

# Michael J O'donohue

## List of Publications by Year in descending order

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92  
papers

3,202  
citations

117625

34  
h-index

175258

52  
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99  
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99  
docs citations

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times ranked

3468  
citing authors

#	ARTICLE	IF	CITATIONS
1	Multimodularity of a GH10 Xylanase Found in the Termite Gut Metagenome. <i>Applied and Environmental Microbiology</i> , 2021, 87, .	3.1	14
2	Regioselective chemoenzymatic syntheses of ferulate conjugates as chromogenic substrates for feruloyl esterases. <i>Beilstein Journal of Organic Chemistry</i> , 2021, 17, 325-333.	2.2	0
3	Probing the determinants of the transglycosylation/hydrolysis partition in a retaining $\beta$ -L-arabinofuranosidase. <i>New Biotechnology</i> , 2021, 62, 68-78.	4.4	12
4	Rational Enzyme Design without Structural Knowledge: A Sequence-Based Approach for Efficient Generation of Transglycosylases. <i>Chemistry - A European Journal</i> , 2021, 27, 10323-10334.	3.3	29
5	The Jo-In protein welding system is a relevant tool to create CBM-containing plant cell wall degrading enzymes. <i>New Biotechnology</i> , 2021, 65, 31-41.	4.4	5
6	Synthesis of $\beta$ -L-Araf and $\beta$ -D-Galf series furanobiosides using mutants of a GH51 $\beta$ -L-arabinofuranosidase. <i>Bioorganic Chemistry</i> , 2021, 116, 105245.	4.1	2
7	Waste-to-nutrition: a review of current and emerging conversion pathways. <i>Biotechnology Advances</i> , 2021, 53, 107857.	11.7	36
8	Meeting new challenges in food science technology: The development of complex systems approach for food and biobased research. <i>Innovative Food Science and Emerging Technologies</i> , 2018, 46, 1-6.	5.6	10
9	INRA's research in industrial biotechnology: For food, chemicals, materials and fuels. <i>Innovative Food Science and Emerging Technologies</i> , 2018, 46, 140-152.	5.6	2
10	Anaerobic lignocellulolytic microbial consortium derived from termite gut: enrichment, lignocellulose degradation and community dynamics. <i>Biotechnology for Biofuels</i> , 2018, 11, 284.	6.2	32
11	Developing cellulolytic <i>Yarrowia lipolytica</i> as a platform for the production of valuable products in consolidated bioprocessing of cellulose. <i>Biotechnology for Biofuels</i> , 2018, 11, 141.	6.2	32
12	Ecofriendly lignocellulose pretreatment to enhance the carboxylate production of a rumen-derived microbial consortium. <i>Bioresource Technology</i> , 2017, 236, 225-233.	9.6	9
13	Analysis of large 16S rRNA Illumina data sets: Impact of singleton read filtering on microbial community description. <i>Molecular Ecology Resources</i> , 2017, 17, e122-e132.	4.8	55
14	Conferring cellulose-degrading ability to <i>Yarrowia lipolytica</i> to facilitate a consolidated bioprocessing approach. <i>Biotechnology for Biofuels</i> , 2017, 10, 132.	6.2	38
15	Uncovering the Potential of Termite Gut Microbiome for Lignocellulose Bioconversion in Anaerobic Batch Bioreactors. <i>Frontiers in Microbiology</i> , 2017, 8, 2623.	3.5	64
16	Expressing accessory proteins in cellulolytic <i>Yarrowia lipolytica</i> to improve the conversion yield of recalcitrant cellulose. <i>Biotechnology for Biofuels</i> , 2017, 10, 298.	6.2	27
17	The GH51 $\beta$ -L-arabinofuranosidase from <i>Paenibacillus</i> sp. THS1 is multifunctional, hydrolyzing main-chain and side-chain glycosidic bonds in heteroxylans. <i>Biotechnology for Biofuels</i> , 2016, 9, 140.	6.2	34
18	Characterization and mutagenesis of two novel iron-sulphur cluster pentonate dehydratases. <i>Applied Microbiology and Biotechnology</i> , 2016, 100, 7549-7563.	3.6	27

