

Angel T Martinez

List of Publications by Citations

Source: <https://exaly.com/author-pdf/3153977/angel-t-martinez-publications-by-citations.pdf>

Version: 2024-04-25

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

311
papers

19,479
citations

74
h-index

125
g-index

316
ext. papers

21,387
ext. citations

5.7
avg, IF

6.65
L-index

#	Paper	IF	Citations
3 ¹¹	The Paleozoic origin of enzymatic lignin decomposition reconstructed from 31 fungal genomes. <i>Science</i> , 2012 , 336, 1715-9	33.3	1129
3 ¹⁰	Biodegradation of lignocellulosics: microbial, chemical, and enzymatic aspects of the fungal attack of lignin. <i>International Microbiology</i> , 2005 , 8, 195-204	3	607
3 ⁰⁹	Structural characterization of wheat straw lignin as revealed by analytical pyrolysis, 2D-NMR, and reductive cleavage methods. <i>Journal of Agricultural and Food Chemistry</i> , 2012 , 60, 5922-35	5.7	522
3 ⁰⁸	Genome, transcriptome, and secretome analysis of wood decay fungus <i>Postia placenta</i> supports unique mechanisms of lignocellulose conversion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 1954-9	11.5	479
3 ⁰⁷	Lignin-derived compounds as efficient laccase mediators for decolorization of different types of recalcitrant dyes. <i>Applied and Environmental Microbiology</i> , 2005 , 71, 1775-84	4.8	447
3 ⁰⁶	Microbial degradation of lignin: how a bulky recalcitrant polymer is efficiently recycled in nature and how we can take advantage of this. <i>Microbial Biotechnology</i> , 2009 , 2, 164-77	6.3	347
3 ⁰⁵	Molecular biology and structure-function of lignin-degrading heme peroxidases. <i>Enzyme and Microbial Technology</i> , 2002 , 30, 425-444	3.8	325
3 ⁰⁴	Purification and catalytic properties of two manganese peroxidase isoenzymes from <i>Pleurotus eryngii</i> . <i>FEBS Journal</i> , 1996 , 237, 424-32		280
3 ⁰³	Description of a versatile peroxidase involved in the natural degradation of lignin that has both manganese peroxidase and lignin peroxidase substrate interaction sites. <i>Journal of Biological Chemistry</i> , 1999 , 274, 10324-30	5.4	277
3 ⁰²	Enzymatic delignification of plant cell wall: from nature to mill. <i>Current Opinion in Biotechnology</i> , 2009 , 20, 348-57	11.4	244
3 ⁰¹	Fungal pretreatment: An alternative in second-generation ethanol from wheat straw. <i>Bioresource Technology</i> , 2011 , 102, 7500-6	11	241
3 ⁰⁰	Comparative genomics of <i>Ceriporiopsis subvermispora</i> and <i>Phanerochaete chrysosporium</i> provide insight into selective ligninolysis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 5458-63	11.5	225
2 ⁹⁹	Versatile peroxidase oxidation of high redox potential aromatic compounds: site-directed mutagenesis, spectroscopic and crystallographic investigation of three long-range electron transfer pathways. <i>Journal of Molecular Biology</i> , 2005 , 354, 385-402	6.5	223
2 ⁹⁸	Lignin composition and structure in young versus adult <i>Eucalyptus globulus</i> plants. <i>Plant Physiology</i> , 2011 , 155, 667-82	6.6	212
2 ⁹⁷	Substrate oxidation sites in versatile peroxidase and other basidiomycete peroxidases. <i>Journal of Experimental Botany</i> , 2009 , 60, 441-52	7	206
2 ⁹⁶	Paper pulp delignification using laccase and natural mediators. <i>Enzyme and Microbial Technology</i> , 2007 , 40, 1264-1271	3.8	206
2 ⁹⁵	Molecular characterization of a novel peroxidase isolated from the ligninolytic fungus <i>Pleurotus eryngii</i> . <i>Molecular Microbiology</i> , 1999 , 31, 223-35	4.1	189

294	Monolignol acylation and lignin structure in some nonwoody plants: a 2D NMR study. <i>Phytochemistry</i> , 2008 , 69, 2831-43	4	183
293	Substrate specificity and properties of the aryl-alcohol oxidase from the ligninolytic fungus <i>Pleurotus eryngii</i> . <i>FEBS Journal</i> , 1992 , 209, 603-11		180
292	A study on reducing substrates of manganese-oxidizing peroxidases from <i>Pleurotus eryngii</i> and <i>Bjerkandera adusta</i> . <i>FEBS Letters</i> , 1998 , 428, 141-6	3.8	171
291	Laccase purification and characterization from <i>Trametes trogii</i> isolated in Tunisia: decolorization of textile dyes by the purified enzyme. <i>Enzyme and Microbial Technology</i> , 2006 , 39, 141-148	3.8	171
290	Laccase detoxification of steam-exploded wheat straw for second generation bioethanol. <i>Bioresource Technology</i> , 2009 , 100, 6378-84	11	161
289	Differences in the chemical structure of the lignins from sugarcane bagasse and straw. <i>Biomass and Bioenergy</i> , 2015 , 81, 322-338	5.3	153
288	Oxidoreductases on their way to industrial biotransformations. <i>Biotechnology Advances</i> , 2017 , 35, 815-831	11.8	150
287	Structural characterization of the lignin in the cortex and pith of elephant grass (<i>Pennisetum purpureum</i>) stems. <i>Journal of Agricultural and Food Chemistry</i> , 2012 , 60, 3619-34	5.7	150
286	Composition of non-woody plant lignins and cinnamic acids by Py-GC/MS, Py/TMAH and FT-IR. <i>Journal of Analytical and Applied Pyrolysis</i> , 2007 , 79, 39-46	6	147
285	Induction and Characterization of Laccase in the Ligninolytic Fungus <i>Pleurotus eryngii</i> . <i>Current Microbiology</i> , 1997 , 34, 1-5	2.4	146
284	Occurrence of naturally acetylated lignin units. <i>Journal of Agricultural and Food Chemistry</i> , 2007 , 55, 5461-8	5.8	145
283	Efficient bleaching of non-wood high-quality paper pulp using laccase-mediator system. <i>Enzyme and Microbial Technology</i> , 2004 , 35, 113-120	3.8	144
282	Screening of 68 species of basidiomycetes for enzymes involved in lignin degradation. <i>Mycological Research</i> , 1995 , 99, 37-42		144
281	Highly acylated (acetylated and/or p-coumaroylated) native lignins from diverse herbaceous plants. <i>Journal of Agricultural and Food Chemistry</i> , 2008 , 56, 9525-34	5.7	140
280	Structural characterization of the lignin from jute (<i>Corchorus capsularis</i>) fibers. <i>Journal of Agricultural and Food Chemistry</i> , 2009 , 57, 10271-81	5.7	138
279	Determining the influence of eucalypt lignin composition in paper pulp yield using Py-GC/MS. <i>Journal of Analytical and Applied Pyrolysis</i> , 2005 , 74, 110-115	6	132
278	Pretreatment with laccase and a phenolic mediator degrades lignin and enhances saccharification of <i>Eucalyptus</i> feedstock. <i>Biotechnology for Biofuels</i> , 2014 , 7, 6	7.8	131
277	Transformation of polycyclic aromatic hydrocarbons by laccase is strongly enhanced by phenolic compounds present in soil. <i>Environmental Science & Technology</i> , 2007 , 41, 2964-71	10.3	131

