

Edson Luis Silva

List of Publications by Year in descending order

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Version: 2024-02-01

102
papers

2,742
citations

147566

31
h-index

223531

46
g-index

104
all docs

104
docs citations

104
times ranked

1984
citing authors

#	ARTICLE	IF	CITATIONS
1	Hydrothermal processing of biomass for anaerobic digestion – A review. <i>Renewable and Sustainable Energy Reviews</i> , 2018, 98, 108-124.	8.2	133
2	Anaerobic fluidized bed reactor with expanded clay as support for hydrogen production through dark fermentation of glucose. <i>International Journal of Hydrogen Energy</i> , 2009, 34, 783-790.	3.8	106
3	Biohydrogen production in anaerobic fluidized bed reactors: Effect of support material and hydraulic retention time. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 3379-3388.	3.8	95
4	Hydrogen production from cheese whey with ethanol-type fermentation: Effect of hydraulic retention time on the microbial community composition. <i>Bioresource Technology</i> , 2014, 161, 10-19.	4.8	84
5	Effect of Substrate Concentration on Dark Fermentation Hydrogen Production Using an Anaerobic Fluidized Bed Reactor. <i>Applied Biochemistry and Biotechnology</i> , 2012, 166, 1248-1263.	1.4	67
6	Hydrogen production from diluted and raw sugarcane vinasse under thermophilic anaerobic conditions. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 9599-9610.	3.8	65
7	Organic loading rate impact on biohydrogen production and microbial communities at anaerobic fluidized thermophilic bed reactors treating sugarcane stillage. <i>Bioresource Technology</i> , 2014, 159, 55-63.	4.8	61
8	Evaluation of hydrogen and methane production from sugarcane vinasse in an anaerobic fluidized bed reactor. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 8498-8509.	3.8	61
9	Performance evaluation of packing materials in the removal of hydrogen sulphide in gas-phase biofilters: Polyurethane foam, sugarcane bagasse, and coconut fibre. <i>Chemical Engineering Journal</i> , 2010, 158, 441-450.	6.6	60
10	Anaerobic degradation of linear alkylbenzene sulfonate (LAS) in fluidized bed reactor by microbial consortia in different support materials. <i>Bioresource Technology</i> , 2010, 101, 5112-5122.	4.8	59
11	Optimization of hydrogen and organic acids productions with autochthonous and allochthonous bacteria from sugarcane bagasse in batch reactors. <i>Journal of Environmental Management</i> , 2018, 223, 952-963.	3.8	59
12	Microbial characterization and degradation of linear alkylbenzene sulfonate in an anaerobic reactor treating wastewater containing soap powder. <i>Bioresource Technology</i> , 2014, 167, 316-323.	4.8	58
13	Hydrogen and ethanol production in anaerobic fluidized bed reactors: Performance evaluation for three support materials under different operating conditions. <i>Biochemical Engineering Journal</i> , 2012, 61, 59-65.	1.8	55
14	Long-term stability of hydrogen and organic acids production in an anaerobic fluidized-bed reactor using heat treated anaerobic sludge inoculum. <i>International Journal of Hydrogen Energy</i> , 2009, 34, 3679-3688.	3.8	54
15	Continuous thermophilic hydrogen production and microbial community analysis from anaerobic digestion of diluted sugar cane stillage. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 9000-9011.	3.8	53
16	Different ratios of carbon sources in the fermentation of cheese whey and glucose as substrates for hydrogen and ethanol production in continuous reactors. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 1288-1296.	3.8	53
17	Influence of organic loading rate on the anaerobic treatment of sugarcane vinasse and biogas production in fluidized bed reactor. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2013, 48, 1707-1716.	0.9	50
18	Hydrogen, alcohols and volatile fatty acids from the co-digestion of coffee waste (coffee pulp, husk,) <i>International Journal of Hydrogen Energy</i> , 2019, 44, 21434-21450.	3.8	50

