Valdeir Arantes

List of Publications by Year
in descending order

53 papers	4,264 citations	159358 30 h-index	182168 51 g-index
53 all docs	53 docs citations	53 times ranked	4555 citing authors

#	Article	IF	Citations
1	Access to cellulose limits the efficiency of enzymatic hydrolysis: the role of amorphogenesis. Biotechnology for Biofuels, 2010, 3, 4.	6.2	437
2	The enhancement of enzymatic hydrolysis of lignocellulosic substrates by the addition of accessory enzymes such as xylanase: is it an additive or synergistic effect?. Biotechnology for Biofuels, 2011, 4, 36.	6.2	347
3	A review on commercial-scale high-value products that can be produced alongside cellulosic ethanol. Biotechnology for Biofuels, 2019, 12, 240.	6.2	343
4	The lignin present in steam pretreated softwood binds enzymes and limits cellulose accessibility. Bioresource Technology, 2012, 103, 201-208.	4.8	340
5	Peculiarities of brown-rot fungi and biochemical Fenton reaction with regard to their potential as a model for bioprocessing biomass. Applied Microbiology and Biotechnology, 2012, 94, 323-338.	1.7	280
6	Cellulose accessibility limits the effectiveness of minimum cellulase loading on the efficient hydrolysis of pretreated lignocellulosic substrates. Biotechnology for Biofuels, 2011, 4, 3.	6.2	263
7	Substrate factors that influence the synergistic interaction of AA9 and cellulases during the enzymatic hydrolysis of biomass. Energy and Environmental Science, 2014, 7, 2308-2315.	15.6	193
8	The synergistic action of accessory enzymes enhances the hydrolytic potential of a â€œcellulase mixtureâ€• but is highly substrate specific. Biotechnology for Biofuels, 2013, 6, 112.	6.2	185
9	Lignocellulosic polysaccharides and lignin degradation by wood decay fungi: the relevance of nonenzymatic Fenton-based reactions. Journal of Industrial Microbiology and Biotechnology, 2011, 38, 541-555.	1.4	155
10	The addition of accessory enzymes enhances the hydrolytic performance of cellulase enzymes at high solid loadings. Bioresource Technology, 2015, 186, 149-153.	4.8	150
11	Current Understanding of Brown-Rot Fungal Biodegradation Mechanisms: A Review. ACS Symposium Series, 2014, , 3-21.	0.5	119
12	Swollenin aids in the amorphogenesis step during the enzymatic hydrolysis of pretreated biomass. Bioresource Technology, 2013, 142, 498-503.	4.8	115
13	Preparation of nanocellulose from Imperata brasiliensis grass using Taguchi method. Carbohydrate Polymers, 2018, 192, 337-346.	5.1	106
14	Limitation of cellulose accessibility and unproductive binding of cellulases by pretreated sugarcane bagasse lignin. Biotechnology for Biofuels, 2017, 10, 176.	6.2	95
15	The adsorption and enzyme activity profiles of specific Trichoderma reesei cellulase/xylanase components when hydrolyzing steam pretreated corn stover. Enzyme and Microbial Technology, 2012, 50, 195-203.	1.6	77
16	Effect of pH and oxalic acid on the reduction of Fe3+ by a biomimetic chelator and on Fe3+ desorption/adsorption onto wood: Implications for brown-rot decay. International Biodeterioration and Biodegradation, 2009, 63, 478-483.	1.9	65
17	Use of substructure-specific carbohydrate binding modules to track changes in cellulose accessibility and surface morphology during the amorphogenesis step of enzymatic hydrolysis. Biotechnology for Biofuels, 2012, 5, 51.	6.2	57
18	Production of cellulose nanocrystals integrated into a biochemical sugar platform process via enzymatic hydrolysis at high solid loading. Industrial Crops and Products, 2020, 152, 112377.	2.5	56

