Aline M Castro

List of Publications by Year
in descending order

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99	2,862	159358	205818
papers	citations	30 h-index	48 g-index

100	100	100	3187
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Lipase from Candida antarctica (CALB) and cutinase from Humicola insolens act synergistically for PET hydrolysis to terephthalic acid. Process Biochemistry, 2017, 59, 84-90.	1.8	191
2	Enzymatic hydrolysis of pretreated sugar cane bagasse using Penicillium funiculosum and Trichoderma harzianum cellulases. Process Biochemistry, 2011, 46, 1196-1201.	1.8	148
3	Biodiesel production from Acrocomia aculeata acid oil by (enzyme/enzyme) hydroesterification process: Use of vegetable lipase and fermented solid as low-cost biocatalysts. Fuel, 2014, 135, 315-321.	3.4	137
4	Production and Use of Lipases in Bioenergy: A Review from the Feedstocks to Biodiesel Production. Enzyme Research, 2011, 2011, 1-16.	1.8	118
5	Cellulases from Penicillium funiculosum: production, properties and application to cellulose hydrolysis. Journal of Industrial Microbiology and Biotechnology, 2010, 37, 151-158.	1.4	98
6	Techno-economic evaluation of a complete bioprocess for 2,3-butanediol production from renewable resources. Bioresource Technology, 2016, 204, 55-64.	4.8	96
7	A brief review on the emerging technology of ethanol production by cold hydrolysis of raw starch. Fuel, 2015, 150, 721-729.	3.4	93
8	Screening of commercial enzymes for poly(ethylene terephthalate) (PET) hydrolysis and synergy studies on different substrate sources. Journal of Industrial Microbiology and Biotechnology, 2017, 44, 835-844.	1.4	84
9	ProduÃ§Ã£o, propriedades e aplicaÃ§Ã£o de celulases na hidrÃ³lise de resÃduos agroindustriais. Quimica Nova, 2010, 33, 181-188.	0.3	79
10	Trichoderma harzianum IOC-4038: A Promising Strain for the Production of a Cellulolytic Complex with Significant Î²-Glucosidase Activity from Sugarcane Bagasse Cellulignin. Applied Biochemistry and Biotechnology, 2010, 162, 2111-2122.	1.4	63
11	World market and biotechnological production of itaconic acid. 3 Biotech, 2018, 8, 138.	1.1	59
12	A comparative review of recent advances in cellulases production by Aspergillus, Penicillium and Trichoderma strains and their use for lignocellulose deconstruction. Current Opinion in Green and Sustainable Chemistry, 2018, 14, 60-66.	3.2	58
13	A comprehensive and critical review on key elements to implement enzymatic PET depolymerization for recycling purposes. Biotechnology Advances, 2021, 52, 107811.	6.0	52
14	Adding value to a toxic residue from the biodiesel industry: production of two distinct pool of lipases from Penicillium simplicissimum in castor bean waste. Journal of Industrial Microbiology and Biotechnology, 2011, 38, 945-953.	1.4	51
15	Poly(ethylene terephthalate) (PET) degradation by Yarrowia lipolytica: Investigations on cell growth, enzyme production and monomers consumption. Process Biochemistry, 2020, 95, 81-90.	1.8	47
16	Performance of a fixed-bed solid-state fermentation bioreactor with forced aeration for the production of hydrolases by Aspergillus awamori. Biochemical Engineering Journal, 2015, 93, 303-308.	1.8	46
17	High-fold improvement of assorted post-consumer poly(ethylene terephthalate) (PET) packages hydrolysis using Humicola insolens cutinase as a single biocatalyst. Process Biochemistry, 2019, 81, 85-91.	1.8	45
18	Fumaric acid production using renewable resources from biodiesel and cane sugar production processes. Environmental Science and Pollution Research, 2018, 25, 35960-35970.	2.7	42

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19	High-Yield Endoglucanase Production byTrichoderma harzianumIOC-3844 Cultivated in Pretreated Sugarcane Mill Byproduct. Enzyme Research, 2010, 2010, 1-8.	1.8	39