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19	Effect of inoculum concentration, pH, light intensity and lighting regime on hydrogen production by phototrophic microbial consortium. <i>Renewable Energy</i> , 2015, 75, 1-7.	4.3	49
20	Performance evaluation and phylogenetic characterization of anaerobic fluidized bed reactors using ground tire and pet as support materials for biohydrogen production. <i>Bioresource Technology</i> , 2011, 102, 3840-3847.	4.8	48
21	Continuous thermophilic hydrogen production from cheese whey powder solution in an anaerobic fluidized bed reactor: Effect of hydraulic retention time and initial substrate concentration. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 4848-4860.	3.8	48
22	Performance and composition of bacterial communities in anaerobic fluidized bed reactors for hydrogen production: Effects of organic loading rate and alkalinity. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 16925-16934.	3.8	46
23	Thermophilic hydrogen and methane production from sugarcane stillage in two-stage anaerobic fluidized bed reactors. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 5239-5251.	3.8	45
24	Effects of hydraulic retention time, co-substrate and nitrogen source on laundry wastewater anionic surfactant degradation in fluidized bed reactors. <i>Bioresource Technology</i> , 2017, 224, 246-254.	4.8	42
25	Effect of upflow velocity and hydraulic retention time in anaerobic fluidized-bed reactors used for hydrogen production. <i>Chemical Engineering Journal</i> , 2011, 172, 28-36.	6.6	37
26	Degradation of high concentrations of nonionic surfactant (linear alcohol ethoxylate) in an anaerobic fluidized bed reactor. <i>Science of the Total Environment</i> , 2014, 481, 121-128.	3.9	37
27	Role of homo-and heterofermentative lactic acid bacteria on hydrogen-producing reactors operated with cheese whey wastewater. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 8650-8660.	3.8	37
28	Characterization and antimicrobial activity of lactic acid bacteria from fermentative bioreactors during hydrogen production using cassava processing wastewater. <i>Chemical Engineering Journal</i> , 2016, 284, 1-9.	6.6	37
29	Continuous hydrogen production from cofermentation of sugarcane vinasse and cheese whey in a thermophilic anaerobic fluidized bed reactor. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 13081-13089.	3.8	34
30	Optimization of key factors affecting hydrogen production from coffee waste using factorial design and metagenomic analysis of the microbial community. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 4205-4222.	3.8	34
31	Anaerobic digestion of vinasse in fluidized bed reactors: Process robustness between two-stage thermophilic-thermophilic and thermophilic-mesophilic systems. <i>Journal of Cleaner Production</i> , 2021, 314, 128066.	4.6	34
32	Sequential fermentative and phototrophic system for hydrogen production: An approach for Brazilian alcohol distillery wastewater. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 9642-9655.	3.8	32
33	Metagenomic analysis and optimization of hydrogen production from sugarcane bagasse. <i>Biomass and Bioenergy</i> , 2018, 117, 78-85.	2.9	32
34	HRT control as a strategy to enhance continuous hydrogen production from sugarcane juice under mesophilic and thermophilic conditions in AFBRs. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 19719-19729.	3.8	32
35	<i>Bacillus</i> sp. isolated from banana waste and analysis of metabolic pathways in acidogenic systems in hydrogen production. <i>Journal of Environmental Management</i> , 2019, 247, 178-186.	3.8	32
36	Hydrogen production from sugarcane juice in expanded granular sludge bed reactors under mesophilic conditions: The role of homoacetogenesis and lactic acid production. <i>Industrial Crops and Products</i> , 2019, 138, 111586.	2.5	31

