on the Reaction Products. Journal of Agricultural and Food Chemistry, 2007, 55, 9006-9013.	2.4	59
22	Characterization of substituents in xylans from corn cobs and stover. Carbohydrate Polymers, 2011, 86, 722-731.	5.1	59
23	Importance of acid or alkali concentration on the removal of xylan and lignin for enzymatic cellulose hydrolysis. Industrial Crops and Products, 2015, 64, 88-96.	2.5	59
24	Occurrence and function of enzymes for lignocellulose degradation in commercial Agaricus bisporus cultivation. Applied Microbiology and Biotechnology, 2017, 101, 4363-4369.	1.7	59
25	A novel acetyl xylan esterase enabling complete deacetylation of substituted xylans. Biotechnology for Biofuels, 2018, 11, 74.	6.2	53
26	A comparison of liquid chromatography, capillary electrophoresis, and mass spectrometry methods to determine xyloglucan structures in black currants. Journal of Chromatography A, 2006, 1133, 275-286.	1.8	52
27	Enzyme resistant feruloylated xylooligomer analogues from thermochemically treated corn fiber contain large side chains, ethyl glycosides and novel sites of acetylation. Carbohydrate Research, 2013, 381, 33-42.	1.1	52
28	Quantification of the catalytic performance of C1-cellulose-specific lytic polysaccharide monooxygenases. Applied Microbiology and Biotechnology, 2018, 102, 1281-1295.	1.7	51
29	Uncovering the abilities of <scp><i>A</i></scp><i>garicus bisporus</i> to degrade plant biomass throughout its life cycle. Environmental Microbiology, 2015, 17, 3098-3109.	1.8	49
30	Characterisation of cell wall polysaccharides from rapeseed (Brassica napus) meal. Carbohydrate Polymers, 2013, 98, 1650-1656.	5.1	45
31	Capillary electrophoresis fingerprinting, quantification and mass-identification of various 9-aminopyrene-1,4,6-trisulfonate-derivatized oligomers derived from plant polysaccharides. Journal of Chromatography A, 2006, 1137, 119-126.	1.8	41
32	Influence of Lytic Polysaccharide Monooxygenase Active Site Segments on Activity and Affinity. International Journal of Molecular Sciences, 2019, 20, 6219.	1.8	41
33	Mass determination of oligosaccharides by matrix-assisted laser desorption/ionization time-of-flight mass spectrometry following HPLC, assisted by on-line desalting and automated sample handling. Carbohydrate Polymers, 2001, 44, 161-165.	5.1	40
34	Characterization and mode of action of two acetyl xylan esterases from Chrysosporium lucknowense C1 active towards acetylated xylans. Enzyme and Microbial Technology, 2011, 49, 312-320.	1.6	39
35	Residual Carbohydrates from in Vitro Digested Processed Rapeseed (Brassica napus) Meal. Journal of Agricultural and Food Chemistry, 2012, 60, 8257-8263.	2.4	39
36	Feruloyl Esterases for Biorefineries: Subfamily Classified Specificity for Natural Substrates. Frontiers in Bioengineering and Biotechnology, 2020, 8, 332.	2.0	39

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37	A generic model for glucose production from various cellulose sources by a commercial cellulase complex. Biocatalysis and Biotransformation, 2007, 25, 419-429.	1.1	37
38	Bilberry xyloglucanâ€"novel building blocks containing Î²-xylose within a complex structure. Carbohydrate Research, 2007, 342, 170-181.	1.1	36
39	CEâ€MSⁿ of complex pectinâ€derived oligomers. Electrophoresis, 2008, 29, 2101-2111.	1.3	35
40	Carbohydrate utilization and metabolism is highly differentiated in Agaricus bisporus. BMC Genomics, 2013, 14, 663.	1.2	35
41	MALDI-TOF MS evidence for the linking of flax bast fibre galactan to rhamnogalacturonan backbone. Carbohydrate Polymers, 2007, 67, 86-96.	5.1	34
42	Effects of processing technologies and pectolytic enzymes on degradability of nonstarch polysaccharides from rapeseed meal in broilers. Poultry Science, 2014, 93, 589-598.	1.5	34