276	Structural characterization of milled wood lignins from different eucalypt species. <i>Holzforschung</i> , 2008 , 62,	2	125
275	Comparison of different fungal enzymes for bleaching high-quality paper pulps. <i>Journal of Biotechnology</i> , 2005 , 115, 333-43	3.7	125
274	Fungal aryl-alcohol oxidase: a peroxide-producing flavoenzyme involved in lignin degradation. <i>Applied Microbiology and Biotechnology</i> , 2012 , 93, 1395-410	5.7	123
273	Production of hydrogen peroxide by aryl-alcohol oxidase from the ligninolytic fungus <i>Pleurotus eryngii</i> . <i>Applied Microbiology and Biotechnology</i> , 1990 , 32, 465-469	5.7	123
272	Structural characterization of extracellular polysaccharides produced by fungi from the genus <i>Pleurotus</i> . <i>Carbohydrate Research</i> , 1996 , 281, 143-54	2.9	122
271	Demonstration of laccase-based removal of lignin from wood and non-wood plant feedstocks. <i>Bioresource Technology</i> , 2012 , 119, 114-22	11	116
270	Induction of extracellular hydroxyl radical production by white-rot fungi through quinone redox cycling. <i>Applied and Environmental Microbiology</i> , 2009 , 75, 3944-53	4.8	116
269	Isolation and structural characterization of the milled-wood lignin from <i>Paulownia fortunei</i> wood. <i>Industrial Crops and Products</i> , 2009 , 30, 137-143	5.9	114
268	Degradation of phenolic and non-phenolic aromatic pollutants by four <i>Pleurotus</i> species: the role of laccase and versatile peroxidase. <i>Soil Biology and Biochemistry</i> , 2004 , 36, 909-916	7.5	112
267	Role of <i>Pycnoporus coccineus</i> laccase in the degradation of aromatic compounds in olive oil mill wastewater. <i>Enzyme and Microbial Technology</i> , 2005 , 36, 478-486	3.8	111
266	Structural characterization of lignin isolated from coconut (<i>Cocos nucifera</i>) coir fibers. <i>Journal of Agricultural and Food Chemistry</i> , 2013 , 61, 2434-45	5.7	109
265	Quinone redox cycling in the ligninolytic fungus <i>Pleurotus eryngii</i> leading to extracellular production of superoxide anion radical. <i>Archives of Biochemistry and Biophysics</i> , 1997 , 339, 190-9	4.1	107
264	Lignin modification during <i>Eucalyptus globulus</i> kraft pulping followed by totally chlorine-free bleaching: a two-dimensional nuclear magnetic resonance, Fourier transform infrared, and pyrolysis-gas chromatography/mass spectrometry study. <i>Journal of Agricultural and Food Chemistry</i> , 2007 , 55, 3477-90	5.7	106
263	5-hydroxymethylfurfural conversion by fungal aryl-alcohol oxidase and unspecific peroxygenase. <i>FEBS Journal</i> , 2015 , 282, 3218-29	5.7	105
262	Lignin-degrading peroxidases in Polyporales: an evolutionary survey based on 10 sequenced genomes. <i>Mycologia</i> , 2013 , 105, 1428-44	2.4	104
261	Characterization of a novel dye-decolorizing peroxidase (DyP)-type enzyme from <i>Irpex lacteus</i> and its application in enzymatic hydrolysis of wheat straw. <i>Applied and Environmental Microbiology</i> , 2013 , 79, 4316-24	4.8	102
260	Engineering platforms for directed evolution of Laccase from <i>Pycnoporus cinnabarinus</i> . <i>Applied and Environmental Microbiology</i> , 2012 , 78, 1370-84	4.8	101
259	The biotechnological control of pitch in paper pulp manufacturing. <i>Trends in Biotechnology</i> , 2001 , 19, 340-8	15.1	97

258	Induction, isolation, and characterization of two laccases from the white rot basidiomycete <i>Coriolopsis rigida</i> . <i>Applied and Environmental Microbiology</i> , 2002 , 68, 1534-40	4.8	95
257	Exploring the enzymatic parameters for optimal delignification of eucalypt pulp by laccase-mediator. <i>Enzyme and Microbial Technology</i> , 2006 , 39, 1319-1327	3.8	93
256	Isolation and structural characterization of the milled wood lignin, dioxane lignin, and cellulolytic lignin preparations from brewer's spent grain. <i>Journal of Agricultural and Food Chemistry</i> , 2015 , 63, 603-13	5.7	92
255	Oxygen activation during oxidation of methoxyhydroquinones by laccase from <i>Pleurotus eryngii</i> . <i>Applied and Environmental Microbiology</i> , 2000 , 66, 170-5	4.8	92
254	Production of hydroxyl radical by the synergistic action of fungal laccase and aryl alcohol oxidase. <i>Archives of Biochemistry and Biophysics</i> , 2000 , 383, 142-7	4.1	90
253	Directed evolution of a temperature-, peroxide- and alkaline pH-tolerant versatile peroxidase. <i>Biochemical Journal</i> , 2012 , 441, 487-98	3.8	89
252	Removal of lipophilic extractives from paper pulp by laccase and lignin-derived phenols as natural mediators. <i>Environmental Science & Technology</i> , 2007 , 41, 4124-9	10.3	86
251	Selective lignin and polysaccharide removal in natural fungal decay of wood as evidenced by in situ structural analyses. <i>Environmental Microbiology</i> , 2011 , 13, 96-107	5.2	85
250	Polymerization of lignosulfonates by the laccase-HBT (1-hydroxybenzotriazole) system improves dispersibility. <i>Bioresource Technology</i> , 2010 , 101, 5054-62	11	85
249	Biochemical and molecular characterization of a manganese peroxidase isoenzyme from <i>Pleurotus ostreatus</i> . <i>BBA - Proteins and Proteomics</i> , 1997 , 1339, 23-30		85
248	Manganese oxidation site in <i>Pleurotus eryngii</i> versatile peroxidase: a site-directed mutagenesis, kinetic, and crystallographic study. <i>Biochemistry</i> , 2007 , 46, 66-77	3.2	85
247	P-hydroxycinnamic acids as natural mediators for laccase oxidation of recalcitrant compounds. <i>Environmental Science & Technology</i> , 2008 , 42, 6703-9	10.3	83
246	A tryptophan neutral radical in the oxidized state of versatile peroxidase from <i>Pleurotus eryngii</i> : a combined multifrequency EPR and density functional theory study. <i>Journal of Biological Chemistry</i> , 2006 , 281, 9517-26	5.4	83
245	Ligninolytic peroxidase genes in the oyster mushroom genome: heterologous expression, molecular structure, catalytic and stability properties, and lignin-degrading ability. <i>Biotechnology for Biofuels</i> , 2014 , 7, 2	7.8	82
244	Microbial and enzymatic control of pitch in the pulp and paper industry. <i>Applied Microbiology and Biotechnology</i> , 2009 , 82, 1005-18	5.7	82
243	Expression of <i>Pleurotus eryngii</i> versatile peroxidase in <i>Escherichia coli</i> and optimisation of in vitro folding. <i>Enzyme and Microbial Technology</i> , 2002 , 30, 518-524	3.8	82
242	HSQC-NMR analysis of lignin in woody (<i>Eucalyptus globulus</i> and <i>Picea abies</i>) and non-woody (<i>Agave sisalana</i>) ball-milled plant materials at the gel state 10th EWLP, Stockholm, Sweden, August 25-28, 2008. <i>Holzforschung</i> , 2009 , 63,	2	81
241	Enzymatic grafting of simple phenols on flax and sisal pulp fibres using laccases. <i>Bioresource Technology</i> , 2010 , 101, 8211-6	11	79

