Albert Guisasola

List of Publications by Year
in descending order

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97 papers	4,237 citations	101384 36 h-index	118652 62 g-index
97 all docs	97 docs citations	97 times ranked	3659 citing authors

#	Article	IF	Citations
1	Methane formation in sewer systems. Water Research, 2008, 42, 1421-1430.	5.3	254
2	Roof selection for rainwater harvesting: Quantity and quality assessments in Spain. Water Research, 2011, 45, 3245-3254.	5.3	234
3	A review on nitrous oxide (N 2 O) emissions during biological nutrient removal from municipal wastewater and sludge reject water. Science of the Total Environment, 2017, 596-597, 106-123.	3.9	221
4	Enhanced biological phosphorus removal in a sequencing batch reactor using propionate as the sole carbon source. Biotechnology and Bioengineering, 2004, 85, 56-67.	1.7	158
5	Sulfur transformation in rising main sewers receiving nitrate dosage. Water Research, 2009, 43, 4430-4440.	5.3	155
6	Hydrogen production in single chamber microbial electrolysis cells with different complex substrates. Water Research, 2015, 68, 601-615.	5.3	154
7	The nature of the carbon source rules the competition between PAO and denitrifiers in systems for simultaneous biological nitrogen and phosphorus removal. Water Research, 2011, 45, 4793-4802.	5.3	133
8	Respirometric estimation of the oxygen affinity constants for biological ammonium and nitrite oxidation. Journal of Chemical Technology and Biotechnology, 2005, 80, 388-396.	1.6	132
9	Development of a model for assessing methane formation in rising main sewers. Water Research, 2009, 43, 2874-2884.	5.3	107
10	Impact of nitrate addition on biofilm properties and activities in rising main sewers. Water Research, 2009, 43, 4225-4237.	5.3	106
11	Bioelectrochemical hydrogen production from urban wastewater on a pilot scale. Journal of Power Sources, 2017, 356, 500-509.	4.0	105
12	Inorganic carbon limitations on nitrification: Experimental assessment and modelling. Water Research, 2007, 41, 277-286.	5.3	101
13	A new approach for modelling simultaneous storage and growth processes for activated sludge systems under aerobic conditions. Biotechnology and Bioengineering, 2005, 92, 600-613.	1.7	98
14	Treatment of high-strength sulfate wastewater using an autotrophic biocathode in view of elemental sulfur recovery. Water Research, 2016, 105, 395-405.	5.3	83
15	A review on the integration of mainstream P-recovery strategies with enhanced biological phosphorus removal. Water Research, 2022, 212, 118102.	5.3	75
16	Aerobic phosphorus release linked to acetate uptake: Influence of PAO intracellular storage compounds. Biochemical Engineering Journal, 2005, 26, 184-190.	1.8	74
17	Improving the performance of a WWTP control system by model-based setpoint optimisation. Environmental Modelling and Software, 2011, 26, 492-497.	1.9	74
18	Microbial community analysis in a long-term membrane-less microbial electrolysis cell with hydrogen and methane production. Bioelectrochemistry, 2015, 106, 359-368.	2.4	69

