Jean-guy Berrin

List of Publications by Citations

107 papers	4,691 citations	38 h-index	66 g-index
110 ext. papers	5,541 ext. citations	7.2 avg, IF	5.49 L-index

#	Paper	IF	Citations
107	Deglycosylation by small intestinal epithelial cell beta-glucosidases is a critical step in the absorption and metabolism of dietary flavonoid glycosides in humans. *European Journal of Nutrition* , **2003**, 42, 29-42	5.2	495
106	GH11 xylanases: Structure/function/properties relationships and applications. *Biotechnology Advances*, **2012**, 30, 564-92	17.8	276
105	Lytic xylan oxidases from wood-decay fungi unlock biomass degradation. *Nature Chemical Biology*, **2018**, 14, 306-310	11.7	183
104	Effects of grinding processes on enzymatic degradation of wheat straw. *Bioresource Technology*, **2012**, 103, 192-200	11	181
103	Fungal Enzymes for Bio-Products from Sustainable and Waste Biomass. *Trends in Biochemical Sciences*, **2016**, 41, 633-645	10.3	172
102	Substrate specificity and regioselectivity of fungal AA9 lytic polysaccharide monooxygenases secreted by Podospora anserina. *Biotechnology for Biofuels*, **2015**, 8, 90	7.8	169
101	Cello-oligosaccharide oxidation reveals differences between two lytic polysaccharide monooxygenases (family GH61) from Podospora anserina. *Applied and Environmental Microbiology*, **2013**, 79, 488-96	4.8	132
100	Lytic polysaccharide monooxygenases disrupt the cellulose fibers structure. *Scientific Reports*, **2017** , 7, 40262	4.9	126
99	Post-genomic analyses of fungal lignocellulosic biomass degradation reveal the unexpected potential of the plant pathogen Ustilago maydis. *BMC Genomics*, **2012**, 13, 57	4.5	109
98	Interactions defining the specificity between fungal xylanases and the xylanase-inhibiting protein XIP-I from wheat. *Biochemical Journal*, **2002**, 365, 773-81	3.8	101
97	AA16, a new lytic polysaccharide monooxygenase family identified in fungal secretomes. *Biotechnology for Biofuels*, **2019**, 12, 55	7.8	96
96	Cloning, expression in Pichia pastoris, and characterization of a thermostable GH5 mannan endo-1,4-beta-mannosidase from Aspergillus niger BK01. *Microbial Cell Factories*, **2009**, 8, 59	6.4	95
95	Purification and biochemical characterization of a novel □amylase from Bacillus licheniformis NH1: Cloning, nucleotide sequence and expression of amyN gene in Escherichia coli. *Process Biochemistry* , **2008**, 43, 499-510	4.8	91
94	Podospora anserina hemicellulases potentiate the Trichoderma reesei secretome for saccharification of lignocellulosic biomass. *Applied and Environmental Microbiology*, **2011**, 77, 237-46	4.8	86
93	Single-domain flavoenzymes trigger lytic polysaccharide monooxygenases for oxidative degradation of cellulose. *Scientific Reports*, **2016**, 6, 28276	4.9	82
92	High-level production of recombinant fungal endo-beta-1,4-xylanase in the methylotrophic yeast Pichia pastoris. *Protein Expression and Purification*, **2000**, 19, 179-87	2	71
91	Fungal Strategies for Lignin Degradation. *Advances in Botanical Research*, **2012**, 61, 263-308	2.2	68

90	Structural and biochemical analyses of glycoside hydrolase families 5 and 26 β(1,4)-mannanases from Podospora anserina reveal differences upon manno-oligosaccharide catalysis. *Journal of Biological Chemistry*, **2013**, 288, 14624-14635	5.4	67
89	Factors affecting xylanase functionality in the degradation of arabinoxylans. *Biotechnology Letters*, **2008**, 30, 1139-50	3	65