43	Deconstruction of lignin linked p -coumarates, ferulates and xylan by NaOH enhances the enzymatic conversion of glucan. Bioresource Technology, 2016, 216, 44-51.	4.8	34
44	Mechanistic insight in the selective delignification of wheat straw by three white-rot fungal species through quantitative 13C-IS py-GCâ€"MS and whole cell wall HSQC NMR. Biotechnology for Biofuels, 2018, 11, 262.	6.2	33
45	Termite Gut Microbiota Contribution to Wheat Straw Delignification in Anaerobic Bioreactors. ACS Sustainable Chemistry and Engineering, 2021, 9, 2191-2202.	3.2	33
46	Fungal xylanolytic enzymes: Diversity and applications. Bioresource Technology, 2022, 344, 126290.	4.8	33
47	Processing Technologies and Cell Wall Degrading Enzymes To Improve Nutritional Value of Dried Distillers Grain with Solubles for Animal Feed: an in Vitro Digestion Study. Journal of Agricultural and Food Chemistry, 2013, 61, 8821-8828.	2.4	32
48	Structural features and water holding capacities of pressed potato fibre polysaccharides. Carbohydrate Polymers, 2013, 93, 589-596.	5.1	31
49	Carbohydrate composition of compost during composting and mycelium growth of Agaricus bisporus. Carbohydrate Polymers, 2014, 101, 281-288.	5.1	29
50	Understanding laccase/HBT-catalyzed grass delignification at the molecular level. Green Chemistry, 2020, 22, 1735-1746.	4.6	26
51	Î²-Glucans and Resistant Starch Alter the Fermentation of Recalcitrant Fibers in Growing Pigs. PLoS ONE, 2016, 11, e0167624.	1.1	26
52	Elucidation of In Situ Ligninolysis Mechanisms of the Selective White-Rot Fungus <i>Ceriporiopsis subvermispora</i>. ACS Sustainable Chemistry and Engineering, 2019, 7, 16757-16764.	3.2	25
53	Evidence for ligninolytic activity of the ascomycete fungus Podospora anserina. Biotechnology for Biofuels, 2020, 13, 75.	6.2	25
54	Uniformly ¹³C Labeled Lignin Internal Standards for Quantitative Pyrolysisâ^'GCâ^'MS Analysis of Grass and Wood. ACS Sustainable Chemistry and Engineering, 2019, 7, 20070-20076.	3.2	24

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55	Unfermented recalcitrant polysaccharide structures from rapeseed (Brassica napus) meal in pigs. Industrial Crops and Products, 2014, 58, 271-279.	2.5	22
56	Configuration of active site segments in lytic polysaccharide monooxygenases steers oxidative xyloglucan degradation. Biotechnology for Biofuels, 2020, 13, 95.	6.2	22
57	Effects of pretreatment of wheat bran on the quality of protein-rich residue for animal feeding and on monosaccharide release for ethanol production. Bioresource Technology, 2012, 124, 446-454.	4.8	21
58	Improving ruminal digestibility of various wheat straw types by whiteâ€rot fungi. Journal of the Science of Food and Agriculture, 2019, 99, 957-965.	1.7	21
59	The two Rasamsonia emersonii Î±-glucuronidases, ReGH67 and ReGH115, show a different mode-of-action towards glucuronoxylan and glucuronoxylo-oligosaccharides. Biotechnology for Biofuels, 2016, 9, 105.	6.2	20
60	The solubility of primary plant cell wall polysaccharides in LiCl-DMSO. Carbohydrate Polymers, 2018, 200, 332-340.	5.1	20
61	Structural Motifs of Wheat Straw Lignin Differ in Susceptibility to Degradation by the White-Rot Fungus <i>Ceriporiopsis subvermispora</i>. ACS Sustainable Chemistry and Engineering, 2019, 7, 20032-20042.	3.2	20
62	Controlling the Competition: Boosting Laccase/HBT-Catalyzed Cleavage of a Î²-O-4â€² Linked Lignin Model. ACS Catalysis, 2020, 10, 8650-8659.	5.5	20
63	Separation of digesta fractions complicates estimation of ileal digestibility using marker methods with Cr2 O3 and cobalt-ethylenediamine tetraacetic acid in broiler chickens. Poultry Science, 2014, 93, 2010-2017.	1.5	19
64	Compost Grown Agaricus bisporus Lacks the Ability to Degrade and Consume Highly Substituted Xylan Fragments. PLoS ONE, 2015, 10, e0134169.	1.1	19