#	Article	IF	Citations
19	The potential of tailoring the conditions of steam explosion to produce xylo-oligosaccharides from sugarcane bagasse. Bioresource Technology, 2018, 250, 221-229.	4.8	53
20	The synergistic action of ligninolytic enzymes (MnP and Laccase) and Fe3+-reducing activity from white-rot fungi for degradation of Azure B. Enzyme and Microbial Technology, 2007, 42, 17-22.	1.6	52
21	Exploring the action of endoglucanases on bleached eucalyptus kraft pulp as potential catalyst for isolation of cellulose nanocrystals. International Journal of Biological Macromolecules, 2019, 133, 1249-1259.	3.6	49
22	The current status of the enzyme-mediated isolation and functionalization of nanocelluloses: production, properties, techno-economics, and opportunities. Cellulose, 2020, 27, 10571-10630.	2.4	48
23	Steam pretreatment of agricultural residues facilitates hemicellulose recovery while enhancing enzyme accessibility to cellulose. Bioresource Technology, 2015, 185, 302-307.	4.8	45
24	The Use of Carbohydrate Binding Modules (CBMs) to Monitor Changes in Fragmentation and Cellulose Fiber Surface Morphology during Cellulase- and Swollenin-induced Deconstruction of Lignocellulosic Substrates. Journal of Biological Chemistry, 2015, 290, 2938-2945.	1.6	43
25	Production of metal chelating compounds by white and brown-rot fungi and their comparative abilities for pulp bleaching. Enzyme and Microbial Technology, 2002, 30, 562-565.	1.6	39
26	Kinetic changes in cellulose properties during defibrillation into microfibrillated cellulose and cellulose nanofibrils by ultra-refining. International Journal of Biological Macromolecules, 2019, 127, 637-648.	3.6	39
27	Degradation of cellulosic and hemicellulosic substrates using a chelator-mediated Fenton reaction. Journal of Chemical Technology and Biotechnology, 2006, 81, 413-419.	1.6	36
28	The enzymatic hydrolysis of pretreated pulp fibers predominantly involves â€œpeeling/erosionâ€• modes of action. Biotechnology for Biofuels, 2014, 7, 87.	6.2	34
29	Single-Step Fiber Pretreatment with Monocomponent Endoglucanase: Defibrillation Energy and Cellulose Nanofibril Quality. ACS Sustainable Chemistry and Engineering, 2021, 9, 2260-2270.	3.2	33
30	Effect of chemical treatment of pineapple crown fiber in the production, chemical composition, crystalline structure, thermal stability and thermal degradation kinetic properties of cellulosic materials. Carbohydrate Research, 2021, 499, 108227.	1.1	33
31	Degradation and decolorization of a biodegradable-resistant polymeric dye by chelator-mediated Fenton reactions. Chemosphere, 2006, 63, 1764-1772.	4.2	31
32	The Accessible Cellulose Surface Influences Cellulase Synergism during the Hydrolysis of Lignocellulosic Substrates. ChemSusChem, 2015, 8, 901-907.	3.6	31
33	Enzymology of the thermophilic ascomycetous fungus Thermoascus aurantiacus. Fungal Biology Reviews, 2008, 22, 120-130.	1.9	29
34	The effect of a catecholate chelator as a redox agent in Fenton-based reactions on degradation of lignin-model substrates and on COD removal from effluent of an ECF kraft pulp mill. Journal of Hazardous Materials, 2007, 141, 273-279.	6.5	28
35	Biomimetic oxidative treatment of spruce wood studied by pyrolysisâ€“molecular beam mass spectrometry coupled with multivariate analysis and 13C-labeled tetramethylammonium hydroxide thermochemolysis: implications for fungal degradation of wood. Journal of Biological Inorganic Chemistry, 2009, 14, 1253-1263.	1.1	24
36	A NaBH4 Coupled Ninhydrin-Based Assay for the Quantification of Protein/Enzymes During the Enzymatic Hydrolysis of Pretreated Lignocellulosic Biomass. Applied Biochemistry and Biotechnology, 2015, 176, 1564-1580.	1.4	24