88	Substrate (aglycone) specificity of human cytosolic beta-glucosidase. *Biochemical Journal*, **2003**, 373, 41-8	3.8	65
87	Specific characterization of substrate and inhibitor binding sites of a glycosyl hydrolase family 11 xylanase from Aspergillus niger. *Journal of Biological Chemistry*, **2002**, 277, 44035-43	5.4	65
86	Characterization of salt-adapted secreted lignocellulolytic enzymes from the mangrove fungus Pestalotiopsis sp. *Nature Communications*, **2013**, 4, 1810	17.4	64
85	Functional expression of human liver cytosolic beta-glucosidase in Pichia pastoris. Insights into its role in the metabolism of dietary glucosides. *FEBS Journal*, **2002**, 269, 249-58		58
84	Recent insights into lytic polysaccharide monooxygenases (LPMOs). *Biochemical Society Transactions*, **2018**, 46, 1431-1447	5.1	58
83	Fusarium verticillioides secretome as a source of auxiliary enzymes to enhance saccharification of wheat straw. *Bioresource Technology*, **2012**, 114, 589-96	11	57
82	Stress induces the expression of AtNADK-1, a gene encoding a NAD(H) kinase in Arabidopsis thaliana. *Molecular Genetics and Genomics*, **2005**, 273, 10-9	3.1	56
81	Structure-function characterization reveals new catalytic diversity in the galactose oxidase and glyoxal oxidase family. *Nature Communications*, **2015**, 6, 10197	17.4	55
80	Heterologous expression of Pycnoporus cinnabarinus cellobiose dehydrogenase in Pichia pastoris and involvement in saccharification processes. *Microbial Cell Factories*, **2011**, 10, 113	6.4	53
79	Automated assay for screening the enzymatic release of reducing sugars from micronized biomass. *Microbial Cell Factories*, **2010**, 9, 58	6.4	53
78	Hydrolysis of softwood by Aspergillus mannanase: role of a carbohydrate-binding module. *Journal of Biotechnology*, **2010**, 148, 163-70	3.7	53
77	Enhanced degradation of softwood versus hardwood by the white-rot fungus Pycnoporus coccineus. *Biotechnology for Biofuels*, **2015**, 8, 216	7.8	52
76	Exploring the natural fungal biodiversity of tropical and temperate forests toward improvement of biomass conversion. *Applied and Environmental Microbiology*, **2012**, 78, 6483-90	4.8	49
75	The crystal structure of human cytosolic beta-glucosidase unravels the substrate aglycone specificity of a family 1 glycoside hydrolase. *Journal of Molecular Biology*, **2007**, 370, 964-75	6.5	43
74	Fast solubilization of recalcitrant cellulosic biomass by the basidiomycete fungus Laetisaria arvalis involves successive secretion of oxidative and hydrolytic enzymes. *Biotechnology for Biofuels*, **2014**, 7, 143	7.8	41
73	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, 1001-10	5.7	41

72	Salt-responsive lytic polysaccharide monooxygenases from the mangrove fungus Pestalotiopsis sp. NCi6. *Biotechnology for Biofuels*, **2016**, 9, 108	7.8	41
71	Fungal secretomics to probe the biological functions of lytic polysaccharide monooxygenases. *Carbohydrate Research*, **2017**, 448, 155-160	2.9	38
70	The integrative omics of white-rot fungus Pycnoporus coccineus reveals co-regulated CAZymes for orchestrated lignocellulose breakdown. *PLoS ONE*, **2017**, 12, e0175528	3.7	38
69	Lytic polysaccharide monooxygenases (LPMOs) facilitate cellulose nanofibrils production. *Biotechnology for Biofuels*, **2019**, 12, 156	7.8	37
68	Functional analysis of family GH36 -galactosidases from Ruminococcus gnavus E1: insights into the metabolism of a plant oligosaccharide by a human gut symbiont. *Applied and Environmental Microbiology*, **2012**, 78, 7720-32	4.8	37