240	Preferential degradation of phenolic lignin units by two white rot fungi. <i>Applied and Environmental Microbiology</i> , 1994 , 60, 4509-16	4.8	79
239	Structural characterization of guaiacyl-rich lignins in flax (<i>Linum usitatissimum</i>) fibers and shives. <i>Journal of Agricultural and Food Chemistry</i> , 2011 , 59, 11088-99	5.7	77
238	Different fungal manganese-oxidizing peroxidases: a comparison between <i>Bjerkandera</i> sp. and <i>Phanerochaete chrysosporium</i> . <i>Journal of Biotechnology</i> , 2000 , 77, 235-45	3.7	75
237	Spectral and catalytic properties of aryl-alcohol oxidase, a fungal flavoenzyme acting on polyunsaturated alcohols. <i>Biochemical Journal</i> , 2005 , 389, 731-8	3.8	74
236	The two manganese peroxidases Pr-MnP2 and Pr-MnP3 of <i>Phlebia radiata</i> , a lignin-degrading basidiomycete, are phylogenetically and structurally divergent. <i>Fungal Genetics and Biology</i> , 2005 , 42, 403-19	3.9	73
235	Identifying acetylated lignin units in non-wood fibers using pyrolysis-gas chromatography/mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2004 , 18, 1181-5	2.2	72
234	Towards industrially-feasible delignification and pitch removal by treating paper pulp with <i>Myceliophthora thermophila</i> laccase and a phenolic mediator. <i>Bioresource Technology</i> , 2011 , 102, 6717-22 ¹¹		69
233	Identification of residual lignin markers in eucalypt kraft pulps by PyGC/MS. <i>Journal of Analytical and Applied Pyrolysis</i> , 2001 , 58-59, 425-439	6	69
232	Kinetics of wheat straw solid-state fermentation with <i>Trametes versicolor</i> and <i>Pleurotus ostreatus</i> Lignin and polysaccharide alteration and production of related enzymatic activities. <i>Applied Microbiology and Biotechnology</i> , 1991 , 35, 817	5.7	69
231	Catalytic surface radical in dye-decolorizing peroxidase: a computational, spectroscopic and site-directed mutagenesis study. <i>Biochemical Journal</i> , 2015 , 466, 253-62	3.8	68
230	Lignin-degrading peroxidases from genome of selective ligninolytic fungus <i>Ceriporiopsis subvermispora</i> . <i>Journal of Biological Chemistry</i> , 2012 , 287, 16903-16	5.4	68
229	Analysis of the <i>Phlebiopsis gigantea</i> genome, transcriptome and secretome provides insight into its pioneer colonization strategies of wood. <i>PLoS Genetics</i> , 2014 , 10, e1004759	6	67
228	Integrating laccase mediator treatment into an industrial-type sequence for totally chlorine-free bleaching of eucalypt kraft pulp. <i>Journal of Chemical Technology and Biotechnology</i> , 2006 , 81, 1159-1165 ^{3.5}		66
227	Solid-state spectroscopic analysis of lignins from several Austral hardwoods. <i>Solid State Nuclear Magnetic Resonance</i> , 1999 , 15, 41-8	3.1	66
226	Analysis of lignin-carbohydrate and lignin-lignin linkages after hydrolase treatment of xylan-lignin, glucomannan-lignin and glucan-lignin complexes from spruce wood. <i>Planta</i> , 2014 , 239, 1079-90	4.7	65
225	Differential proteomic analysis of the secretome of <i>Irpex lacteus</i> and other white-rot fungi during wheat straw pretreatment. <i>Biotechnology for Biofuels</i> , 2013 , 6, 115	7.8	65
224	Comparative study of fractions from alkaline extraction of wheat straw through chemical degradation, analytical pyrolysis, and spectroscopic techniques. <i>Journal of Agricultural and Food Chemistry</i> , 1993 , 41, 1621-1626	5.7	63
223	Lignin depolymerization by fungal secretomes and a microbial sink. <i>Green Chemistry</i> , 2016 , 18, 6046-6062 ¹⁰		62

222	The genome of the white-rot fungus <i>Pycnoporus cinnabarinus</i> : a basidiomycete model with a versatile arsenal for lignocellulosic biomass breakdown. <i>BMC Genomics</i> , 2014 , 15, 486	4.5	62
221	Oxyfunctionalization of aliphatic compounds by a recombinant peroxygenase from <i>Coprinopsis cinerea</i> . <i>Biotechnology and Bioengineering</i> , 2013 , 110, 2323-32	4.9	62
220	Regioselective oxygenation of fatty acids, fatty alcohols and other aliphatic compounds by a basidiomycete heme-thiolate peroxidase. <i>Archives of Biochemistry and Biophysics</i> , 2011 , 514, 33-43	4.1	62
219	Kinetic and chemical characterization of aldehyde oxidation by fungal aryl-alcohol oxidase. <i>Biochemical Journal</i> , 2010 , 425, 585-93	3.8	62
218	Site-directed mutagenesis of the catalytic tryptophan environment in <i>Pleurotus eryngii</i> versatile peroxidase. <i>Biochemistry</i> , 2008 , 47, 1685-95	3.2	62
217	Chemical characterization of residual lignins from eucalypt paper pulps. <i>Journal of Analytical and Applied Pyrolysis</i> , 2005 , 74, 116-122	6	62
216	Structural modification of eucalypt pulp lignin in a totally chlorine-free bleaching sequence including a laccase-mediator stage. <i>Holzforschung</i> , 2007 , 61, 634-646	2	61
215	PyGC/MS study of <i>Eucalyptus globulus</i> wood treated with different fungi. <i>Journal of Analytical and Applied Pyrolysis</i> , 2001 , 58-59, 441-452	6	61
214	A secretomic view of woody and nonwoody lignocellulose degradation by <i>Pleurotus ostreatus</i> . <i>Biotechnology for Biofuels</i> , 2016 , 9, 49	7.8	61
213	Novel structural features in the GMC family of oxidoreductases revealed by the crystal structure of fungal aryl-alcohol oxidase. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2009 , 65, 1196-205		60
212	Transformation of wheat straw in the course of solid-state fermentation by four ligninolytic basidiomycetes. <i>Enzyme and Microbial Technology</i> , 1999 , 25, 605-612	3.8	60
211	Two oxidation sites for low redox potential substrates: a directed mutagenesis, kinetic, and crystallographic study on <i>Pleurotus eryngii</i> versatile peroxidase. <i>Journal of Biological Chemistry</i> , 2012 , 287, 41053-67	5.4	58
210	Understanding lignin biodegradation for the improved utilization of plant biomass in modern biorefineries. <i>Biofuels, Bioproducts and Biorefining</i> , 2014 , 8, 615-625	5.3	57
209	Basidiomycete DyPs: Genomic diversity, structural-functional aspects, reaction mechanism and environmental significance. <i>Archives of Biochemistry and Biophysics</i> , 2015 , 574, 66-74	4.1	56
208	Substrate diffusion and oxidation in GMC oxidoreductases: an experimental and computational study on fungal aryl-alcohol oxidase. <i>Biochemical Journal</i> , 2011 , 436, 341-50	3.8	56
207	Evolving thermostability in mutant libraries of ligninolytic oxidoreductases expressed in yeast. <i>Microbial Cell Factories</i> , 2010 , 9, 17	6.4	56
206	Production of new unsaturated lipids during wood decay by ligninolytic basidiomycetes. <i>Applied and Environmental Microbiology</i> , 2002 , 68, 1344-50	4.8	56
205	Modification of the Lignin Structure during Alkaline Delignification of <i>Eucalyptus</i> Wood by Kraft, Soda-AQ, and Soda-O ₂ Cooking. <i>Industrial & Engineering Chemistry Research</i> , 2013 , 52, 15702-15712	3.9	55