20	Characterization of babassu, canola, castor seed and sunflower residual cakes for use as raw materials for fermentation processes. Industrial Crops and Products, 2016, 83, 140-148.	2.5	38
21	Valorization of Residual Agroindustrial Cakes by Fungal Production of Multienzyme Complexes and Their Use in Cold Hydrolysis of Raw Starch. Waste and Biomass Valorization, 2011, 2, 291-302.	1.8	37
22	Enzyme Immobilization in Covalent Organic Frameworks: Strategies and Applications in Biocatalysis. ChemPlusChem, 2020, 85, 2051-2066.	1.3	37
23	Economic Analysis of the Production of Amylases and Other Hydrolases byAspergillus awamoriin Solid-State Fermentation of Babassu Cake. Enzyme Research, 2010, 2010, 1-9.	1.8	35
24	Acetoneâ€“butanolâ€“ethanol fermentation from sugarcane bagasse hydrolysates: Utilization of C5 and C6 sugars. Electronic Journal of Biotechnology, 2019, 42, 16-22.	1.2	35
25	Use of Mesophilic Fungal Amylases Produced by Solid-state Fermentation in the Cold Hydrolysis of Raw Babassu Cake Starch. Applied Biochemistry and Biotechnology, 2010, 162, 1612-1625.	1.4	33
26	Application of Xylanase from <I>Thermomyces lanuginosus </I>IOC-4145 for Enzymatic Hydrolysis of Corncob and Sugarcane Bagasse. Applied Biochemistry and Biotechnology, 2004, 115, 1003-1012.	1.4	32
27	Valorisation of fruit and vegetable waste from open markets for the production of 2,3-butanediol. Food and Bioproducts Processing, 2018, 108, 27-36.	1.8	32
28	Improvement on bioprocess economics for 2,3-butanediol production from very high polarity cane sugar via optimisation of bioreactor operation. Bioresource Technology, 2019, 274, 343-352.	4.8	32
29	Granular starch hydrolysis of babassu agroindustrial residue: A bioprocess within the context of biorefinery. Fuel, 2014, 124, 41-48.	3.4	31
30	Consecutive lipase immobilization and glycerol carbonate production under continuous-flow conditions. Catalysis Science and Technology, 2016, 6, 4743-4748.	2.1	31
31	A novel process for poly(ethylene terephthalate) depolymerization via enzyme-catalyzed glycolysis. Biochemical Engineering Journal, 2017, 124, 64-68.	1.8	31
32	Fed-batch strategies for saccharification of pilot-scale mild-acid and alkali pretreated sugarcane bagasse: Effects of solid loading and surfactant addition. Industrial Crops and Products, 2018, 119, 283-289.	2.5	31
33	Optimisation of 2,3-butanediol production by Enterobacter ludwigii using sugarcane molasses. Biochemical Engineering Journal, 2019, 152, 107370.	1.8	31
34	Evaluation of 1,3-propanediol production by twoCitrobacter freundiistrains using crude glycerol and soybean cake hydrolysate. Environmental Science and Pollution Research, 2019, 26, 35523-35532.	2.7	30
35	Enhanced Productivity in Glycerol Carbonate Synthesis under Continuous Flow Conditions: Combination of Immobilized Lipases from Porcine Pancreas and Candida antarctica (CALB) on Epoxy Resins. ACS Omega, 2019, 4, 860-869.	1.6	30
36	Enzyme Surface Glycosylation in the Solid Phase: Improved Activity and Selectivity of Candida Antarctica Lipase B. ChemCatChem, 2011, 3, 1902-1910.	1.8	29

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37	An overview on advances of amylases production and their use in the production of bioethanol by conventional and non-conventional processes. Biomass Conversion and Biorefinery, 2011, 1, 245-255.	2.9	29
38	Production of recombinant lipase B from Candida antarctica in Pichia pastoris under control of the promoter PGK using crude glycerol from biodiesel production as carbon source. Biochemical Engineering Journal, 2017, 118, 123-131.	1.8	28