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37	Metabolic routes involved in the removal of linear alkylbenzene sulfonate (LAS) employing linear alcohol ethoxylated and ethanol as co-substrates in enlarged scale fluidized bed reactor. <i>Science of the Total Environment</i> , 2018, 640-641, 1411-1423.	3.9	28
38	Evaluation of bacterial community from anaerobic fluidized bed reactor for the removal of linear alkylbenzene sulfonate from laundry wastewater by 454-pyrosequence. <i>Ecological Engineering</i> , 2015, 82, 231-240.	1.6	27
39	Continuous Hydrogen Production from Agricultural Wastewaters at Thermophilic and Hyperthermophilic Temperatures. <i>Applied Biochemistry and Biotechnology</i> , 2017, 182, 846-869.	1.4	27
40	Enhancement of <i>Clostridium butyricum</i> hydrogen production by iron and nickel nanoparticles: Effects on <i>hydA</i> expression. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 28447-28461.	3.8	26
41	Statistical optimization of H ₂ , 1,3-propanediol and propionic acid production from crude glycerol using an anaerobic fluidized bed reactor: Interaction effects of substrate concentration and hydraulic retention time. <i>Biomass and Bioenergy</i> , 2020, 138, 105575.	2.9	26
42	Metagenomic analysis of autochthonous microbial biomass from banana waste: Screening design of factors that affect hydrogen production. <i>Biomass and Bioenergy</i> , 2020, 138, 105573.	2.9	24
43	Production of H ₂ from cellulose by rumen microorganisms: effects of inocula pre-treatment and enzymatic hydrolysis. <i>Biotechnology Letters</i> , 2014, 36, 537-546.	1.1	23
44	The effects of seed sludge and hydraulic retention time on the production of hydrogen from a cassava processing wastewater and glucose mixture in an anaerobic fluidized bed reactor. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 13118-13127.	3.8	23
45	An alternative for value aggregation to the sugarcane chain: Biohydrogen and volatile fatty acids production from sugarcane molasses in mesophilic expanded granular sludge bed reactors. <i>Fuel</i> , 2020, 260, 116419.	3.4	23
46	Controlling methane and hydrogen production from cheese whey in an EGSB reactor by changing the HRT. <i>Bioprocess and Biosystems Engineering</i> , 2020, 43, 673-684.	1.7	22
47	Selection of metabolic pathways for continuous hydrogen production under thermophilic and mesophilic temperature conditions in anaerobic fluidized bed reactors. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 18908-18917.	3.8	21
48	Experimental design and syntrophic microbial pathways for biofuel production from sugarcane bagasse under thermophilic condition. <i>Renewable Energy</i> , 2019, 140, 852-861.	4.3	21
49	Enzymatic routes to hydrogen and organic acids production from banana waste fermentation by autochthonous bacteria: Optimization of pH and temperature. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 8454-8468.	3.8	21
50	Influence of C/P and C/N ratios and microbial characterization in hydrogen and ethanol production in an anaerobic fluidized bed reactor. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 9600-9610.	3.8	20
51	Methane Production from Hydrogen Peroxide Assisted Hydrothermal Pretreatment of Solid Fraction Sugarcane Bagasse. <i>Waste and Biomass Valorization</i> , 2020, 11, 31-50.	1.8	20
52	Co-Fermentation of Cheese Whey and Crude Glycerol in EGSB Reactor as a Strategy to Enhance Continuous Hydrogen and Propionic Acid Production. <i>Applied Biochemistry and Biotechnology</i> , 2017, 183, 712-728.	1.4	19
53	Design and optimization of hydrogen production from hydrothermally pretreated sugarcane bagasse using response surface methodology. <i>Water Science and Technology</i> , 2017, 76, 95-105.	1.2	19
54	Valorization of the Crude Glycerol for Propionic Acid Production Using an Anaerobic Fluidized Bed Reactor with Grounded Tires as Support Material. <i>Applied Biochemistry and Biotechnology</i> , 2018, 186, 400-413.	1.4	19

