Lignin Biodegradation with Laccase-Mediator Systems

Frontiers in Energy Research
2,
DOI: 10.3389/fenrg.2014.00012

Citation Report

#	Article	IF	Citations
1	Can laccases catalyze bond cleavage in lignin?. Biotechnology Advances, 2015, 33, 13-24.	6.0	296
2	Engineering an enzymatic regeneration system for NAD(P)H oxidation. Journal of Molecular Catalysis B: Enzymatic, 2015, 120, 38-46.	1.8	20
3	Borateâ€“fructose complex: A novel mediator for laccase and its new function for fructose determination. FEBS Letters, 2015, 589, 3107-3112.	1.3	5
4	Mechanism of Alkaline Lignin Oxidation Using Laccase-methyl Syringate Mediator System. International Journal of Chemistry, 2016, 8, 56.	0.3	6
5	High Level Secretion of Laccase (LccH) from a Newly Isolated White-Rot Basidiomycete, Hexagonia hirta MSF2. Frontiers in Microbiology, 2016, 7, 707.	1.5	31
6	Encapsulated Laccases for the Roomâ€Temperature Oxidation of Aromatics: Towards Synthetic Lowâ€Molecularâ€Weight Lignins. ChemSusChem, 2016, 9, 756-762.	3.6	13
7	Optimization of enzymatic & ultrasonic bio-scouring of linen fabrics by aid of Box-Behnken Experimental Design. Journal of Cleaner Production, 2016, 135, 1179-1188.	4.6	32
8	Fungal Enzymes for Bio-Products from Sustainable and Waste Biomass. Trends in Biochemical Sciences, 2016, 41, 633-645.	3.7	225
9	Harnessing the potential of ligninolytic enzymes for lignocellulosic biomass pretreatment. Applied Microbiology and Biotechnology, 2016, 100, 5231-5246.	1.7	83
10	Chlorine-Free Biomass Processing: Enzymatic Alternatives for Bleaching and Hydrolysis of Lignocellulosic Materials. , 2016, , 241-268.		0
11	A strategic laccase mediated lignin degradation of lignocellulosic feedstocks for ethanol production. Industrial Crops and Products, 2016, 92, 174-185.	2.5	64
12	In-Vitro Refolding and Characterization of Recombinant Laccase (CotA) From Bacillus pumilus MK001 and Its Potential for Phenolics Degradation. Molecular Biotechnology, 2016, 58, 789-800.	1.3	22
13	Development of strong enzymatic biocatalysts for dye decolorization. Biocatalysis and Agricultural Biotechnology, 2016, 7, 228-233.	1.5	8
14	Developing energy efficient lignin biomass processing â€“ towards understanding mediator behaviour in ionic liquids. Faraday Discussions, 2016, 190, 127-145.	1.6	13
15	Increasing the lignin yield of the Alkaline Polyol Pulping process by treating black liquor with laccases of Myceliophthora thermophila. Bioresource Technology, 2016, 203, 96-102.	4.8	7
16	Laccase catalyzed grafting of â€“Nâ€“OH type mediators to lignin via radicalâ€“radical coupling. RSC Advances, 2017, 7, 3358-3368.	1.7	32
17	Quality carbon fibers from fractionated lignin. Green Chemistry, 2017, 19, 1628-1634.	4.6	134
18	Understanding factors controlling depolymerization and polymerization in catalytic degradation of Î²-ether linked model lignin compounds by versatile peroxidase. Green Chemistry, 2017, 19, 2145-2154.	4.6	29

#	Article	IF	Citations
19	Enhanced delignification of steam-pretreated poplar by a bacterial laccase. Scientific Reports, 2017, 7, 42121.	1.6	37
20	Heterologous expression of a Streptomyces cyaneus laccase for biomass modification applications. AMB Express, 2017, 7, 86.	1.4	33
21	Laccases: Blue Copper Oxidase in Lignocellulose Processing. , 2017, , 315-336.		0
22	Degradation of Adsorbed Azo Dye by Solid-State Fermentation: Improvement of Culture Conditions, a Kinetic Study, and Rotating Drum Bioreactor Performance. Water, Air, and Soil Pollution, 2017, 228, 1.	1.1	17
24	Differences between two strains ofCeriporiopsis subvermisporaon improving the nutritive value of wheat straw for ruminants. Journal of Applied Microbiology, 2017, 123, 352-361.	1.4	20
