Jean-guy Berrin

List of Publications by Year
in descending order

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107
papers

6,241
citations

61857

43
h-index

74018

75
g-index

110
all docs

110
docs citations

110
times ranked

6250
citing authors

#	Article	IF	Citations
1	Deglycosylation by small intestinal epithelial cell ?-glucosidases is a critical step in the absorption and metabolism of dietary flavonoid glycosides in humans. European Journal of Nutrition, 2003, 42, 29-42.	1.8	579
2	GH11 xylanases: Structure/function/properties relationships and applications. Biotechnology Advances, 2012, 30, 564-592.	6.0	351
3	Lytic xylan oxidases from wood-decay fungi unlock biomass degradation. Nature Chemical Biology, 2018, 14, 306-310.	3.9	269
4	Fungal Enzymes for Bio-Products from Sustainable and Waste Biomass. Trends in Biochemical Sciences, 2016, 41, 633-645.	3.7	225
5	Effects of grinding processes on enzymatic degradation of wheat straw. Bioresource Technology, 2012, 103, 192-200.	4.8	207
6	Substrate specificity and regioselectivity of fungal AA9 lytic polysaccharide monooxygenases secreted by Podospora anserina. Biotechnology for Biofuels, 2015, 8, 90.	6.2	200
7	Lytic polysaccharide monooxygenases disrupt the cellulose fibers structure. Scientific Reports, 2017, 7, 40262.	1.6	169
8	Cello-Oligosaccharide Oxidation Reveals Differences between Two Lytic Polysaccharide Monooxygenases (Family GH61) from Podospora anserina. Applied and Environmental Microbiology, 2013, 79, 488-496.	1.4	149
9	AA16, a new lytic polysaccharide monooxygenase family identified in fungal secretomes. Biotechnology for Biofuels, 2019, 12, 55.	6.2	137
10	Post-genomic analyses of fungal lignocellulosic biomass degradation reveal the unexpected potential of the plant pathogen Ustilago maydis. BMC Genomics, 2012, 13, 57.	1.2	135
11	Purification and biochemical characterization of a novel Î±-amylase from Bacillus licheniformis NH1. Process Biochemistry, 2008, 43, 499-510.	1.8	107
12	Cloning, expression in Pichia pastoris, and characterization of a thermostable GH5 mannan endo-1,4-Î²-mannosidase from Aspergillus niger BK01. Microbial Cell Factories, 2009, 8, 59.	1.9	106
13	Interactions defining the specificity between fungal xylanases and the xylanase-inhibiting protein XIP-I from wheat. Biochemical Journal, 2002, 365, 773-781.	1.7	105
14	Single-domain flavoenzymes trigger lytic polysaccharide monooxygenases for oxidative degradation of cellulose. Scientific Reports, 2016, 6, 28276.	1.6	102
15	Fungal Strategies for Lignin Degradation. Advances in Botanical Research, 2012, 61, 263-308.	0.5	95
16	<i>Podospora anserina</i> Hemicellulases Potentiate the <i>Trichoderma reesei</i> Secretome for Saccharification of Lignocellulosic Biomass. Applied and Environmental Microbiology, 2011, 77, 237-246.	1.4	94
17	Characterization of salt-adapted secreted lignocellulolytic enzymes from the mangrove fungus Pestalotiopsis sp.. Nature Communications, 2013, 4, 1810.	5.8	92
18	Recent insights into lytic polysaccharide monooxygenases (LPMOs). Biochemical Society Transactions, 2018, 46, 1431-1447.	1.6	82

