Leonardo D Gomez

List of Publications by Year
in descending order

83 papers	4,248 citations	117571 34 h-index	118793 62 g-index
85 all docs	85 docs citations	85 times ranked	5882 citing authors

#	Article	IF	Citations
1	Sustainable liquid biofuels from biomass: the writing's on the walls. New Phytologist, 2008, 178, 473-485.	3.5	349
2	An ancient family of lytic polysaccharide monooxygenases with roles in arthropod development and biomass digestion. Nature Communications, 2018, 9, 756.	5.8	192
3	Delayed embryo development in theARABIDOPSIS TREHALOSE-6-PHOSPHATE SYNTHASE 1mutant is associated with altered cell wall structure, decreased cell division and starch accumulation. Plant Journal, 2006, 46, 69-84.	2.8	181
4	Unlocking the potential of lignocellulosic biomass through plant science. New Phytologist, 2016, 209, 1366-1381.	3.5	177
5	AtTPS1-mediated trehalose 6-phosphate synthesis is essential for embryogenic and vegetative growth and responsiveness to ABA in germinating seeds and stomatal guard cells. Plant Journal, 2010, 64, no-no.	2.8	173
6	Regulation of photosynthesis and antioxidant metabolism in maize leaves at optimal and chilling temperatures: review. Plant Physiology and Biochemistry, 2002, 40, 659-668.	2.8	170
7	Regulation of calcium signalling and gene expression by glutathione. Journal of Experimental Botany, 2004, 55, 1851-1859.	2.4	144
8	Arabidopsis genes <i>IRREGULAR XYLEM</i> (<i>IRX15</i>) and <i>IRX15L</i> encode DUF579â€containing proteins that are essential for normal xylan deposition in the secondary cell wall. Plant Journal, 2011, 66, 401-413.	2.8	134
9	Coordinate induction of glutathione biosynthesis and glutathione-metabolizing enzymes is correlated with salt tolerance in tomato. FEBS Letters, 2003, 554, 417-421.	1.3	132
10	Inactivation and Degradation of CuZn-SOD by Active Oxygen Species in Wheat Chloroplasts Exposed to Photooxidative Stress. Plant and Cell Physiology, 1997, 38, 433-440.	1.5	123
11	Expansins expression is associated with grain size dynamics in wheat (Triticum aestivum L.). Journal of Experimental Botany, 2010, 61, 1147-1157.	2.4	119
12	Disrupting the <i>cinnamyl alcohol dehydrogenase 1</i> gene (<i>Bd<scp>CAD</scp>1</i>) leads to altered lignification and improved saccharification in <i>Brachypodium distachyon</i>. Plant Journal, 2013, 73, 496-508.	2.8	118
13	Efficient sugar production from sugarcane bagasse by microwave assisted acid and alkali pretreatment. Biomass and Bioenergy, 2016, 93, 269-278.	2.9	115
14	Intercellular Distribution of Glutathione Synthesis in Maize Leaves and Its Response to Short-Term Chilling. Plant Physiology, 2004, 134, 1662-1671.	2.3	110
15	Effects of pretreatment on morphology, chemical composition and enzymatic digestibility of eucalyptus bark: a potentially valuable source of fermentable sugars for biofuel production â€“ part 1. Biotechnology for Biofuels, 2013, 6, 75.	6.2	108
16	Valorisation strategies for cocoa pod husk and its fractions. Current Opinion in Green and Sustainable Chemistry, 2018, 14, 80-88.	3.2	91
17	Evaluating the composition and processing potential of novel sources of Brazilian biomass for sustainable biorenewables production. Biotechnology for Biofuels, 2014, 7, 10.	6.2	87
18	A new perspective in bio-refining: levoglucosenone and cleaner lignin from waste biorefinery hydrolysis lignin by selective conversion of residual saccharides. Energy and Environmental Science, 2016, 9, 2571-2574.	15.6	79