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19	CAZyChip: dynamic assessment of exploration of glycoside hydrolases in microbial ecosystems. BMC Genomics, 2016, 17, 671.	2.8	39
20	A Single Point Mutation Alters the Transglycosylation/Hydrolysis Partition, Significantly Enhancing the Synthetic Capability of an <i>endo</i> -Glycoceramidase. ACS Catalysis, 2016, 6, 8264-8275.	11.2	17
21	Design of chromogenic probes for efficient screening and evaluation of feruloyl esterase-like activities. Journal of Molecular Catalysis B: Enzymatic, 2016, 126, 24-31.	1.8	7
22	Efficient anaerobic transformation of raw wheat straw by a robust cow rumen-derived microbial consortium. Bioresource Technology, 2015, 196, 241-249.	9.6	45
23	Molecular Design of Non-Leloir Furanose-Transferring Enzymes from an <i>Î±</i> -Arabinofuranosidase: A Rationale for the Engineering of Evolved Transglycosylases. ACS Catalysis, 2015, 5, 4598-4611.	11.2	34
24	Glycosynthesis in a waterworld: new insight into the molecular basis of transglycosylation in retaining glycoside hydrolases. Biochemical Journal, 2015, 467, 17-35.	3.7	133
25	Development of cellobiose-degrading ability in <i>Yarrowia lipolytica</i> strain by overexpression of endogenous genes. Biotechnology for Biofuels, 2015, 8, 109.	6.2	57
26	White biotechnology: State of the art strategies for the development of biocatalysts for biorefining. Biotechnology Advances, 2015, 33, 1653-1670.	11.7	83
27	Enhancing the chemoenzymatic synthesis of arabinosylated xylo-oligosaccharides by GH51 <i>Î±</i> -L-arabinofuranosidase. Carbohydrate Research, 2015, 401, 64-72.	2.3	19
28	Investigating the Function of an Arabinan Utilization Locus Isolated from a Termite Gut Community. Applied and Environmental Microbiology, 2015, 81, 31-39.	3.1	17
29	Probing the Functions of Carbohydrate Binding Modules in the CBEL Protein from the Oomycete <i>Phytophthora parasitica</i> . PLoS ONE, 2015, 10, e0137481.	2.5	9
30	Biorefineries for food, fuels and materials. Biofuels, Bioproducts and Biorefining, 2014, 8, 453-455.	3.7	1
31	Mutation of a pH-modulating residue in a GH51 <i>Î±</i> -L-arabinofuranosidase leads to a severe reduction of the secondary hydrolysis of transfuranosylation products. Biochimica Et Biophysica Acta - General Subjects, 2014, 1840, 626-636.	2.4	20
32	First Structural Insights into <i>Î±</i> -L-Arabinofuranosidases from the Two GH62 Glycoside Hydrolase Subfamilies. Journal of Biological Chemistry, 2014, 289, 5261-5273.	3.4	45
33	A 1H NMR study of the specificity of <i>Î±</i> -L-arabinofuranosidases on natural and unnatural substrates. Biochimica Et Biophysica Acta - General Subjects, 2014, 1840, 3106-3114.	2.4	16
34	Impact of an N-terminal extension on the stability and activity of the GH11 xylanase from <i>Thermobacillus xylanilyticus</i> . Journal of Biotechnology, 2014, 174, 64-72.	3.8	17
35	Mining for hemicellulases in the fungus-growing termite <i>Pseudacanthotermes militaris</i> using functional metagenomics. Biotechnology for Biofuels, 2013, 6, 78.	6.2	65
36	Comparison of the Heterologous Expression of <i>Trichoderma reesei</i> Endoglucanase II and Cellobiohydrolase II in the Yeasts <i>Pichia pastoris</i> and <i>Yarrowia lipolytica</i> . Molecular Biotechnology, 2013, 54, 158-169.	2.4	48