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19	Structural and Biochemical Analyses of Glycoside Hydrolase Families 5 and 26 Î²-(1,4)-Mannanases from Podospora anserina Reveal Differences upon Manno-oligosaccharide Catalysis. Journal of Biological Chemistry, 2013, 288, 14624-14635.	1.6	80
20	Structureâ€“function characterization reveals new catalytic diversity in the galactose oxidase and glyoxal oxidase family. Nature Communications, 2015, 6, 10197.	5.8	79
21	High-Level Production of Recombinant Fungal Endo-Î²-1,4-xylanase in the Methylotrophic Yeast Pichia pastoris. Protein Expression and Purification, 2000, 19, 179-187.	0.6	75
22	Factors affecting xylanase functionality in the degradation of arabinoxylans. Biotechnology Letters, 2008, 30, 1139-1150.	1.1	72
23	Functional expression of human liver cytosolic Î²-glucosidase in Pichia pastoris. FEBS Journal, 2002, 269, 249-258.	0.2	70
24	Substrate (aglycone) specificity of human cytosolic beta-glucosidase. Biochemical Journal, 2003, 373, 41-48.	1.7	70
25	Stress induces the expression of AtNADK-1, a gene encoding a NAD(H) kinase in Arabidopsis thaliana. Molecular Genetics and Genomics, 2005, 273, 10-19.	1.0	69
26	Fusarium verticillioides secretome as a source of auxiliary enzymes to enhance saccharification of wheat straw. Bioresource Technology, 2012, 114, 589-596.	4.8	69
27	Specific Characterization of Substrate and Inhibitor Binding Sites of a Glycosyl Hydrolase Family 11 Xylanase fromAspergillus niger. Journal of Biological Chemistry, 2002, 277, 44035-44043.	1.6	67
28	Enhanced degradation of softwood versus hardwood by the white-rot fungus Pycnoporus coccineus. Biotechnology for Biofuels, 2015, 8, 216.	6.2	67
29	GH62 arabinofuranosidases: Structure, function and applications. Biotechnology Advances, 2017, 35, 792-804.	6.0	64
30	The integrative omics of white-rot fungus Pycnoporus coccineus reveals co-regulated CAZymes for orchestrated lignocellulose breakdown. PLoS ONE, 2017, 12, e0175528.	1.1	64
31	Lytic polysaccharide monooxygenases (LPMOs) facilitate cellulose nanofibrils production. Biotechnology for Biofuels, 2019, 12, 156.	6.2	64
32	A fungal family of lytic polysaccharide monooxygenase-like copper proteins. Nature Chemical Biology, 2020, 16, 345-350.	3.9	63
33	Hydrolysis of softwood by Aspergillus mannanase: Role of a carbohydrate-binding module. Journal of Biotechnology, 2010, 148, 163-170.	1.9	62
34	Influence of the carbohydrate-binding module on the activity of a fungal AA9 lytic polysaccharide monooxygenase on cellulosic substrates. Biotechnology for Biofuels, 2019, 12, 206.	6.2	61
35	Exploring the Natural Fungal Biodiversity of Tropical and Temperate Forests toward Improvement of Biomass Conversion. Applied and Environmental Microbiology, 2012, 78, 6483-6490.	1.4	60
36	Heterologous expression of Pycnoporus cinnabarinus cellobiose dehydrogenase in Pichia pastoris and involvement in saccharification processes. Microbial Cell Factories, 2011, 10, 113.	1.9	59