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19	Assessment of four different cathode materials at different initial pHs using unbuffered catholytes in microbial electrolysis cells. International Journal of Hydrogen Energy, 2013, 38, 2951-2956.	3.8	65
20	Examining thiosulfate-driven autotrophic denitrification through respirometry. Chemosphere, 2014, 113, 1-8.	4.2	64
21	Aerobic phosphorus release linked to acetate uptake in bio-P sludge: Process modeling using oxygen uptake rate. Biotechnology and Bioengineering, 2004, 85, 722-733.	1.7	55
22	Failure of an enriched nitrite-DPAO population to use nitrate as an electron acceptor. Process Biochemistry, 2009, 44, 689-695.	1.8	54
23	Evaluation of the integration of P recovery, polyhydroxyalkanoate production and short cut nitrogen removal in a mainstream wastewater treatment process. Water Research, 2020, 172, 115474.	5.3	52
24	Multi-criteria selection of optimum WWTP control setpoints based on microbiology-related failures, effluent quality and operating costs. Chemical Engineering Journal, 2012, 188, 23-29.	6.6	51
25	Development of an ASM2d-N2O model to describe nitrous oxide emissions in municipal WWTPs under dynamic conditions. Chemical Engineering Journal, 2018, 335, 185-196.	6.6	51
26	Glycerol as a sole carbon source for enhanced biological phosphorus removal. Water Research, 2012, 46, 2983-2991.	5.3	50
27	Revealing the proliferation of hydrogen scavengers in a single-chamber microbial electrolysis cell using electron balances. International Journal of Hydrogen Energy, 2013, 38, 15917-15927.	3.8	48
28	Net P-removal deterioration in enriched PAO sludge subjected to permanent aerobic conditions. Journal of Biotechnology, 2006, 123, 117-126.	1.9	47
29	Glutamate as sole carbon source for enhanced biological phosphorus removal. Science of the Total Environment, 2019, 657, 1398-1408.	3.9	46
30	Integrated catalytic wet air oxidation and aerobic biological treatment in a municipal WWTP of a high-strength o-cresol wastewater. Chemosphere, 2007, 66, 2096-2105.	4.2	45
31	The selective role of nitrite in the PAO/GAO competition. Chemosphere, 2013, 93, 612-618.	4.2	42
32	Hydrogen production from crude glycerol in an alkaline microbial electrolysis cell. International Journal of Hydrogen Energy, 2019, 44, 17204-17213.	3.8	42
33	Treatment of real flue gas desulfurization wastewater in an autotrophic biocathode in view of elemental sulfur recovery: Microbial communities involved. Science of the Total Environment, 2019, 657, 945-952.	3.9	42
34	Development and economic assessment of different WWTP control strategies for optimal simultaneous removal of carbon, nitrogen and phosphorus. Computers and Chemical Engineering, 2013, 53, 164-177.	2.0	41
35	Evaluation of key parameters on simultaneous sulfate reduction and sulfide oxidation in an autotrophic biocathode. Water Research, 2017, 123, 301-310.	5.3	41
36	2-Bromoethanesulfonate degradation in bioelectrochemical systems. Bioelectrochemistry, 2015, 105, 44-49.	2.4	40

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37	Comparison of a nitrite-based anaerobicâ€“anoxic EBPR system with propionate or acetate as electron donors. Process Biochemistry, 2011, 46, 714-720.	1.8	38
38	Enhanced Performance of Bioelectrochemical Hydrogen Production using a pH Control Strategy. ChemSusChem, 2015, 8, 389-397.	3.6	38
39	Limitations of ASM1 and ASM3: a comparison based on batch oxygen uptake rate profiles from different full-scale wastewater treatment plants. Water Science and Technology, 2005, 52, 69-77.	1.2	37
40	Enhanced Biological Phosphorus Removal at low Sludge Retention Time in view of its integration in A-stage systems. Water Research, 2017, 118, 217-226.	5.3	37
41	Bioelectrochemical systems for energy storage: A scaled-up power-to-gas approach. Applied Energy, 2020, 260, 114138.	5.1	37
42	Increased performance of hydrogen production in microbial electrolysis cells under alkaline conditions. Bioelectrochemistry, 2016, 109, 57-62.	2.4	36
43	Microbial electrolysis cell performance using non-buffered and low conductivity wastewaters. Chemical Engineering Journal, 2016, 289, 341-348.	6.6	35
44	The Influence of Experimental Data Quality and Quantity on Parameter Estimation Accuracy. Education for Chemical Engineers, 2006, 1, 139-145.	2.8	34
45	Anode Biofilms of Geoalkalibacter ferrihydriticus Exhibit Electrochemical Signatures of Multiple Electron Transport Pathways. Langmuir, 2015, 31, 12552-12559.	1.6	34
46	Long-term stability of an enhanced biological phosphorus removal system in a phosphorus recovery scenario. Journal of Cleaner Production, 2019, 214, 308-318.	4.6	34
47	Can wastewater feed cities? Determining the feasibility and environmental burdens of struvite recovery and reuse for urban regions. Science of the Total Environment, 2020, 737, 139783.	3.9	33
48	Methanol opportunities for electricity and hydrogen production in bioelectrochemical systems. International Journal of Hydrogen Energy, 2014, 39, 770-777.	3.8	32
49	Understanding the detrimental effect of nitrate presence on EBPR systems: effect of the plant configuration. Journal of Chemical Technology and Biotechnology, 2012, 87, 1508-1511.	1.6	26
50	Oxidation of biologically produced elemental sulfur under neutrophilic conditions. Journal of Chemical Technology and Biotechnology, 2010, 85, 378-386.	1.6	25
51	Achieving simultaneous biological COD and phosphorus removal in a continuous anaerobic/aerobic A-stage system. Water Research, 2021, 190, 116703.	5.3	25
52	On-line monitoring of the enhanced biological phosphorus removal process using respirometry and titrimetry. Biochemical Engineering Journal, 2007, 35, 371-379.	1.8	24
53	Controlled crude glycerol dosage to prevent EBPR failures in C/N/P removal WWTPs. Chemical Engineering Journal, 2015, 271, 114-127.	6.6	24
54	Effect of nitrite, limited reactive settler and plant design configuration on the predicted performance of simultaneous C/N/P removal WWTPs. Bioresource Technology, 2013, 136, 680-688.	4.8	23