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37	Engineering transglycosidase activity into a GH51 $\beta$ -l-arabinofuranosidase. <i>New Biotechnology</i> , 2013, 30, 536-544.	4.4	29
38	A substrate for the detection of broad specificity $\beta$ -l-arabinofuranosidases with indirect release of a chromogenic group. <i>Tetrahedron Letters</i> , 2013, 54, 3063-3066.	1.4	9
39	<i>Paenibacillus marinus</i> sp. nov., a thermophilic xylanolytic bacterium isolated from a marine hot spring in Tunisia. <i>Journal of Basic Microbiology</i> , 2013, 53, 877-883.	3.3	9
40	Functional roles of H98 and W99 and $\beta$ 2 loop dynamics in the $\beta$ -l-arabinofuranosidase from <i>Thermobacillus xylanilyticus</i> . <i>FEBS Journal</i> , 2012, 279, 3598-3611.	4.7	15
41	THUMB-LOOPS UP FOR CATALYSIS: A STRUCTURE/FUNCTION INVESTIGATION OF A FUNCTIONAL LOOP MOVEMENT IN A GH11 XYLANASE. <i>Computational and Structural Biotechnology Journal</i> , 2012, 1, e201207001.	4.1	25
42	Redefining <i>XynA</i> from <i>Penicillium funiculosum</i> IMI 378536 as a GH7 cellobiohydrolase. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2012, 39, 1569-1576.	3.0	10
43	A Versatile and Colorful Screening Tool for the Identification of Arabinofuranose-Acting Enzymes. <i>ChemBioChem</i> , 2012, 13, 1885-1888.	2.6	6
44	Endogeic earthworms shape bacterial functional communities and affect organic matter mineralization in a tropical soil. <i>ISME Journal</i> , 2012, 6, 213-222.	9.8	169
45	Characterization of <i>Deinococcus sahariensis</i> sp. nov., a radiation-resistant bacterium isolated from a Saharan hot spring. <i>Archives of Microbiology</i> , 2012, 194, 315-322.	2.2	11
46	Effect of lignin content on a GH11 endoxylanase acting on glucuronoarabinoxylan-lignin nanocomposites. <i>Carbohydrate Polymers</i> , 2012, 89, 423-431.	10.2	2
47	Progress and future prospects for pentose-specific biocatalysts in biorefining. <i>Process Biochemistry</i> , 2012, 47, 346-357.	3.7	70
48	Engineering better biomass-degrading ability into a GH11 xylanase using a directed evolution strategy. <i>Biotechnology for Biofuels</i> , 2012, 5, 3.	6.2	54
49	Probing a family GH11 endo- $\beta$ -1,4-xylanase inhibition mechanism by phenolic compounds: Role of functional phenolic groups. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2011, 72, 130-138.	1.8	53
50	<i>Caldimonas hydrothermale</i> sp. nov., a novel thermophilic bacterium isolated from roman hot bath in south Tunisia. <i>Archives of Microbiology</i> , 2010, 192, 485-491.	2.2	9
51	A high-throughput screening system for the evaluation of biomass-hydrolyzing glycoside hydrolases. <i>Bioresource Technology</i> , 2010, 101, 8237-8243.	9.6	23
52	Evaluation of the transglycosylation activities of a GH 39 $\beta$ -d-xylosidase for the synthesis of xylose-based glycosides. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2009, 58, 1-5.	1.8	27
53	In Vitro Model Assemblies To Study the Impact of Lignin~Carbohydrate Interactions on the Enzymatic Conversion of Xylan. <i>Biomacromolecules</i> , 2009, 10, 2489-2498.	5.4	40
54	Biocatalytic conversion of wheat bran hydrolysate using an immobilized GH43 $\beta$ -xylosidase. <i>Bioresource Technology</i> , 2009, 100, 338-344.	9.6	17