39	Simultaneous Enzymatic Transesterification and Esterification of an Acid Oil Using Fermented Solid as Biocatalyst. JAOCS, Journal of the American Oil Chemists' Society, 2017, 94, 551-558.	0.8	26
40	Biotechnological Production of Fumaric Acid: The Effect of Morphology of Rhizopus arrhizus NRRL 2582. Fermentation, 2017, 3, 33.	1.4	26
41	Valorization of By-Products from Palm Oil Mills for the Production of Generic Fermentation Media for Microbial Oil Synthesis. Applied Biochemistry and Biotechnology, 2017, 181, 1241-1256.	1.4	25
42	Esterification activities of nonâ€commercial lipases after preâ€treatment in pressurized propane. Journal of Chemical Technology and Biotechnology, 2010, 85, 839-844.	1.6	22
43	Optimal design of upstream processes in biotransformation technologies. Bioresource Technology, 2017, 224, 509-514.	4.8	21
44	Characterization of multienzyme solutions produced by solid-state fermentation of babassu cake, for use in cold hydrolysis of raw biomass. Biochemical Engineering Journal, 2013, 77, 231-239.	1.8	20
45	Bioprocess development for (2R,3R)â€butanediol and acetoin production using very high polarity cane sugar and sugarcane molasses by a Bacillus amyloliquefaciens strain. Journal of Chemical Technology and Biotechnology, 2019, 94, 2167-2177.	1.6	20
46	Production of multifunctional lipases by Penicillium verrucosum and Penicillium brevicompactum under solid state fermentation of babassu cake and castor meal. Bioprocess and Biosystems Engineering, 2011, 34, 145-152.	1.7	19
47	Methods to prevent acidification of MacaÃºba (Acrocomia aculeata) fruit pulp oil: A promising oil for producing biodiesel. Industrial Crops and Products, 2015, 77, 703-707.	2.5	19
48	Addition of Surfactants and Non-Hydrolytic Proteins and Their Influence on Enzymatic Hydrolysis of Pretreated Sugarcane Bagasse. Applied Biochemistry and Biotechnology, 2017, 181, 593-603.	1.4	19
49	Hydrocarbon-associated substrates reveal promising fungi for poly (ethylene terephthalate) (PET) depolymerization. Brazilian Journal of Microbiology, 2019, 50, 633-648.	0.8	19
50	Supplementation of watermelon peels as an enhancer of lipase and esterase production byYarrowia lipolyticain solid-state fermentation and their potential use as biocatalysts in poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 217 Tc	1.1	19
51	Optimisation of Cellulase Production by Penicillium funiculosum in a Stirred Tank Bioreactor Using Multivariate Response Surface Analysis. Enzyme Research, 2014, 2014, 1-8.	1.8	18
52	Role of water on deep eutectic solvents (DES) properties and gas transport performance in biocatalytic supported DES membranes. Separation and Purification Technology, 2021, 255, 117763.	3.9	18
53	Assessment of the Brazilian potential for the production of enzymes for biofuels from agroindustrial materials. Biomass Conversion and Biorefinery, 2012, 2, 87-107.	2.9	17
54	Multivariate Optimization and Supplementation Strategies for the Simultaneous Production of Amylases, Cellulases, Xylanases, and Proteases by Aspergillus awamori Under Solid-State Fermentation Conditions. Applied Biochemistry and Biotechnology, 2015, 175, 1588-1602.	1.4	16

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55	Synthesis of butyl esters via ultrasound-assisted transesterification of macaÃºba (Acrocomia aculeata) acid oil using a biomass-derived fermented solid as biocatalyst. Journal of Molecular Catalysis B: Enzymatic, 2016, 133, S213-S219.	1.8	16
56	Biofilms of Pseudomonas and Lysinibacillus Marine Strains on High-Density Polyethylene. Microbial Ecology, 2021, 81, 833-846.	1.4	16
57	A critical view on the technology readiness level (TRL) of microbial plastics biodegradation. World Journal of Microbiology and Biotechnology, 2021, 37, 116.	1.7	16