25	Enzymatic decomposition and electrochemical study of alkali lignin by laccase (Trametes versicolor) in the presence of a natural mediator (methyl syringate). New Journal of Chemistry, 2017, 41, 958-964.	1.4	12
26	Peroxidase production and ligninolytic potentials of fresh water bacteria Raoultella ornithinolytica and Ensifer adhaerens. Biotechnology Reports (Amsterdam, Netherlands), 2017, 16, 12-17.	2.1	48
27	Bacterial laccase: recent update on production, properties and industrial applications. 3 Biotech, 2017, 7, 323.	1.1	184
28	Redox-mediator-free degradation of sulfathiazole and tetracycline usingPhanerochaete chrysosporium. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2017, 52, 1211-1217.	0.9	6
29	Laccaseâ€“natural mediator systems for â€œgreenâ€•synthesis of phenolic monomers from alkali lignin. Sustainable Energy and Fuels, 2017, 1, 1573-1579.	2.5	7
30	Enhanced biomethane production rate and yield from lignocellulosic ensiled forage ley by in situ anaerobic digestion treatment with endogenous cellulolytic enzymes. Biotechnology for Biofuels, 2017, 10, 129.	6.2	29
31	Bio-Prospecting Laccases in the Bacterial Diversity of Activated Sludge From Pulp and Paper Industry. Indian Journal of Microbiology, 2017, 57, 75-82.	1.5	10
32	Laccase catalysis for the synthesis of bioactive compounds. Applied Microbiology and Biotechnology, 2017, 101, 13-33.	1.7	127
33	Expression Profiling in Pinus pinaster in Response to Infection with the Pine Wood Nematode Bursaphelenchus xylophilus. Forests, 2017, 8, 279.	0.9	22
34	Principles and Development of Lignocellulosic Biomass Pretreatment for Biofuels. Advances in Bioenergy, 2017, , 1-68.	0.5	44
35	Expression and characterization of novel laccase gene from Pandoraea sp. ISTKB and its application. International Journal of Biological Macromolecules, 2018, 115, 308-316.	3.6	37
36	Direct analysis by timeâ€ofâ€flight secondary ion mass spectrometry reveals action of bacterial laccaseâ€mediator systems on both hardwood and softwood samples. Physiologia Plantarum, 2018, 164, 5-16.	2.6	10
37	Laccase/Mediator Systems: Their Reactivity toward Phenolic Lignin Structures. ACS Sustainable Chemistry and Engineering, 2018, 6, 2037-2046.	3.2	126

#	Article	IF	Citations
38	Enzymatic pulping of lignocellulosic biomass. Industrial Crops and Products, 2018, 120, 16-24.	2.5	107
39	A comparison of entrapped and covalently bonded laccase: Study of its leakage, reusability, and the catalytic efficiency in TEMPO-mediated glycerol oxidation. Biocatalysis and Biotransformation, 2018, 36, 352-361.	1.1	7
40	High sugar yields from sugarcane (Saccharum officinarum) bagasse using low-temperature aqueous ammonia pretreatment and laccase-mediator assisted enzymatic hydrolysis. Industrial Crops and Products, 2018, 111, 673-683.	2.5	29
41	Regenerable biocatalytic nanofiltration membrane for aquatic micropollutants removal. Journal of Membrane Science, 2018, 549, 120-128.	4.1	62
42	Bifunctional in vivo role of laccase exploited in multiple biotechnological applications. Applied Microbiology and Biotechnology, 2018, 102, 10327-10343.	1.7	37
43	The Role of Natural Laccase Redox Mediators in Simultaneous Dye Decolorization and Power Production in Microbial Fuel Cells. Energies, 2018, 11, 3455.	1.6	33
44	Rapid characterization of the activities of lignin-modifying enzymes based on nanostructure-initiator mass spectrometry (NIMS). Biotechnology for Biofuels, 2018, 11, 266.	6.2	14
45	Influence of mediators on laccase catalyzed radical formation in lignin. Enzyme and Microbial Technology, 2018, 116, 48-56.	1.6	41
46	Delignification of corncob via combined hydrodynamic cavitation and enzymatic pretreatment: process optimization by response surface methodology. Biotechnology for Biofuels, 2018, 11, 203.	6.2	49