67	The lytic polysaccharide monooxygenase LPMO9H catalyzes oxidative cleavage of diverse plant cell wall matrix glycans. *Biotechnology for Biofuels*, **2017**, 10, 63	7.8	36
66	Insights into exo- and endoglucanase activities of family 6 glycoside hydrolases from Podospora anserina. *Applied and Environmental Microbiology*, **2013**, 79, 4220-9	4.8	36
65	GH62 arabinofuranosidases: Structure, function and applications. *Biotechnology Advances*, **2017**, 35, 792-804	5.4	36
64	The yeast encodes functional lytic polysaccharide monooxygenases. *Biotechnology for Biofuels*, **2017**, 10, 215	7.8	33
63	Comparative analyses of Podospora anserina secretomes reveal a large array of lignocellulose-active enzymes. *Applied Microbiology and Biotechnology*, **2014**, 98, 7457-69	5.7	33
62	Characterization of a broad-specificity -glucanase acting on -(1,3)-, -(1,4)-, and -(1,6)-glucans that defines a new glycoside hydrolase family. *Applied and Environmental Microbiology*, **2012**, 78, 8540-6	4.8	33
61	A thermostable GH45 endoglucanase from yeast: impact of its atypical multimodularity on activity. *Microbial Cell Factories*, **2011**, 10, 103	6.4	33
60	A fungal family of lytic polysaccharide monooxygenase-like copper proteins. *Nature Chemical Biology*, **2020**, 16, 345-350	11.7	33
59	First structural insights into -L-arabinofuranosidases from the two GH62 glycoside hydrolase subfamilies. *Journal of Biological Chemistry*, **2014**, 289, 5261-73	5.4	32
58	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	7.8	31
57	The ectomycorrhizal basidiomycete Laccaria bicolor releases a secreted -1,4 endoglucanase that plays a key role in symbiosis development. *New Phytologist*, **2018**, 220, 1309-1321	9.8	26
56	Molecular determinants of substrate and inhibitor specificities of the Penicillium griseofulvum family 11 xylanases. *Biochimica Et Biophysica Acta - Proteins and Proteomics*, **2009**, 1794, 438-45	4	26
55	Enzymatic synthesis of model substrates recognized by glucuronoyl esterases from Podospora anserina and Myceliophthora thermophila. *Applied Microbiology and Biotechnology*, **2014**, 98, 5507-16	5.7	25

54	Characterization of a new aryl-alcohol oxidase secreted by the phytopathogenic fungus Ustilago maydis. *Applied Microbiology and Biotechnology*, **2016**, 100, 697-706	5.7	24
53	Plant biomass degrading ability of the coprophilic ascomycete fungus Podospora anserina. *Biotechnology Advances*, **2016**, 34, 976-983	17.8	24
52	Recombinant protein production facility for fungal biomass-degrading enzymes using the yeast Pichia pastoris. *Frontiers in Microbiology*, **2015**, 6, 1002	5.7	24
51	Visual Comparative Omics of Fungi for Plant Biomass Deconstruction. *Frontiers in Microbiology*, **2016**, 7, 1335	5.7	24
50	Dynamic and Functional Profiling of Xylan-Degrading Enzymes in Secretomes Using Activity-Based Probes. *ACS Central Science*, **2019**, 5, 1067-1078	16.8	23
49	Molecular engineering of fungal GH5 and GH26 beta-(1,4)-mannanases toward improvement of enzyme activity. *PLoS ONE*, **2013**, 8, e79800	3.7	23
48	Cell-surface display technology and metabolic engineering of Saccharomyces cerevisiae for enhancing xylitol production from woody biomass. *Green Chemistry*, **2019**, 21, 1795-1808	10	22
47	Rational Design of Mechanism-Based Inhibitors and Activity-Based Probes for the Identification of Retaining □-Arabinofuranosidases. *Journal of the American Chemical Society*, **2020**, 142, 4648-4662	16.4	20
