Julian Carrera

List of Publications by Year
in descending order

86 papers	4,098 citations	81839 39 h-index	118793 62 g-index
88 all docs	88 docs citations	88 times ranked	3498 citing authors

#	Article	IF	Citations
1	Effect of cerium dioxide, titanium dioxide, silver, and gold nanoparticles on the activity of microbial communities intended in wastewater treatment. Journal of Hazardous Materials, 2012, 199-200, 64-72.	6.5	202
2	Effect of influent COD/N ratio on biological nitrogen removal (BNR) from high-strength ammonium industrial wastewater. Process Biochemistry, 2004, 39, 2035-2041.	1.8	191
3	Biological nitrogen removal of high-strength ammonium industrial wastewater with two-sludge system. Water Research, 2003, 37, 4211-4221.	5.3	148
4	Stable partial nitritation for low-strength wastewater at low temperature in an aerobic granular reactor. Water Research, 2015, 80, 149-158.	5.3	139
5	Stable long-term operation of an upflow anammox sludge bed reactor at mainstream conditions. Water Research, 2018, 128, 331-340.	5.3	138
6	Recovery of polyhydroxyalkanoates (PHAs) from wastewater: A review. Bioresource Technology, 2020, 297, 122478.	4.8	136
7	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
8	Kinetic models for nitrification inhibition by ammonium and nitrite in a suspended and an immobilised biomass systems. Process Biochemistry, 2004, 39, 1159-1165.	1.8	115
9	Total and stable washout of nitrite oxidizing bacteria from a nitrifying continuous activated sludge system using automatic control based on Oxygen Uptake Rate measurements. Water Research, 2009, 43, 2761-2772.	5.3	113
10	Catalytic wet air oxidation of substituted phenols using activated carbon as catalyst. Applied Catalysis B: Environmental, 2005, 58, 105-114.	10.8	108
11	Inorganic carbon limitations on nitrification: Experimental assessment and modelling. Water Research, 2007, 41, 277-286.	5.3	101
12	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
13	Kinetic and microbiological characterization of aerobic granules performing partial nitritation of a low-strength wastewater at 10ÂÂ°C. Water Research, 2016, 101, 147-156.	5.3	96
14	Applying Ratio Control in a Continuous Granular Reactor to Achieve Full Nitritation under Stable Operating Conditions. Environmental Science & Technology, 2010, 44, 8930-8935.	4.6	93
15	Microbial community shifts on an anammox reactor after a temperature shock using 454-pyrosequencing analysis. Bioresource Technology, 2015, 181, 207-213.	4.8	92
16	Long-term impact of salinity on the performance and microbial population of an aerobic granular reactor treating a high-strength aromatic wastewater. Bioresource Technology, 2015, 198, 844-851.	4.8	88
17	Start-up of a nitrification system with automatic control to treat highly concentrated ammonium wastewater: Experimental results and modeling. Chemical Engineering Journal, 2008, 144, 407-419.	6.6	78
18	Enrichment of a mixed microbial culture for polyhydroxyalkanoates production: Effect of pH and N and P concentrations. Science of the Total Environment, 2017, 583, 300-307.	3.9	78

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19	Aerobic phosphorus release linked to acetate uptake: Influence of PAO intracellular storage compounds. Biochemical Engineering Journal, 2005, 26, 184-190.	1.8	74
20	Effect of process parameters and operational mode on nitrous oxide emissions from a nitritation reactor treating reject wastewater. Water Research, 2014, 49, 23-33.	5.3	73
21	Long term operation of a granular sequencing batch reactor at pilot scale treating a low-strength wastewater. Chemical Engineering Journal, 2012, 198-199, 163-170.	6.6	72
22	Catalytic wet air oxidation of a high strength p-nitrophenol wastewater over Ru and Pt catalysts: Influence of the reaction conditions on biodegradability enhancement. Applied Catalysis B: Environmental, 2012, 123-124, 141-150.	10.8	68
23	Combined effect of inorganic carbon limitation and inhibition by free ammonia and free nitrous acid on ammonia oxidizing bacteria. Bioresource Technology, 2010, 101, 6051-6058.	4.8	63
24	Partial nitritation and o-cresol removal with aerobic granular biomass in a continuous airlift reactor. Water Research, 2014, 48, 354-362.	5.3	63
25	Low-strength wastewater treatment in an anammox UASB reactor: Effect of the liquid upflow velocity. Chemical Engineering Journal, 2017, 313, 217-225.	6.6	56
26	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
27	Catalytic wet air oxidation of substituted phenols: Temperature and pressure effect on the pollutant removal, the catalyst preservation and the biodegradability enhancement. Chemical Engineering Journal, 2007, 132, 105-115.	6.6	54
28	Glycosylated amyloidâ€like proteins in the structural extracellular polymers of aerobic granular sludge enriched with ammoniumâ€oxidizing bacteria. MicrobiologyOpen, 2018, 7, e00616.	1.2	53
29	Respirometric calibration and validation of a biological nitrite oxidation model including biomass growth and substrate inhibition. Water Research, 2005, 39, 4574-4584.	5.3	48
30	Net P-removal deterioration in enriched PAO sludge subjected to permanent aerobic conditions. Journal of Biotechnology, 2006, 123, 117-126.	1.9	47
31	Biodegradation of a high-strength wastewater containing a mixture of ammonium, aromatic compounds and salts with simultaneous nitritation in an aerobic granular reactor. Process Biochemistry, 2016, 51, 399-407.	1.8	46
32	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
33	Enrichment of a K-strategist microbial population able to biodegrade p-nitrophenol in a sequencing batch reactor. Water Research, 2009, 43, 3871-3883.	5.3	44
34	Bioaugmentation as a tool for improving the start-up and stability of a pilot-scale partial nitrification biofilm airlift reactor. Bioresource Technology, 2011, 102, 4370-4375.	4.8	43
35	Simultaneous nitritation and p-nitrophenol removal using aerobic granular biomass in a continuous airlift reactor. Bioresource Technology, 2013, 150, 307-313.	4.8	41
36	Long-term starvation and subsequent reactivation of a high-rate partial nitrification activated sludge pilot plant. Bioresource Technology, 2011, 102, 9870-9875.	4.8	40