48	Genomic and proteomic analysis of lignin degrading and polyhydroxyalkanoate accumulating Î²-proteobacterium Pandoraea sp. ISTKB. Biotechnology for Biofuels, 2018, 11, 154.	6.2	88
49	Curing of Sand Stabilized with Alkali Lignin. , 2018, , 157-168.		4
50	Enzyme biotechnology in degradation and modification of plant cell wall polymers. Physiologia Plantarum, 2018, 164, 106-118.	2.6	22
51	Lignolytic-consortium omics analyses reveal novel genomes and pathways involved in lignin modification and valorization. Biotechnology for Biofuels, 2018, 11, 75.	6.2	65
52	The Role of Ligninolytic Enzymes Laccase and a Versatile Peroxidase of the Whiteâ€Rot Fungus Lentinus tigrinus in Biotransformation of Soil Humic Matter: Comparative In Vivo Study. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 2727-2742.	1.3	18
53	The Role of Melanin in Fungal Pathogenesis for Animal Hosts. Current Topics in Microbiology and Immunology, 2019, 422, 1-30.	0.7	44
54	Novel Nonprecious Metal Loading Multi-Metal Oxide Catalysts for Lignin Depolymerization. Energy & Fuels, 2019, 33, 6491-6500.	2.5	11
55	Chemo-Enzymatic Metathesis/Aromatization Cascades for the Synthesis of Furans: Disclosing the Aromatizing Activity of Laccase/TEMPO in Oxygen-Containing Heterocycles. ACS Catalysis, 2019, 9, 7264-7269.	5.5	35
56	Bioengineering a Future Free of Marine Plastic Waste. Frontiers in Marine Science, 2019, 6, .	1.2	33

#	Article	IF	Citations
57	Recent Developments in Laccase Applications for the Food Industry. , 2019, , .		1
58	A thermostable laccase from Thermus sp. 2.9 and its potential for delignification of Eucalyptus biomass. AMB Express, 2019, 9, 24.	1.4	28
59	Molecular Interaction of Aqueous Iodine Species with Humic Acid Studied by I and C K-Edge X-ray Absorption Spectroscopy. Environmental Science & Technology, 2019, 53, 12416-12424.	4.6	8
60	Depolymerization of lignin over CoO/m-SEP catalyst under supercritical methanol. Journal of Renewable and Sustainable Energy, 2019, 11, .	0.8	12
61	Exploring industrial and naturalSaccharomyces cerevisiaestrains for the bio-based economy from biomass: the case of bioethanol. Critical Reviews in Biotechnology, 2019, 39, 800-816.	5.1	86
62	Glass bead-catalyzed depolymerization of poplar wood lignin into low-molecular-weight products. New Journal of Chemistry, 2019, 43, 9280-9288.	1.4	3
63	Green potential ofPleurotusspp. in biotechnology. PeerJ, 2019, 7, e6664.	0.9	28
64	Facile functionalization of cellulose from discarded cigarette butts for the removal of diclofenac from water. Carbohydrate Polymers, 2019, 219, 46-55.	5.1	42
65	Distributions of Silica and Biopolymer Structural Components in the Spore Elater of Equisetum arvense, an Ancient Silicifying Plant. Frontiers in Plant Science, 2019, 10, 210.	1.7	6
66	The impact of lignin sulfonation on its reactivity with laccase and laccase/HBT. Catalysis Science and Technology, 2019, 9, 1535-1542.	2.1	14
67	Biochemical characterization of a key laccase-like multicopper oxidase of artificially cultivable Morchella importuna provides insights into plant-litter decomposition. 3 Biotech, 2019, 9, 171.	1.1	10
68	Laccase/TEMPO-modified lignin improved soy-protein-based adhesives: Adhesion performance and properties. International Journal of Adhesion and Adhesives, 2019, 91, 116-122.	1.4	24
69	Acetylacetone extends the working life of laccase in enzymatic transformation of malachite green by interfering with a key intermediate. Journal of Hazardous Materials, 2019, 366, 520-528.	6.5	9
70	Molecular mechanism of enzyme tolerance against organic solvents: Insights from molecular dynamics simulation. International Journal of Biological Macromolecules, 2019, 122, 914-923.	3.6	48