204	Absolute quantitation of lignin pyrolysis products using an internal standard. <i>Journal of Chromatography A</i> , 1997 , 773, 227-232	4.5	55
203	Studies on wheat lignin degradation by <i>Pleurotus</i> species using analytical pyrolysis. <i>Journal of Analytical and Applied Pyrolysis</i> , 2001 , 58-59, 401-411	6	55
202	Hydrogen-peroxide-producing system of <i>Pleurotus eryngii</i> involving the extracellular enzyme aryl-alcohol oxidase. <i>Applied Microbiology and Biotechnology</i> , 1994 , 41, 465-470	5.7	55
201	Ligninolytic peroxidase gene expression by <i>Pleurotus ostreatus</i> : differential regulation in lignocellulose medium and effect of temperature and pH. <i>Fungal Genetics and Biology</i> , 2014 , 72, 150-163	3.9	54
200	<i>Pleurotus ostreatus</i> heme peroxidases: an in silico analysis from the genome sequence to the enzyme molecular structure. <i>Comptes Rendus - Biologies</i> , 2011 , 334, 795-805	1.4	54
199	Optimization of a Laccase-Mediator Stage for TCF Bleaching of Flax Pulp. <i>Holzforschung</i> , 2003 , 57, 513-519		53
198	The cloning of a new peroxidase found in lignocellulose cultures of <i>Pleurotus eryngii</i> and sequence comparison with other fungal peroxidases. <i>FEMS Microbiology Letters</i> , 2000 , 191, 37-43	2.9	53
197	An analytical pyrolysis mass spectrometric study of <i>Eucryphia cordifolia</i> wood decayed by white-rot and brown-rot fungi. <i>Journal of Analytical and Applied Pyrolysis</i> , 1991 , 19, 175-191	6	53
196	Enzymatic deinking of secondary fibers: cellulases/hemicellulases versus laccase-mediator system. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2012 , 39, 1-9	4.2	52
195	Enhanced degradation of softwood versus hardwood by the white-rot fungus <i>Pycnoporus coccineus</i> . <i>Biotechnology for Biofuels</i> , 2015 , 8, 216	7.8	52
194	Enhancing the production of hydroxyl radicals by <i>Pleurotus eryngii</i> via quinone redox cycling for pollutant removal. <i>Applied and Environmental Microbiology</i> , 2009 , 75, 3954-62	4.8	52
193	Description of the first fungal dye-decolorizing peroxidase oxidizing manganese(II). <i>Applied Microbiology and Biotechnology</i> , 2015 , 99, 8927-42	5.7	51
192	Oxidation of hydroquinones by the versatile ligninolytic peroxidase from <i>Pleurotus eryngii</i> . H ₂ O ₂ generation and the influence of Mn ²⁺ . <i>FEBS Journal</i> , 2001 , 268, 4787-93		51
191	Lignin attack during eucalypt wood decay by selected basidiomycetes: a Py-GC/MS study. <i>Journal of Analytical and Applied Pyrolysis</i> , 2002 , 64, 421-431	6	50
190	Protein radicals in fungal versatile peroxidase: catalytic tryptophan radical in both compound I and compound II and studies on W164Y, W164H, and W164S variants. <i>Journal of Biological Chemistry</i> , 2009 , 284, 7986-94	5.4	49
189	Insights into Laccase Engineering from Molecular Simulations: Toward a Binding-Focused Strategy. <i>Journal of Physical Chemistry Letters</i> , 2015 , 6, 1447-53	6.4	48
188	Aryl-alcohol oxidase involved in lignin degradation: a mechanistic study based on steady and pre-steady state kinetics and primary and solvent isotope effects with two alcohol substrates. <i>Journal of Biological Chemistry</i> , 2009 , 284, 24840-7	5.4	48
187	Hyphal-sheath polysaccharides in fungal deterioration. <i>Science of the Total Environment</i> , 1995 , 167, 315-328		48

186	Sugar recoveries from wheat straw following treatments with the fungus <i>Irpex lacteus</i> . <i>Bioresource Technology</i> , 2013 , 131, 218-25	11	47
185	In vitro activation, purification, and characterization of <i>Escherichia coli</i> expressed aryl-alcohol oxidase, a unique H ₂ O ₂ -producing enzyme. <i>Protein Expression and Purification</i> , 2006 , 45, 191-9	2	47
184	Role of active site histidines in the two half-reactions of the aryl-alcohol oxidase catalytic cycle. <i>Biochemistry</i> , 2012 , 51, 6595-608	3.2	46
183	Isolation of two laccase genes from the white-rot fungus <i>Pleurotus eryngii</i> and heterologous expression of the pel3 encoded protein. <i>Journal of Biotechnology</i> , 2008 , 134, 9-19	3.7	46
182	Main lipophilic extractives in different paper pulp types can be removed using the laccase-mediator system. <i>Applied Microbiology and Biotechnology</i> , 2006 , 72, 845-51	5.7	46
181	Aryl-alcohol oxidase protein sequence: a comparison with glucose oxidase and other FAD oxidoreductases. <i>BBA - Proteins and Proteomics</i> , 2000 , 1481, 202-8		45
180	CPMAS carbon-13 NMR study of lignin preparations from wheat straw transformed by five lignocellulose-degrading fungi. <i>Journal of Agricultural and Food Chemistry</i> , 1992 , 40, 1297-1302	5.7	45
179	A survey of genes encoding H ₂ O ₂ -producing GMC oxidoreductases in 10 Polyporales genomes. <i>Mycologia</i> , 2015 , 107, 1105-19	2.4	43
178	Crystallographic, kinetic, and spectroscopic study of the first ligninolytic peroxidase presenting a catalytic tyrosine. <i>Journal of Biological Chemistry</i> , 2011 , 286, 15525-34	5.4	43
177	Production, isolation and characterization of a sterol esterase from <i>Ophiostoma piceae</i> . <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2002 , 1599, 28-35	4	43
176	Solid-State NMR Studies of Lignin and Plant Polysaccharide Degradation by Fungi. <i>Holzforschung</i> , 1991 , 45, 49-54	2	43
175	Stereoselective hydride transfer by aryl-alcohol oxidase, a member of the GMC superfamily. <i>ChemBioChem</i> , 2012 , 13, 427-35	3.8	42
174	A study of yeasts during the delignification and fungal transformation of wood into cattle feed in Chilean rain forest. <i>Antonie Van Leeuwenhoek</i> , 1989 , 55, 221-36	2.1	42
173	Substrate-dependent degradation patterns in the decay of wheat straw and beech wood by ligninolytic fungi. <i>Applied Microbiology and Biotechnology</i> , 1990 , 33, 481	5.7	42
172	Computer-Aided Laccase Engineering: Toward Biological Oxidation of Arylamines. <i>ACS Catalysis</i> , 2016 , 6, 5415-5423	13.1	42
171	Influence of organic co-solvents on the activity and substrate specificity of feruloyl esterases. <i>Bioresource Technology</i> , 2011 , 102, 4962-7	11	41
170	Immobilization of <i>Pycnoporus coccineus</i> laccase on Eupergit C: Stabilization and treatment of olive oil mill wastewaters. <i>Biocatalysis and Biotransformation</i> , 2007 , 25, 130-134	2.5	41
169	Enzymatic removal of free and conjugated sterols forming pitch deposits in environmentally sound bleaching of eucalypt paper pulp. <i>Environmental Science & Technology</i> , 2006 , 40, 3416-22	10.3	41

