Tukayi Kudanga

List of Publications by Year
in descending order

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52 papers	1,929 citations	257101 24 h-index	253896 43 g-index
53 all docs	53 docs citations	53 times ranked	2177 citing authors

#	Article	IF	Citations
1	Potential applications of laccase-mediated coupling and grafting reactions: A review. Enzyme and Microbial Technology, 2011, 48, 195-208.	1.6	270
2	Laccase applications in biofuels production: current status and future prospects. Applied Microbiology and Biotechnology, 2014, 98, 6525-6542.	1.7	130
3	Laccase catalysis for the synthesis of bioactive compounds. Applied Microbiology and Biotechnology, 2017, 101, 13-33.	1.7	127
4	Polymerization of lignosulfonates by the laccase-HBT (1-hydroxybenzotriazole) system improves dispersibility. Bioresource Technology, 2010, 101, 5054-5062.	4.8	112
5	Opuntia (Cactaceae) plant compounds, biological activities and prospects â€“ A comprehensive review. Food Research International, 2018, 112, 328-344.	2.9	93
6	Enzymatic surface functionalisation of lignocellulosic materials with tannins for enhancing antibacterial properties. Process Biochemistry, 2010, 45, 1072-1081.	1.8	69
7	Laccase-catalyzed dimerization of ferulic acid amplifies antioxidant activity. Journal of Molecular Catalysis B: Enzymatic, 2012, 74, 29-35.	1.8	68
8	Antimicrobial and antioxidant linen via laccase-assisted grafting. Reactive and Functional Polymers, 2011, 71, 713-720.	2.0	66
9	Laccase catalyzed covalent coupling of fluorophenols increases lignocellulose surface hydrophobicity. Bioresource Technology, 2010, 101, 2793-2799.	4.8	59
10	Phenolic compound profile and biological activities of Southern African Opuntia ficus-indica fruit pulp and peels. LWT - Food Science and Technology, 2019, 111, 337-344.	2.5	57
11	Laccaseâ€Mediated Wood Surface Functionalization. Engineering in Life Sciences, 2008, 8, 297-302.	2.0	56
12	Reactivity of long chain alkylamines to lignin moieties: Implications on hydrophobicity of lignocellulose materials. Journal of Biotechnology, 2010, 149, 81-87.	1.9	55
13	Enzymatic grafting of functional molecules to the lignin model dibenzodioxocin and lignocellulose material. Enzyme and Microbial Technology, 2010, 46, 272-280.	1.6	51
14	Composition, thermal and rheological properties of polysaccharides from amadumbe (Colocasia) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 2	5.1	49
15	Coupling of aromatic amines onto syringylglycerol Î²-guaiacylether using Bacillus SF spore laccase: A model for functionalization of lignin-based materials. Journal of Molecular Catalysis B: Enzymatic, 2009, 61, 143-149.	1.8	45
16	Enzymatic modification of 2,6-dimethoxyphenol for the synthesis of dimers with high antioxidant capacity. Process Biochemistry, 2012, 47, 1926-1932.	1.8	43
17	The effect of mutations near the T1 copper site on the biochemical characteristics of the small laccase from Streptomyces coelicolor A3(2). Enzyme and Microbial Technology, 2015, 68, 23-32.	1.6	40
18	Extracellular cellulase production by tropical isolates of Aureobasidium pullulans. Canadian Journal of Microbiology, 2005, 51, 773-776.	0.8	37