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37	Bioaugmentation for treating transient or continuous p-nitrophenol shock loads in an aerobic sequencing batch reactor. Bioresource Technology, 2012, 123, 150-156.	4.8	40
38	Automated thresholding method (ATM) for biomass fraction determination using FISH and confocal microscopy. Journal of Chemical Technology and Biotechnology, 2009, 84, 1140-1145.	1.6	39
39	Denitritation of a high-strength nitrite wastewater in a sequencing batch reactor using different organic carbon sources. Chemical Engineering Journal, 2011, 172, 994-998.	6.6	39
40	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
41	The Influence of Experimental Data Quality and Quantity on Parameter Estimation Accuracy. Education for Chemical Engineers, 2006, 1, 139-145.	2.8	34
42	Closed-loop control of ammonium concentration in nitritation: Convenient for reactor operation but also for modeling. Bioresource Technology, 2013, 128, 655-663.	4.8	33
43	Would a two-stage N-removal be a suitable technology to implement at full scale the use of anammox for sewage treatment?. Water Science and Technology, 2015, 72, 858-864.	1.2	33
44	Effect of temperature on N2O emissions from a highly enriched nitrifying granular sludge performing partial nitritation of a low-strength wastewater. Chemosphere, 2017, 185, 336-343.	4.2	33
45	Denitritation in an anoxic granular reactor using phenol as sole organic carbon source. Chemical Engineering Journal, 2016, 288, 289-297.	6.6	32
46	Wet air oxidation (WAO) as a precursor to biological treatment of substituted phenols: Refractory nature of the WAO intermediates. Chemical Engineering Journal, 2008, 144, 205-212.	6.6	31
47	Inhibition of the anammox activity by aromatic compounds. Chemical Engineering Journal, 2015, 279, 681-688.	6.6	31
48	Phenol wastewater remediation: advanced oxidation processes coupled to a biological treatment. Water Science and Technology, 2007, 55, 221-227.	1.2	29
49	Review about bioproduction of Volatile Fatty Acids from wastes and wastewaters: Influence of operating conditions and organic composition of the substrate. Journal of Environmental Chemical Engineering, 2022, 10, 107917.	3.3	29
50	Kinetics of aerobic biodegradation of dihydroxybenzenes by a p-nitrophenol-degrading activated sludge. Bioresource Technology, 2012, 110, 57-62.	4.8	28
51	Two-stage granular sludge partial nitritation/anammox process for the treatment of digestate from the anaerobic digestion of the organic fraction of municipal solid waste. Waste Management, 2019, 100, 36-44.	3.7	28
52	Title is missing!. Biotechnology Letters, 2002, 24, 2063-2066.	1.1	27
53	Biodegradability enhancement of phenolic compounds by Hydrogen Peroxide Promoted Catalytic Wet Air Oxidation. Catalysis Today, 2007, 124, 191-197.	2.2	27
54	Modelling aerobic granular SBR at variable COD/N ratios including accurate description of total solids concentration. Biochemical Engineering Journal, 2010, 49, 173-184.	1.8	27

