

Marta Carballa

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

87 papers	6,844 citations	41 h-index	82 g-index
92 ext. papers	7,622 ext. citations	8 avg, IF	5.95 L-index

#	Paper	IF	Citations
87	Behavior of pharmaceuticals, cosmetics and hormones in a sewage treatment plant. <i>Water Research</i> , 2004 , 38, 2918-26	12.5	1142
86	Towards a standardization of biomethane potential tests. <i>Water Science and Technology</i> , 2016 , 74, 2515-2522	379	
85	Minimizing losses in bio-electrochemical systems: the road to applications. <i>Applied Microbiology and Biotechnology</i> , 2008 , 79, 901-13	5.7	335
84	How are pharmaceutical and personal care products (PPCPs) removed from urban wastewaters?. <i>Reviews in Environmental Science and Biotechnology</i> , 2008 , 7, 125-138	13.9	313
83	Fate of pharmaceutical and personal care products (PPCPs) during anaerobic digestion of sewage sludge. <i>Water Research</i> , 2007 , 41, 2139-50	12.5	278
82	Aggregate size and architecture determine microbial activity balance for one-stage partial nitrification and anammox. <i>Applied and Environmental Microbiology</i> , 2010 , 76, 900-9	4.8	255
81	Determination of the solid-water distribution coefficient (K _d) for pharmaceuticals, estrogens and musk fragrances in digested sludge. <i>Water Research</i> , 2008 , 42, 287-95	12.5	232
80	Microbial management of anaerobic digestion: exploiting the microbiome-functionality nexus. <i>Current Opinion in Biotechnology</i> , 2015 , 33, 103-11	11.4	210
79	Removal of cosmetic ingredients and pharmaceuticals in sewage primary treatment. <i>Water Research</i> , 2005 , 39, 4790-6	12.5	200
78	Influence of nitrifying conditions on the biodegradation and sorption of emerging micropollutants. <i>Water Research</i> , 2012 , 46, 5434-44	12.5	188
77	Enhanced biomethanation of kitchen waste by different pre-treatments. <i>Bioresource Technology</i> , 2011 , 102, 592-9	11	182
76	Relationship between microbial activity and microbial community structure in six full-scale anaerobic digesters. <i>Microbiological Research</i> , 2012 , 167, 581-9	5.3	157
75	Comparison of predicted and measured concentrations of selected pharmaceuticals, fragrances and hormones in Spanish sewage. <i>Chemosphere</i> , 2008 , 72, 1118-23	8.4	142
74	Nitrogen removal from digested black water by one-stage partial nitrification and anammox. <i>Environmental Science & Technology</i> , 2009 , 43, 5035-41	10.3	135
73	Relationship between phenol degradation efficiency and microbial community structure in an anaerobic SBR. <i>Water Research</i> , 2013 , 47, 6739-49	12.5	114
72	Phosphate removal in agro-industry: pilot- and full-scale operational considerations of struvite crystallization. <i>Water Research</i> , 2009 , 43, 1887-92	12.5	114
71	Diclofenac oxidation by biogenic manganese oxides. <i>Environmental Science & Technology</i> , 2010 , 44, 3449-54	10.3	112