71	Exploring the untapped potential of solar pretreatment for deconstruction of recalcitrant Kraft lignin in fungal biotransformation. Clean Technologies and Environmental Policy, 2019, 21, 579-590.	2.1	7
72	Development of sequential and simultaneous bacterial cultures to hydrolyse and detoxify wood pre-hydrolysate for enhanced acetone-butanol-ethanol (ABE) production. Enzyme and Microbial Technology, 2020, 133, 109438.	1.6	3
73	Enzymatic reactions in the production of biomethane from organic waste. Enzyme and Microbial Technology, 2020, 132, 109410.	1.6	15
74	Enzymatic Oxidation of Lignin: Challenges and Barriers Toward Practical Applications. ChemCatChem, 2020, 12, 401-425.	1.8	62

#	Article	IF	Citations
75	Efficient removal of 2,4-dinitrophenol from synthetic wastewater and contaminated soil samples using free and immobilized laccases. Journal of Environmental Management, 2020, 256, 109740.	3.8	35
76	A novel method for improving laccase activity by immobilization onto copper ferrite nanoparticles for lignin degradation. International Journal of Biological Macromolecules, 2020, 152, 1098-1107.	3.6	48
77	Enzymatic removal of inhibitory compounds from lignocellulosic hydrolysates for biomass to bioproducts applications. World Journal of Microbiology and Biotechnology, 2020, 36, 166.	1.7	21
78	Isolation, identification and optimization of enhanced production of laccase from Galactomyces geotrichum under solid-state fermentation. Preparative Biochemistry and Biotechnology, 2021, 51, 1-10.	1.0	12
79	Development of a magnetically separable co-immobilized laccase and versatile peroxidase system for the conversion of lignocellulosic biomass to vanillin. Journal of the Air and Waste Management Association, 2020, 70, 1252-1259.	0.9	16
80	Modeling of Pretreatment and Acid/Alkaline Hydrolyses of Lignocellulosic Biomasses in Twin-Screw Extruders. Industrial & Engineering Chemistry Research, 2020, 59, 11389-11401.	1.8	5
81	Recent Development of Extremophilic Bacteria and Their Application in Biorefinery. Frontiers in Bioengineering and Biotechnology, 2020, 8, 483.	2.0	84
82	Recent advances in removal of lignin from paper industry wastewater and its industrial applications â€“ A review. Bioresource Technology, 2020, 312, 123636.	4.8	126
83	Enzyme mediated multi-product process: A concept of bio-based refinery. Industrial Crops and Products, 2020, 154, 112607.	2.5	55
84	Carbonâ€“fluorine bond cleavage mediated by metalloenzymes. Chemical Society Reviews, 2020, 49, 4906-4925.	18.7	61
85	Adaptive Enrichment of a Thermophilic Bacterial Isolate for Enhanced Enzymatic Activity. Microorganisms, 2020, 8, 871.	1.6	11
86	Fast methods for the identification of suitable chemoâ€enzymatic treatments of Kraft lignin to obtain aromatic compounds. Biofuels, Bioproducts and Biorefining, 2020, 14, 521-532.	1.9	5
87	Synthesis and Structure-Activity Relationship Studies of Hydrazide-Hydrazones as Inhibitors of Laccase from Trametes versicolor. Molecules, 2020, 25, 1255.	1.7	12
88	Acidic Versus Alkaline Bacterial Degradation of Lignin Through Engineered Strain E. coli BL21(Lacc): Exploring the Differences in Chemical Structure, Morphology, and Degradation Products. Frontiers in Bioengineering and Biotechnology, 2020, 8, 671.	2.0	8
89	Balancing Enzyme Encapsulation Efficiency and Stability in Complex Coacervate Core Micelles. Langmuir, 2020, 36, 8494-8502.	1.6	15
90	Ligninolytic enzymes and its mechanisms for degradation of lignocellulosic waste in environment. Heliyon, 2020, 6, e03170.	1.4	272
91	Understanding laccase/HBT-catalyzed grass delignification at the molecular level. Green Chemistry, 2020, 22, 1735-1746.	4.6	26
