

# Gabriel PaÃs

## List of Publications by Year in descending order

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43  
papers

2,022  
citations

361045

20  
h-index

276539

41  
g-index

44  
all docs

44  
docs citations

44  
times ranked

2525  
citing authors

#	ARTICLE	IF	CITATIONS
1	Lignocellulosic Biomass: Understanding Recalcitrance and Predicting Hydrolysis. <i>Frontiers in Chemistry</i> , 2019, 7, 874.	1.8	424
2	GH11 xylanases: Structure/function/properties relationships and applications. <i>Biotechnology Advances</i> , 2012, 30, 564-592.	6.0	351
3	Understanding the structural and chemical changes of plant biomass following steam explosion pretreatment. <i>Biotechnology for Biofuels</i> , 2017, 10, 36.	6.2	214
4	Impact and efficiency of GH10 and GH11 thermostable endoxylanases on wheat bran and alkali-extractable arabinoxylans. <i>Carbohydrate Research</i> , 2004, 339, 2529-2540.	1.1	125
5	Lignocellulosic fibers: a critical review of the extrusion process for enhancement of the properties of natural fiber composites. <i>RSC Advances</i> , 2017, 7, 34638-34654.	1.7	86
6	Engineering increased thermostability in the thermostable GH-11 xylanase from <i>Thermobacillus xylanilyticus</i> . <i>Journal of Biotechnology</i> , 2006, 125, 338-350.	1.9	76
7	Multimodal analysis of pretreated biomass species highlights generic markers of lignocellulose recalcitrance. <i>Biotechnology for Biofuels</i> , 2018, 11, 52.	6.2	59
8	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.	1.2	53
9	Exploring mechanical properties of fully compostable flax reinforced composite filaments for 3D printing applications. <i>Industrial Crops and Products</i> , 2019, 135, 246-250.	2.5	52
10	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.	1.0	47
11	Fluorescent Probes for Exploring Plant Cell Wall Deconstruction: A Review. <i>Molecules</i> , 2014, 19, 9380-9402.	1.7	43
12	Seeing biomass recalcitrance through fluorescence. <i>Scientific Reports</i> , 2017, 7, 8838.	1.6	42
13	Fluorescence techniques can reveal cell wall organization and predict saccharification in pretreated wood biomass. <i>Industrial Crops and Products</i> , 2018, 123, 84-92.	2.5	38
14	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.	1.6	36
15	Tyrosine 105 and Threonine 212 at Outermost Substrate Binding Subsites -6 and +4 Control Substrate Specificity, Oligosaccharide Cleavage Patterns, and Multiple Binding Modes of Barley $\alpha$ -Amylase 1. <i>Journal of Biological Chemistry</i> , 2004, 279, 10093-10102.	1.6	33
16	Characterization of Arabinoxylan/Cellulose Nanocrystals Gels to Investigate Fluorescent Probes Mobility in Bioinspired Models of Plant Secondary Cell Wall. <i>Biomacromolecules</i> , 2012, 13, 206-214.	2.6	30
17	Exploring accessibility of pretreated poplar cell walls by measuring dynamics of fluorescent probes. <i>Biotechnology for Biofuels</i> , 2017, 10, 15.	6.2	26
18	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.	1.9	25