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55	An off-line respirometric procedure to determine inhibition and toxicity of biodegradable compounds in biomass from an industrial WWTP. Water Science and Technology, 2004, 48, 267-275.	1.2	22
56	Bioelectrochemical hydrogen production with cheese whey as sole substrate. Journal of Chemical Technology and Biotechnology, 2017, 92, 173-179.	1.6	20
57	Recovery of elemental sulfur with a novel integrated bioelectrochemical system with an electrochemical cell. Science of the Total Environment, 2019, 677, 175-183.	3.9	20
58	Observation and mathematical description of the acceleration phenomenon in batch respirograms associated with ammonium oxidation. Water Science and Technology, 2006, 54, 181-188.	1.2	19
59	A plant-wide model describing GHG emissions and nutrient recovery options for water resource recovery facilities. Water Research, 2022, 215, 118223.	5.3	19
60	Experimental assessment and modelling of the proton production linked to phosphorus release and uptake in EBPR systems. Water Research, 2009, 43, 2431-2440.	5.3	18
61	A two-sludge system for simultaneous biological C, N and P removal via the nitrite pathway. Water Science and Technology, 2011, 64, 1142-1147.	1.2	18
62	Oxygen barrier and catalytic effect of the cathodic biofilm in single chamber microbial fuel cells. Journal of Chemical Technology and Biotechnology, 2018, 93, 2199-2207.	1.6	17
63	Optimisation of the operational parameters for a comprehensive bioelectrochemical treatment of acid mine drainage. Journal of Hazardous Materials, 2021, 409, 124944.	6.5	17
64	Development of a kinetic model for elemental sulfur and sulfate formation from the autotrophic sulfide oxidation using respirometric techniques. Water Science and Technology, 2009, 59, 1323-1329.	1.2	16
65	Correlating the biochemical methane potential of bio-P sludge with its polyhydroxyalkanoate content. Journal of Cleaner Production, 2020, 242, 118495.	4.6	16
66	Assessment of a bioaugmentation strategy with polyphosphate accumulating organisms in a nitrification/denitrification sequencing batch reactor. Bioresource Technology, 2011, 102, 7678-7684.	4.8	15
67	Conditions for high resistance to starvation periods in bioelectrochemical systems. Bioelectrochemistry, 2015, 106, 328-334.	2.4	15
68	Enhanced dechlorination of 1,2-dichloropropane to propene in a bioelectrochemical system mediated by Dehalogenimonas. Journal of Hazardous Materials, 2021, 416, 126234.	6.5	14
69	Methanolâ€driven enhanced biological phosphorus removal with a syntrophic consortium. Biotechnology and Bioengineering, 2013, 110, 391-400.	1.7	13
70	Comparing continuous and batch operation for high-rate treatment of urban wastewater. Biomass and Bioenergy, 2021, 149, 106077.	2.9	13
71	Performance of microbial electrolysis cells with bioanodes grown at different external resistances. Water Science and Technology, 2016, 73, 1129-1135.	1.2	12
72	Living on the edge: Prospects for enhanced biological phosphorus removal at low sludge retention time under different temperature scenarios. Chemosphere, 2020, 258, 127230.	4.2	12