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37	On the expansion of biological functions of lytic polysaccharide monooxygenases. New Phytologist, 2022, 233, 2380-2396.	3.5	59
38	Automated assay for screening the enzymatic release of reducing sugars from micronized biomass. Microbial Cell Factories, 2010, 9, 58.	1.9	53
39	Fast solubilization of recalcitrant cellulosic biomass by the basidiomycete fungus Laetisaria arvalisinvolves successive secretion of oxidative and hydrolytic enzymes. Biotechnology for Biofuels, 2014, 7, 143.	6.2	53
40	The Crystal Structure of Human Cytosolic Î²-Glucosidase Unravels the Substrate Aglycone Specificity of a Family 1 Glycoside Hydrolase. Journal of Molecular Biology, 2007, 370, 964-975.	2.0	51
41	Discovery of fungal oligosaccharide-oxidising flavo-enzymes with previously unknown substrates, redox-activity profiles and interplay with LPMOs. Nature Communications, 2021, 12, 2132.	5.8	50
42	The ectomycorrhizal basidiomycete <i>Laccaria bicolor</i> releases a secreted Î²â€•1,4 endoglucanase that plays a key role in symbiosis development. New Phytologist, 2018, 220, 1309-1321.	3.5	49
43	Fungal secretomics to probe the biological functions of lytic polysaccharide monooxygenases. Carbohydrate Research, 2017, 448, 155-160.	1.1	48
44	Substrate and product hydrolysis specificity in family 11 glycoside hydrolases: an analysis of Penicillium funiculosum and Penicillium griseofulvum xylanases. Applied Microbiology and Biotechnology, 2007, 74, 1001-1010.	1.7	47
45	Visual Comparative Omics of Fungi for Plant Biomass Deconstruction. Frontiers in Microbiology, 2016, 7, 1335.	1.5	46
46	Insights into Exo- and Endoglucanase Activities of Family 6 Glycoside Hydrolases from Podospora anserina. Applied and Environmental Microbiology, 2013, 79, 4220-4229.	1.4	45
47	First Structural Insights into Î±-l-Arabinofuranosidases from the Two GH62 Glycoside Hydrolase Subfamilies. Journal of Biological Chemistry, 2014, 289, 5261-5273.	1.6	45
48	The Podospora anserina lytic polysaccharide monooxygenase PaLPMO9H catalyzes oxidative cleavage of diverse plant cell wall matrix glycans. Biotechnology for Biofuels, 2017, 10, 63.	6.2	45
49	The yeast Geotrichum candidum encodes functional lytic polysaccharide monooxygenases. Biotechnology for Biofuels, 2017, 10, 215.	6.2	44
50	Functional Analysis of Family GH36 Î±-Galactosidases from Ruminococcus gnavus E1: Insights into the Metabolism of a Plant Oligosaccharide by a Human Gut Symbiont. Applied and Environmental Microbiology, 2012, 78, 7720-7732.	1.4	43
51	Salt-responsive lytic polysaccharide monooxygenases from the mangrove fungus Pestalotiopsis sp. NCi6. Biotechnology for Biofuels, 2016, 9, 108.	6.2	43
52	Plant biomass degrading ability of the coprophilic ascomycete fungus Podospora anserina. Biotechnology Advances, 2016, 34, 976-983.	6.0	41
53	A thermostable GH45 endoglucanase from yeast: impact of its atypical multimodularity on activity. Microbial Cell Factories, 2011, 10, 103.	1.9	39
54	Characterization of a Broad-Specificity Î²-Glucanase Acting on Î²-(1,3)-, Î²-(1,4)-, and Î²-(1,6)-Glucans That Defines a New Glycoside Hydrolase Family. Applied and Environmental Microbiology, 2012, 78, 8540-8546.	1.4	39

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55	Comparative analyses of Podospora anserina secretomes reveal a large array of lignocellulose-active enzymes. Applied Microbiology and Biotechnology, 2014, 98, 7457-7469.	1.7	39
56	Recombinant protein production facility for fungal biomass-degrading enzymes using the yeast Pichia pastoris. Frontiers in Microbiology, 2015, 6, 1002.	1.5	39
57	Biocatalytic oxidation of fatty alcohols into aldehydes for the flavors and fragrances industry. Biotechnology Advances, 2022, 56, 107787.	6.0	39
58	Dynamic and Functional Profiling of Xylan-Degrading Enzymes in <i>Aspergillus</i> Secretomes Using Activity-Based Probes. ACS Central Science, 2019, 5, 1067-1078.	5.3	34
59	Cell-surface display technology and metabolic engineering of<i>Saccharomyces cerevisiae</i>for enhancing xylitol production from woody biomass. Green Chemistry, 2019, 21, 1795-1808.	4.6	33
60	A new synergistic relationship between xylan-active LPMO and xylobiohydrolase to tackle recalcitrant xylan. Biotechnology for Biofuels, 2020, 13, 142.	6.2	33
61	Rational Design of Mechanism-Based Inhibitors and Activity-Based Probes for the Identification of Retaining Î±-<scp>l</scp>-Arabinofuranosidases. Journal of the American Chemical Society, 2020, 142, 4648-4662.	6.6	33
62	Molecular determinants of substrate and inhibitor specificities of the Penicillium griseofulvum family 11 xylanases. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2009, 1794, 438-445.	1.1	32
63	Conserved white-rot enzymatic mechanism for wood decay in the Basidiomycota genus <i>Pycnoporus</i>. DNA Research, 2020, 27, .	1.5	32
64	Insights into an unusual Auxiliary Activity 9 family member lacking the histidine brace motif of lytic polysaccharide monooxygenases. Journal of Biological Chemistry, 2019, 294, 17117-17130.	1.6	30
65	Enzymatic synthesis of model substrates recognized by glucuronoyl esterases from Podospora anserina and Myceliophthora thermophila. Applied Microbiology and Biotechnology, 2014, 98, 5507-5516.	1.7	29
66	From fungal secretomes to enzymes cocktails: The path forward to bioeconomy. Biotechnology Advances, 2021, 52, 107833.	6.0	29
67	Comprehensive Insights into the Production of Long Chain Aliphatic Aldehydes Using a Copper-Radical Alcohol Oxidase as Biocatalyst. ACS Sustainable Chemistry and Engineering, 2021, 9, 4411-4421.	3.2	28
68	Molecular Engineering of Fungal GH5 and GH26 Beta-(1,4)-Mannanases toward Improvement of Enzyme Activity. PLoS ONE, 2013, 8, e79800.	1.1	26
69	Characterization of a new aryl-alcohol oxidase secreted by the phytopathogenic fungus Ustilago maydis. Applied Microbiology and Biotechnology, 2016, 100, 697-706.	1.7	25
70	Lavender- and lavandin-distilled straws: an untapped feedstock with great potential for the production of high-added value compounds and fungal enzymes. Biotechnology for Biofuels, 2018, 11, 217.	6.2	25
71	Tracking of enzymatic biomass deconstruction by fungal secretomes highlights markers of lignocellulose recalcitrance. Biotechnology for Biofuels, 2019, 12, 76.	6.2	25
72	Bioinformatic Analysis of Lytic Polysaccharide Monooxygenases Reveals the Pan-Families Occurrence of Intrinsically Disordered C-Terminal Extensions. Biomolecules, 2021, 11, 1632.	1.8	25