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19	Overcoming the tradeâ€off between grain weight and number in wheat by the ectopic expression of expansin in developing seeds leads to increased yield potential. New Phytologist, 2021, 230, 629-640.	3.5	79
20	Cell wall remodeling under salt stress: Insights into changes in polysaccharides, feruloylation, lignification, and phenolic metabolism in maize. Plant, Cell and Environment, 2020, 43, 2172-2191.	2.8	79
21	Automated saccharification assay for determination of digestibility in plant materials. Biotechnology for Biofuels, 2010, 3, 23.	6.2	77
22	Expression of fungal acetyl xylan esterase in <i>Arabidopsis thaliana</i> improves saccharification of stem lignocellulose. Plant Biotechnology Journal, 2016, 14, 387-397.	4.1	72
23	Biomass composition of the golden tide pelagic seaweeds Sargassum fluitans and S. natans (morphotypes I and VIII) to inform valorisation pathways. Science of the Total Environment, 2021, 762, 143134.	3.9	72
24	<i>Arabidopsis</i> GT34 family contains five xyloglucan Î±â€1,6â€xylosyltransferases. New Phytologist, 2012, 195, 585-595.	3.5	64
25	Role of Plant Laccases in Lignin Polymerization. Advances in Botanical Research, 2012, 61, 145-172.	0.5	61
26	Range of cell-wall alterations enhance saccharification in <i>Brachypodium distachyon</i> mutants. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 14601-14606.	3.3	53
27	Genetic engineering of grass cell wall polysaccharides for biorefining. Plant Biotechnology Journal, 2017, 15, 1071-1092.	4.1	52
28	Arabinan Metabolism during Seed Development and Germination in Arabidopsis. Molecular Plant, 2009, 2, 966-976.	3.9	50
29	Arabidopsis <i>XTH4</i> and <i>XTH9</i> Contribute to Wood Cell Expansion and Secondary Wall Formation. Plant Physiology, 2020, 182, 1946-1965.	2.3	45
30	Analysis of saccharification in Brachypodium distachyon stems under mild conditions of hydrolysis. Biotechnology for Biofuels, 2008, 1, 15.	6.2	44
31	Microwave assisted chemical pretreatment of Miscanthus under different temperature regimes. Sustainable Chemical Processes, 2015, 3, .	2.3	43
32	Microwave-enhanced formation of glucose from cellulosic waste. Chemical Engineering and Processing: Process Intensification, 2013, 71, 37-42.	1.8	39
33	Characterization of the cellulolytic secretome of <i>Trichoderma harzianum</i> during growth on sugarcane bagasse and analysis of the activity boosting effects of swollenin. Biotechnology Progress, 2016, 32, 327-336.	1.3	39
34	Antioxidant system response of different wheat cultivars under drought: field and in vitro studies. Functional Plant Biology, 2001, 28, 1095.	1.1	38
35	Optimization of biomass pretreatments using fractional factorial experimental design. Biotechnology for Biofuels, 2018, 11, 206.	6.2	37
36	Supercritical extraction as an effective first-step in a maize stover biorefinery. RSC Advances, 2015, 5, 43831-43838.	1.7	35