92	Lignin-Based Pesticide Delivery System. ACS Omega, 2020, 5, 4322-4329.	1.6	20

#	Article	IF	Citations
93	Protein Engineering for Improving and Diversifying Natural Product Biosynthesis. Trends in Biotechnology, 2020, 38, 729-744.	4.9	114
94	Laccase mediator system obtained from a marine spore exhibits decolorization potential in harsh environmental conditions. Ecotoxicology and Environmental Safety, 2020, 191, 110184.	2.9	16
95	The heterologous expression, characterization, and application of a novel laccase from Bacillus velezensis. Science of the Total Environment, 2020, 713, 136713.	3.9	22
96	Enzymatic depolymerization of industrial lignins by laccaseâ€mediator systems in 1,4â€dioxane/water. Biotechnology and Applied Biochemistry, 2020, 67, 774-782.	1.4	22
97	Freezing-Induced Bromate Reduction by Dissolved Organic Matter and the Formation of Organobromine Compounds. Environmental Science & Technology, 2020, 54, 1668-1676.	4.6	29
98	Bamboo biochar-catalytic degradation of lignin under microwave heating. Journal of Wood Chemistry and Technology, 2020, 40, 190-199.	0.9	12
99	Non-Hydrolyzable Plastics â€“ An Interdisciplinary Look at Plastic Bio-Oxidation. Trends in Biotechnology, 2021, 39, 12-23.	4.9	89
100	Lignin bioconversion into valuable products: fractionation, depolymerization, aromatic compound conversion, and bioproduct formation. Systems Microbiology and Biomanufacturing, 2021, 1, 166-185.	1.5	10
101	Applications of microbial laccases in bioremediation of environmental pollutants: potential issues, challenges, and prospects. , 2021, , 519-540.		11
102	Extraction and recovery of lignin derived phenolic inhibitors to enhance enzymatic glucose production. Biomass and Bioenergy, 2021, 144, 105897.	2.9	15
103	Treatment of Industrial Wastewaters and Liquid Waste by Fungi. , 2021, , 662-682.		0
104	Effective Lignin Utilization Strategy: Major Depolymerization Technologies, Purification Process and Production of Valuable Material. Chemistry Letters, 2021, 50, 1123-1130.	0.7	7
105	Application of laccases for mycotoxin decontamination. World Mycotoxin Journal, 2021, 14, 61-73.	0.8	3
106	AtÄ±k Mantar Kompostunun Geleneksel ve Yeni KullanÄ±m AlanlarÄ±. Mehmet Akif Ersoy Ãœniversitesi Fen Bilimleri EnstitÃ¼sÃ¼ Dergisi, 0, , .	0.4	0
107	Advances in laccase-triggered anabolism for biotechnology applications. Critical Reviews in Biotechnology, 2021, 41, 969-993.	5.1	45
108	Screening and Comparison of Lignin Degradation Microbial Consortia from Wooden Antiques. Molecules, 2021, 26, 2862.	1.7	17
109	Recombinant Laccase Production Optimization in Pichia pastoris by Response Surface Methodology and Its Application in the Biodegradation of Octyl Phenol and 4-Tert-Octylphenol. Catalysis Letters, 2022, 152, 1086-1099.	1.4	2
110	Treatment of wood fibres with laccases: improved hardboard properties through phenolic oligomerization. European Journal of Wood and Wood Products, 2021, 79, 1369.	1.3	3

#	Article	IF	Citations
111	How Do Shipworms Eat Wood? Screening Shipworm Gill Symbiont Genomes for Lignin-Modifying Enzymes. Frontiers in Microbiology, 2021, 12, 665001.	1.5	9
112	Pulp bio-bleaching using a stable and scalable laccase from Peroneutypa scoparia. Wood Science and Technology, 2021, 55, 1509-1525.	1.4	3
113	Extraction of cellulose fibers from flax and hemp: a review. Cellulose, 2021, 28, 8275-8294.	2.4	46
114	Review of advances in the development of laccases for the valorization of lignin to enable the production of lignocellulosic biofuels and bioproducts. Biotechnology Advances, 2022, 54, 107809.	6.0	50