46	Use of Cellulases from Trichoderma reesei in the Twenty-First Century□Part I **2014**, 245-261		20
45	A new synergistic relationship between xylan-active LPMO and xylobiohydrolase to tackle recalcitrant xylan. *Biotechnology for Biofuels*, **2020**, 13, 142	7.8	20
44	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	5.4	19
43	Investigation of the binding properties of a multi-modular GH45 cellulase using bioinspired model assemblies. *Biotechnology for Biofuels*, **2016**, 9, 12	7.8	19
42	Action of lytic polysaccharide monooxygenase on plant tissue is governed by cellular type. *Scientific Reports*, **2017**, 7, 17792	4.9	18
41	Comparison of fungal carbohydrate esterases of family CE16 on artificial and natural substrates. *Journal of Biotechnology*, **2016**, 233, 228-36	3.7	16
40	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	7.8	16
39	Identification of the zinc binding ligands and the catalytic residue in human aspartoacylase, an enzyme involved in Canavan disease. *FEBS Letters*, **2006**, 580, 5899-904	3.8	15
38	Discovery of fungal oligosaccharide-oxidising flavo-enzymes with previously unknown substrates, redox-activity profiles and interplay with LPMOs. *Nature Communications*, **2021**, 12, 2132	17.4	15
37	Tracking of enzymatic biomass deconstruction by fungal secretomes highlights markers of lignocellulose recalcitrance. *Biotechnology for Biofuels*, **2019**, 12, 76	7.8	14

36	Conserved white-rot enzymatic mechanism for wood decay in the Basidiomycota genus Pycnoporus. *DNA Research*, **2020**, 27,	4.5	13
35	Structure-based mutagenesis of Penicillium griseofulvum xylanase using computational design. *Proteins: Structure, Function and Bioinformatics*, **2008**, 72, 1298-307	4.2	13
34	A unique CE16 acetyl esterase from Podospora anserina active on polymeric xylan. *Applied Microbiology and Biotechnology*, **2015**, 99, 10515-26	5.7	12
33	Enzyme Activities of Two Recombinant Heme-Containing Peroxidases, DyP1 and VP2, Identified from the Secretome of Trametes versicolor. *Applied and Environmental Microbiology*, **2018**, 84,	4.8	11
32	Inactivation of Cellobiose Dehydrogenases Modifies the Cellulose Degradation Mechanism of Podospora anserina. *Applied and Environmental Microbiology*, **2017**, 83,	4.8	11
31	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	8.3	11
30	Fungal Enzymatic Degradation of Cellulose. *Green Energy and Technology*, **2016**, 133-146	0.6	9
29	Biocatalytic oxidation of fatty alcohols into aldehydes for the flavors and fragrances industry. *Biotechnology Advances*, **2021**, 107787	17.8	9
28	Characterization of a mycobacterial cellulase and its impact on biofilm- and drug-induced cellulose production. *Glycobiology*, **2017**, 27, 392-399	5.8	8
27	Broad-specificity GH131 β-glucanases are a hallmark of fungi and oomycetes that colonize plants. *Environmental Microbiology*, **2019**, 21, 2724-2739	5.2	8
26	On the expansion of biological functions of lytic polysaccharide monooxygenases.. *New Phytologist*, **2021**,	9.8	8
25	The Quaternary Structure of a Glycoside Hydrolase Dictates Specificity toward β-Glucans. *Journal of Biological Chemistry*, **2016**, 291, 7183-94	5.4	8
24	Evaluation of the Enzymatic Arsenal Secreted by During Growth on Sugarcane Bagasse With a Focus on LPMOs. *Frontiers in Bioengineering and Biotechnology*, **2020**, 8, 1028	5.8	7