70	Environmental assessment of anaerobically digested sludge reuse in agriculture: potential impacts of emerging micropollutants. <i>Water Research</i> , 2010 , 44, 3225-33	12.5	107
69	Influence of ozone pre-treatment on sludge anaerobic digestion: removal of pharmaceutical and personal care products. <i>Chemosphere</i> , 2007 , 67, 1444-52	8.4	102
68	Key microbial communities steering the functioning of anaerobic digesters during hydraulic and organic overloading shocks. <i>Bioresource Technology</i> , 2015 , 197, 208-16	11	92
67	Should we pretreat solid waste prior to anaerobic digestion? An assessment of its environmental cost. <i>Environmental Science & Technology</i> , 2011 , 45, 10306-14	10.3	86
66	Correlations between molecular and operational parameters in continuous lab-scale anaerobic reactors. <i>Applied Microbiology and Biotechnology</i> , 2011 , 89, 303-14	5.7	85
65	Biogenic metals for the oxidative and reductive removal of pharmaceuticals, biocides and iodinated contrast media in a polishing membrane bioreactor. <i>Water Research</i> , 2011 , 45, 1763-73	12.5	83
64	Comparison between the conventional anaerobic digestion of sewage sludge and its combination with a chemical or thermal pre-treatment concerning the removal of pharmaceuticals and personal care products. <i>Water Science and Technology</i> , 2006 , 53, 109-17	2.2	82
63	Calculation methods to perform mass balances of micropollutants in sewage treatment plants. application to pharmaceutical and personal care products (PPCPs). <i>Environmental Science & Technology</i> , 2007 , 41, 884-90	10.3	80
62	Biodegradation kinetic constants and sorption coefficients of micropollutants in membrane bioreactors. <i>Biodegradation</i> , 2013 , 24, 165-77	4.1	72
61	Long-chain acylhomoserine lactones increase the anoxic ammonium oxidation rate in an OLAND biofilm. <i>Applied Microbiology and Biotechnology</i> , 2011 , 90, 1511-9	5.7	69
60	Influence of temperature on the hydrolysis, acidogenesis and methanogenesis in mesophilic anaerobic digestion: parameter identification and modeling application. <i>Water Science and Technology</i> , 2009 , 60, 9-17	2.2	65
59	Application of immobilized TiO ₂ on PVDF dual layer hollow fibre membrane to improve the photocatalytic removal of pharmaceuticals in different water matrices. <i>Applied Catalysis B: Environmental</i> , 2019 , 240, 9-18	21.8	62
58	Modelling cometabolic biotransformation of organic micropollutants in nitrifying reactors. <i>Water Research</i> , 2014 , 65, 371-83	12.5	57
57	Improvement of the anaerobic treatment of potato processing wastewater in a UASB reactor by co-digestion with glycerol. <i>Biotechnology Letters</i> , 2008 , 30, 861-7	3	57
56	Role of methanogenesis on the biotransformation of organic micropollutants during anaerobic digestion. <i>Science of the Total Environment</i> , 2018 , 622-623, 459-466	10.2	53
55	Biotransformation of organic micropollutants by anaerobic sludge enzymes. <i>Water Research</i> , 2019 , 152, 202-214	12.5	49
54	Cometabolic Enzymatic Transformation of Organic Micropollutants under Methanogenic Conditions. <i>Environmental Science & Technology</i> , 2017 , 51, 2963-2971	10.3	48
53	Outlining microbial community dynamics during temperature drop and subsequent recovery period in anaerobic co-digestion systems. <i>Journal of Biotechnology</i> , 2014 , 192 Pt A, 179-86	3.7	48