168	Pyrolysis-gas chromatography/Mass spectrometry analysis of phenolic and etherified units in natural and industrial lignins. <i>Rapid Communications in Mass Spectrometry</i> , 1999 , 13, 630-636	2.2	41
167	Fungal degradation of lipophilic extractives in eucalyptus globulus wood. <i>Applied and Environmental Microbiology</i> , 1999 , 65, 1367-71	4.8	41
166	Re-designing the substrate binding pocket of laccase for enhanced oxidation of sinapic acid. <i>Catalysis Science and Technology</i> , 2016 , 6, 3900-3910	5.5	40
165	Modulating O ₂ reactivity in a fungal flavoenzyme: involvement of aryl-alcohol oxidase Phe-501 contiguous to catalytic histidine. <i>Journal of Biological Chemistry</i> , 2011 , 286, 41105-14	5.4	39
164	Evolutionary convergence in lignin-degrading enzymes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, 6428-6433	11.5	38
163	Engineering a fungal peroxidase that degrades lignin at very acidic pH. <i>Biotechnology for Biofuels</i> , 2014 , 7, 114	7.8	38
162	Laccase-Mediator Pretreatment of Wheat Straw Degrades Lignin and Improves Saccharification. <i>Bioenergy Research</i> , 2016 , 9, 917-930	3.1	37
161	Self-sustained enzymatic cascade for the production of 2,5-furandicarboxylic acid from 5-methoxymethylfurfural. <i>Biotechnology for Biofuels</i> , 2018 , 11, 86	7.8	35
160	Understanding pulp delignification by laccase-mediator systems through isolation and characterization of lignin-carbohydrate complexes. <i>Biomacromolecules</i> , 2013 , 14, 3073-80	6.9	35
159	Time course of fungal removal of lipophilic extractives from Eucalyptus globulus wood. <i>Journal of Biotechnology</i> , 2001 , 84, 119-26	3.7	35
158	Lignin degradation and detoxification of eucalyptus wastes by on-site manufacturing fungal enzymes to enhance second-generation ethanol yield. <i>Applied Energy</i> , 2020 , 262, 114493	10.7	34
157	Biodeinking of flexographic inks by fungal laccases using synthetic and natural mediators. <i>Biochemical Engineering Journal</i> , 2012 , 67, 97-103	4.2	34
156	Improving the pH-stability of Versatile Peroxidase by Comparative Structural Analysis with a Naturally-Stable Manganese Peroxidase. <i>PLoS ONE</i> , 2015 , 10, e0140984	3.7	34
155	From Alkanes to Carboxylic Acids: Terminal Oxygenation by a Fungal Peroxygenase. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 12248-51	16.4	33
154	Delignification and Saccharification Enhancement of Sugarcane Byproducts by a Laccase-Based Pretreatment. <i>ACS Sustainable Chemistry and Engineering</i> , 2017 , 5, 7145-7154	8.3	33
153	Isolation of high-purity residual lignins from eucalypt paper pulps by cellulase and proteinase treatments followed by solvent extraction. <i>Enzyme and Microbial Technology</i> , 2004 , 35, 173-181	3.8	33
152	Chemical transformation of wheat straw constituents after solid-state fermentation with selected lignocellulose-degrading fungi. <i>Biomass and Bioenergy</i> , 1991 , 1, 261-266	5.3	33
151	New oxidase from Bjerkandera arthroconidial anamorph that oxidizes both phenolic and nonphenolic benzyl alcohols. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2009 , 1794, 689-974		32

150	Southern blot screening for lignin peroxidase and aryl-alcohol oxidase genes in 30 fungal species. <i>Journal of Biotechnology</i> , 2000 , 83, 245-51	3.7	32
149	Complete oxidation of hydroxymethylfurfural to furandicarboxylic acid by aryl-alcohol oxidase. <i>Biotechnology for Biofuels</i> , 2019 , 12, 217	7.8	31
148	Focused Directed Evolution of Aryl-Alcohol Oxidase in <i>Saccharomyces cerevisiae</i> by Using Chimeric Signal Peptides. <i>Applied and Environmental Microbiology</i> , 2015 , 81, 6451-62	4.8	31
147	Ultrastructural Aspects of Fungal Delignification of Chilean Woods by <i>Ganoderma australe</i> and <i>Phlebia chrysocrea</i> . A Study of Natural and In Vitro Degradation. <i>Holzforschung</i> , 1992 , 46, 1-8	2	31
146	Modulating Fatty Acid Epoxidation vs Hydroxylation in a Fungal Peroxygenase. <i>ACS Catalysis</i> , 2019 , 9, 6234-6242	13.1	30
145	Demonstration of Lignin-to-Peroxidase Direct Electron Transfer: A TRANSIENT-STATE KINETICS, DIRECTED MUTAGENESIS, EPR, AND NMR STUDY. <i>Journal of Biological Chemistry</i> , 2015 , 290, 23201-13	5.4	30
144	In-Depth 2D NMR Study of Lignin Modification During Pretreatment of Eucalyptus Wood with Laccase and Mediators. <i>Bioenergy Research</i> , 2015 , 8, 211-230	3.1	30
143	Heterologous expression and physicochemical characterization of a fungal dye-decolorizing peroxidase from <i>Auricularia auricula-judae</i> . <i>Protein Expression and Purification</i> , 2014 , 103, 28-37	2	30
142	Role of surface tryptophan for peroxidase oxidation of nonphenolic lignin. <i>Biotechnology for Biofuels</i> , 2016 , 9, 198	7.8	29
141	Rational Enzyme Engineering Through Biophysical and Biochemical Modeling. <i>ACS Catalysis</i> , 2016 , 6, 1624-1629	13.1	29
140	Morphological characteristics and composition of lipophilic extractives and lignin in Brazilian woods from different eucalypt hybrids. <i>Industrial Crops and Products</i> , 2012 , 36, 572-583	5.9	29
139	Oxidative degradation of model lipids representative for main paper pulp lipophilic extractives by the laccase-mediator system. <i>Applied Microbiology and Biotechnology</i> , 2008 , 80, 211-22	5.7	29
138	Expression of <i>Pleurotus eryngii</i> aryl-alcohol oxidase in <i>Aspergillus nidulans</i> : purification and characterization of the recombinant enzyme. <i>BBA - Proteins and Proteomics</i> , 2001 , 1546, 107-13		29
137	Biochemical characterization, cDNA cloning and protein crystallization of aryl-alcohol oxidase from <i>Pleurotus pulmonarius</i> . <i>BBA - Proteins and Proteomics</i> , 2000 , 1476, 129-38		29
136	Molecular cloning of aryl-alcohol oxidase from the fungus <i>Pleurotus eryngii</i> , an enzyme involved in lignin degradation. <i>Biochemical Journal</i> , 1999 , 341, 113-117	3.8	29
135	CHEMISTRY. How to break down crystalline cellulose. <i>Science</i> , 2016 , 352, 1050-1	33.3	29
134	Lignin-carbohydrate complexes from sisal (<i>Agave sisalana</i>) and abaca (<i>Musa textilis</i>): chemical composition and structural modifications during the isolation process. <i>Planta</i> , 2016 , 243, 1143-58	4.7	29
133	Experimental recreation of the evolution of lignin-degrading enzymes from the Jurassic to date. <i>Biotechnology for Biofuels</i> , 2017 , 10, 67	7.8	28