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55	A Brief and Informationally Rich Naming System for Oligosaccharide Motifs of Heteroxylans Found in Plant Cell Walls. <i>Australian Journal of Chemistry</i> , 2009, 62, 533.	0.9	84
56	Action of a GH 51 $\beta$ -l-arabinofuranosidase on wheat-derived arabinoxylans and arabino-xylooligosaccharides. <i>Carbohydrate Polymers</i> , 2008, 72, 424-430.	10.2	25
57	New chromogenic substrates for feruloyl esterases. <i>Organic and Biomolecular Chemistry</i> , 2008, 6, 1208.	2.8	15
58	The Structure of the Complex between a Branched Pentasaccharide and <i>Thermobacillus xylanilyticus</i> GH-51 Arabinofuranosidase Reveals Xylan-Binding Determinants and Induced Fit. <i>Biochemistry</i> , 2008, 47, 7441-7451.	2.5	53
59	La production de carburants À partir de biomasse lignocellulosique par voie biologique : État de l'art et perspectives. <i>Oleagineux Corps Gras Lipides</i> , 2008, 15, 172-177.	0.2	0
60	New insights into the role of the thumb-like loop in GH-11 xylanases. <i>Protein Engineering, Design and Selection</i> , 2007, 20, 15-23.	2.1	47
61	Thioimidoyl furanosides as first inhibitors of the $\beta$ -l-arabinofuranosidase AbfD3. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2007, 17, 434-438.	2.2	5
62	Investigation of the specificity of an $\beta$ -l-arabinofuranosidase using C-2 and C-5 modified $\beta$ -l-arabinofuranosides. <i>Carbohydrate Research</i> , 2007, 342, 2202-2211.	2.3	20
63	Engineering increased thermostability in the thermostable GH-11 xylanase from <i>Thermobacillus xylanilyticus</i> . <i>Journal of Biotechnology</i> , 2006, 125, 338-350.	3.8	76
64	Expression in <i>Escherichia coli</i> and characterization of $\beta$ -xylosidases GH39 and GH-43 from <i>Bacillus halodurans</i> C-125. <i>Applied Microbiology and Biotechnology</i> , 2006, 73, 582-590.	3.6	51
65	A Chemoenzymatic Approach for the Synthesis of Unnatural Disaccharides Containing D-Galacto- or D-Fucofuranosides. <i>European Journal of Organic Chemistry</i> , 2005, 2005, 4860-4869.	2.4	20
66	An original chemoenzymatic route for the synthesis of $\beta$ -d-galactofuranosides using an $\beta$ -l-arabinofuranosidase. <i>Carbohydrate Research</i> , 2005, 340, 637-644.	2.3	33
67	Probing the cell wall heterogeneity of micro-dissected wheat caryopsis using both active and inactive forms of a GH11 xylanase. <i>Planta</i> , 2005, 222, 246-257.	3.2	36
68	Bioinformatics of the glycoside hydrolase family 57 and identification of catalytic residues in amylopullulanase from <i>Thermococcus</i> hydrothermalis. <i>FEBS Journal</i> , 2004, 271, 2863-2872.	0.2	80
69	Synthesis of pentose-containing disaccharides using a thermostable $\beta$ -l-arabinofuranosidase. <i>Carbohydrate Research</i> , 2004, 339, 2019-2025.	2.3	33
70	Impact and efficiency of GH10 and GH11 thermostable endoxylanases on wheat bran and alkali-extractable arabinoxylans. <i>Carbohydrate Research</i> , 2004, 339, 2529-2540.	2.3	125
71	A versatile assay for the accurate, time-resolved determination of cellular viability. <i>Analytical Biochemistry</i> , 2003, 314, 1-7.	2.4	43
72	Investigation of the functional relevance of the catalytically important Glu28 in family 51 arabinosidases. <i>FEBS Letters</i> , 2003, 553, 381-386.	2.8	4

