Hugo O MÃ©ndez-Acosta

List of Publications by Year
in descending order

55 papers	1,266 citations	331670 21 h-index	395702 33 g-index
57 all docs	57 docs citations	57 times ranked	1034 citing authors

#	Article	IF	Citations
1	Instrumentation and control of anaerobic digestion processes: a review and some research challenges. Reviews in Environmental Science and Biotechnology, 2015, 14, 615-648.	8.1	118
2	Single and two-stage anaerobic digestion for hydrogen and methane production from acid and enzymatic hydrolysates of Agave tequilana bagasse. International Journal of Hydrogen Energy, 2016, 41, 897-904.	7.1	95
3	A robust control scheme to improve the stability of anaerobic digestion processes. Journal of Process Control, 2010, 20, 375-383.	3.3	76
4	Anaerobic treatment of Tequila vinasses in a CSTR-type digesterÂ. Biodegradation, 2010, 21, 357-363.	3.0	56
5	Methane production from acid hydrolysates of Agave tequilana bagasse: Evaluation of hydrolysis conditions and methane yield. Bioresource Technology, 2015, 181, 191-199.	9.6	52
6	A robust feedforward/feedback control for an anaerobic digester. Computers and Chemical Engineering, 2005, 29, 1613-1623.	3.8	49
7	Hydrogen metabolic patterns driven by Clostridium-Streptococcus community shifts in a continuous stirred tank reactor. Applied Microbiology and Biotechnology, 2018, 102, 2465-2475.	3.6	42
8	Continuous hydrogen production from enzymatic hydrolysate of Agave tequilana bagasse: Effect of the organic loading rate and reactor configuration. Chemical Engineering Journal, 2017, 313, 671-679.	12.7	41
9	Robust Control of Volatile Fatty Acids in Anaerobic Digestion Processes. Industrial & Engineering Chemistry Research, 2008, 47, 7715-7720.	3.7	36
10	Anaerobic treatment of tequila vinasses under seasonal operating conditions: Start-up, normal operation and restart-up after a long stop and starvation period. Bioresource Technology, 2014, 168, 33-40.	9.6	32
11	Azospirillum brasilense Increases CO2 Fixation on Microalgae Scenedesmus obliquus, Chlorella vulgaris, and Chlamydomonas reinhardtii Cultured on High CO2 Concentrations. Microbial Ecology, 2018, 76, 430-442.	2.8	32
12	Comparative evaluation of the mesophilic and thermophilic biohydrogen production at optimized conditions using tequila vinasses as substrate. International Journal of Hydrogen Energy, 2020, 45, 11000-11010.	7.1	32
13	A comparison of biological, enzymatic, chemical and hydrothermal pretreatments for producing biomethane from Agave bagasse. Industrial Crops and Products, 2020, 145, 112160.	5.2	32
14	Biogas production in an anaerobic sequencing batch reactor by using tequila vinasses: effect of pH and temperature. Water Science and Technology, 2016, 73, 550-556.	2.5	31
15	Improving the Performance on the Chemical Oxygen Demand Regulation in Anaerobic Digestion. Industrial & Engineering Chemistry Research, 2004, 43, 95-104.	3.7	28
16	An adaptive observer for operation monitoring of anaerobic digestion wastewater treatment. Chemical Engineering Journal, 2015, 269, 186-193.	12.7	28
17	Agave tequilana bagasse for methane production in batch and sequencing batch reactors: Acid catalyst effect, batch optimization and stability of the semi-continuous process. Journal of Environmental Management, 2018, 224, 156-163.	7.8	28
18	Enhancing biohydrogen production from Agave tequilana bagasse: Detoxified vs. Undetoxified acid hydrolysates. Bioresource Technology, 2019, 276, 74-80.	9.6	24