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73	Investigation of the binding properties of a multi-modular GH45 cellulase using bioinspired model assemblies. Biotechnology for Biofuels, 2016, 9, 12.	6.2	22
74	Comparison of fungal carbohydrate esterases of family CE16 on artificial and natural substrates. Journal of Biotechnology, 2016, 233, 228-236.	1.9	21
75	Action of lytic polysaccharide monooxygenase on plant tissue is governed by cellular type. Scientific Reports, 2017, 7, 17792.	1.6	21
76	Use of Cellulases from Trichoderma reesei in the Twenty-First Centuryâ€"Part I. , 2014, , 245-261.		20
77	Characterization of a mycobacterial cellulase and its impact on biofilm- and drug-induced cellulose production. Glycobiology, 2017, 27, 392-399.	1.3	20
78	Identification of the molecular determinants driving the substrate specificity of fungal lytic polysaccharide monooxygenases (LPMOs). Journal of Biological Chemistry, 2021, 296, 100086.	1.6	19
79	Tunable Production of (<i>R</i>)- or (<i>S</i>)-Citronellal from Geraniol via a Bienzymatic Cascade Using a Copper Radical Alcohol Oxidase and Old Yellow Enzyme. ACS Catalysis, 2022, 12, 1111-1116.	5.5	19
80	Broadâ€specificity GH131 Î²â€glucanases are a hallmark of fungi and oomycetes that colonize plants. Environmental Microbiology, 2019, 21, 2724-2739.	1.8	18
81	Large-scale phenotyping of 1,000 fungal strains for the degradation of non-natural, industrial compounds. Communications Biology, 2021, 4, 871.	2.0	18
82	Identification of the zinc binding ligands and the catalytic residue in human aspartoacylase, an enzyme involved in Canavan disease. FEBS Letters, 2006, 580, 5899-5904.	1.3	16
83	A unique CE16 acetyl esterase from Podospora anserina active on polymeric xylan. Applied Microbiology and Biotechnology, 2015, 99, 10515-10526.	1.7	16
84	The ectomycorrhizal basidiomycete <i>Laccaria bicolor</i> releases a GH28 polygalacturonase that plays a key role in symbiosis establishment. New Phytologist, 2022, 233, 2534-2547.	3.5	16
85	Identification of Copper-Containing Oxidoreductases in the Secretomes of Three <i>Colletotrichum</i> Species with a Focus on Copper Radical Oxidases for the Biocatalytic Production of Fatty Aldehydes. Applied and Environmental Microbiology, 2021, 87, e0152621.	1.4	15
86	A survey of substrate specificity among Auxiliary Activity Family 5 copper radical oxidasesï»¿Â. Cellular and Molecular Life Sciences, 2021, 78, 8187-8208.	2.4	15
87	Structureâ€based mutagenesis of <i>Penicillium griseofulvum</i> xylanase using computational design. Proteins: Structure, Function and Bioinformatics, 2008, 72, 1298-1307.	1.5	13
88	The Quaternary Structure of a Glycoside Hydrolase Dictates Specificity toward Î²-Glucans. Journal of Biological Chemistry, 2016, 291, 7183-7194.	1.6	13
89	Inactivation of Cellobiose Dehydrogenases Modifies the Cellulose Degradation Mechanism of Podospora anserina. Applied and Environmental Microbiology, 2017, 83, .	1.4	13
90	Enzyme Activities of Two Recombinant Heme-Containing Peroxidases, <i>Tv</i> DyP1 and <i>Tv</i> VP2, Identified from the Secretome of Trametesversicolor. Applied and Environmental Microbiology, 2018, 84, .	1.4	13