52	Influence of manganese and ammonium oxidation on the removal of 17 alpha-ethinylestradiol (EE2). <i>Water Research</i> , 2009 , 43, 77-86	12.5	48
51	Biological removal of 17β-ethinylestradiol (EE2) in an aerated nitrifying fixed bed reactor during ammonium starvation. <i>Journal of Chemical Technology and Biotechnology</i> , 2009 , 84, 119-125	3.5	46
50	Assessing the degradation of ochratoxin a using a bioassay: the case of contaminated winery wastewater. <i>Water Science and Technology</i> , 2007 , 56, 55-61	2.2	46
49	Enhanced methane production from pig manure anaerobic digestion using fish and biodiesel wastes as co-substrates. <i>Bioresource Technology</i> , 2012 , 123, 507-13	11	44
48	Maximum removal rate of propionic acid as a sole carbon source in UASB reactors and the importance of the macro- and micro-nutrients stimulation. <i>Bioresource Technology</i> , 2009 , 100, 3477-82	11	44
47	Presence does not imply activity: DNA and RNA patterns differ in response to salt perturbation in anaerobic digestion. <i>Biotechnology for Biofuels</i> , 2016 , 9, 244	7.8	43
46	Enhanced propionic acid degradation (EPAD) system: proof of principle and feasibility. <i>Water Research</i> , 2009 , 43, 3239-48	12.5	40
45	Why are organic micropollutants not fully biotransformed? A mechanistic modelling approach to anaerobic systems. <i>Water Research</i> , 2018 , 142, 115-128	12.5	40
44	Organic overloading affects the microbial interactions during anaerobic digestion in sewage sludge reactors. <i>Chemosphere</i> , 2019 , 222, 323-332	8.4	39
43	Influence of Different Pretreatments on Anaerobically Digested Sludge Characteristics: Suitability for Final Disposal. <i>Water, Air, and Soil Pollution</i> , 2009 , 199, 311-321	2.6	38
42	Granular biomass capable of partial nitrification and anammox. <i>Water Science and Technology</i> , 2008 , 58, 1113-20	2.2	38
41	Assessing anaerobic co-digestion of pig manure with agroindustrial wastes: the link between environmental impacts and operational parameters. <i>Science of the Total Environment</i> , 2014 , 497-498, 475-483	10.2	33
40	Strategies to optimize phosphate removal from industrial anaerobic effluents by magnesium ammonium phosphate (MAP) production. <i>Journal of Chemical Technology and Biotechnology</i> , 2009 , 84, 63-68	3.5	33
39	A low volumetric exchange ratio allows high autotrophic nitrogen removal in a sequencing batch reactor. <i>Bioresource Technology</i> , 2009 , 100, 5010-5	11	30
38	Comprehensive comparison of chemically enhanced primary treatment and high-rate activated sludge in novel wastewater treatment plant configurations. <i>Water Research</i> , 2020 , 169, 115258	12.5	30
37	Resource recovery from pig manure via an integrated approach: A technical and economic assessment for full-scale applications. <i>Bioresource Technology</i> , 2019 , 272, 582-593	11	30
36	Blending based optimisation and pretreatment strategies to enhance anaerobic digestion of poultry manure. <i>Waste Management</i> , 2018 , 71, 521-531	8.6	30
35	Influence of transitional states on the microbial ecology of anaerobic digesters treating solid wastes. <i>Applied Microbiology and Biotechnology</i> , 2014 , 98, 2015-27	5.7	29

34	Integrating granular activated carbon in the post-treatment of membrane and settler effluents to improve organic micropollutants removal. <i>Chemical Engineering Journal</i> , 2018 , 345, 79-86	14.7	28
33	Microbiome response to controlled shifts in ammonium and LCFA levels in co-digestion systems. <i>Journal of Biotechnology</i> , 2016 , 220, 35-44	3.7	26
32	Acidogenesis is a key step in the anaerobic biotransformation of organic micropollutants. <i>Journal of Hazardous Materials</i> , 2020 , 389, 121888	12.8	25
31	Thermal hydrolysis of sewage sludge partially removes organic micropollutants but does not enhance their anaerobic biotransformation. <i>Science of the Total Environment</i> , 2019 , 690, 534-542	10.2	23
30	Reversibility of enzymatic reactions might limit biotransformation of organic micropollutants. <i>Science of the Total Environment</i> , 2019 , 665, 574-578	10.2	22
29	Treatment of winery wastewaters in a membrane submerged bioreactor. <i>Water Science and Technology</i> , 2007 , 56, 63-9	2.2	21
28	Successful hydraulic strategies to start up OLAND sequencing batch reactors at lab scale. <i>Microbial Biotechnology</i> , 2012 , 5, 403-14	6.3	18
27	Enhancing thermophilic co-digestion of nitrogen-rich substrates by air side-stream stripping. <i>Bioresource Technology</i> , 2017 , 241, 397-405	11	17
26	Metabolic modeling for predicting VFA production from protein-rich substrates by mixed-culture fermentation. <i>Biotechnology and Bioengineering</i> , 2020 , 117, 73-84	4.9	17
25	The ManureEcoMine pilot installation: advanced integration of technologies for the management of organics and nutrients in livestock waste. <i>Water Science and Technology</i> , 2017 , 75, 1281-1293	2.2	16
24	A metabolic model for targeted volatile fatty acids production by cofermentation of carbohydrates and proteins. <i>Bioresource Technology</i> , 2020 , 298, 122535	11	16
23	Energetic and economic assessment of sludge thermal hydrolysis in novel wastewater treatment plant configurations. <i>Waste Management</i> , 2019 , 92, 30-38	8.6	15
22	Protein composition determines the preferential consumption of amino acids during anaerobic mixed-culture fermentation. <i>Water Research</i> , 2020 , 183, 115958	12.5	15
21	Feasibility of spent metalworking fluids as co-substrate for anaerobic co-digestion. <i>Bioresource Technology</i> , 2014 , 155, 281-8	11	14
20	The organic loading rate affects organic micropollutants' biotransformation kinetics under heterotrophic conditions in activated sludge. <i>Water Research</i> , 2021 , 189, 116587	12.5	14
19	A combination of ammonia stripping and low temperature thermal pre-treatment improves anaerobic post-digestion of the supernatant from organic fraction of municipal solid waste treatment. <i>Waste Management</i> , 2018 , 78, 271-278	8.6	13
18	Air-side ammonia stripping coupled to anaerobic digestion indirectly impacts anaerobic microbiome. <i>Microbial Biotechnology</i> , 2019 , 12, 1403-1416	6.3	11
17	Criteria for Designing Sewage Treatment Plants for Enhanced Removal of Organic Micropollutants. <i>Environmental Pollution</i> , 2010 , 283-306	0	8