#	Article	IF	Citations
19	A standardized biohydrogen potential protocol: An international round robin test approach. International Journal of Hydrogen Energy, 2019, 44, 26237-26247.	7.1	23
20	High biomass production and CO2 fixation from biogas by Chlorella and Scenedesmus microalgae using tequila vinasses as culture medium. Journal of Applied Phycology, 2018, 30, 2247-2258.	2.8	21
21	Performance and microbial dynamics in packed-bed reactors during the long-term two-stage anaerobic treatment of tequila vinasses. Biochemical Engineering Journal, 2018, 138, 12-20.	3.6	21
22	Enhancement of mass transfer conditions to increase the productivity and efficiency of dark fermentation in continuous reactors. Fuel, 2019, 254, 115648.	6.4	21
23	Effect of the organic loading rate on the performance and microbial populations during the anaerobic treatment of tequila vinasses in a pilotâ€scale packed bed reactor. Journal of Chemical Technology and Biotechnology, 2018, 93, 591-599.	3.2	21
24	Bioderived ionic liquid-based pretreatment enhances methane production from Agave tequilana bagasse. RSC Advances, 2020, 10, 14025-14032.	3.6	21
25	Nutrient composition of culture media induces different patterns of CO2 fixation from biogas and biomass production by the microalga Scenedesmus obliquus U169. Bioprocess and Biosystems Engineering, 2017, 40, 1733-1742.	3.4	19
26	Monitoring anaerobic sequential batch reactors via fractal analysis of pH time series. Biotechnology and Bioengineering, 2013, 110, 2131-2139.	3.3	18
27	A hybrid cascade control scheme for the VFA and COD regulation in two-stage anaerobic digestion processes. Bioresource Technology, 2016, 218, 1195-1202.	9.6	18
28	Regulation of the organic pollution level in anaerobic digesters by using off-line COD measurements. Bioresource Technology, 2011, 102, 7666-7672.	9.6	17
29	Evaluation of semi-continuous hydrogen production from enzymatic hydrolysates of Agave tequilana bagasse: Insight into the enzymatic cocktail effect over the co-production of methane. International Journal of Hydrogen Energy, 2018, 43, 14193-14201.	7.1	16
30	Continuous hydrogen production in a trickling bed reactor by using triticale silage as inoculum: effect of simple and complex substrates. Journal of Chemical Technology and Biotechnology, 2015, 90, 1062-1069.	3.2	15
31	Mild reaction conditions induce high sugar yields during the pretreatment of Agave tequilana bagasse with 1-ethyl-3-methylimidazolium acetate. Bioresource Technology, 2019, 275, 78-85.	9.6	15
32	CO2 Removal from Biogas by Cyanobacterium Leptolyngbya sp. CChF1 Isolated from the Lake Chapala, Mexico: Optimization of the Temperature and Light Intensity. Applied Biochemistry and Biotechnology, 2017, 183, 1304-1322.	2.9	13
33	Temperature oscillations in a biological reactor with recycle. Chaos, Solitons and Fractals, 2004, 19, 875-889.	5.1	12
34	ADM1â€Based Robust Interval Observer for Anaerobic Digestion Processes. Clean - Soil, Air, Water, 2012, 40, 933-940.	1.1	12
35	Fractality in pH time series of continuous anaerobic bioreactors for tequila vinasses treatment. Chemical Engineering Science, 2014, 109, 17-25.	3.8	12
36	H_{â‚‚} Control of Anaerobic Digester for Winery Industry Wastewater Treatment. Industrial & Engineering Chemistry Research, 2013, 52, 2625-2632.	3.7	11

#	Article	IF	Citations
37	VFA robust control of an anaerobic digestion pilot plant: experimental implementation. IFAC-PapersOnLine, 2016, 49, 973-977.	0.9	11
38	Optimization by response surface methodology of the enzymatic hydrolysis of non-pretreated agave bagasse with binary mixtures of commercial enzymatic preparations. Biomass Conversion and Biorefinery, 2021, 11, 2923-2935.	4.6	11
39	Evaluation of the continuous methane production from an enzymatic agave bagasse hydrolysate in suspended (CSTR) and granular biomass systems (UASB). Fuel, 2021, 304, 121406.	6.4	11
40	Observer-based input estimation in continuous anaerobic wastewater treatment processes. Water Science and Technology, 2009, 60, 805-812.	2.5	9
41	Robust Nonlinear Model Predictive Control for Two-Stage Anaerobic Digesters. Industrial & Engineering Chemistry Research, 2020, 59, 22559-22572.	3.7	9
42	Modeling pH and temperature effects on the anaerobic treatment of tequila vinasses. Journal of Chemical Technology and Biotechnology, 2020, 95, 1953-1961.	3.2	9
43	Robust Regulation of Alkalinity in Highly Uncertain Continuous Anaerobic Digestion Processes. Clean - Soil, Air, Water, 2013, 41, 1157-1164.	1.1	8
44	Ionic liquid-water mixtures enhance pretreatment and anaerobic digestion of agave bagasse. Industrial Crops and Products, 2021, 171, 113924.	5.2	8
45	Active prokaryotic population dynamics exhibit high correlation to reactor performance during methane production from acid hydrolysates ofAgave tequilanavar.azulbagasse. Journal of Applied Microbiology, 2019, 126, 1618-1630.	3.1	7
46	Intervalâ€Based Diagnosis of Biological Systems â€“ a Powerful Tool for Highly Uncertain Anaerobic Digestion Processes. Clean - Soil, Air, Water, 2012, 40, 941-949.	1.1	6
47	Neural network modeling of the light profile in a novel photobioreactor. Bioprocess and Biosystems Engineering, 2014, 37, 1031-1042.	3.4	6
48	Dynamic characterization of an anaerobic digester during the start-up phase by pH time-series analysis. Chaos, Solitons and Fractals, 2016, 82, 125-130.	5.1	6
49	Simultaneous COD and VFA unmeasured process inputs estimation in actual anaerobic wastewater treatment processes. Control Engineering Practice, 2017, 60, 118-123.	5.5	6
50	Robust Nonlinear Control of a Pilot-Scale Anaerobic Digester. , 2007, , 165-199.		5
51	Prokaryotic population dynamics and interactions in an AnSBBR using tequila vinasses as substrate in coâ€digestion with acid hydrolysates of Agave tequilana var. azul bagasse for hydrogen production. Journal of Applied Microbiology, 2022, 132, 413-428.	3.1	5
52	Two-stage semi-continuous hydrogen and methane production from undetoxified and detoxified acid hydrolysates of agave bagasse. Biomass and Bioenergy, 2021, 150, 106130.	5.7	5
53	Fractal Analysis of pH Time-Series of an Anaerobic Digester for Cheese Whey Treatment. International Journal of Chemical Reactor Engineering, 2018, 16, .	1.1	3
54	Coupling the biochemical and thermochemical biorefinery platforms to enhance energy and product recovery from Agave tequilana bagasse. Applied Energy, 2021, 299, 117293.	10.1	3

#	Article	IF	Citations
55	Oscillations in Controlled Processes: Two Experimental Study Cases. , 2007, , 281-319.		0