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55	Improving the hydrogen production from coffee waste through hydrothermal pretreatment, co-digestion and microbial consortium bioaugmentation. <i>Biomass and Bioenergy</i> , 2020, 137, 105551.	2.9	19
56	Microbial community analyses by high-throughput sequencing of rumen microorganisms fermenting office paper in mesophilic and thermophilic lysimeters. <i>Chemical Engineering Research and Design</i> , 2020, 136, 182-193.	2.7	17
57	Statistical optimization of methane production from brewery spent grain: Interaction effects of temperature and substrate concentration. <i>Journal of Environmental Management</i> , 2021, 288, 112363.	3.8	17
58	Bioconversion of waste office paper to hydrogen using pretreated rumen fluid inoculum. <i>Bioprocess and Biosystems Engineering</i> , 2016, 39, 1887-1897.	1.7	16
59	Kinetics of methane production and biodegradation of linear alkylbenzene sulfonate from laundry wastewater. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2016, 51, 1288-1302.	0.9	15
60	Improved dark fermentation of cane molasses in mesophilic and thermophilic anaerobic fluidized bed reactors by selecting operational conditions. <i>International Journal of Energy Research</i> , 2020, 44, 10442-10452.	2.2	15
61	A new side-looking at the dark fermentation of sugarcane vinasse: Improving the carboxylates production in mesophilic EGSB by selection of the hydraulic retention time and substrate concentration. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 12758-12770.	3.8	15
62	Simultaneous determination of anionic and nonionic surfactants in commercial laundry wastewater and anaerobic fluidized bed reactor effluent by online column-switching liquid chromatography/tandem mass spectrometry. <i>Science of the Total Environment</i> , 2017, 580, 1120-1128.	3.9	14
63	Simultaneous hydrogen and ethanol production in a thermophilic AFBR: a comparative approach between cellulosic hydrolysate single fermentation and the fermentation of glucose and xylose as co-substrates. <i>Cellulose</i> , 2020, 27, 2599-2612.	2.4	14
64	Metataxonomic characterization of bacterial and archaeal community involved in hydrogen and methane production from citrus peel waste (<i>Citrus sinensis</i> L. Osbeck) in batch reactors. <i>Biomass and Bioenergy</i> , 2021, 149, 106091.	2.9	13
65	Scale-up and energy estimations of single- and two-stage vinasse anaerobic digestion systems for hydrogen and methane production. <i>Journal of Cleaner Production</i> , 2022, 349, 131459.	4.6	13
66	The influence of upflow velocity and hydraulic retention time changes on taxonomic and functional characterization in Fluidized Bed Reactor treating commercial laundry wastewater in co-digestion with domestic sewage. <i>Biodegradation</i> , 2020, 31, 73-89.	1.5	12
67	Screening design of nutritional and physicochemical parameters on bio-hydrogen and volatile fatty acids production from Citrus Peel Waste in batch reactors. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 7794-7809.	3.8	12
68	Homoacetogenesis: New insights into controlling this unsolved challenge by selecting the optimal C/N ratio, C/P ratio and hydraulic retention time. <i>Chemical Engineering Research and Design</i> , 2021, 145, 273-284.	2.7	12
69	Microbial and functional characterization of an allochthonous consortium applied to hydrogen production from Citrus Peel Waste in batch reactor in optimized conditions. <i>Journal of Environmental Management</i> , 2021, 291, 112631.	3.8	12
70	The Biological Hydrogen Production Potential of Agroindustrial Residues. <i>Waste and Biomass Valorization</i> , 2015, 6, 273-280.	1.8	11
71	4-Nonylphenol degradation changes microbial community of scale-up Anaerobic Fluidized Bed Reactor. <i>Journal of Environmental Management</i> , 2020, 267, 110575.	3.8	11
72	One waste and two products: choosing the best operational temperature and hydraulic retention time to recover hydrogen or 1,3-propanediol from glycerol fermentation. <i>Bioprocess and Biosystems Engineering</i> , 2021, 44, 2491-2502.	1.7	11

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73	Optimized 1,3-propanediol production from crude glycerol using mixed cultures in batch and continuous reactors. <i>Bioprocess and Biosystems Engineering</i> , 2018, 41, 1807-1816.	1.7	10
74	Bioconversion of pretreated sugarcane vinasse into hydrogen: new perspectives to solve one of the greatest issues of the sugarcane biorefinery. <i>Biomass Conversion and Biorefinery</i> , 2022, 12, 5527-5541.	2.9	10
75	Improving EGSB reactor performance for simultaneous bioenergy and organic acid production from cheese whey via continuous biological H ₂ production. <i>Biotechnology Letters</i> , 2017, 39, 983-991.	1.1	9
76	Identification of Anionic and Nonionic Surfactant and Recalcitrants Compounds in Commercial Laundry Wastewater by GC-MS Analysis After Anaerobic Fluidized Bed Reactor Treatment. <i>Water, Air, and Soil Pollution</i> , 2019, 230, 1.	1.1	9
77	Screening and Bioprospecting of Anaerobic Consortia for Biofuel Production Enhancement from Sugarcane Bagasse. <i>Applied Biochemistry and Biotechnology</i> , 2020, 190, 232-251.	1.4	9
78	Dynamics and response of microbial diversity to nutritional conditions in denitrifying bioreactor for linear alkylbenzene sulfonate removal. <i>Journal of Environmental Management</i> , 2020, 263, 110387.	3.8	9
79	Dissecting the role of heterogeneity and hydrothermal pretreatment of sugarcane bagasse in metabolic pathways for biofuels production. <i>Industrial Crops and Products</i> , 2021, 160, 113120.	2.5	9
80	Simultaneous removal of phenol and nitrate in an anoxic fluidized bed reactor. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2013, 48, 581-591.	0.9	8
81	Simultaneous Coproduction of Hydrogen and Ethanol in Anaerobic Packed-Bed Reactors. <i>BioMed Research International</i> , 2014, 2014, 1-10.	0.9	8
82	Influence of Sucrose on the Diversity of Bacteria Involved in Nonionic Surfactant Degradation in Fluidized Bed Reactor. <i>Water, Air, and Soil Pollution</i> , 2017, 228, 1.	1.1	8
83	Producing hydrogen from the fermentation of cheese whey and glycerol as cosubstrates in an anaerobic fluidized bed reactor. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 14243-14256.	3.8	8
84	Bioaugmentation with <i>Enterococcus casseliflavus</i> : A Hydrogen-Producing Strain Isolated from Citrus Peel Waste. <i>Waste and Biomass Valorization</i> , 2021, 12, 895-911.	1.8	7
85	Biodegradation of linear alkylbenzene sulfonate in commercial laundry wastewater by an anaerobic fluidized bed reactor. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2015, 50, 946-57.	0.9	7
86	Effects of the Organic-Loading Rate on the Performance of an Anaerobic Fluidized-Bed Reactor Treating Synthetic Wastewater Containing Phenol. <i>Journal of Environmental Engineering, ASCE</i> , 2015, 141, 04015022.	0.7	6
87	Phenol Biodegradation by <i>Pseudomonas putida</i> in an Airlift Reactor: Assessment of Kinetic, Hydrodynamic, and Mass Transfer Parameters. <i>Water, Air, and Soil Pollution</i> , 2017, 228, 1.	1.1	6
88	Methane Production Using Brewery Spent Grain: Optimal Hydrothermolysis, Fermentation of Waste and Role of Microbial Populations. <i>Waste and Biomass Valorization</i> , 2022, 13, 1179-1194.	1.8	6
89	Review of Continuous Fermentative Hydrogen-Producing Bioreactors from Complex Wastewater. , 0, , .		5
90	Anaerobic Biodegradation of Biodiesel Industry Wastewater in Mesophilic and Thermophilic Fluidized Bed Reactors: Enhancing Treatment and Methane Recovery. <i>Applied Biochemistry and Biotechnology</i> , 2021, 193, 3336-3350.	1.4	5

