

# Hugo O MÃ©ndez-Acosta

## List of Publications by Year in descending order

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Version: 2024-02-01

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	Prokaryotic population dynamics and interactions in an AnSBBR using tequila vinasses as substrate in co-digestion with acid hydrolysates of <i>Agave tequilana</i> var. <i>azul</i> bagasse for hydrogen production. <i>Journal of Applied Microbiology</i> , 2022, 132, 413-428.	3.1	5
2	Optimization by response surface methodology of the enzymatic hydrolysis of non-pretreated agave bagasse with binary mixtures of commercial enzymatic preparations. <i>Biomass Conversion and Biorefinery</i> , 2021, 11, 2923-2935.	4.6	11
3	Two-stage semi-continuous hydrogen and methane production from undetoxified and detoxified acid hydrolysates of agave bagasse. <i>Biomass and Bioenergy</i> , 2021, 150, 106130.	5.7	5
4	Coupling the biochemical and thermochemical biorefinery platforms to enhance energy and product recovery from <i>Agave tequilana</i> bagasse. <i>Applied Energy</i> , 2021, 299, 117293.	10.1	3
5	Ionic liquid-water mixtures enhance pretreatment and anaerobic digestion of agave bagasse. <i>Industrial Crops and Products</i> , 2021, 171, 113924.	5.2	8
6	Evaluation of the continuous methane production from an enzymatic agave bagasse hydrolysate in suspended (CSTR) and granular biomass systems (UASB). <i>Fuel</i> , 2021, 304, 121406.	6.4	11
7	Robust Nonlinear Model Predictive Control for Two-Stage Anaerobic Digesters. <i>Industrial &amp; Engineering Chemistry Research</i> , 2020, 59, 22559-22572.	3.7	9
8	Comparative evaluation of the mesophilic and thermophilic biohydrogen production at optimized conditions using tequila vinasses as substrate. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 11000-11010.	7.1	32
9	Modeling pH and temperature effects on the anaerobic treatment of tequila vinasses. <i>Journal of Chemical Technology and Biotechnology</i> , 2020, 95, 1953-1961.	3.2	9
10	A comparison of biological, enzymatic, chemical and hydrothermal pretreatments for producing biomethane from <i>Agave bagasse</i> . <i>Industrial Crops and Products</i> , 2020, 145, 112160.	5.2	32
11	Bioderived ionic liquid-based pretreatment enhances methane production from <i>Agave tequilana</i> bagasse. <i>RSC Advances</i> , 2020, 10, 14025-14032.	3.6	21
12	A standardized biohydrogen potential protocol: An international round robin test approach. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 26237-26247.	7.1	23
13	Enhancement of mass transfer conditions to increase the productivity and efficiency of dark fermentation in continuous reactors. <i>Fuel</i> , 2019, 254, 115648.	6.4	21
14	Active prokaryotic population dynamics exhibit high correlation to reactor performance during methane production from acid hydrolysates of <i>Agave tequilana</i> var. <i>azul</i> bagasse. <i>Journal of Applied Microbiology</i> , 2019, 126, 1618-1630.	3.1	7
15	Mild reaction conditions induce high sugar yields during the pretreatment of <i>Agave tequilana</i> bagasse with 1-ethyl-3-methylimidazolium acetate. <i>Bioresource Technology</i> , 2019, 275, 78-85.	9.6	15
16	Enhancing biohydrogen production from <i>Agave tequilana</i> bagasse: Detoxified vs. Undetoxified acid hydrolysates. <i>Bioresource Technology</i> , 2019, 276, 74-80.	9.6	24
17	<i>Azospirillum brasilense</i> Increases CO <sub>2</sub> Fixation on Microalgae <i>Scenedesmus obliquus</i> , <i>Chlorella vulgaris</i> , and <i>Chlamydomonas reinhardtii</i> Cultured on High CO <sub>2</sub> Concentrations. <i>Microbial Ecology</i> , 2018, 76, 430-442.	2.8	32
18	Hydrogen metabolic patterns driven by <i>Clostridium-Streptococcus</i> community shifts in a continuous stirred tank reactor. <i>Applied Microbiology and Biotechnology</i> , 2018, 102, 2465-2475.	3.6	42