23	Identification of the molecular determinants driving the substrate specificity of fungal lytic polysaccharide monooxygenases (LPMOs). *Journal of Biological Chemistry*, **2021**, 296, 100086	5.4	7
22	Enzymes to unravel bioproducts architecture. *Biotechnology Advances*, **2020**, 41, 107546	17.8	6
21	Functional characterization of Penicillium occitanis Pol6 and Penicillium funiculosum GH11 xylanases. *Protein Expression and Purification*, **2013**, 90, 195-201	2	6
20	Fungal Lytic Polysaccharide Monooxygenases (LPMOs): Biological Importance and Applications **2021**, 281-294		6
19	Structural insights into a family 39 glycoside hydrolase from the gut symbiont Bacteroides cellulosilyticus WH2. *Journal of Structural Biology*, **2017**, 197, 227-235	3.4	5

18	NMR analysis of the binding mode of two fungal endo-β1,4-mannanases from GH5 and GH26 families. *Organic and Biomolecular Chemistry*, **2016**, 14, 314-22	3.9	5
17	From fungal secretomes to enzymes cocktails: The path forward to bioeconomy. *Biotechnology Advances*, **2021**, 52, 107833	17.8	5
16	The Saccharification Step: The Main Enzymatic Components **2013**, 93-110		4
15	The Secretomes of and Supplement the Rovabio Enzyme Cocktail for the Degradation of Soybean Meal for Animal Feed. *Journal of Fungi (Basel, Switzerland)*, **2021**, 7,	5.6	4
14	Large-scale phenotyping of 1,000 fungal strains for the degradation of non-natural, industrial compounds. *Communications Biology*, **2021**, 4, 871	6.7	4
13	Inhibition of lytic polysaccharide monooxygenase by natural plant extracts. *New Phytologist*, **2021**, 232, 1337-1349	9.8	4
12	Use of Cellulases from Trichoderma reesei in the Twenty-First Century—Part II: Optimization of Cellulolytic Cocktails for Saccharification of Lignocellulosic Feedstocks **2014**, 263-280		3
11	Tunable Production of (-)- or (+)-Citronellal from Geraniol via a Bienzymatic Cascade Using a Copper Radical Alcohol Oxidase and Old Yellow Enzyme.. *ACS Catalysis*, **2022**, 12, 1111-1116	13.1	3
10	Bioinformatic Analysis of Lytic Polysaccharide Monooxygenases Reveals the Pan-Families Occurrence of Intrinsically Disordered C-Terminal Extensions. *Biomolecules*, **2021**, 11,	5.9	3
9	Unravelling the role of alcohol copper radical oxidases in fungal plant pathogens		3
8	The ectomycorrhizal basidiomycete Laccaria bicolor releases a GH28 polygalacturonase that plays a key role in symbiosis establishment.. *New Phytologist*, **2021**,	9.8	2
7	A survey of substrate specificity among Auxiliary Activity Family 5 copper radical oxidases . *Cellular and Molecular Life Sciences*, **2021**, 78, 8187-8208	10.3	2
6	Identification of Copper-Containing Oxidoreductases in the Secretomes of Three Species with a Focus on Copper Radical Oxidases for the Biocatalytic Production of Fatty Aldehydes. *Applied and Environmental Microbiology*, **2021**, 87, e0152621	4.8	2
5	Activity-based protein profiling reveals dynamic substrate-specific cellulase secretion by saprotrophic basidiomycetes. **2022**, 15, 6		0
4	Plant wastes and sustainable refineries: what can we learn from fungi?. *Current Opinion in Green and Sustainable Chemistry*, **2022**, 34, 100602	7.9	0
3	Analysis of the substrate specificity of α-L-arabinofuranosidases by DNA sequencer-aided fluorophore-assisted carbohydrate electrophoresis. *Applied Microbiology and Biotechnology*, **2018**, 102, 10091-10102	5.7	0
2	Less Wastage in a Bottle. *Trends in Chemistry*, **2020**, 2, 686-688	14.8	
1	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	5.9	