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91	Evaluation of the Enzymatic Arsenal Secreted by Myceliophthora thermophila During Growth on Sugarcane Bagasse With a Focus on LPMOs. Frontiers in Bioengineering and Biotechnology, 2020, 8, 1028.	2.0	13
92	Enzymes to unravel bioproducts architecture. Biotechnology Advances, 2020, 41, 107546.	6.0	12
93	Inhibition of lytic polysaccharide monooxygenase by natural plant extracts. New Phytologist, 2021, 232, 1337-1349.	3.5	12
94	Fungal Enzymatic Degradation of Cellulose. Green Energy and Technology, 2016, , 133-146.	0.4	11
95	Functional characterization of Penicillium occitanis Pol6 and Penicillium funiculosum GH11 xylanases. Protein Expression and Purification, 2013, 90, 195-201.	0.6	9
96	Structural insights into a family 39 glycoside hydrolase from the gut symbiont Bacteroides cellulosilyticus WH2. Journal of Structural Biology, 2017, 197, 227-235.	1.3	9
97	The Secretomes of Aspergillus japonicus and Aspergillus terreus Supplement the RovabioÂ® Enzyme Cocktail for the Degradation of Soybean Meal for Animal Feed. Journal of Fungi (Basel, Switzerland), 2021, 7, 278.	1.5	9
98	The Saccharification Step: The Main Enzymatic Components. , 2013, , 93-110.		7
99	Fungal Lytic Polysaccharide Monooxygenases (LPMOs): Biological Importance and Applications. , 2021, , 281-294.		7
100	NMR analysis of the binding mode of two fungal endo-Î²-1,4-mannanases from GH5 and GH26 families. Organic and Biomolecular Chemistry, 2016, 14, 314-322.	1.5	5
101	Activity-based protein profiling reveals dynamic substrate-specific cellulase secretion by saprotrophic basidiomycetes. , 2022, 15, 6.		5
102	Plant wastes and sustainable refineries: What can we learn from fungi?. Current Opinion in Green and Sustainable Chemistry, 2022, 34, 100602.	3.2	5
103	Use of Cellulases from Trichoderma reesei in the Twenty-First Centuryâ€"Part II. , 2014, , 263-280.		3
104	Analysis of the substrate specificity of Î±-L-arabinofuranosidases by DNA sequencer-aided fluorophore-assisted carbohydrate electrophoresis. Applied Microbiology and Biotechnology, 2018, 102, 10091-10102.	1.7	3
105	2D and 3D maximum-quantum NMR and diffusion spectroscopy for the characterization of enzymatic reaction mixtures. Analyst, The, 2022, 147, 2515-2522.	1.7	2
106	Less Wastage in a Bottle. Trends in Chemistry, 2020, 2, 686-688.	4.4	0
107	Exploring the impact of Verticillium wilt disease on the mechanical properties of elementary flax (Linum usitatissimum L.) fibres. Industrial Crops and Products, 2022, 182, 114900.	2.5	0