#	ARTICLE	IF	CITATIONS
19	Tracking of enzymatic biomass deconstruction by fungal secretomes highlights markers of lignocellulose recalcitrance. <i>Biotechnology for Biofuels</i> , 2019, 12, 76.	6.2	25
20	Investigation of the binding properties of a multi-modular GH45 cellulase using bioinspired model assemblies. <i>Biotechnology for Biofuels</i> , 2016, 9, 12.	6.2	22
21	Exploring the microstructure of natural fibre composites by confocal Raman imaging and image analysis. <i>Composites Part A: Applied Science and Manufacturing</i> , 2017, 94, 32-40.	3.8	21
22	Action of lytic polysaccharide monooxygenase on plant tissue is governed by cellular type. <i>Scientific Reports</i> , 2017, 7, 17792.	1.6	21
23	Heterologous production of the <i>Piromyces equi</i> cinnamoyl esterase in <i>Trichoderma reesei</i> for biotechnological applications. <i>Letters in Applied Microbiology</i> , 2009, 49, 673-678.	1.0	17
24	Fluorescent Nano-Probes to Image Plant Cell Walls by Super-Resolution STED Microscopy. <i>Plants</i> , 2018, 7, 11.	1.6	16
25	Ferulic acid derivatives used as biobased powders for a convenient plasticization of polylactic acid in continuous hot-melt process. <i>European Polymer Journal</i> , 2019, 110, 293-300.	2.6	15
26	Evaluating polymer interplay after hot water pretreatment to investigate maize stem internode recalcitrance. <i>Biotechnology for Biofuels</i> , 2021, 14, 164.	6.2	15
27	Modeling Progression of Fluorescent Probes in Bioinspired Lignocellulosic Assemblies. <i>Biomacromolecules</i> , 2013, 14, 2196-2205.	2.6	14
28	Enzymes to unravel bioproducts architecture. <i>Biotechnology Advances</i> , 2020, 41, 107546.	6.0	12
29	Dynamical assessment of fluorescent probes mobility in poplar cell walls reveals nanopores govern saccharification. <i>Biotechnology for Biofuels</i> , 2018, 11, 271.	6.2	11
30	FRET-SLIM on native autofluorescence: a fast and reliable method to study interactions between fluorescent probes and lignin in plant cell wall. <i>Plant Methods</i> , 2018, 14, 74.	1.9	11
31	Real Time and Quantitative Imaging of Lignocellulosic Films Hydrolysis by Atomic Force Microscopy Reveals Lignin Recalcitrance at Nanoscale. <i>Biomacromolecules</i> , 2019, 20, 515-527.	2.6	11
32	Multimodal characterization of acid-pretreated poplar reveals spectral and structural parameters strongly correlate with saccharification. <i>Bioresource Technology</i> , 2019, 293, 122015.	4.8	10
33	Bioinspired assemblies of plant cell wall polymers unravel the affinity properties of carbohydrate-binding modules. <i>Soft Matter</i> , 2015, 11, 6586-6594.	1.2	9
34	Fluorescence Lifetime Imaging as an <i>In Situ</i> and Label-Free Readout for the Chemical Composition of Lignin. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 17381-17392.	3.2	9
35	Editorial: From Biomass to Advanced Bio-Based Chemicals & Materials: A Multidisciplinary Perspective. <i>Frontiers in Chemistry</i> , 2020, 8, 131.	1.8	6
36	Flax shives-PBAT processing into 3D printed fluorescent materials with potential sensor functionalities. <i>Industrial Crops and Products</i> , 2021, 167, 113482.	2.5	6

#	ARTICLE	IF	CITATIONS
37	Testing scientific models using Qualitative Reasoning: Application to cellulose hydrolysis. Scientific Reports, 2017, 7, 14122.	1.6	2
38	Microstructural and Chemical Approach To Highlight How a Simple Methyl Group Affects the Mechanical Properties of a Natural Fibers Composite. ACS Sustainable Chemistry and Engineering, 2017, 5, 10352-10360.	3.2	2
39	Fluorescence Lifetime Imaging of Plant Cell Walls. Methods in Molecular Biology, 2019, 1992, 77-82.	0.4	2
40	Real-time imaging of enzymatic degradation of pretreated maize internodes reveals different cell types have different profiles. Bioresource Technology, 2022, 353, 127140.	4.8	2
41	Bioinspired Assemblies of Plant Cell Walls for Measuring Protein-Carbohydrate Interactions by FRAP. Methods in Molecular Biology, 2017, 1588, 169-179.	0.4	1
42	Three-Dimensional Imaging of Plant Cell Wall Deconstruction Using Fluorescence Confocal Microscopy. Sustainable Chemistry, 2020, 1, 75-85.	2.2	1
43	Measuring Interactions between Fluorescent Probes and Lignin in Plant Sections by sFLIM Based on Native Autofluorescence. Journal of Visualized Experiments, 2020, , .	0.2	1