58	Production of (2R,3R)-butanediol by Paenibacillus polymyxa PM 3605 from crude glycerol supplemented with sugarcane molasses. Process Biochemistry, 2021, 106, 88-95.	1.8	16
59	Oriented irreversible immobilization of a glycosylated Candida antarctica B lipase on heterofunctional organoborane-aldehyde support. Catalysis Science and Technology, 2011, 1, 260.	2.1	15
60	A rapid enzyme-catalyzed pretreatment of the acidic oil of macauba (Acrocomia aculeata) for chemoenzymatic biodiesel production. Process Biochemistry, 2017, 53, 188-193.	1.8	15
61	Enzyme-catalyzed simultaneous hydrolysis-glycolysis reactions reveals tunability on PET depolymerization products. Biochemical Engineering Journal, 2018, 137, 239-246.	1.8	15
62	Process strategies to improve biocatalytic depolymerization of post-consumer PET packages in bioreactors, and investigation on consumables cost reduction. Bioprocess and Biosystems Engineering, 2021, 44, 507-516.	1.7	15
63	Fungal and enzymatic bio-depolymerization of waste post-consumer poly(ethylene terephthalate) (PET) bottles using Penicillium species. 3 Biotech, 2021, 11, 435.	1.1	15
64	2,3-Butanediol production by the non-pathogenic bacterium Paenibacillus brasilensis. Applied Microbiology and Biotechnology, 2018, 102, 8773-8782.	1.7	14
65	Kinetic Modeling of the Post-consumer Poly(Ethylene Terephthalate) Hydrolysis Catalyzed by Cutinase from Humicola insolens. Journal of Polymers and the Environment, 2022, 30, 1627-1637.	2.4	14
66	A newly isolatedEnterobactersp. strain produces 2,3-butanediol during its cultivation on low-cost carbohydrate-based substrates. FEMS Microbiology Letters, 2019, 366, .	0.7	13
67	Chemoâ€enzymatic depolymerization of industrial and assorted postâ€consumer poly(ethylene) Tj ETQq1 1 0.784314 rgBT /Overlock 1 Technology and Biotechnology, 2021, 96, 3237-3244.	1.6	13
68	Biocatalytic CO2 Absorption and Structural Studies of Carbonic Anhydrase under Industrially-Relevant Conditions. International Journal of Molecular Sciences, 2020, 21, 2918.	1.8	11
69	A mathematical programming formulation for biorefineries technology selection. Biochemical Engineering Journal, 2016, 116, 135-145.	1.8	10
70	Characterization of esterase activity from an Acetomicrobium hydrogeniformans enzyme with high structural stability in extreme conditions. Extremophiles, 2018, 22, 781-793.	0.9	10
71	Enzymes in Green Chemistry: The State of the Art in Chemical Transformations. , 2019, , 137-151.		10
72	Use of Vero cell line to verify the biodetoxification efficiency of castor bean waste. Process Biochemistry, 2012, 47, 578-584.	1.8	9

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73	Biocatalytic esterification of fatty acids using a low-cost fermented solid from solid-state fermentation with Yarrowia lipolytica. 3 Biotech, 2019, 9, 38.	1.1	9
74	Insights into media supplementation in solid-state fermentation of soybean hulls by Yarrowia lipolytica: Impact on lipase production in tray and insulated packed-bed bioreactors. Biochemical Engineering Journal, 2021, 166, 107866.	1.8	9
75	Experimental and mathematical modeling approaches for biocatalytic post-consumer poly(ethylene) Tj ETQq1 1 0.784314 rgBT /Overlo	1.9	9
76	Techno-economic analysis of a bioprocess for the production of multienzyme solutions from the cake of babassu industrial processing: evaluation of five different inoculum propagation strategies. Biomass Conversion and Biorefinery, 2014, 4, 237-247.	2.9	8
77	Environmental Factors Modulating the Stability and Enzymatic Activity of the Petrotoga mobilis Esterase (PmEst). PLoS ONE, 2016, 11, e0158146.	1.1	8