132	Fatty Acid Chain Shortening by a Fungal Peroxygenase. <i>Chemistry - A European Journal</i> , 2017 , 23, 16985-16989	16.9	28
131	Structural Determinants of Oxidative Stabilization in an Evolved Versatile Peroxidase. <i>ACS Catalysis</i> , 2014 , 4, 3891-3901	13.1	28
130	Escherichia coli expression and in vitro activation of a unique ligninolytic peroxidase that has a catalytic tyrosine residue. <i>Protein Expression and Purification</i> , 2009 , 68, 208-14	2	28
129	Advanced Synthesis of Conductive Polyaniline Using Laccase as Biocatalyst. <i>PLoS ONE</i> , 2016 , 11, e0164958	5.7	28
128	Molecular determinants for selective C25-hydroxylation of vitamins D2 and D3 by fungal peroxygenases. <i>Catalysis Science and Technology</i> , 2016 , 6, 288-295	5.5	27
127	Steroid hydroxylation by basidiomycete peroxygenases: a combined experimental and computational study. <i>Applied and Environmental Microbiology</i> , 2015 , 81, 4130-42	4.8	27
126	Studies on homoveratric acid transformation by the ligninolytic fungus <i>Pleurotus eryngii</i> . <i>Applied Microbiology and Biotechnology</i> , 1994 , 41, 500-504	5.7	27
125	Two New Unspecific Peroxygenases from Heterologous Expression of Fungal Genes in <i>Escherichia coli</i> . <i>Applied and Environmental Microbiology</i> , 2020 , 86,	4.8	26
124	Peroxidase evolution in white-rot fungi follows wood lignin evolution in plants. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 17900-17905	11.5	26
123	Improving the oxidative stability of a high redox potential fungal peroxidase by rational design. <i>PLoS ONE</i> , 2015 , 10, e0124750	3.7	26
122	Versatile peroxidase as a valuable tool for generating new biomolecules by homogeneous and heterogeneous cross-linking. <i>Enzyme and Microbial Technology</i> , 2013 , 52, 303-11	3.8	26
121	EPR parameters of amino acid radicals in <i>P. eryngii</i> versatile peroxidase and its W164Y variant computed at the QM/MM level. <i>Physical Chemistry Chemical Physics</i> , 2011 , 13, 5078-98	3.6	26
120	Electron and fluorescence microscopy of extracellular glucan and aryl-alcohol oxidase during wheat-straw degradation by <i>Pleurotus eryngii</i> . <i>Applied and Environmental Microbiology</i> , 1998 , 64, 325-32	4.8	26
119	Contribution by pigmented fungi to P-type humic acid formation in two forest soils. <i>Soil Biology and Biochemistry</i> , 1989 , 21, 23-28	7.5	26
118	Engineering of a fungal laccase to develop a robust, versatile and highly-expressed biocatalyst for sustainable chemistry. <i>Green Chemistry</i> , 2019 , 21, 5374-5385	10	25
117	Effect of culture temperature on the heterologous expression of <i>Pleurotus eryngii</i> versatile peroxidase in <i>Aspergillus</i> hosts. <i>Bioprocess and Biosystems Engineering</i> , 2009 , 32, 129-34	3.7	25
116	Site-directed mutagenesis of selected residues at the active site of aryl-alcohol oxidase, an H ₂ O ₂ -producing ligninolytic enzyme. <i>FEBS Journal</i> , 2006 , 273, 4878-88	5.7	25
115	Effect of pH on the stability of <i>Pleurotus eryngii</i> versatile peroxidase during heterologous production in <i>Emericella nidulans</i> . <i>Bioprocess and Biosystems Engineering</i> , 2004 , 26, 287-93	3.7	25

114	Matrix-assisted Laser Desorption/Ionization Mass Spectrometry of Natural and Synthetic Lignin. <i>Rapid Communications in Mass Spectrometry</i> , 1996 , 10, 1144-1147	2.2	25
113	Structural implications of the C-terminal tail in the catalytic and stability properties of manganese peroxidases from ligninolytic fungi. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2014 , 70, 3253-65		24
112	Fungal Pretreatment of Eucalyptus Wood Can Strongly Decrease the Amount of Lipophilic Extractives during Chlorine Free Kraft Pulping. <i>Environmental Science & Technology</i> , 2000 , 34, 3705-3709	19.3	24
111	A highly stable laccase obtained by swapping the second cupredoxin domain. <i>Scientific Reports</i> , 2018 , 8, 15669	4.9	24
110	Compositional changes of wheat lignin by a fungal peroxidase analyzed by pyrolysis-GC-MS. <i>Journal of Analytical and Applied Pyrolysis</i> , 2001 , 58-59, 413-423	6	22
109	Genomic Analysis Enlightens Agaricales Lifestyle Evolution and Increasing Peroxidase Diversity. <i>Molecular Biology and Evolution</i> , 2021 , 38, 1428-1446	8.3	22
108	Selective synthesis of 4-hydroxyisophorone and 4-ketoisophorone by fungal peroxygenases. <i>Catalysis Science and Technology</i> , 2019 , 9, 1398-1405	5.5	21
107	Selective synthesis of the resveratrol analogue 4,4'-dihydroxy-trans-stilbene and stilbenoids modification by fungal peroxygenases. <i>Catalysis Science and Technology</i> , 2018 , 8, 2394-2401	5.5	21
106	NMR study of manganese(II) binding by a new versatile peroxidase from the white-rot fungus <i>Pleurotus eryngii</i> . <i>Journal of Biological Inorganic Chemistry</i> , 2003 , 8, 751-60	3.7	21
105	In vitro decay of <i>Aextoxicon punctatum</i> and <i>Fagus sylvatica</i> woods by white and brown-rot fungi. <i>Wood Science and Technology</i> , 1993 , 27, 295-307	2.5	21
104	Production of brown and green humic-like substances by <i>Ulocladium atrum</i> . <i>Soil Biology and Biochemistry</i> , 1985 , 17, 257-259	7.5	21
103	Fungal screening for biological removal of extractives from <i>Eucalyptus globulus</i> wood. <i>Canadian Journal of Botany</i> , 1999 , 77, 1513-1522		21
102	Formation of a tyrosine adduct involved in lignin degradation by <i>Trametes cervina</i> lignin peroxidase: a novel peroxidase activation mechanism. <i>Biochemical Journal</i> , 2013 , 452, 575-84	3.8	20
101	Selective Epoxidation of Fatty Acids and Fatty Acid Methyl Esters by Fungal Peroxygenases. <i>ChemCatChem</i> , 2018 , 10, 3964-3968	5.2	19
100	Isolation and selection of novel basidiomycetes for decolorization of recalcitrant dyes. <i>Folia Microbiologica</i> , 2009 , 54, 59-66	2.8	19
99	Molecular cloning of aryl-alcohol oxidase from the fungus <i>Pleurotus eryngii</i> , an enzyme involved in lignin degradation. <i>Biochemical Journal</i> , 1999 , 341, 113	3.8	19
98	p-Hydroxyphenyl:Guaiacyl:Syringyl Ratio of Lignin in Some Austral Hardwoods Estimated by CuO-Oxidation and Solid-State NMR. <i>Holzforschung</i> , 1991 , 45, 279-284	2	19
97	Screening of yeasts isolated from decayed wood for lignocellulose-degrading enzyme activities. <i>Mycological Research</i> , 1991 , 95, 1299-1302		19

96	Fatty acid epoxidation by <i>Collariella virescens</i> peroxygenase and heme-channel variants. <i>Catalysis Science and Technology</i> , 2020 , 10, 717-725	5.5	19
95	Simulating Substrate Recognition and Oxidation in Laccases: From Description to Design. <i>Journal of Chemical Theory and Computation</i> , 2017 , 13, 1462-1467	6.4	18
94	Mapping the Long-Range Electron Transfer Route in Ligninolytic Peroxidases. <i>Journal of Physical Chemistry B</i> , 2017 , 121, 3946-3954	3.4	18
93	Fungal lignin peroxidase does not produce the veratryl alcohol cation radical as a diffusible ligninolytic oxidant. <i>Journal of Biological Chemistry</i> , 2018 , 293, 4702-4712	5.4	18
92	Regioselective Hydroxylation in the Production of 25-Hydroxyvitamin D by <i>Coprinopsis cinerea</i> Peroxygenase. <i>ChemCatChem</i> , 2015 , 7, 283-290	5.2	18
91	Syringyl-type simple plant phenolics as mediating oxidants in laccase catalyzed degradation of lignocellulosic materials: Model compound studies 10th EWLP, Stockholm, Sweden, August 25-28, 2008. <i>Holzforschung</i> , 2009 , 63,	2	18
90	Pyrolysis products as markers in the chemical characterization of paperboards from waste paper and wheat straw pulps. <i>Bioresource Technology</i> , 1997 , 60, 51-58	11	18
89	An anamorph of the white-rot fungus <i>Bjerkandera adusta</i> capable of colonizing and degrading compact disc components. <i>FEMS Microbiology Letters</i> , 2007 , 275, 122-9	2.9	18
88	Fatty acid composition and taxonomic status of <i>Ganoderma australe</i> from southern Chile. <i>Mycological Research</i> , 1991 , 95, 782-784		18
87	Sequential oxidation of 5-hydroxymethylfurfural to furan-2,5-dicarboxylic acid by an evolved aryl-alcohol oxidase. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2020 , 1868, 140293	4	18
86	Alkaline versatile peroxidase by directed evolution. <i>Catalysis Science and Technology</i> , 2016 , 6, 6625-6636	5.5	17
85	Enzymatic degradation of Elephant grass (<i>Pennisetum purpureum</i>) stems: influence of the pith and bark in the total hydrolysis. <i>Bioresource Technology</i> , 2014 , 167, 469-75	11	17
84	Aromatic stacking interactions govern catalysis in aryl-alcohol oxidase. <i>FEBS Journal</i> , 2015 , 282, 3091-106	6.7	17
83	Influence of operation conditions on laccase-mediator removal of sterols from eucalypt pulp. <i>Process Biochemistry</i> , 2009 , 44, 1032-1038	4.8	17
82	Demonstration of In Situ Oxidative Degradation of Lignin Side Chains by Two White-rot Fungi Using Analytical Pyrolysis of Methylated Wheat Straw. <i>Rapid Communications in Mass Spectrometry</i> , 1997 , 11, 331-334	2.2	17
81	Presence of 5-hydroxyguaiacyl units as native lignin constituents in plants as seen by Py-GC/MS. <i>Journal of Analytical and Applied Pyrolysis</i> , 2007 , 79, 33-38	6	17
80	Structural and Functional Features of Peroxidases with a Potential as Industrial Biocatalysts 2010 , 37-59		17
79	Protein dynamics promote hydride tunnelling in substrate oxidation by aryl-alcohol oxidase. <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 28666-28675	3.6	16