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73	Probing the catalytically essential residues of the $\alpha$ -L-arabinofuranosidase from <i>Thermobacillus xylanilyticus</i> . <i>Protein Engineering, Design and Selection</i> , 2002, 15, 21-28.	2.1	34
74	Chemoenzymatic Syntheses of Linear and Branched Hemithiomaltodextrins as Potential Inhibitors for Starch-Debranching Enzymes. <i>Chemistry - A European Journal</i> , 2002, 8, 5447-5455.	3.3	23
75	Identification and Characterization of Various Cholecystokinin B Receptor mRNA Forms in Rat Brain Tissue and Partial Determination of the Cholecystokinin B Receptor Gene Structure. <i>Journal of Neurochemistry</i> , 2002, 63, 1199-1206.	3.9	22
76	Enzymatic synthesis of alkyl arabinofuranosides using a thermostable $\alpha$ -L-arabinofuranosidase. <i>Tetrahedron Letters</i> , 2002, 43, 9653-9655.	1.4	31
77	Title is missing!. <i>Biotechnology Letters</i> , 2001, 23, 1273-1277.	2.2	22
78	<i>Thermobacillus xylanilyticus</i> gen. nov., sp. nov., a new aerobic thermophilic xylan-degrading bacterium isolated from farm soil.. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2000, 50, 315-320.	1.7	89
79	Genetic and Biochemical Characterization of a Highly Thermostable $\alpha$ -L-Arabinofuranosidase from <i>Thermobacillus xylanilyticus</i> . <i>Applied and Environmental Microbiology</i> , 2000, 66, 1734-1736.	3.1	82
80	A novel elicitin necrotic site revealed by a-cinnamomin sequence and site-directed mutagenesis. <i>Phytochemistry</i> , 1999, 50, 961-966.	2.9	13
81	The 2.1 Å... structure of an elicitin-ergosterol complex: A recent addition to the Sterol Carrier Protein family. <i>Protein Science</i> , 1999, 8, 1191-1199.	7.6	71
82	The Type II Pullulanase of <i>Thermococcus hydrothermalis</i> : Molecular Characterization of the Gene and Expression of the Catalytic Domain. <i>Journal of Bacteriology</i> , 1999, 181, 3284-3287.	2.2	73
83	Phytophthora Resistance Through Production of a Fungal Protein Elicitor ( $\beta$ -Cryptogein) in Tobacco. <i>Molecular Plant-Microbe Interactions</i> , 1998, 11, 64-67.	2.6	33
84	Evidence by Site-Directed Mutagenesis That Arginine 203 of Thermolysin and Arginine 717 of Neprilysin (Neutral Endopeptidase) Play Equivalent Critical Roles in Substrate Hydrolysis and Inhibitor Binding. <i>Biochemistry</i> , 1997, 36, 13938-13945.	2.5	41
85	Overexpression in <i>Pichia pastoris</i> and Crystallization of an Elicitor Protein Secreted by the Phytopathogenic Fungus, <i>Phytophthora cryptogea</i> . <i>Protein Expression and Purification</i> , 1996, 8, 254-261.	1.3	41
86	The Roles of the Prosequence of Thermolysin in Enzyme Inhibition and Folding in Vitro. <i>Journal of Biological Chemistry</i> , 1996, 271, 26477-26481.	3.4	56
87	A method for introducing site-specific mutations using oligonucleotide primers and its application to site-saturation mutagenesis. <i>Molecular Biotechnology</i> , 1996, 6, 179-189.	2.4	3
88	Chemical synthesis, expression and mutagenesis of a gene encoding $\beta$ -cryptogein, an elicitin produced by <i>Phytophthora cryptogea</i> . <i>Plant Molecular Biology</i> , 1995, 27, 577-586.	3.9	51
89	The Role of Histidine 231 in Thermolysin-like Enzymes.. <i>Journal of Biological Chemistry</i> , 1995, 270, 16803-16808.	3.4	74
90	Site-Directed and Site-Saturation Mutagenesis Using Oligonucleotide Primers. , 1994, 30, 211-226.		2

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91	Construction and characterization of recA mutant strains of <i>Corynebacterium glutamicum</i> and <i>Brevibacterium lactofermentum</i> . <i>Applied Microbiology and Biotechnology</i> , 1994, 42, 575-580.	3.6	5
92	Tyr26 and Phe73 are essential for full biological activity of the Fd Gene 5 protein. <i>FEMS Microbiology Letters</i> , 1993, 109, 219-223.	1.8	2