115	Fast screening of Depolymerized Lignin Samples Through 2Dâ€Liquid Chromatography Mapping. ChemistryOpen, 2021, 10, 740-747.	0.9	5
116	Manganese promoted wheat straw decomposition by regulating microbial communities and enzyme activities. Journal of Applied Microbiology, 2022, 132, 1079-1090.	1.4	5
117	Laccase as a Tool in Building Advanced Ligninâ€Based Materials. ChemSusChem, 2021, 14, 4615-4635.	3.6	59
118	Application of enzyme technology in biopulping and biobleaching. Cellulose, 2021, 28, 10099-10116.	2.4	12
119	Isolation and Characterization of a Novel Laccase for Lignin Degradation, LacZ1. Applied and Environmental Microbiology, 2021, 87, e0135521.	1.4	15
120	Elucidation of ligninolysis mechanism of a newly isolated white-rot basidiomycete Trametes hirsuta X-13. Biotechnology for Biofuels, 2021, 14, 189.	6.2	7
121	Enzymatic bioconversion process of lignin: mechanisms, reactions and kinetics. Bioresource Technology, 2021, 340, 125655.	4.8	28
122	Laccases and ionic liquids as an alternative method for lignin depolymerization: A review. Bioresource Technology Reports, 2021, 16, 100824.	1.5	8
123	Jute sticks biomass delignification through laccase-mediator system for enhanced saccharification and sustainable release of fermentable sugar. Chemosphere, 2022, 286, 131687.	4.2	26
124	Application of Enzymes in Bioremediation of Contaminated Hydrosphere and Soil Environment. , 2021, , 1-28.		0
125	Eco-friendly and sustainable processing of wood-based materials. Green Chemistry, 2021, 23, 2198-2232.	4.6	48
126	Fungal Laccases and Their Potential in Bioremediation Applications. Microbiology Monographs, 2020, , 1-25.	0.3	10
127	Bioprospection of Extremozymes for Conversion of Lignocellulosic Feedstocks to Bioethanol and Other Biochemicals. , 2017, , 271-297.		3
128	Effect of Hydrothermal Pretreatment on Lignin and Antioxidant Activity. , 2017, , 5-43.		3

#	Article	IF	Citations
129	Ligninolysis: Roles of Microbes and Their Extracellular Enzymes. , 2020, , 393-407.		2
130	Potential applications of extracellular enzymes from Streptomyces spp. in various industries. Archives of Microbiology, 2020, 202, 1597-1615.	1.0	28
131	Laccase: use in removal of lignin in cellulosic biomass. , 2020, , 133-157.		2
132	Recent Developments in the Delignification and Exploitation of Grass Lignocellulosic Biomass. ACS Sustainable Chemistry and Engineering, 2021, 9, 2412-2432.	3.2	48
133	Linkage Mapping of Stem Saccharification Digestibility in Rice. PLoS ONE, 2016, 11, e0159117.	1.1	6
134	Biobleaching: An eco-friendly approach to reduce chemical consumption and pollutants generation. Physical Sciences Reviews, 2021, 6, .	0.8	2
135	Synergistic Treatment of Alkali Lignin via Fungal Coculture for Biofuel Production: Comparison of Physicochemical Properties and Adsorption of Enzymes Used As Catalysts. Frontiers in Energy Research, 2020, 8, .	1.2	11
136	Ligninâ€Based Microgels by Inverse Suspension Polymerization: Syntheses and Dye Removal. Macromolecular Chemistry and Physics, 2021, 222, 2100285.	1.1	8
137	Degradation and Transformation of Dioxins and Dioxin-like Compounds in Bioremediation Technology. Material Cycles and Waste Management Research, 2019, 30, 194-200.	0.0	0
138	Textile azo dyes discolouration using spent mushroom substrate: enzymatic degradation and adsorption mechanisms. Environmental Technology (United Kingdom), 2023, 44, 1265-1286.	1.2	3
139	Recent Advances in Enzymatic Conversion of Lignin to Value Added Products. , 2021, , 439-471.		1
140	The Comparative Abilities of a Small Laccase and a Dye-Decoloring Peroxidase From the Same Bacterium to Transform Natural and Technical Lignins. Frontiers in Microbiology, 2021, 12, 723524.	1.5	9