78	Bioprocess Development for 2,3-Butanediol Production from Crude Glycerol and Conceptual Process Design for Aqueous Conversion into Methyl Ethyl Ketone. ACS Sustainable Chemistry and Engineering, 2021, 9, 8692-8705.	3.2	8
79	A Temporal Evolution Perspective of Lipase Production by Yarrowia lipolytica in Solid-State Fermentation. Processes, 2022, 10, 381.	1.3	8
80	Concentration, Partial Characterization, and Immobilization of Lipase Extract from P. brevicompactum by Solid-State Fermentation of Babassu Cake and Castor Bean Cake. Applied Biochemistry and Biotechnology, 2011, 164, 755-766.	1.4	6
81	MICROBIAL AND ENZYMATIC DEGRADATION OF POLYMERS: A REVIEW. Quimica Nova, 2014, , .	0.3	6
82	Effect of carbonic anhydrase on CO2 absorption promoted by choline hydroxide using supported liquid membranes. Separation and Purification Technology, 2022, 280, 119921.	3.9	6
83	Multiresponse Optimization of Inoculum Conditions for the Production of Amylases and Proteases by Aspergillus awamori in Solid-State Fermentation of Babassu Cake. Enzyme Research, 2011, 2011, 1-9.	1.8	5
84	Effects of agitation and exogenous H2 on bioconversion of sugarcane bagasse into ethanol by Clostridium thermocellum ATCC 27405. Electronic Journal of Biotechnology, 2013, 16, .	1.2	5
85	Principles of Green Chemistry and White Biotechnology. RSC Green Chemistry, 2015, , 1-8.	0.0	5
86	Microbial Production of Itaconic Acid. , 2017, , 291-316.		4
87	Solid-State Fermentation for the Production of Proteases and Amylases and Their Application in Nutrient Medium Production. , 2018, , 185-210.		4
88	Improved production of biocatalysts by Yarrowia lipolytica using natural sources of the biopolyesters cutin and suberin, and their application in hydrolysis of poly (ethylene terephthalate) (PET). Bioprocess and Biosystems Engineering, 2021, 44, 2277-2287.	1.7	4
89	Biochemical features and early adhesion of marine Candida parapsilosis strains on high-density polyethylene. Journal of Applied Microbiology, 2022, 132, 1954-1966.	1.4	4
90	Current approaches to use oil crops by-products for biodiesel and biolubricant production: Focus on biocatalysis. Bioresource Technology Reports, 2022, 18, 101030.	1.5	4

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91	Development of a green integrated process for biodiesel esters production: Use of fermented macaÃºba cake as biocatalyst for macaÃºba acid oil transesterification. JAOCS, Journal of the American Oil Chemists' Society, 2021, 98, 825-835.	0.8	3
92	Biocatalytic depolymerization of waste polyester mooring lines from oil and gas offshore platforms made of poly(ethylene terephthalate) (<scp>PET</scp>). Journal of Chemical Technology and Biotechnology, 2022, 97, 709-718.	1.6	3
93	APPLICATIONS OF ENZYMES IN SYNTHESIS AND MODIFICATION OF POLYMERS. Quimica Nova, 2014, 37, .	0.3	3
94	Evaluation of Cell Recycle on Thermomyces lanuginosus Xylanase A Production by Pichia pastoris GS 115. Applied Biochemistry and Biotechnology, 2006, 129, 226-233.	1.4	2
95	Effects of acetic acid addition methods on butyl acetate enzymatic synthesis. Chemical Engineering Communications, 2020, 207, 177-184.	1.5	2
96	Solvent-free lipase-catalyzed synthesis of linear and thermally stable polyesters obtained from diacids and diols. Brazilian Journal of Chemical Engineering, 2021, 38, 549-562.	0.7	2
97	Application of Xylanase from Thermomyces lanuginosus IOC-4145 for Enzymatic Hydrolysis of Corncob and Sugarcane Bagasse. , 2004, , 1003-1012.		2
98	Enzymes and pathways in microbial production of 2,3-butanediol and 3-acetoin isomers. Critical Reviews in Biotechnology, 2023, 43, 67-81.	5.1	1
99	Design and Characterization of Novel Cholineâ€Based Phthalic Salts: A Case Study for Sugarcane Bagasse Pretreatment. ChemistrySelect, 2017, 2, 8039-8042.	0.7	0