78	Binding and Catalytic Mechanisms of Veratryl Alcohol Oxidation by Lignin Peroxidase: A Theoretical and Experimental Study. <i>Computational and Structural Biotechnology Journal</i> , 2019 , 17, 1066-1074	6.8	16
77	Origin of the acetylated structures present in white birch (<i>Betula pendula</i> Roth) milled wood lignin. <i>Wood Science and Technology</i> , 2012 , 46, 459-471	2.5	16
76	A new versatile peroxidase from <i>Pleurotus</i> . <i>Biochemical Society Transactions</i> , 2001 , 29, 116-22	5.1	16
75	Structure-Guided Evolution of Aryl Alcohol Oxidase from <i>Pleurotus eryngii</i> for the Selective Oxidation of Secondary Benzyl Alcohols. <i>Advanced Synthesis and Catalysis</i> , 2019 , 361, 2514	5.6	15
74	Search, engineering, and applications of new oxidative biocatalysts. <i>Biofuels, Bioproducts and Biorefining</i> , 2014 , 8, 819-835	5.3	15
73	Wood and humus decay strategies by white-rot basidiomycetes correlate with two different dye decolorization and enzyme secretion patterns on agar plates. <i>Fungal Genetics and Biology</i> , 2014 , 72, 106-114	3.9	15
72	Structural insights on laccase biografting of ferulic acid onto lignocellulosic fibers. <i>Biochemical Engineering Journal</i> , 2014 , 86, 16-23	4.2	15
71	Study of a sterol esterase secreted by <i>Ophiostoma piceae</i> : sequence, model and biochemical properties. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2009 , 1794, 1099-106	4	15
70	Asymmetric sulfoxidation by engineering the heme pocket of a dye-decolorizing peroxidase. <i>Catalysis Science and Technology</i> , 2016 , 6, 6277-6285	5.5	15
69	Gene family expansions and transcriptome signatures uncover fungal adaptations to wood decay. <i>Environmental Microbiology</i> , 2021 , 23, 5716-5732	5.2	15
68	Delignification of eucalypt kraft pulp with manganese-substituted polyoxometalate assisted by fungal versatile peroxidase. <i>Bioresource Technology</i> , 2010 , 101, 5935-40	11	14
67	Increase of Redox Potential during the Evolution of Enzymes Degrading Recalcitrant Lignin. <i>Chemistry - A European Journal</i> , 2019 , 25, 2708-2712	4.8	14
66	Advances in enzymatic oxyfunctionalization of aliphatic compounds. <i>Biotechnology Advances</i> , 2021 , 51, 107703	17.8	14
65	Switching the substrate preference of fungal aryl-alcohol oxidase: towards stereoselective oxidation of secondary benzyl alcohols. <i>Catalysis Science and Technology</i> , 2019 , 9, 833-841	5.5	13
64	Conserved white-rot enzymatic mechanism for wood decay in the Basidiomycota genus <i>Pycnoporus</i> . <i>DNA Research</i> , 2020 , 27,	4.5	13
63	Comparative analysis of wheat straw paperboards prepared after biomechanical and semichemical pulping. <i>Bioresource Technology</i> , 1996 , 57, 217-227	11	13
62	<i>Penicillium fagi</i> sp. nov., isolated from beech leaves. <i>Mycopathologia</i> , 1978 , 63, 57-59	2.9	13
61	Fatty-Acid Oxygenation by Fungal Peroxygenases: From Computational Simulations to Preparative Regio- and Stereoselective Epoxidation. <i>ACS Catalysis</i> , 2020 , 10, 13584-13595	13.1	13

60	Description of a Non-Canonical Mn(II)-Oxidation Site in Peroxidases. <i>ACS Catalysis</i> , 2018 , 8, 8386-8395	13.1	12
59	A Sustainable Approach of Enzymatic Grafting on Eucalyptus globulus Wood by Laccase from the Newly Isolated White-Rot Basidiomycete Marasmiellus palmivorus VE111. <i>ACS Sustainable Chemistry and Engineering</i> , 2019 , 7, 13418-13424	8.3	12
58	Fungal bioturbation paths in a compact disk. <i>Die Naturwissenschaften</i> , 2001 , 88, 351-4	2	12
57	Flax pulp bleaching and residual lignin modification by laccase-mediator systems* *This work has been funded by the Spanish project 2FD97-0896-C02-02 and the EU project QLK3-99-590.. <i>Progress in Biotechnology</i> , 2002 , 213-222		12
56	Redox-Active Sites in Auricularia auricula-judae Dye-Decolorizing Peroxidase and Several Directed Variants: A Multifrequency EPR Study. <i>Journal of Physical Chemistry B</i> , 2015 , 119, 13583-92	3.4	11
55	Structural Modifications of Residual Lignins from Sisal and Flax Pulps during Soda-AQ Pulping and TCF/ECF Bleaching. <i>Industrial & Engineering Chemistry Research</i> , 2013 , 52, 4695-4703	3.9	11
54	Sterols and lignin in Eucalyptus globulus Labill. wood: Spatial distribution and fungal removal as revealed by microscopy and chemical analyses. <i>Holzforschung</i> , 2009 , 63,	2	11
53	Hydrolysis of sterol esters by an esterase from Ophiostoma piceae: application to pitch control in pulping of Eucalyptus globulus wood. <i>International Journal of Biotechnology</i> , 2004 , 6, 367	0	11
52	Deciphering the Unique Structure and Acylation Pattern of Posidonia oceanica Lignin. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 12521-12533	8.3	11
51	Unveiling the basis of alkaline stability of an evolved versatile peroxidase. <i>Biochemical Journal</i> , 2016 , 473, 1917-28	3.8	11
50	A commercial laccase-mediator system to delignify and improve saccharification of the fast-growing Paulownia fortunei (Seem.) Hemsl.. <i>Holzforschung</i> , 2018 , 73, 45-54	2	11
49	Multiple implications of an active site phenylalanine in the catalysis of aryl-alcohol oxidase. <i>Scientific Reports</i> , 2018 , 8, 8121	4.9	11
48	Structural and biochemical insights into an engineered high-redox potential laccase overproduced in Aspergillus. <i>International Journal of Biological Macromolecules</i> , 2019 , 141, 855-867	7.9	9
47	Screening and Evaluation of New Hydroxymethylfurfural Oxidases for Furandicarboxylic Acid Production. <i>Applied and Environmental Microbiology</i> , 2020 , 86,	4.8	9
46	Stepwise Hydrogen Atom and Proton Transfers in Dioxygen Reduction by Aryl-Alcohol Oxidase. <i>Biochemistry</i> , 2018 , 57, 1790-1797	3.2	9
45	Draft genome sequence of a monokaryotic model brown-rot fungus SB12. <i>Genomics Data</i> , 2017 , 14, 21-23		9
44	Gene cloning, heterologous expression, in vitro reconstitution and catalytic properties of a versatile peroxidase. <i>Biocatalysis and Biotransformation</i> , 2007 , 25, 276-285	2.5	9
43	Identification of a novel series of alkylitaconic acids in wood cultures of Ceriporiopsis subvermisporea by gas chromatography/mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2002 , 16, 62-8	2.2	9