65	Breeding Targets to Improve Biomass Quality in Miscanthus. Molecules, 2021, 26, 254.	1.7	19
66	H2O2 as a candidate bottleneck for MnP activity during cultivation of Agaricus bisporus in compost. AMB Express, 2017, 7, 124.	1.4	17
67	Functional Validation of Two Fungal Subfamilies in Carbohydrate Esterase Family 1 by Biochemical Characterization of Esterases From Uncharacterized Branches. Frontiers in Bioengineering and Biotechnology, 2020, 8, 694.	2.0	17
68	RP-UHPLC-UV-ESI-MS/MS analysis of LPMO generated C4-oxidized gluco-oligosaccharides after non-reductive labeling with 2-aminobenzamide. Carbohydrate Research, 2017, 448, 191-199.	1.1	16
69	Mass spectrometric fragmentation patterns discriminate C1- and C4-oxidised cello-oligosaccharides from their non-oxidised and reduced forms. Carbohydrate Polymers, 2020, 234, 115917.	5.1	16
70	Biochemical characterization of the xylan hydrolysis profile of the extracellular endo-xylanase from Geobacillus thermodenitrificans T12. BMC Biotechnology, 2017, 17, 44.	1.7	15
71	Lignin composition is more important than content for maize stem cell wall degradation. Journal of the Science of Food and Agriculture, 2018, 98, 384-390.	1.7	15
72	Corn stover lignin is modified differently by acetic acid compared to sulfuric acid. Industrial Crops and Products, 2018, 121, 160-168.	2.5	15

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73	Colonies of the fungus Aspergillus niger are highly differentiated to adapt to local carbon source variation. Environmental Microbiology, 2020, 22, 1154-1166.	1.8	15
74	Water-holding capacity of soluble and insoluble polysaccharides in pressed potato fibre. Industrial Crops and Products, 2015, 64, 242-250.	2.5	14
75	The impact of lignin sulfonation on its reactivity with laccase and laccase/HBT. Catalysis Science and Technology, 2019, 9, 1535-1542.	2.1	14
76	Understanding carbohydrate structures fermented or resistant to fermentation in broilers fed rapeseed (Brassica napus) meal to evaluate the effect of acid treatment and enzyme addition. Poultry Science, 2014, 93, 926-934.	1.5	13
77	Endoglucanase V and a phosphatase from Trichoderma viride are able to act on modified exopolysaccharide from Lactococcus lactis subsp. cremoris B40. Carbohydrate Research, 1999, 317, 131-144.	1.1	12
78	Characterisation of branched gluco-oligosaccharides to study the mode-of-action of a glucoamylase from Hypocrea jecorina. Carbohydrate Polymers, 2015, 132, 59-66.	5.1	12
79	Reactivity of<i>p</i>-Coumaroyl Groups in Lignin upon Laccase and Laccase/HBT Treatments. ACS Sustainable Chemistry and Engineering, 2020, 8, 8723-8731.	3.2	12
80	Oxidized Product Profiles of AA9 Lytic Polysaccharide Monooxygenases Depend on the Type of Cellulose. ACS Sustainable Chemistry and Engineering, 2021, 9, 14124-14133.	3.2	11
81	Regioselective C4 and C6 Double Oxidation of Cellulose by Lytic Polysaccharide Monooxygenases. ChemSusChem, 2022, 15, .	3.6	11
82	Microbial lignin degradation in an industrial composting environment. Bioresource Technology Reports, 2022, 17, 100911.	1.5	10
83	Fungal glycoside hydrolase family 44 xyloglucanases are restricted to the phylum Basidiomycota and show a distinct xyloglucan cleavage pattern. IScience, 2022, 25, 103666.	1.9	10
84	Potential of a gypsum-free composting process of wheat straw for mushroom production. PLoS ONE, 2017, 12, e0185901.	1.1	9
85	The physiology of Agaricus bisporus in semi-commercial compost cultivation appears to be highly conserved among unrelated isolates. Fungal Genetics and Biology, 2018, 112, 12-20.	0.9	9
86	Improved starch recovery from potatoes by enzymes and reduced water holding of the residual fibres. Carbohydrate Polymers, 2014, 113, 256-263.	5.1	8