141	Isothermal titration calorimetric assessment of lignin conversion by laccases. Biotechnology and Bioengineering, 2022, 119, 493-503.	1.7	6
142	Fungal lignocellulolytic enzymes and lignocellulose: A critical review on their contribution to multiproduct biorefinery and global biofuel research. International Journal of Biological Macromolecules, 2021, 193, 2304-2319.	3.6	33
143	Lignin valorisation via enzymes: A sustainable approach. Fuel, 2022, 311, 122608.	3.4	64
144	Extremophiles and extremozymes in lignin bioprocessing. Renewable and Sustainable Energy Reviews, 2022, 157, 112069.	8.2	25
145	Lignin removal from pulp and paper industry waste streams and its application. , 2022, , 265-283.		2
146	A Critical Review of the Performance and Soil Biodegradability Profiles of Biobased Natural and Chemically Synthesized Polymers in Industrial Applications. Environmental Science & Technology, 2022, 56, 2071-2095.	4.6	33

#	Article	IF	Citations
147	Recent Advances in Synthesis and Degradation of Lignin and Lignin Nanoparticles and Their Emerging Applications in Nanotechnology. Materials, 2022, 15, 953.	1.3	39
148	Role of laccase in the pulp and paper industry. , 2022, , 35-60.		2
149	Plant wastes and sustainable refineries: What can we learn from fungi?. Current Opinion in Green and Sustainable Chemistry, 2022, 34, 100602.	3.2	5
150	Catalytic roles, immobilization and management of recalcitrant environmental pollutants by laccases: Significance in sustainable green chemistry. Journal of Environmental Management, 2022, 309, 114676.	3.8	30
151	Ligninolytic Fungi from the Indian Subcontinent and Their Contribution to Enzyme Biotechnology. , 2021, , 139-184.		1
152	Laccasesâ€"Versatile Enzymes Used to Reduce Environmental Pollution. Energies, 2022, 15, 1835.	1.6	10
153	Combinatorial decolorization performance of Pycnoporus sanguineus MUCL 38531 sourced recombinant laccase/mediator systems on toxic textile dyes. International Journal of Environmental Science and Technology, 0, , 1.	1.8	1
154	Transcriptome Profiling Reveals Differential Gene Expression of Laccase Genes in Aspergillus terreus KC462061 during Biodegradation of Crude Oil. Biology, 2022, 11, 564.	1.3	2
155	An integrated biorefinery approach for bioethanol production from sugarcane tops. Journal of Cleaner Production, 2022, 352, 131451.	4.6	6
156	Immobilized fungal enzymes: Innovations and potential applications in biodegradation and biosynthesis. Biotechnology Advances, 2022, 57, 107936.	6.0	23
157	Purification of Chitin from Pupal Exuviae of the Black Soldier Fly. Waste and Biomass Valorization, 2022, 13, 1993-2008.	1.8	14
158	A comparative study of greener alternatives for nanocellulose production from sugarcane bagasse. Bioresources and Bioprocessing, 2021, 8, .	2.0	9
159	Oxidation of Various Kraft Lignins with a Bacterial Laccase Enzyme. International Journal of Molecular Sciences, 2021, 22, 13161.	1.8	13
167	Reaction Selectivity in Electro-oxidation of Lignin Dimer Model Compounds and Synthetic Lignin with Different Mediators for the Laccase Mediator System (PZH, NHPI, ABTS). ACS Sustainable Chemistry and Engineering, 2022, 10, 6633-6641.	3.2	4
168	Discovery of lignin-transforming bacteria and enzymes in thermophilic environments using stable isotope probing. ISME Journal, 2022, 16, 1944-1956.	4.4	16
169	Review â€“ Potentials and limitations of utilising brewer's spent grain as a protein source in aquaculture feeds. Journal of Cleaner Production, 2022, 357, 131986.	4.6	10
170	High Level of Iron Inhibited Maize Straw Decomposition by Suppressing Microbial Communities and Enzyme Activities. Agronomy, 2022, 12, 1286.	1.3	4
172	Impact of Antibiotics as Waste, Physical, Chemical, and Enzymatical Degradation: Use of Laccases. Molecules, 2022, 27, 4436.	1.7	15