16	Prediction of Heavy Metals Mobility and Bioavailability in Contaminated Soil Using Sequential Extraction and Biosensors. <i>Journal of Environmental Engineering, ASCE</i> , 2009 , 135, 839-844	2	7
15	Ureolytic phosphate precipitation from anaerobic effluents. <i>Water Science and Technology</i> , 2009 , 59, 1983-8	2.2	7
14	Technical and economic feasibility of gradual concentric chambers reactor for sewage treatment in developing countries. <i>Electronic Journal of Biotechnology</i> , 2009 , 12, 0-0	3.1	6
13	Opportunities for rotating belt filters in novel wastewater treatment plant configurations. <i>Environmental Science: Water Research and Technology</i> , 2019 , 5, 704-712	4.2	5
12	Treatment of low and medium strength sewage in a lab-scale gradual concentric chambers (GCC) reactor. <i>Water Science and Technology</i> , 2008 , 57, 1155-60	2.2	5
11	An optimised control system to steer the transition from anaerobic mono- to co-digestion in full-scale plants. <i>Environmental Science: Water Research and Technology</i> , 2019 , 5, 1004-1011	4.2	4
10	Heterotrophic enzymatic biotransformations of organic micropollutants in activated sludge. <i>Science of the Total Environment</i> , 2021 , 780, 146564	10.2	4
9	Assessment of the fate of organic micropollutants in novel wastewater treatment plant configurations through an empirical mechanistic model. <i>Science of the Total Environment</i> , 2020 , 716, 137079	10.2	3
8	Enzymatic cometabolic biotransformation of organic micropollutants in wastewater treatment plants: A review. <i>Bioresource Technology</i> , 2022 , 344, 126291	11	3
7	Feeding composition and sludge retention time both affect (co-)metabolic biotransformation of pharmaceutical compounds in activated sludge systems. <i>Journal of Environmental Chemical Engineering</i> , 2021 , 9, 105123	6.8	3
6	Removal of organic micro-pollutants by anaerobic microbes and enzymes 2020 , 397-426		3
5	Microbial invasions in sludge anaerobic digesters. <i>Applied Microbiology and Biotechnology</i> , 2021 , 105, 21-33	5.7	3
4	Treatment of low strength sewage with high suspended organic matter content in an anaerobic sequencing batch reactor and modeling application. <i>Electronic Journal of Biotechnology</i> , 2009 , 12,	3.1	1
3	Treatment of sanitary landfill leachates in a lab-scale gradual concentric chamber (GCC) reactor. <i>Applied Biochemistry and Biotechnology</i> , 2010 , 160, 1822-32	3.2	1
2	Influence of hydraulic retention time on the psychrophilic hydrolysis/acidogenesis of proteins. <i>Water Science and Technology</i> , 2016 , 74, 2399-2406	2.2	
1	Fate of Emerging Pollutants During Anaerobic Digestion of Sewage Sludge. <i>Handbook of Environmental Chemistry</i> , 2022 , 1	0.8	