87	Evaluation of fungal degradation of wheat straw cell wall using different analytical methods from ruminant nutrition perspective. Journal of the Science of Food and Agriculture, 2019, 99, 4054-4062.	1.7	8
88	Low liquid ammonia treatment of wheat straw increased enzymatic cell wall polysaccharide degradability and decreased residual hydroxycinnamic acids. Bioresource Technology, 2019, 272, 288-299.	4.8	8
89	Glycoside Hydrolase family 30 harbors fungal subfamilies with distinct polysaccharide specificities. New Biotechnology, 2022, 67, 32-41.	2.4	7
90	Profiling the cell walls of seagrasses from A (Amphibolis) to Z (Zostera). BMC Plant Biology, 2022, 22, 63.	1.6	7

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91	Accumulation of recalcitrant xylan in mushroom-compost is due to a lack of xylan substituent removing enzyme activities of Agaricus bisporus. Carbohydrate Polymers, 2015, 132, 359-368.	5.1	6
92	Delignification outperforms alkaline extraction for xylan fingerprinting of oil palm empty fruit bunch. Carbohydrate Polymers, 2016, 153, 356-363.	5.1	6
93	The nutritional value of the lower maize stem cannot be improved by ensiling nor by a fungal treatment. Animal Feed Science and Technology, 2019, 247, 92-102.	1.1	6
94	Quantification of morphochemical changes during in situ enzymatic hydrolysis of individual biomass particles based on autofluorescence imaging. Biopolymers, 2020, 111, e23347.	1.2	6
95	Strategy to identify reduced arabinoxylo-oligosaccharides by HILIC-MSn. Carbohydrate Polymers, 2022, 289, 119415.	5.1	6
96	Biomass Pretreatment and Enzymatic Hydrolysis Dynamics Analysis Based on Particle Size Imaging. Microscopy and Microanalysis, 2018, 24, 517-525.	0.2	5
97	Facile enzymatic CÎ³-acylation of lignin model compounds. Catalysis Communications, 2020, 136, 105919.	1.6	5
98	Non-productive binding of cellobiohydrolase i investigated by surface plasmon resonance spectroscopy. Cellulose, 2021, 28, 9525-9545.	2.4	5
99	Steering the formation of cellobiose and oligosaccharides during enzymatic hydrolysis of asparagus fibre. LWT - Food Science and Technology, 2022, 160, 113273.	2.5	5
100	GH10 and GH11 endoxylanases in Penicillium subrubescens: Comparative characterization and synergy with GH51, GH54, GH62 Î±-L-arabinofuranosidases from the same fungus. New Biotechnology, 2022, 70, 84-92.	2.4	5
101	Structural characterization of tissue-specific galactan from flax fibers by 1H NMR and MALDI TOF mass spectrometry. Russian Journal of Bioorganic Chemistry, 2006, 32, 558-567.	0.3	4
102	Identification of Structural Features of Various (O-Acetylated) Xylo-Oligosaccharides from Xylan-Rich Agricultural By-Products: A Review. ACS Symposium Series, 2003, , 107-121.	0.5	3
103	Different action patterns of glucoamylases on branched gluco-oligosaccharides from amylopectin. Carbohydrate Polymers, 2016, 143, 198-203.	5.1	3
104	Production of Î±-1,3-L-arabinofuranosidase active on substituted xylan does not improve compost degradation by Agaricus bisporus. PLoS ONE, 2018, 13, e0201090.	1.1	3
105	Modification of Plant Carbohydrates Using Fungal Enzymes. , 2021, , 370-384.		3
106	Screening of novel fungal Carbohydrate Esterase family 1 enzymes identifies three novel dual feruloyl/acetyl xylan esterases. FEBS Letters, 2022, 596, 1932-1943.	1.3	3
107	Cereal type and combined xylanase/glucanase supplementation influence the cecal microbiota composition in broilers. Journal of Animal Science and Biotechnology, 2022, 13, 51.	2.1	3
108	In vivo formation of arabinoxylo-oligosaccharides by dietary endo-xylanase alters arabinoxylan utilization in broilers. Carbohydrate Polymers, 2022, 291, 119527.	5.1	3

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109	Extending the diversity of Myceliophthora thermophila LPMOs: Two different xyloglucan cleavage profiles. Carbohydrate Polymers, 2022, 288, 119373.	5.1	2