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37	Changes in gluthatione reductase activity and protein content in wheat leaves and chloroplasts exposed to photooxidative stress. Plant Physiology and Biochemistry, 1998, 36, 321-329.	2.8	33
38	Status of antioxidant metabolites and enzymes in a catalase-deficient mutant of barley (Hordeum) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.7	33
39	The role of trehalose-6-phosphate synthase in Arabidopsis embryo development. Biochemical Society Transactions, 2005, 33, 280-282.	1.6	33
40	Valorising faba bean residual biomass: Effect of farming system and planting time on the potential for biofuel production. Biomass and Bioenergy, 2017, 107, 227-232.	2.9	32
41	Microwave assisted acid and alkali pretreatment of <i>Miscanthus </i>biomas<i>s </i>for biorefineries. AIMS Bioengineering, 2015, 2, 449-468.	0.6	31
42	Hemocyanin facilitates lignocellulose digestion by wood-boring marine crustaceans. Nature Communications, 2018, 9, 5125.	5.8	29
43	Genetic complexity of miscanthus cell wall composition and biomass quality for biofuels. BMC Genomics, 2017, 18, 406.	1.2	22
44	A glycosyl transferase family 43 protein involved in xylan biosynthesis is associated with straw digestibility in <i>Brachypodium distachyon</i>. New Phytologist, 2018, 218, 974-985.	3.5	21
45	Residual biomass saccharification in processing tomato is affected by cultivar and nitrogen fertilization. Biomass and Bioenergy, 2015, 72, 242-250.	2.9	20
46	Latitudinal variation in ambient UV-B radiation is an important determinant of Lolium perenne forage production, quality, and digestibility. Journal of Experimental Botany, 2013, 64, 2193-2204.	2.4	19
47	Side by Side Comparison of Chemical Compounds Generated by Aqueous Pretreatments of Maize Stover, Miscanthus and Sugarcane Bagasse. Bioenergy Research, 2014, 7, 1466-1480.	2.2	19
48	Nutrient and drought stress: implications for phenology and biomass quality in miscanthus. Annals of Botany, 2019, 124, 553-566.	1.4	19
49	Comparative evaluation of microwave-assisted acid, alkaline, and inorganic salt pretreatments of sugarcane bagasse for sugar recovery. Biomass Conversion and Biorefinery, 2020, , 1.	2.9	19
50	Active fungal GH115 Î±-glucuronidase produced in Arabidopsis thaliana affects only the UX1-reactive glucuronate decorations on native glucuronoxylans. BMC Biotechnology, 2015, 15, 56.	1.7	17
51	Integrated processing of sugarcane bagasse: Arabinoxylan extraction integrated with ethanol production. Biochemical Engineering Journal, 2019, 146, 31-40.	1.8	17
52	Joint Seleniumâ€"Iodine Supply and Arbuscular Mycorrhizal Fungi Inoculation Affect Yield and Quality of Chickpea Seeds and Residual Biomass. Plants, 2020, 9, 804.	1.6	17
53	Design of experiments driven optimization of alkaline pretreatment and saccharification for sugarcane bagasse. Bioresource Technology, 2021, 321, 124499.	4.8	16
54	Fast pyrolysis of rice husk under vacuum conditions to produce levoglucosan. Journal of Analytical and Applied Pyrolysis, 2021, 156, 105105.	2.6	16