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37	RelevÃ¢ncia de compostos de baixa massa molar produzidos por fungos e envolvidos na biodegradaÃ§Ã£o da madeira. Quimica Nova, 2009, 32, 1586-1595.	0.3	21
38	Evaluation of different carbon sources for production of iron-reducing compounds by Wolfiporia cocos and Perenniporia medulla-panis. Process Biochemistry, 2006, 41, 887-891.	1.8	20
39	High yield biorefinery products from sugarcane bagasse: Prebiotic xylooligosaccharides, cellulosic ethanol, cellulose nanofibrils and lignin nanoparticles. Bioresource Technology, 2021, 342, 125970.	4.8	19
40	Nanocelluloses From Sugarcane Biomass. , 2018, , 179-196.		18
41	Co-production of xylo-oligosaccharides, xylose and cellulose nanofibrils from sugarcane bagasse. Journal of Biotechnology, 2020, 321, 35-47.	1.9	18
42	Optimization of chip size and moisture content to obtain high, combined sugar recovery after sulfur dioxide-catalyzed steam pretreatment of softwood and enzymatic hydrolysis of the cellulosic component. Bioresource Technology, 2015, 187, 288-298.	4.8	17
43	Response of Wolfiporia cocos to iron availability: alterations in growth, expression of cellular proteins, Fe³⁺-reducing activity and Fe³⁺-chelators production. Journal of Applied Microbiology, 2007, 104, 070915215109009-???.	1.4	12
44	The use of predictive models to optimize sugar recovery obtained after the steam preâ€treatment of softwoods. Biofuels, Bioproducts and Biorefining, 2012, 6, 534-548.	1.9	12
45	Economic assessment of the conversion of bleached eucalyptus Kraft pulp into cellulose nanocrystals in a standâ€alone facility via acid and enzymatic hydrolysis. Biofuels, Bioproducts and Biorefining, 2021, 15, 1775-1788.	1.9	12
46	Effect of thermally assisted hydrodynamic cavitation (HC) processing on physical, nutritional, microbial quality, and pectin methyl esterase (PME) inactivation kinetics in orange juice at different time and temperatures. Journal of Food Processing and Preservation, 2021, 45, e15794.	0.9	12
47	Paludibacter propionicigenes GH10 xylanase as a tool for enzymatic xylooligosaccharides production from heteroxylans. Carbohydrate Polymers, 2022, 275, 118684.	5.1	12
48	Optimal recovery process conditions for manganese-peroxidase obtained by solid-state fermentation of eucalyptus residue using Lentinula edodes. Biomass and Bioenergy, 2011, 35, 4040-4044.	2.9	11
49	The development and use of an ELISA-based method to follow the distribution of cellulase monocomponents during the hydrolysis of pretreated corn stover. Biotechnology for Biofuels, 2013, 6, 80.	6.2	11
50	Application of statistical experimental design to the treatment of bleaching kraft mill effluent using a mediated free radical system. Water Science and Technology, 2007, 55, 1-7.	1.2	7
51	Ultra-refining for the production of long-term highly pH-stable lignin nanoparticles in high yield with high uniformity. Green Chemistry, 2022, 24, 1238-1258.	4.6	6
52	Identification of iron-regulated cellular proteins, Fe³⁺-reducing and -chelating compounds, in the white-rot fungus Perenniporia medulla-panis. Canadian Journal of Microbiology, 2007, 53, 1323-1329.	0.8	2
53	THE DEVELOPMENT AND USE OF AN ELISA-BASED METHOD TO FOLLOW THE DISTRIBUTION OF CELLULASE MONOCOMPONENTS DURING THE HYDROLYSIS OF PRETREATED CORN STOVER. , 2015, , 101-129.		0