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19	High biomass production and CO <sub>2</sub> fixation from biogas by <i>Chlorella</i> and <i>Scenedesmus</i> microalgae using tequila vinasses as culture medium. <i>Journal of Applied Phycology</i> , 2018, 30, 2247-2258.	2.8	21
20	Fractal Analysis of pH Time-Series of an Anaerobic Digester for Cheese Whey Treatment. <i>International Journal of Chemical Reactor Engineering</i> , 2018, 16, .	1.1	3
21	Performance and microbial dynamics in packed-bed reactors during the long-term two-stage anaerobic treatment of tequila vinasses. <i>Biochemical Engineering Journal</i> , 2018, 138, 12-20.	3.6	21
22	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. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 14193-14201.	7.1	16
23	Agave tequilana bagasse for methane production in batch and sequencing batch reactors: Acid catalyst effect, batch optimization and stability of the semi-continuous process. <i>Journal of Environmental Management</i> , 2018, 224, 156-163.	7.8	28
24	Effect of the organic loading rate on the performance and microbial populations during the anaerobic treatment of tequila vinasses in a pilot-scale packed bed reactor. <i>Journal of Chemical Technology and Biotechnology</i> , 2018, 93, 591-599.	3.2	21
25	Simultaneous COD and VFA unmeasured process inputs estimation in actual anaerobic wastewater treatment processes. <i>Control Engineering Practice</i> , 2017, 60, 118-123.	5.5	6
26	CO <sub>2</sub> Removal from Biogas by <i>Cyanobacterium Leptolyngbya</i> sp. CChF1 Isolated from the Lake Chapala, Mexico: Optimization of the Temperature and Light Intensity. <i>Applied Biochemistry and Biotechnology</i> , 2017, 183, 1304-1322.	2.9	13
27	Continuous hydrogen production from enzymatic hydrolysate of Agave tequilana bagasse: Effect of the organic loading rate and reactor configuration. <i>Chemical Engineering Journal</i> , 2017, 313, 671-679.	12.7	41
28	Nutrient composition of culture media induces different patterns of CO <sub>2</sub> fixation from biogas and biomass production by the microalga <i>Scenedesmus obliquus</i> U169. <i>Bioprocess and Biosystems Engineering</i> , 2017, 40, 1733-1742.	3.4	19
29	Biogas production in an anaerobic sequencing batch reactor by using tequila vinasses: effect of pH and temperature. <i>Water Science and Technology</i> , 2016, 73, 550-556.	2.5	31
30	VFA robust control of an anaerobic digestion pilot plant: experimental implementation. <i>IFAC-PapersOnLine</i> , 2016, 49, 973-977.	0.9	11
31	A hybrid cascade control scheme for the VFA and COD regulation in two-stage anaerobic digestion processes. <i>Bioresource Technology</i> , 2016, 218, 1195-1202.	9.6	18
32	Dynamic characterization of an anaerobic digester during the start-up phase by pH time-series analysis. <i>Chaos, Solitons and Fractals</i> , 2016, 82, 125-130.	5.1	6
33	Single and two-stage anaerobic digestion for hydrogen and methane production from acid and enzymatic hydrolysates of Agave tequilana bagasse. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 897-904.	7.1	95
34	An adaptive observer for operation monitoring of anaerobic digestion wastewater treatment. <i>Chemical Engineering Journal</i> , 2015, 269, 186-193.	12.7	28
35	Methane production from acid hydrolysates of Agave tequilana bagasse: Evaluation of hydrolysis conditions and methane yield. <i>Bioresource Technology</i> , 2015, 181, 191-199.	9.6	52
36	Instrumentation and control of anaerobic digestion processes: a review and some research challenges. <i>Reviews in Environmental Science and Biotechnology</i> , 2015, 14, 615-648.	8.1	118

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37	Continuous hydrogen production in a trickling bed reactor by using triticale silage as inoculum: effect of simple and complex substrates. <i>Journal of Chemical Technology and Biotechnology</i> , 2015, 90, 1062-1069.	3.2	15
38	Neural network modeling of the light profile in a novel photobioreactor. <i>Bioprocess and Biosystems Engineering</i> , 2014, 37, 1031-1042.	3.4	6
39	Fractality in pH time series of continuous anaerobic bioreactors for tequila vinasses treatment. <i>Chemical Engineering Science</i> , 2014, 109, 17-25.	3.8	12
40	Anaerobic treatment of tequila vinasses under seasonal operating conditions: Start-up, normal operation and restart-up after a long stop and starvation period. <i>Bioresource Technology</i> , 2014, 168, 33-40.	9.6	32
41	Robust Regulation of Alkalinity in Highly Uncertain Continuous Anaerobic Digestion Processes. <i>Clean - Soil, Air, Water</i> , 2013, 41, 1157-1164.	1.1	8
42	Monitoring anaerobic sequential batch reactors via fractal analysis of pH time series. <i>Biotechnology and Bioengineering</i> , 2013, 110, 2131-2139.	3.3	18
43	Control of Anaerobic Digester for Winery Industry Wastewater Treatment. <i>Industrial &amp; Engineering Chemistry Research</i> , 2013, 52, 2625-2632.	3.7	11
44	ADMI-Based Robust Interval Observer for Anaerobic Digestion Processes. <i>Clean - Soil, Air, Water</i> , 2012, 40, 933-940.	1.1	12
45	Interval-Based Diagnosis of Biological Systems – a Powerful Tool for Highly Uncertain Anaerobic Digestion Processes. <i>Clean - Soil, Air, Water</i> , 2012, 40, 941-949.	1.1	6
46	Regulation of the organic pollution level in anaerobic digesters by using off-line COD measurements. <i>Bioresource Technology</i> , 2011, 102, 7666-7672.	9.6	17
47	Anaerobic treatment of Tequila vinasses in a CSTR-type digester. <i>Biodegradation</i> , 2010, 21, 357-363.	3.0	56
48	A robust control scheme to improve the stability of anaerobic digestion processes. <i>Journal of Process Control</i> , 2010, 20, 375-383.	3.3	76
49	Observer-based input estimation in continuous anaerobic wastewater treatment processes. <i>Water Science and Technology</i> , 2009, 60, 805-812.	2.5	9
50	Robust Control of Volatile Fatty Acids in Anaerobic Digestion Processes. <i>Industrial &amp; Engineering Chemistry Research</i> , 2008, 47, 7715-7720.	3.7	36
51	Robust Nonlinear Control of a Pilot-Scale Anaerobic Digester. , 2007, , 165-199.		5
52	Oscillations in Controlled Processes: Two Experimental Study Cases. , 2007, , 281-319.		0
53	A robust feedforward/feedback control for an anaerobic digester. <i>Computers and Chemical Engineering</i> , 2005, 29, 1613-1623.	3.8	49
54	Temperature oscillations in a biological reactor with recycle. <i>Chaos, Solitons and Fractals</i> , 2004, 19, 875-889.	5.1	12

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55	Improving the Performance on the Chemical Oxygen Demand Regulation in Anaerobic Digestion. Industrial & Engineering Chemistry Research, 2004, 43, 95-104.	3.7	28