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91	Influence of ethanol and nitrate on ibuprofen removal in batch reactors under denitrifying conditions. <i>Chemical Engineering Research and Design</i> , 2022, 160, 297-309.	2.7	5
92	Biodegradation of diclofenac and ibuprofen in Fluidized Bed Reactor applied to sanitary sewage treatment in acidogenic and denitrifying conditions. <i>Journal of Water Process Engineering</i> , 2022, 49, 102964.	2.6	5
93	Bioremoval of Surfactant from Laundry Wastewater in Optimized Condition by Anoxic Reactors. <i>Water, Air, and Soil Pollution</i> , 2017, 228, 1.	1.1	4
94	Influence of linear alkylbenzene sulfonate and ethanol on the degradation kinetics of domestic sewage in co-digestion with commercial laundry wastewater. <i>Bioprocess and Biosystems Engineering</i> , 2019, 42, 1547-1558.	1.7	4
95	Optimization of Key Factors Affecting Hydrogen and Ethanol Production from Xylose by <i>Thermoanaerobacterium calidifontis</i> VCS1 Isolated from Vinasse Treatment Sludge. <i>Waste and Biomass Valorization</i> , 2022, 13, 1897-1912.	1.8	4
96	Microbial and functional characterization of granulated sludge from full-scale UASB thermophilic reactor applied to sugarcane vinasse treatment. <i>Environmental Technology (United Kingdom)</i> , 2023, 44, 3141-3160.	1.2	3
97	Bioprospecting Sulfuric Acid Assisted Hydrothermal Pretreatment of Sugarcane Bagasse and Microbial Community Structure for Methane Production. <i>Bioenergy Research</i> , 0, , 1.	2.2	2
98	Enhanced fermentative production of 1,3 propanediol by employing ethanol industry wastewater. <i>Bioresource Technology Reports</i> , 2021, 16, 100865.	1.5	2
99	New Insights into Controlling Homoacetogenesis in the Co-digestion of Coffee Waste: Effect of Operational Conditions and Characterization of Microbial Communities. <i>Applied Biochemistry and Biotechnology</i> , 2021, , 1.	1.4	2
100	Potential methanogenic and degradation of nonylphenol ethoxylate from domestic sewage: unravelling the essential roles of nutritional conditions and microbial community. <i>Environmental Technology (United Kingdom)</i> , 2023, 44, 1996-2010.	1.2	2
101	Control of the Emission of Ammonia Through the Adsorption in Activated Coal. , 1999, , .		0
102	Valorization of Glucose-Based Wastewater Through Production of Hydrogen, Volatile Fatty Acids and Alcohols. , 0, , .		0