42	From Alkanes to Carboxylic Acids: Terminal Oxygenation by a Fungal Peroxygenase. <i>Angewandte Chemie</i> , 2016 , 128, 12436-12439	3.6	8
41	Fungal Aryl-Alcohol Oxidase in Lignocellulose Degradation and Bioconversion. <i>Biofuel and Biorefinery Technologies</i> , 2016 , 301-322	1	8
40	Directed Evolution of Ligninolytic Oxidoreductases: from Functional Expression to Stabilization and Beyond 2014 , 1-22		8
39	Microscopy studies reveal delignification and sterol removal from eucalypt kraft pulps by laccase β BT. <i>Biocatalysis and Biotransformation</i> , 2007 , 25, 251-259	2.5	8
38	Three new species of penicillium. <i>Mycopathologia</i> , 1978 , 66, 77-82	2.9	8
37	Comparing Ligninolytic Capabilities of Bacterial and Fungal Dye-Decolorizing Peroxidases and Class-II Peroxidase-Catalases. <i>International Journal of Molecular Sciences</i> , 2021 , 22,	6.3	8
36	High Epoxidation Yields of Vegetable Oil Hydrolyzates and Methyl Esters by Selected Fungal Peroxygenases. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020 , 8, 605854	5.8	8
35	High Redox Potential Peroxidases 2007 , 477-488		8
34	Genome sequencing of Rigidoporus microporus provides insights on genes important for wood decay, latex tolerance and interspecific fungal interactions. <i>Scientific Reports</i> , 2020 , 10, 5250	4.9	7
33	Cloning, overexpression in Escherichia coli, and characterization of a thermostable fungal acetylxylen esterase from Talaromyces emersonii. <i>Applied and Environmental Microbiology</i> , 2012 , 78, 3759-62	4.8	7
32	Bioelectrochemical investigations of aryl-alcohol oxidase from Pleurotus eryngii. <i>Journal of Electroanalytical Chemistry</i> , 2008 , 618, 83-86	4.1	7
31	Four new species of Penicillium isolated from different substrata. <i>Mycopathologia</i> , 1981 , 74, 163-171	2.9	7
30	Scanning electron microscopy of penicillium conidia. <i>Antonie Van Leeuwenhoek</i> , 1982 , 48, 245-55	2.1	7
29	Degradative oxidation products of the melanin of Ulocladium atrum. <i>Soil Biology and Biochemistry</i> , 1985 , 17, 723-726	7.5	6
28	Some new species of Penicillium recovered from the atmosphere in Madrid and from other substrata. <i>Mycopathologia</i> , 1980 , 72, 181-91	2.9	6
27	Reaction mechanisms and applications of aryl-alcohol oxidase. <i>The Enzymes</i> , 2020 , 47, 167-192	2.3	6
26	Early-stage sustainability assessment of enzyme production in the framework of lignocellulosic biorefinery. <i>Journal of Cleaner Production</i> , 2021 , 285, 125461	10.3	6
25	Different fungal peroxidases oxidize nitrophenols at a surface catalytic tryptophan. <i>Archives of Biochemistry and Biophysics</i> , 2019 , 668, 23-28	4.1	5

24	Correction for Fernandez-Fueyo et al., Comparative genomics of Ceriporiopsis subvermispora and Phanerochaete chrysosporium provide insight into selective ligninolysis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 8352-8352	11.5	5
23	Changes in the polydispersity of colloidal lignins by ligninolytic basidiomycetes. <i>Journal of Biotechnology</i> , 1992 , 25, 333-339	3.7	5
22	Microfungal biomass and number of propagules in an andosol. <i>Soil Biology and Biochemistry</i> , 1978 , 10, 529-531	7.5	5
21	Purification and characterization of peroxidases from the dye-decolorizing fungus Bjerkandera adusta		5
20	Selective Oxygenation of Ionones and Damascones by Fungal Peroxygenases. <i>Journal of Agricultural and Food Chemistry</i> , 2020 , 68, 5375-5383	5.7	5
19	Production of lipolytic enzymes in batch cultures of Ophiostoma piceae. <i>Journal of Chemical Technology and Biotechnology</i> , 2001 , 76, 991-996	3.5	4
18	Use of analytical pyrolysis for the characterization of paper industry effluents. <i>Analytica Chimica Acta</i> , 1996 , 335, 245-251	6.6	4
17	Rhizosphaera oudemansii (Sphaeropsidales) associated with a needle cast of Spanish Abies pinsapo. <i>Mycopathologia</i> , 1983 , 83, 175-182	2.9	4
16	Extracellular (1→3),(1→6)-linked β-D-glucan produced by the soil fungus Ulocladium atrum. <i>Soil Biology and Biochemistry</i> , 1986 , 18, 469-474	7.5	4
15	Regioselective and Stereoselective Epoxidation of n-3 and n-6 Fatty Acids by Fungal Peroxygenases.. <i>Antioxidants</i> , 2021 , 10,	7.1	4
14	A 13C CP/MAS NMR evaluation of the structural changes in wheat straw subjected to different chemical and biological pulping conditions. <i>Bioresource Technology</i> , 1997 , 60, 245-249	11	3
13	Fungal screening for biological removal of extractives from Eucalyptus globulus wood. <i>Canadian Journal of Botany</i> , 2000 , 77, 1513-1522		3
12	Four new species of penicillium isolated from the air. <i>Mycopathologia</i> , 1980 , 72, 27-34	2.9	3
11	A Multiomic Approach to Understand How Transforms Non-Woody Lignocellulosic Material. <i>Journal of Fungi (Basel, Switzerland)</i> , 2021 , 7,	5.6	3
10	Agaricales Mushroom Lignin Peroxidase: From Structure-Function to Degradative Capabilities. <i>Antioxidants</i> , 2021 , 10,	7.1	3
9	Fungi and Their Enzymes for Pitch Control in the Pulp and Paper Industry 2011 , 357-377		2
8	Lignin-degrading peroxidases from genome of selective ligninolytic fungus Ceriporiopsis subvermispora.. <i>Journal of Biological Chemistry</i> , 2012 , 287, 41744	5.4	2
7	A new Botryosaurus from the air of a poultry farm. <i>Canadian Journal of Botany</i> , 1990 , 68, 1738-1740		2

6	New Insights on Structures Forming the Lignin-Like Fractions of Ancestral Plants. <i>Frontiers in Plant Science</i> , 2021 , 12, 740923	6.2	1
5	Enzymatic Epoxidation of Long-Chain Terminal Alkenes by Fungal Peroxygenases.. <i>Antioxidants</i> , 2022 , 11,	7.1	1
4	Optimizing operational parameters for the enzymatic production of furandicarboxylic acid building block. <i>Microbial Cell Factories</i> , 2021 , 20, 180	6.4	0
3	Structural Characterization of Two Short Unspecific Peroxygenases: Two Different Dimeric Arrangements. <i>Antioxidants</i> , 2022 , 11, 891	7.1	0
2	Engineering <i>Collariella virescens</i> Peroxygenase for Epoxides Production from Vegetable Oil. <i>Antioxidants</i> , 2022 , 11, 915	7.1	0
1	Taxonomic relationships of <i>Geotrichum flavo-brunneum</i> . <i>Antonie Van Leeuwenhoek</i> , 1982 , 48, 57-9	2.1	