#	Article	IF	Citations
173	Idiosyncratic investigation of Trametes versicolor yellow laccase using organic fruit exocarp in solid-state fermentation. Biomass Conversion and Biorefinery, 0, , .	2.9	0
174	AmiRNAi silencing of FaCRY2 delayed the growth of cultivated strawberry. Scientia Horticulturae, 2022, 305, 111401.	1.7	0
175	In silico studies disclose the underlying link between binding affinity and redox potential in laccase isoforms. Journal of Biomolecular Structure and Dynamics, 2023, 41, 7265-7276.	2.0	1
176	Biochemical Conversion of Lignin. , 2022, , 85-105.		0
177	Ionic liquids for biomass biotransformation. , 2022, , 257-297.		1
178	Efficient biodegradation of straw and persistent organic pollutants by a novel strategy using recombinant Trichoderma reesei. Bioresources and Bioprocessing, 2022, 9, .	2.0	4
180	Time-dependent electrochemical characteristics of a phenolic and non-phenolic compound in the presence of laccase/ABTS system. PLoS ONE, 2022, 17, e0275338.	1.1	1
181	Stabilized Lignin Nanoparticles for Versatile Hybrid and Functional Nanomaterials. Biomacromolecules, 2022, 23, 4597-4606.	2.6	16
182	Advances in Catalytic Depolymerization of Lignin. ChemistrySelect, 2022, 7, .	0.7	6
183	Improving Properties of Starch-Based Adhesives with Carboxylic Acids and Enzymatically Polymerized Lignosulfonates. International Journal of Molecular Sciences, 2022, 23, 13547.	1.8	5
184	Improvement of thermoalkaliphilic laccase (CtLac) by a directed evolution and application to lignin degradation. Applied Microbiology and Biotechnology, 2023, 107, 273-286.	1.7	4
185	Electro-Oxidation of Lignin Model Compounds and Synthetic Lignin with Transition-Metal Complexes (Manganese and Iron Complexes). ACS Sustainable Chemistry and Engineering, 2022, 10, 16701-16708.	3.2	2
186	Optimization of laccase production by Pleurotus ostreatus Florida and evaluation of metabolites generated during Kraft lignin biotransformation. Waste and Biomass Valorization, 2023, 14, 2589-2597.	1.8	0
187	Enzymatic Conversion of Hydrolysis Ligninâ€"A Potential Biorefinery Approach. Energies, 2023, 16, 370.	1.6	0
188	Enzymes from basidiomycetesâ€"peculiar and efficient tools for biotechnology. , 2023, , 129-164.		1
190	Microbial biodegradation of recalcitrant synthetic dyes from textile-enriched wastewater by Fusarium oxysporum. Chemosphere, 2023, 325, 138392.	4.2	10
191	The Bacterial Degradation of Ligninâ€"A Review. Water (Switzerland), 2023, 15, 1272.	1.2	18
192	Laccase mediated delignification of wasted and non-food agricultural biomass: Recent developments and challenges. International Journal of Biological Macromolecules, 2023, 235, 123840.	3.6	5

#	Article	IF	Citations
193	Characterizations of Rice Bran Nanofibers Produced by Enzymatic Treatment and Their Role in Stabilizing Oil-in-Water Pickering Emulsions. Waste and Biomass Valorization, 0, , .	1.8	1
194	Co-catalysis of melanin degradation by laccase-manganese peroxidase complex from Trametes hirsuta OK271075 for application in whitening cosmetics. Biocatalysis and Biotransformation, 2024, 42, 273-285.	1.1	1
195	An Artifact of Perfluoroalkyl Acid (PFAA) Removal Attributed to Sorption Processes in a Laccase Mediator System. Environmental Science and Technology Letters, 2023, 10, 337-342.	3.9	0
196	Recent Theoretical Insights into the Oxidative Degradation of Biopolymers and Plastics by Metalloenzymes. International Journal of Molecular Sciences, 2023, 24, 6368.	1.8	7
197	The Biomodified Lignin Platform: A Review. Polymers, 2023, 15, 1694.	2.0	11
218	Bacterial laccase-like multicopper oxidases in delignification and detoxification processes. , 2024, , 193-228.		0