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19	Antioxidant activity assay based on laccase-generated radicals. Analytical and Bioanalytical Chemistry, 2009, 393, 679-687.	1.9	37
20	Laccase-mediated crosslinking of gluten-free amadumbe flour improves rheological properties. Food Chemistry, 2018, 264, 157-163.	4.2	35
21	Fruit waste streams in South Africa and their potential role in developing a bio-economy. South African Journal of Science, 2015, 111, 1-11.	0.3	30
22	Small laccase-catalyzed synthesis of a caffeic acid dimer with high antioxidant capacity. Process Biochemistry, 2018, 69, 99-105.	1.8	28
23	Extractable and macromolecular antioxidants of Opuntia ficus-indica cladodes: Phytochemical profiling, antioxidant and antibacterial activities. South African Journal of Botany, 2019, 125, 402-410.	1.2	27
24	Enzymatic oxidative dimerization of silymarin flavonolignans. Journal of Molecular Catalysis B: Enzymatic, 2014, 109, 24-30.	1.8	26
25	Novel, Biocatalytically Produced Hydroxytyrosol Dimer Protects against Ultraviolet-Induced Cell Death in Human Immortalized Keratinocytes. Journal of Agricultural and Food Chemistry, 2012, 60, 11509-11517.	2.4	24
26	Chemo-enzymatic functionalisation of lignocellulose materials using oxiranes. Process Biochemistry, 2010, 45, 1557-1562.	1.8	23
27	Laccase-generated tetramethoxy azobismethylene quinone (TMAMQ) as a tool for antioxidant activity measurement. Food Chemistry, 2010, 118, 437-444.	4.2	23
28	Mechanistic insights into laccase-mediated functionalisation of lignocellulose material. Biotechnology and Genetic Engineering Reviews, 2010, 27, 305-330.	2.4	22
29	Transglutaminase-mediated crosslinking of Bambara groundnut protein hydrogels: Implications on rheological, textural and microstructural properties. Food Research International, 2020, 137, 109734.	2.9	22
30	Secretory expression of recombinant small laccase from Streptomyces coelicolor A3(2) in Pichia pastoris. International Journal of Biological Macromolecules, 2018, 108, 642-649.	3.6	19
31	Laccase Functionalization of Flax and Coconut Fibers. Polymers, 2014, 6, 1676-1684.	2.0	18
32	Versatility of oxidoreductases in the remediation of environmental pollutants. Frontiers in Bioscience - Elite, 2012, E4, 1127-1149.	0.9	17
33	Esterases and putative lipases from tropical isolates ofAureobasidium pullulans. Journal of Basic Microbiology, 2007, 47, 138-147.	1.8	16
34	Enzymatic Polymer Functionalisation: Advances in Laccase and Peroxidase Derived Lignocellulose Functional Polymers. Advances in Biochemical Engineering/Biotechnology, 2010, 125, 47-68.	0.6	14
35	Production and characterisation of a novel actinobacterial DyP-type peroxidase and its application in coupling of phenolic monomers. Enzyme and Microbial Technology, 2020, 141, 109654.	1.6	14
36	Enzymatic synthesis of ligninâ€“siloxane hybrid functional polymers. Biotechnology Journal, 2012, 7, 284-292.	1.8	11

#	Article	IF	Citations
37	Enzymatic treatment of phenolic pollutants by a small laccase immobilized on APTES-functionalised magnetic nanoparticles. 3 Biotech, 2021, 11, 302.	1.1	11
38	Laccase-mediated modification of isorhamnetin improves antioxidant and antibacterial activities. Process Biochemistry, 2022, 112, 53-61.	1.8	11
39	Isolation of Aureobasidium pullulans from Zimbabwean sources and glucosidase activities of selected isolates. South African Journal of Botany, 2001, 67, 157-160.	1.2	10
40	Cellular and plasma antioxidant activity assay using tetramethoxy azobismethylene quinone. Free Radical Biology and Medicine, 2010, 49, 1205-1211.	1.3	8
41	Enhancing the expression of recombinant small laccase in Pichia pastoris by a double promoter system and application in antibiotics degradation. Folia Microbiologica, 2021, 66, 917-930.	1.1	8
42	Enzymatic dimerization of luteolin enhances antioxidant and antimicrobial activities. Biocatalysis and Agricultural Biotechnology, 2021, 35, 102105.	1.5	8
43	Transglutaminase and tyrosinase as potential crossâ€linking tools for the improvement of rheological properties of glutenâ€free amadumbe dough. International Journal of Food Science and Technology, 2020, 55, 2399-2407.	1.3	7
44	Rheological and microstructural properties of Bambara groundnut protein gels. LWT - Food Science and Technology, 2020, 123, 109070.	2.5	7
45	Two distinct enzymatic approaches for coupling fatty acids onto lignocellulosic materials. Process Biochemistry, 2017, 59, 111-115.	1.8	6
46	Biodegradation of petroleum hydrocarbon waste using consortia of Bacillus sp. Bioremediation Journal, 2021, 25, 72-79.	1.0	4
47	Phytochemical Content, Antioxidant, Alpha-Glucosidase Inhibitory and Antibacterial Activities of Spineless Cactus Pear Cultivars. Plants, 2021, 10, 1312.	1.6	4
48	Versatility of oxidoreductases in the remediation of environmental pollutants. Frontiers in Bioscience - Elite, 2012, E4, 1127.	0.9	3
49	Nutritional variability in 42 cultivars of spineless cactus pear cladodes for crop improvement. South African Journal of Botany, 2021, 142, 140-148.	1.2	3
50	Grafting of Functional Molecules: Insights into Peroxidase-Derived Materials. , 2010, , 155-177.		3
51	Potato peels as feedstock for laccase-catalysed synthesis of phellinsin A. Biomass Conversion and Biorefinery, 0, , 1.	2.9	3
52	Industrial Applications of Opuntia spp. (Nopal, Fruit and Peel). , 2021, , 841-875.		0