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55	Wheat Chloroplastic Glutathione Reductase Activity is Regulated by the Combined Effect of pH, NADPH and GSSG. Plant and Cell Physiology, 1999, 40, 683-690.	1.5	15
56	Identification of crop cultivars with consistently high lignocellulosic sugar release requires the use of appropriate statistical design and modelling. Biotechnology for Biofuels, 2013, 6, 185.	6.2	15
57	Cell wall hydrolases act in concert during aerenchyma development in sugarcane roots. Annals of Botany, 2019, 124, 1067-1089.	1.4	15
58	Designing xylan for improved sustainable biofuel production. Plant Biotechnology Journal, 2019, 17, 2225-2227.	4.1	15
59	Anaerobic digestion of Crassulacean Acid Metabolism plants: Exploring alternative feedstocks for semi-arid lands. Bioresource Technology, 2020, 297, 122262.	4.8	15
60	Transcriptomics predicts compound synergy in drug and natural product treated glioblastoma cells. PLoS ONE, 2020, 15, e0239551.	1.1	15
61	Sustainable Galactarateâ€Based Polymers: Multiâ€Enzymatic Production of Pectinâ€Derived Polyesters. Macromolecular Rapid Communications, 2019, 40, e1900361.	2.0	14
62	Accessory enzymes of hypercellulolytic Penicillium funiculosum facilitate complete saccharification of sugarcane bagasse. Biotechnology for Biofuels, 2021, 14, 171.	6.2	14
63	Thermochemical pretreatments of maize stem for sugar recovery: Comparative evaluation of microwave and conventional heating. Industrial Crops and Products, 2021, 160, 113106.	2.5	13
64	Improved hydrolysis yields and silica recovery by design of experiments applied to acid-alkali pretreatment in rice husks. Industrial Crops and Products, 2021, 170, 113676.	2.5	12
65	Plantâ€"Rhizobium symbiosis, seed nutraceuticals, and waste quality for energy production of Vicia faba L. as affected by crop management. Chemical and Biological Technologies in Agriculture, 2018, 5, .	1.9	11
66	Biorefining Potential of Wild-Grown Arundo donax, Cortaderia selloana and Phragmites australis and the Feasibility of White-Rot Fungi-Mediated Pretreatments. Frontiers in Plant Science, 2021, 12, 679966.	1.7	11
67	The Analysis of Saccharification in Biomass Using an Automated High-Throughput Method. Methods in Enzymology, 2012, 510, 37-50.	0.4	10
68	FTIR Screening to Elucidate Compositional Differences in Maize Recombinant Inbred Lines with Contrasting Saccharification Efficiency Yields. Agronomy, 2021, 11, 1130.	1.3	10
69	Biomass recalcitrance in barley, wheat and triticale straw: Correlation of biomass quality with classic agronomical traits. PLoS ONE, 2018, 13, e0205880.	1.1	9
70	High-throughput Saccharification Assay for Lignocellulosic Materials. Journal of Visualized Experiments, 2011, , .	0.2	8
71	Sudangrass, an alternative lignocellulosic feedstock for bioenergy in Argentina. PLoS ONE, 2019, 14, e0217435.	1.1	8
72	Alcoholic fermentation of thermochemical and biological hydrolysates derived from Miscanthus biomass by Clostridium acetobutylicum ATCC 824. Biomass and Bioenergy, 2019, 130, 105382.	2.9	7

#	ARTICLE	IF	CITATIONS
73	Association mapping identifies quantitative trait loci (QTL) for digestibility in rice straw. Biotechnology for Biofuels, 2020, 13, 165.	6.2	7
74	Linkage Mapping of Stem Saccharification Digestibility in Rice. PLoS ONE, 2016, 11, e0159117.	1.1	6
75	Valorisation of Natural Resources and the Need for Economic and Sustainability Assessment: The Case of Cocoa Pod Husk in Indonesia. Sustainability, 2020, 12, 8962.	1.6	5
76	Variability for cell-wall and yield components in commercial sugarcane (<i>Saccharum spp</i>.) progeny: contrasts with parental lines and energy cane. Journal of Crop Improvement, 2022, 36, 769-788.	0.9	4
77	Senna reticulata: a Viable Option for Bioenergy Production in the Amazonian Region. Bioenergy Research, 2021, 14, 91-105.	2.2	3
78	Integration of Aspergillus niger transcriptomic profile with metabolic model identifies potential targets to optimise citric acid production from lignocellulosic hydrolysate. , 2022, 15, 4.		3
79	Elucidating the multifunctional role of the cell wall components in the maize exploitation. BMC Plant Biology, 2021, 21, 251.	1.6	2
80	Valuable chemicals identified from Flourensia species using vacuum and analytical pyrolysis. Journal of Analytical and Applied Pyrolysis, 2022, 161, 105382.	2.6	2
81	Bringing down the wall one brick at a time. New Phytologist, 2018, 218, 5-7.	3.5	1
82	Flexible and digestible wood caused by viral-induced alteration of cell wall composition. Current Biology, 2022, , .	1.8	0
83	Cell Wall Composition Impacts Structural Characteristics of the Stems and Thereby Biomass Yield. Journal of Agricultural and Food Chemistry, 2022, 70, 8511-8511.	2.4	0