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55	A novel control strategy for enhancing biological N-removal in a granular sequencing batch reactor: A model-based study. Chemical Engineering Journal, 2013, 232, 468-477.	6.6	24
56	High-throughput nitritation of reject water with a novel ammonium control loop: Stable effluent generation for anammox or heterotrophic denitritation. Chemical Engineering Journal, 2014, 243, 265-271.	6.6	24
57	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
58	Simultaneous partial nitrification and 2-fluorophenol biodegradation with aerobic granular biomass: Reactor performance and microbial communities. Bioresource Technology, 2017, 238, 232-240.	4.8	21
59	Long-term performance and stability of a continuous granular airlift reactor treating a high-strength wastewater containing a mixture of aromatic compounds. Journal of Hazardous Materials, 2016, 303, 154-161.	6.5	20
60	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
61	Aerobic biodegradation of a mixture of monosubstituted phenols in a sequencing batch reactor. Journal of Hazardous Materials, 2013, 260, 563-568.	6.5	19
62	Coupling anammox and heterotrophic denitrification activity at mainstream conditions in a single reactor unit. Chemical Engineering Journal, 2022, 431, 134087.	6.6	19
63	Sequentially alternating pollutant scenarios of phenolic compounds in a continuous aerobic granular sludge reactor performing simultaneous partial nitritation and o-cresol biodegradation. Bioresource Technology, 2014, 161, 354-361.	4.8	18
64	Modelling the pH dependence of the kinetics of aerobic p-nitrophenol biodegradation. Journal of Hazardous Materials, 2011, 186, 1947-1953.	6.5	17
65	Towards PHA Production from Wastes: The Bioconversion Potential of Different Activated Sludge and Food Industry Wastes into VFAs Through Acidogenic Fermentation. Waste and Biomass Valorization, 2021, 12, 6861-6873.	1.8	16
66	Inhibition of nitrification by fluoride in high-strength ammonium wastewater in activated sludge. Process Biochemistry, 2003, 39, 73-79.	1.8	15
67	Fast start-up and controlled operation during a long-term period of a high-rate partial nitrification activated sludge system. Environmental Technology (United Kingdom), 2012, 33, 1361-1366.	1.2	14
68	Effect of Different Operational Parameters in the Enhanced Biological Phosphorus Removal Process. Experimental Design and Results. Environmental Technology (United Kingdom), 2001, 22, 1439-1446.	1.2	13
69	Efficient and automated start-up of a pilot reactor for nitritation of reject water: From batch granulation to high rate continuous operation. Chemical Engineering Journal, 2013, 226, 319-325.	6.6	13
70	Increasing the energy production in an urban wastewater treatment plant using a high-rate activated sludge: Pilot plant demonstration and energy balance. Journal of Cleaner Production, 2022, 354, 131734.	4.6	13
71	Catalytic and non-catalytic wet air oxidation of sodium dodecylbenzene sulfonate: Kinetics and biodegradability enhancement. Journal of Hazardous Materials, 2007, 144, 655-662.	6.5	12
72	Impact of the nitrifying community dynamics on the partial nitritation process performed by an AOB-enriched culture in a granular sludge airlift reactor. Journal of Environmental Chemical Engineering, 2021, 9, 106691.	3.3	11

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73	Increasing resource circularity in wastewater treatment: Environmental implications of technological upgrades. Science of the Total Environment, 2022, 838, 156422.	3.9	11
74	Inhibitory impact of quinone-like compounds over partial nitrification. Chemosphere, 2010, 80, 474-480.	4.2	10
75	Effective dampening of temperature effects in an anammox reactor treating real mainstream wastewater. Journal of Water Process Engineering, 2021, 40, 101853.	2.6	10
76	Effect of Different Operational Parameters in the Enhanced Biological Phosphorus Removal Process. Experimental Design and Results. Environmental Technology (United Kingdom), 2001, 22, 1439-1446.	1.2	8
77	Expert control for a stable operation of a partial nitrification system to treat highly concentrated ammonium wastewater. Water Science and Technology, 2009, 60, 1191-1199.	1.2	8
78	Characterization of a <i>p</i>â€nitrophenolâ€degrading mixed culture with an improved methodology of fluorescence <i>in situ</i> hybridization and confocal laser scanning microscopy. Journal of Chemical Technology and Biotechnology, 2011, 86, 1405-1412.	1.6	8
79	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
80	Improving the Biological Nitrogen Removal Process in Pharmaceutical Wastewater Treatment Plants: A Case Study. Environmental Technology (United Kingdom), 2004, 25, 423-431.	1.2	4
81	Calibration of a kinetic model for wet air oxidation (WAO) of substituted phenols: Influence of experimental data on model prediction and practical identifiability. Chemical Engineering Journal, 2009, 150, 328-336.	6.6	4
82	Model-based Design of a Control Strategy for Optimal Start-up of a High-Strength Nitrification System. Environmental Technology (United Kingdom), 2007, 28, 185-194.	1.2	2
83	Model-based study of nitrite accumulation with OUR control in two continuous nitrifying activated sludge configurations. Water Science and Technology, 2009, 60, 2685-2693.	1.2	2
84	Achievement of high rate nitritation with aerobic granular sludge reactors enhanced by sludge recirculation events. Frontiers of Environmental Science and Engineering, 2015, 9, 528-533.	3.3	2
85	Ammonium oxidation activity promotes stable nitritation and granulation of ammonium oxidizing bacteria. Journal of Water Process Engineering, 2022, 45, 102505.	2.6	1
86	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