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73	Assessment of crude glycerol for Enhanced Biological Phosphorus Removal: Stability and role of long chain fatty acids. Chemosphere, 2015, 141, 50-56.	4.2	11
74	On-line titrimetric monitoring of anaerobicâ€“anoxic EBPR processes. Water Science and Technology, 2008, 57, 1149-1154.	1.2	10
75	Inhibitory impact of quinone-like compounds over partial nitrification. Chemosphere, 2010, 80, 474-480.	4.2	10
76	A novel control strategy for efficient biological phosphorus removal with carbon-limited wastewaters. Water Science and Technology, 2014, 70, 691-697.	1.2	10
77	Obtaining microbial communities with exoelectrogenic activity from anaerobic sludge using a simplified procedure. Journal of Chemical Technology and Biotechnology, 2014, 89, 1727-1732.	1.6	10
78	Repeatability of low scan rate cyclic voltammetry in bioelectrochemical systems and effects on their performance. Journal of Chemical Technology and Biotechnology, 2020, 95, 1533-1541.	1.6	9
79	Development and optimization of a bioelectrochemical system for ammonium recovery from wastewater as fertilizer. Cleaner Engineering and Technology, 2021, 4, 100142.	2.1	9
80	Benefits of carbon dioxide as pH reducer in chlorinated indoor swimming pools. Chemosphere, 2010, 80, 428-432.	4.2	8
81	Low-cost fuel-cell based sensor of hydrogen production in lab scale microbial electrolysis cells. International Journal of Hydrogen Energy, 2016, 41, 20465-20472.	3.8	8
82	Application of Bioelectrochemical Systems for the Treatment of Wastewaters With Sulfur Species. , 2019, , 641-663.		8
83	Nitrite and nitrate inhibition thresholds for a glutamate-fed bio-P sludge. Chemosphere, 2021, 283, 131173.	4.2	8
84	Assessment of the significance of heavy metals, pesticides and other contaminants in recovered products from water resource recovery facilities. Resources, Conservation and Recycling, 2022, 182, 106313.	5.3	8
85	Implementation of a Sulfideâ€“Air Fuel Cell Coupled to a Sulfate-Reducing Biocathode for Elemental Sulfur Recovery. International Journal of Environmental Research and Public Health, 2021, 18, 5571.	1.2	7
86	Systematic calibration of N2O emissions from a full-scale WWTP including a tracer test and a global sensitivity approach. Chemical Engineering Journal, 2022, 435, 134733.	6.6	7
87	Graphene functionalization with metallic Pt nanoparticles: A path to cost-efficient H2 production in microbial electrolysis cells. International Journal of Hydrogen Energy, 2022, 47, 15397-15409.	3.8	7
88	Electrochemical dehalogenation of dibromomethane and 1,2â€dibromoethane to nonâ€toxic products using a carbon fiber brush electrode. Journal of Chemical Technology and Biotechnology, 2021, 96, 335-340.	1.6	6
89	Smart-Plant Decision Support System (SP-DSS): Defining a multi-criteria decision-making framework for the selection of WWTP configurations with resource recovery. Journal of Cleaner Production, 2022, 367, 132873.	4.6	6
90	Improving the start-up of an EBPR system using OUR to control the aerobic phase length: a simulation study. Water Science and Technology, 2006, 53, 253-262.	1.2	5

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91	Less is More: A Comprehensive Study on the Effects of the Number of Gas Diffusion Layers on Airâ€“Cathode Microbial Fuel Cells. ChemElectroChem, 2021, 8, 3416-3426.	1.7	4
92	Bioelectrochemically-assisted degradation of chloroform by a co-culture of Dehalobacter and Dehalobacterium. Environmental Science and Ecotechnology, 2022, 12, 100199.	6.7	4
93	Optimising a novel SBR configuration for enhanced biological phosphorus removal and recovery (EBPR2). , 0, 68, 319-329.		3
94	Modelling and simulation revealing mechanisms likely responsible for achieving the nitrite pathway through aeration control. Water Science and Technology, 2010, 61, 1459-1465.	1.2	2
95	Simulation of a novel strategy for improving a biological phosphorus removal system start-up. Computer Aided Chemical Engineering, 2005, 20, 475-480.	0.3	0
96	Dynamic peroxide method for k_La_{O2} estimation. Journal of Chemical Technology and Biotechnology, 2009, 84, 1104-1110.	1.6	0
97	From Methanol to Electricity and Hydrogen Through Bioelectrochemical Systems. , 2018, , 339-359.		0